

Separate Accounting

IN THE SUPERIOR COURT FOR THE STATE OF ALASKA

THIRD JUDICIAL DISTRICT AT ANCHORAGE

ATLANTIC RICHFIELD COMPANY, ARCO)
PIPE LINE COMPANY; BP ALASKA INC.;)
SOHIO ALASKA PETROLEUM COMPANY)
(formerly SOHIO NATURAL RESOURCES)
COMPANY); and SOHIO PIPE LINE)
COMPANY;)

Plaintiffs,)

v.)

STATE OF ALASKA; DEPARTMENT OF)
REVENUE, STATE OF ALASKA; DEPART-)
MENT OF ADMINISTRATION, STATE OF)
ALASKA; COMMISSIONER OF REVENUE,)
Thomas K. Williams; and)
COMMISSIONER OF ADMINISTRATION,)
William R. Hudson;)

Defendants.)

No. 3AN-79-1903 Civ.)

EXXON CORPORATION, a New Jersey)
corporation; EXXON PIPELINE)
COMPANY, a Delaware corporation;)

Counterclaimants,)

v.)

STATE OF ALASKA; DEPARTMENT OF)
REVENUE, STATE OF ALASKA; DEPART-)
MENT OF ADMINISTRATION, STATE OF)
ALASKA; Thomas K. Williams,)
COMMISSIONER OF REVENUE; and)
William R. Hudson, COMMISSIONER)
OF ADMINISTRATION;)

Defendants on)
Counterclaim.)

No. 3AN-80-1542 Civ.)

AFFIDAVIT OF
EDWARD B. DEAKIN, C.P.A., Ph.D.
AND ACCOMPANYING EXHIBITS

IN THE SUPERIOR COURT FOR THE STATE OF ALASKA

THIRD JUDICIAL DISTRICT AT ANCHORAGE

ATLANTIC RICHFIELD COMPANY, ARCO
PIPE LINE COMPANY; BP ALASKA INC.;
SOHIO ALASKA PETROLEUM COMPANY
(formerly SOHIO NATURAL RESOURCES
COMPANY); and SOHIO PIPE LINE
COMPANY;

Plaintiffs,

v.

STATE OF ALASKA; DEPARTMENT OF
REVENUE, STATE OF ALASKA; DEPART-
MENT OF ADMINISTRATION, STATE OF
ALASKA; COMMISSIONER OF REVENUE,
Thomas K. Williams; and
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COMMISSIONER OF REVENUE; and
William R. Hudson, COMMISSIONER
OF ADMINISTRATION,

Defendants on
Counterclaim.

No. 3AN-80-1542 Civ.

AFFIDAVIT OF EDWARD B. DEAKIN, C.P.A., Ph.D.

Edward B. Deakin, being duly sworn, states as
follows:

1. My name is Edward B. Deakin, C.P.A., Ph.D. I
give this affidavit for use by the State of Alaska in
connection with the above-captioned litigation. The
opinions expressed are my best professional judgment
utilizing materials regularly and reasonably relied upon by
persons in my field.

2. I am currently Professor of Accounting in the
Graduate School of Business at the University of Texas at

1 Austin. I hold C.P.A. certificates from the states of
2 Illinois and Texas. I hold a Ph.D. in accounting from the
3 University of Illinois at Champaign-Urbana, Illinois. I
4 have done extensive research and writing on oil and gas
5 accounting and reporting. I have served on Task Forces of
6 the Financial Accounting Standards Board on oil and gas
7 accounting issues. My principal articles, books, academic
8 and professional activities are summarized in the annexed
9 Curriculum Vita (Exhibit 1).

10 3. I have reviewed the Summons, Complaints, and
11 Answers filed by the parties to the above litigation as well
12 as the related Alaska Oil & Gas Corporate Income Tax Act.
13 Separate accounting for oil and gas production and
14 transportation activities fairly attributes income from
15 these activities to the State of Alaska and is consistent
16 with common accounting practice in the industry. However,
17 because the Alaska oil industry is unique, the traditional
18 formula apportionment methods relying on sales, payroll and
19 property factors (subsequently labelled PSP formula
20 apportionment), do not reflect the income generated by oil
21 and gas production and pipeline activities in the State of
22 Alaska.

23 4. Various approaches to income measurement can
24 result in significantly different income amounts and, by
25 extension, different attributions of income to states such
26 as Alaska. Accounting income represents the computed book
27 income value that is reported to investors and creditors and
28 is supposed to represent the measurable economic income of
29 the company. Federal taxable income is designed to include
30 not only economic measures of income but incentives to
31 national goals and such other purposes as Congress may
32 determine. The incentives and other features built into
33 Federal tax laws have a significant impact on the oil
34 industry. The differences between book income before tax

and Federal tax income as indicated by the plaintiffs were as follows:

<u>Company</u>	<u>Year</u>	<u>Book Income</u> (millions of dollars)	<u>Tax Income</u> (dollars)	<u>Tax income as a % of book income</u>
ARCO	1978	\$1,339.8	\$ 421.5	30.1%
	1979	2,144.4	1,248.1	58.2
Sohio	1978	672.2	410.7	61.1

Depending upon the goals of the legislative body passing the tax laws, significant amounts of income may be deferred or omitted in computing the income base. The income attributed to a state will be a function of the base used and the method employed to attribute the income base, however defined, to individual states.

SUMMARY OF AFFIDAVIT

5. This affidavit presents the background for PSP formula apportionment and illustrates its general application. A brief introduction to the practice of oil and gas accounting follows. Based on this introduction, I demonstrate how PSP formula apportionment distorts the income allocation for Alaskan oil and gas producing operations. The specific shortcomings of each element of the PSP formula are presented together with relevant opinions from independent sources.

6. The widespread use of separate accounting methods for numerous industry purposes (including state and federal taxation) is demonstrated with relevant citations. Finally, the conclusion that separate accounting (as required by AS 43.21) provides an appropriate and feasible accounting basis for the determination of income attributable to the State of Alaska is drawn based on the evidence in the affidavit.

ACCOUNTING BACKGROUND FOR FORMULA APPORTIONMENT

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7. When a company does business in more than one state and one of those states imposes a tax on the income of that business, some method must be devised to attribute the share of that business' income to the taxing state. Either separate accounting or some variety of formula apportionment method is used to estimate the share of income earned in the taxing state.

8. Separate accounting requires a determination of the sales revenue in the taxing state. Expenses allowed by the taxing state are deducted from the revenue to arrive at net income in the taxing state. The expenses may either be directly traceable to the taxing state (for example the direct costs of drilling a well on the North Slope) or may be indirect corporate expenses that must be allocated to the taxing state (for example research and development costs). Standard accounting methods exist for assigning both types of cost.

9. If two divisions in a multi-state business sell to one another, the sale by the one division is an expense to the division receiving the product and revenue to the division selling the product. To attribute income properly, it is necessary to set a transfer price for any interdivisional sales. Standard transfer prices exist for crude oil and natural gas.

10. Formula apportionment takes the defined income base of the company (worldwide, U.S. total, federal taxable, accounting book or some other basis as elaborated in Professor Conrad's affidavit) and attributes that income based on some formula that is designed to represent the income producing elements for the taxpayer. The taxing state's share of income is estimated as equal to the taxing state's share of the formula factors. To attribute income properly with this method the components of the formula must

be measured properly and must represent the factors that actually produce income for the company. These conditions are applicable for most businesses but do not hold for oil and gas production in Alaska.

11. In PSP formula apportionment, the factors are property, sales and payroll. These three elements are computed based on data in the accounting records. Under Alaska's general formula apportionment method (AS 43.20) property is based on the original cost of the assets, sales are recorded at their destination, and payroll is recorded for employees based in Alaska as per the unemployment compensation laws.

12. A hypothetical example can be used to illustrate the application of formula apportionment. Assume a company operates in two states (State A and State B). Under separate accounting the income in State A is \$350 million and the income in State B is \$150 million. Total company income is \$500 million.

The company has \$1,000 million recorded costs of property of which \$300 million are located in State B. In addition, the company had \$2,650 million in sales of which \$650 million took place in State B. Finally, of the \$70 million company payroll, \$20 million was for employees based in State B. Using the formula approach, the income is apportioned to State B according to the formula:

$$\text{Total income X} \left(\frac{\text{Assets in B}}{\text{Total Assets}} + \frac{\text{Sales in B}}{\text{Total sales}} + \frac{\text{Payroll in B}}{\text{Total payroll}} \right) \times 1 = 3$$

which, for the example gives:

$$\$500 \text{ M} \times \left(\frac{\$300 \text{ M}}{\$1,000 \text{ M}} + \frac{\$650 \text{ M}}{\$2,650 \text{ M}} + \frac{\$20 \text{ M}}{\$70 \text{ M}} \right) \times 1/3$$

= \$138.5 million apportioned to State B.

In this hypothetical example, the income attributed to State B under PSP formula apportionment

1 closely approximates the State B separate accounting income.
2 So long as earnings are closely related to these three
3 factors and so long as the factors are included in the
4 accounting records in a manner that reflects the underlying
5 income-generating contribution of the factors, then formula
6 apportionment can provide an appropriate estimate of the
7 income earned in a given taxing state.

8 13. Based on the general applicability of the
9 apportionment theory, many states have adopted some form of
10 formula apportionment for estimating the income earned in
11 their state. However, most states have modified the formula
12 approach to adapt to specific state circumstances. As a
13 result numerous varieties of formula exist. Cohen, A.
14 Apportionment and Allocation Formulae and Factors Used by
15 States in Levying Taxes Based on or Measured by Net Income
16 of Manufacturing, Distributive and Extractive Corporations,
17 New York: Controllershship Foundation, Inc. (1954) appendix
18 Exhibit II.

19 14. The variations in formulas, definitions of
20 factors and factor weightings have been discussed in the
21 accounting and tax literature. Cohen, op. cit.; Beaman, W.
22 Paying Taxes to Other States: State and Local Taxation of
23 Non-Resident Businesses, New York: Ronald Press Co.,
24 (1963), Ch. 7., p. 7-19; Manning, H. "Problems in Applica-
25 tion of State Tax Allocation Formulae to Oil and Gas Company
26 Operations," in Seventh Annual Institute on Oil and Gas Law
27 and Taxation, Southwestern Legal Foundation, New York:
28 Matthew Bender & Co., 1956; National Industrial Conference
29 Board, State and Local Taxation of Business Corporations
30 (New York, 1931) pp. 78-83. Also, U.S. Supreme Court in
31 Moorman Mfg. Co. v. Bair (92 S. Ct. 2340).

32 15. Professor Robert Conrad's affidavit in this
33 case details these variations and shows that formula
34 apportionment is a generic term for numerous methods

1 designed to determine a state's share of the income of a
2 multi-state business.

3 16. As noted above, PSP formula apportionment "is
4 based upon the proposition that the entire net income of a
5 business enterprise is the final result of certain income
6 producing factors or elements, i.e. property, payrolls,
7 sales, costs of manufacturing." Cohen, op. cit., p. 8. And
8 "the procedure assumes that certain major income-producing
9 elements can be identified and that these major elements
10 contribute the largest portion of the unitary income of the
11 taxpayer" (emphasis theirs) Cohen, op. cit., p. 14. Similar
12 comments appear in other discussions of the theory of
13 formula apportionment. [For example, Manning, op. cit., p.
14 465].

15
16 INAPPROPRIATENESS OF PSP FORMULA APPORTIONMENT
17 FOR OIL AND GAS OPERATIONS

18 18. Due to the peculiarities of oil and gas
19 operations and the resulting accounting peculiarities, the
20 theoretical bases for PSP formula apportionment do not hold
21 for oil and gas exploration and production. The disparity
22 between actual earnings and PSP formula apportionment of
23 earnings is aggravated when a state has production activi-
24 ties far out of proportion to its selling or refining
25 activities such as is the case for Alaska.

26 19. Subsequent sections of this affidavit illu-
27 strate how PSP formula apportionment misstates the income
28 attributable to a producing state due to the problems in

- 29 (a) asset measurement for oil and gas producers;
30 (b) sales recognition;
31 (c) payroll factor definition; and
32 (d) relative profitability of oil producing
33 activities.

34 Due to these problems, it is clear that oil and gas produc-

ing income is not related to the elements included in the PSP apportionment formula. Each of the four facets of this problem are addressed in turn in the following sections of this affidavit.

ASSET MEASUREMENT

20. In PSP formula apportionment, the property factor is based on the value of property in each state. It is assumed that the recorded federal tax or generally accepted accounting basis of the property is consistent with the actual value of the property in each state. If this assumption is true, then the federal tax or generally accepted accounting basis would represent the proportional distribution of property values across states. However, if the property values are systematically understated for activities in one state but not in another, the property term of the formula will not reflect the income generated by the property employed in the state. Hence, even if the theoretical relationship exists between property and income, a bias in measurement would result in an inappropriate allocation.

21. Oil and gas properties are systematically undervalued in company accounts and under federal tax laws whereas other assets (such as refining and marketing assets) are not subject to such systematic undervaluation.

22. Extending the example in ¶ 12 above, if the property factor were understated so that the property in State B were included at only 20% of its value and the property in State A were included at its full value, the PSP formula apportionment would now appear as follows:

$$\$500 \text{ M} \times \left(\frac{\$300 \text{ M} \times 20\%}{\$700 \text{ M} + (\$300 \text{ M} \times 20\%)} + \frac{\$650 \text{ M}}{\$2,650 \text{ M}} + \frac{\$20 \text{ M}}{\$70 \text{ M}} \right) \times \frac{1}{3}$$

This results in an allocation of income of \$101.7 million to State B. This compares to the \$150 million earned in State

1 B and the \$138.5 million estimated under PSP formula appor-
2 tionment with all assets measured on a consistent basis.
3 Asset measurement problems for oil and gas producing proper-
4 ties, as cited below, result in the misallocation of income
5 as significant as that shown in this hypothetical.

6 23. There has been a significant debate in the
7 accounting profession over the issue of how to account for
8 oil and gas exploration and production activities. The
9 debate centers on the problem in reflecting the value of an
10 oil producer's assets in the books of account. This problem
11 is unique for the oil industry due to the magnitude of the
12 industry and the magnitude of the discrepancy between
13 accounting cost and discovery value of reserves.

14 24. Accounting for oil and gas properties focuses
15 on the individual lease. Under successful efforts account-
16 ing (the method used by the plaintiffs in this case) the
17 costs incurred in exploration on a specific property are
18 recorded as assets starting with the costs incurred to
19 acquire the lease. Any prospecting costs (such as geologic
20 or geophysical studies) incurred prior to lease acquisition
21 are written off as expenses.

22 25. The costs to drill an exploratory well are
23 considered assets only if the exploratory well is success-
24 ful. Thus, if ten exploratory wells were drilled on a lease
25 and the first nine found no oil, the costs of those wells
26 would be written off as expenses. If the tenth well found
27 oil, its cost would be included as an asset. It does not
28 matter if that tenth well found sufficient oil to pay for
29 all ten wells a thousand times over or if that well found
30 just enough to pay for the tenth well alone. The recorded
31 accounting book value would include only the cost of that
32 tenth well.

33 26. Typically, some 80% of exploratory wells are
34 not successful. In the Prudhoe Bay field several

1 unsuccessful exploratory wells were drilled before the
2 successful discovery well. Moreover, the costs of these
3 wells bear no necessary relationship to the value of the
4 reserves discovered.

5 27. As a result of this accounting method,
6 historical cost financial statements for most major oil and
7 gas producers (including the plaintiffs in this case) record
8 only some of the costs incurred in finding and developing
9 successful prospects. In addition, the costs usually
10 significantly understate the value of the reserves.

11 28. The principal asset of an oil and gas produc-
12 ing company is its reserves in ground. The value of these
13 reserves is not recorded in the books of account. This fact
14 has been recognized by the respondents to the Trans-Alaska
15 Pipeline Rate Case (Exxon, Sohio, ARCO, and other pipeline
16 owners) who note:

17 In addition to the general failure of
18 financial statements to disclose the cost
19 of assets in terms of the current purchas-
20 ing power of the dollar, or, alternative-
21 ly, to disclose the current value of such
22 assets, in natural resource industries,
23 accounting for cost completely ignores the
24 discovery value of assets added through
25 exploration. For successful companies
26 this can result in substantial understate-
27 ment of the value of assets.

28 Trans-Alaska Pipeline System, Federal Energy Regulatory
29 Commission Docket No. 78-1; Respondents' Joint Reply Post-
30 Hearing Brief, p. 171. And, further,

31 As is generally the case for companies
32 with oil and gas reserves, Sohio reports
33 its Prudhoe Bay reserves on its balance
34 sheet at cost, which is considerably less
than informed estimates of the value of
such reserves.

Ibid., at p. 172.

35 29. Similar problems were noted by Humble Oil and
36 Refining Company (predecessor to Exxon Corporation):

37 A situation peculiar to the oil industry
38 and perhaps to the extractive industries
39 in general is that the value of the
40 reserve of the natural resource, which is

1 the most important asset, is not reflected
2 in the balance sheet. Only the cost of
3 acquiring and developing the reserve is
4 reflected, which may be considerably more
5 or less than the value of the reserve in
6 place.

7 Legion, W. "Special Features of Petroleum Accounting" in E.
8 Robie, ed., Economics of the Mineral Industries (New York:
9 American Institute of Mining, Metallurgical, and Petroleum
10 Engineers, Inc., pp. 452-453, (1964).

11 30. More recently, the Controller of Exxon
12 Corporation noted the "widely recognized fact that histori-
13 cal cost based financial statements do not recognize the
14 full discovery value of oil and gas reserves." Letter of
15 U.J. LeGrange, April 10, 1979.

16 31. One of the major petroleum engineering firms
17 notes: "We believe it is fundamental that the financial
18 statement of a publicly owned company should correctly
19 reflect its assets and liabilities. At the present time, we
20 know of no oil company whose financial statement correctly
21 reflects the value of its assets." Comments of Miller and
22 Lents, Ltd. in U. S. Securities and Exchange Commission,
23 Accounting For Oil and Gas Producers, File S7-715, p. 1.

24 31. The failure of oil and gas accounting to
25 recognize the value of assets of an exploration and produc-
26 tion activity has also been noted by the U.S. Securities and
27 Exchange Commission:

28 The discovery of oil and gas is the most
29 significant event in exploration, develop-
30 ment, and production activities. Tradi-
31 tional accounting methods do not provide
32 for recognition of this event in recording
33 the assets or earnings of companies
34 engaged in this industry, and, as a
result, do not provide for a meaningful
presentation of operating results or
financial position.

U. S. Securities and Exchange Commission, Release No.
33-5966; 43 Federal Register No. 177, September 12, 1978, p.
40691.

1 33. The U.S. Department of Energy commented on
2 accounting in the oil and gas industry by noting "it is
3 clear that neither [historical cost] methods permits
4 reliable evaluation of the profitability of oil and gas
5 exploration investments." Comments of the U.S. Department
6 of Energy, "Accounting Practices Oil and Gas Producers,"
7 Financial Accounting Standards (April 3, 1978).

8 34. This accounting problem has also been noted
9 by the Federal Trade Commission in its comments on the
10 above-described accounting debate before the SEC. U.S.
11 Federal Trade Commission, Comments Before the U.S.
12 Securities and Exchange Commission, "Accounting For Oil and
13 Gas Producers," File S7-715, pp. 10-11.

14 35. As an incentive to oil exploration, the
15 federal tax laws permit an oil and gas producer to write off
16 80% of the "intangible" drilling costs of successful oil and
17 gas wells. (In other industries, federal tax law generally
18 requires expenditures for improvements to property to be
19 capitalized.) Hence, if the federal tax basis is used for
20 valuing assets (as it was under AS 43.20), the property
21 values will be even further understated. The intangible
22 drilling costs are estimated to equal about 40% of the
23 actual costs to drill a well. (Public data are not availa-
24 ble on the extent of this intangible drilling cost deduction
25 for specific companies or for aggregates. Hence, estimates
26 must be used based on other expenditure data.) For a major
27 producer, the tax basis of the property may reasonably be
28 estimated at 85% or less of the book value. 1/

29
30 1. This estimate was derived by taking the average
31 intangible drilling costs as a percentage of total drilling
32 costs (which is 40%) times the 80% deduction percentage.
33 The product is multiplied by the national average ratio of
34 drilling costs to total exploration and development costs
(which amounts to approximately 50%). The result is the
deduction for intangible drilling costs and is subtracted
from 100%, which is book value, and then rounded.

1 36. The extent of the discrepancy between actual
2 property values and recorded asset values has been noted by
3 the companies in the TAPS tariff proceeding. Their witness
4 Levy estimated Sohio's Prudhoe Bay reserves to be worth \$6.4
5 billion to \$8.9 billion as of December 31, 1977. TAPS
6 Respondent's Joint Reply Brief, p. 173. Based on Sohio's
7 reported book values of its Alaskan property, I estimate a
8 tax basis of approximately \$1.5 billion. Sohio Corporation
9 1977 Annual Report, p. 31. This tax basis is approximately
10 20% of the estimated real value of the producing properties.
11 The accounting book and federal tax values significantly
12 understate the actual value of production properties in
13 Alaska. Refining and marketing properties do not experience
14 the same reporting bias. Moreover, this type of bias does
15 not exist in other industries.

16 37. The understatement of oil and gas production
17 assets exists throughout the industry. Book values of oil
18 and gas reserves (which as noted above systematically exceed
19 federal tax values) are available to compare with published
20 data on the value of oil and gas reserves. A survey of the
21 annual reports of major oil companies shows approximate
22 average book values per equivalent barrel of oil and gas
23 reserves in ground as follows:

1978	\$.96
1979	1.29
1980	1.67

25
26 as further detailed in Exhibit II to this affidavit.

27 38. By contrast, sales of oil and gas reserves in
28 the same time period indicate the following approximate
29 purchase prices per equivalent barrel of oil:
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Year	Purchaser (Seller)	Purchase Price	Est. Price per Barrel	Comparable Industry Book Value
1977	Shenandoah (Apco)	\$85 million	\$ 3.16	
1978	Petro-Lewis (Shenandoah)	302 million	3.67	\$.96
1979	Shell (Belridge)	3.6 million	5.43	
1979	Mobil (Gen. Crude)	792 million	5.70	1.29
1980	Mobil (TransOcean)	715 million	8.38	
1980	Getty (Reserve O&G)	621 million	8.25	1.67
1980	Sun (Tex Pacific)	2.3 billion	13.06	

Other sales transactions show similar disparities between the value of reserves in ground and the accounting book value.

39. The extent of the distortion is even greater for Alaska. Significantly lower book values are shown for companies engaged primarily in Alaskan operations. The estimated book values for the plaintiff's reserves are

	<u>1978</u>	<u>1979</u>	<u>1980</u>
ARCO	\$.77	\$.84	\$1.09
Exxon	.81	1.16	1.35
Sohio	.62	.70	.89

These data may be contrasted with the industry averages:

Industry	.96	1.29	1.67
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40. In summary, the property factor in the PSP apportionment formula is inappropriately measured for oil and gas reserves in general, and specifically for Alaskan reserves. The measurement problem arises from the nature of the oil business, federal tax provisions and the accounting system. Use of the PSP formula will significantly and systematically understate the relative value of producing properties in Alaska and, hence, result in a significant under-attribution of income to Alaska. It is reasonable to expect that Alaskan reserves will be included in the PSP formula apportionment under these circumstances results in misappropriation effects similar to those shown in the example in ¶ 22, supra.

INAPPROPRIATENESS OF THE SALES REVENUE FACTOR

41. The sales factor in the PSP formula apportionment approach significantly understates the contribution to income which Alaskan oil production generates for North Slope producers. Except for very minor sales at Pump Station #1, no credit is given Alaska for revenues from the sales of crude oil. Alaska does receive credit for the revenues charged by TAPS, but this amount is small when compared to the values that have been added to company earnings from oil and gas production.

42. Revenues for oil production are properly recognized at the time of production. This is in accordance with generally accepted accounting principles that state:

Revenue may be recorded at completion of production of precious metals that have a fixed selling price and insignificant marketing costs. Similar treatment may also be accorded certain agricultural, mineral, and other products characterized by inability to determine unit acquisition costs, immediate marketability at quoted prices that cannot be influenced by the producer and unit interchangeability.

3 American Institute of Certified Public Accountants, Professional Standards, Sec. AC 1027.10, ¶ S-6D (1977).

43. More recent accounting pronouncements note:

Revenues represent actual or expected cash inflows (or the equivalent) that have occurred or will eventuate as a result of the enterprise's . . . operations. The assets increased by revenues may be of various kinds -- for example . . . increased value of a product resulting from production.

3 Financial Accounting Standards Board, Statement of Accounting Concepts, ¶ 64 (1980). This production revenue is earned at the point of production, not at the destination point as called for in PSP formula apportionment.

44. Production revenue is recognized as being fully earned at the wellhead for purposes of federal net profit share leasing. 10 CFR Part 376, Sec. 110(b).

1 45. Production revenue is recognized as being
2 fully earned for purposes of federal royalty payment
3 computations. Revenues are considered earned on all
4 production removed from the lease and may be considered
5 earned on any production which remains on the lease. 30 CFR
6 Part 250 Sec. 65(b).

7 46. By contrast, the sales factor included in the
8 UDITPA apportionment formula uses sales at the destination
9 on the assumption that the earnings process is not completed
10 until that point. This has the effect of overemphasizing
11 the contribution of selling activities and is particularly
12 erroneous for oil and gas production. Beaman notes:

13 The effect of (various allocation formula)
14 proposals was, in the case of a
15 manufacturing business, to assign the
16 major portion of its income to the places
17 where its product was marketed; and in the
18 case of the mercantile business, to assign
the major portion of its income to the
place where its inventory was located. It
should be clear that at least the first of
these two results is entirely fallacious. . . .

19 Beaman, op. cit., p. 7-12.

20 47. The effect of the UDITPA formulation can
21 create unusual results. For example, suppose a company has
22 its management headquarters in Texas, its oil production in
23 Alaska, a refinery in California and all of its service
24 stations in Nevada. Under the UDITPA rule, all sales would
25 be recognized in Nevada. The significant contribution to
26 earnings caused by production and refining activities would
27 be totally ignored. Although this may not be a problem in a
28 retailing operation which has stores in many states, this
29 effect is converse to the economics of oil and gas company
30 operations.

31 48. That production income is fully earned at the
32 point of production is asserted by Exxon: "E & P income is
33 fully earned at the wellhead." Exxon v. South Carolina Tax
34

1 Commission, Appellant's Brief before the South Carolina
2 Supreme Court, p. 19.

3 49. This approach is usually applied to oil and
4 gas exploration and production activities and is further
5 supported by the record in the Exxon v. South Carolina Tax
6 Commission case. Exxon notes:

7 Mr. Wehner, the C.P.A. [Exxon's witness],
8 testified that the posted field price was
9 also accepted by the accounting profession
10 as a reliable, independent measure of the
11 value of crude oil at the wellhead. Using
12 this value, he stated, the net income
13 earned by E&P could be, and is, accurately
14 measured. This is in accordance with
15 generally accepted accounting principles,
16 because crude oil has a known, realizable
17 value.

18 (R. 492-5, 515-20) Ibid., p. 26.

19 50. In computing royalty payments, and in deter-
20 mining profits from exploration and production operations,
21 it is customary to record the sales value of the oil and gas
22 at the outlet of the tank on the lease. This practice was
23 apparently followed by Exxon. Legion, op. cit., p. 453.

24 51. Although the income from production has not
25 been converted to cash, cash will usually be received in a
26 very short period of time (i.e., within sixty days or less).
27 The income is considered realizable and fully earned because
28 at the production point a company could sell the oil at a
29 known price and could realize cash according to normal
30 business transaction terms. Indeed, some oil is sold at
31 Pump Station #1 to third parties. Because Sohio has excess
32 production, a significant amount of oil is sold to third
33 parties after being transported through TAPS. Moreover,
34 several proposals have been made before Congress to sell
Alaskan crude to Japan in exchange for Arabian crude.
Hence, the distinction between realized and unrealized
income is immaterial for Alaskan oil and gas production.
The cash will be in hand (or readily obtained) before the
taxes are due on production income.

1 52. So long as a state has both manufacturing and
2 marketing activities, the effect of this assignment of sales
3 is unlikely to cause major distortions. However, few sales
4 are recorded in Alaska. The net effect is that use of
5 destination as the sales basis ignores the significant
6 income earned from production in Alaska with no compensatory
7 sales in Alaska to offset the underallocation of income.

8 53. Sohio and ARCO note that in 1978 only 4% of
9 Alaska production was sold in Alaska and that in 1979 only
10 2% of that production was sold in Alaska. This would
11 indicate that for ARCO and Exxon less than 1% of their total
12 sales would be attributed to Alaska. For Sohio approxi-
13 mately 2% of its sales would be attributed to Alaska. Yet,
14 by contrast production from Alaska was a significant part of
15 each company's total production and, as noted in ¶ 54,
16 production is the major source of these companies' income.
17 Alaska's proportion of each company's total worldwide
18 equivalent oil production was

<u>Company</u>	<u>1980</u>	<u>1979</u>	<u>1978</u>
ARCO	32.9%	28.3%	22.5%
Exxon	12.4%	9.7%	8.2%
Sohio	95.8%	94.9%	93.7%

19 Yet PSP formula apportionment would ignore virtually all of
20 the sales value of this production in the attribution of
21 income to Alaska.
22

23 54. Sales values are not representative of the
24 income generating ability of the production segment of an
25 oil and gas company. A survey of major oil company annual
26 reports shows that profits for the exploration and produc-
27 tion segment of their business are out of proportion to the
28 sales and values of oil and gas transferred between seg-
29 ments. The relevant statistics are
30
31
32
33
34

	1980	1979	1978
Production segment earnings as a % of total U.S. earnings	77.5%	68.1%	65.6%
Production segment sales as a % of total U.S. sales	21.6%	19.3%	19.9%

as detailed in Exhibits III and V of this affidavit. Hence, even if the sales factor were measured at the production point it would not be representative of the income generated from oil and gas production activities.

55. Since sales are recorded at destination rather than at the more appropriate production point and since sales are out of proportion to earnings, use of the sales factor in PSP formula apportionment results in further distortions in the attribution of income. The effect of these distortions may be seen by extending the hypothetical example from ¶ 12 and ¶ 22, supra. If the \$650 million sales were Alaskan production sales, then only about 3% would be recognized in Alaska. Hence, the numerator of the sales fraction would be \$19.5 million (i.e., 3% times \$650 million = \$19.5 million). The new estimate of State B's share of the company's income would now be:

$$\$500 \text{ M} \times \left(\frac{\$300 \text{ M} \times 20\%}{\$760 \text{ M}} + \frac{\$19.5 \text{ M}}{\$2,650 \text{ M}} + \frac{\$20 \text{ M}}{\$70 \text{ M}} \right) \times \frac{1}{3}$$

Which equals \$62.0 million. This compares to the \$150 million actually earned in State B.

56. Unlike manufacturing, but like other extractive industries, then, the sales values are fully earned at the wellhead and are commonly measured and used for tax purposes, and for settlement among various parties at interest in the producing field. This practice is inconsistent with PSP formula apportionment methods which attribute the income from sales to the destination state rather than to the production state and results in a significant misappropriation of income for a producing state. Moreover,

1 sales volume is not a valid measure of the relative earnings
2 from oil production in an integrated company.

3 INAPPLICABILITY OF THE PAYROLL FACTOR

4
5 57. Oil and gas production is not a labor inten-
6 sive activity. The primary values arise from the reserves.
7 Reserve production is largely an automatic function once the
8 field equipment is installed. Hence, few employees are
9 required relative to the value of the oil produced.

10 58. Even prior to the start of production, labor
11 costs recorded in the accounts are relatively low. Because
12 of provisions in federal income tax laws, oil and gas
13 companies use independent contractors for most drilling
14 activities. Payments to these contractors are not included
15 in the payroll factor. 2/ The labor employed by the
16 contractors enables the oil companies to earn income from
17 production activities. However, because the labor costs are
18 converted into subcontractor payments the contribution to
19 profits which is represented by the payroll element is
20 understated.

21 59. Provisions of UDITPA require that employees
22 be considered in the numerator of an allocation formula
23 depending upon where the employees are "based." Due to the
24 specialized nature of oil operations, employees often spend
25 a considerable amount of time in many different locations.
26 A base is assigned for accounting and supervisory responsi-
27 bility purposes even though an employee may spend very
28 little time at that base.

29 60. As an example, a company may have 4,000
30 specialists in various aspects of geological testing,

31
32 2. Since many of the contractors' employees are based in
33 the Lower 48, Alaska often does not receive a share of the
34 income from drilling activities. See ¶ 60. Employees based
outside the state are not included in the state's
apportionment factor for payrolls.

1 drilling operations, and similar activities. Each of these
2 persons may spend 20% of their time in Alaska giving the
3 equivalent of 800 full-time employees in Alaska. However,
4 because these employees are not "based" in Alaska, none of
5 their payroll is included in the Alaska apportionment
6 formula for payrolls. Alaska, therefore, would not receive
7 its fair share of tax revenues from the activities of the
8 800 equivalent employees who worked in Alaska.

9 61. The distorting effect of payroll measurement
10 can be illustrated using Sohio as an example. Virtually all
11 of Sohio's production, reserves and profits come from its
12 Alaskan operations. In its 1980 corporate annual report
13 Sohio indicated production from Alaska as a percentage of
14 total production as follows:

15	1980	95.5%
16	1979	94.9%
17	1978	93.7%

18 During the same period its income from E & P operations as a
19 percentage of total income was

20	1980	92.8%
21	1979	91.5%
22	1978	88.8%

23 Even allowing for an adjustment due to the difference
24 between the wellhead value of Alaskan oil and gas vs. the
25 production value of Sohio's other oil and gas properties, it
26 is reasonable to conclude that about 85% to 90% of Sohio's
27 income was generated from Alaska production. Yet based on
28 Sohio's Complaint and that company's 1978 Annual Report to
29 shareholders, I estimate Sohio's Alaska payroll factor to be
30 less than 10 percent.

31 62. Similar disparities arise for the other major
32 North Slope producers. Exxon notes in its complaint that
33 less than 6/100ths of one percent of its employees are
34 located in Alaska. 3/ ARCO reports that about five percent

3. Exxon had 82 employees in Alaska in 1978 (Exxon Cmpt.,
¶ 35) of a total of 130,000 employees that year (Exxon 1980
Annual Report, p. 50).

of its employees are based in Alaska. Yet Alaskan production is approximately 10% of Exxon's total production and 28% of ARCO's as detailed in ¶ 53, supra. Since production is the primary source of income for these companies (as discussed more fully below), the disparity between payrolls and production indicates the potential misattribution of income that could result from use of a payroll factor for apportionment.

63. Extension of the hypothetical example from ¶ 12, 22 and 55, supra, will illustrate the impact of the payroll factor in PSP formula apportionment. If State B had a situation where company employee's spent relatively brief time periods in the state and extensive use was made of subcontractors for various services (such as drilling wells), the payroll factor for State B may be reduced to 30% of its initial value (or \$6 million for the example). Some of the payroll costs in the numerator would be converted to subcontractor payments and, hence, would also be eliminated from the denominator. Others would still be included but would represent payroll costs of employees who worked part time in State B, but were not based in State B. As a result, the denominator of the payroll term might be reduced from \$70 million to \$60 million.

Under these circumstances, the estimate of State B's share of income would be

$$\$500 \text{ M X } \left(\frac{\$300 \text{ M X } 20\%}{\$760 \text{ M}} + \frac{\$19.5 \text{ M}}{\$2,650 \text{ M}} + \frac{\$6 \text{ M}}{\$60 \text{ M}} \right) \frac{1}{3}$$

which equals \$31.1 million. This is about 20% of the actual \$150 million earned in State B. The PSP formula apportionment results do not approximate the income actually earned in State B. The PSP formula apportionment results do not approximate the income actually earned in State B. Since the hypothetical is very similar to the results for Alaska, it can be used to illustrate the significant misallocation

1 far the most profitable segments of a U.S. oil company's
2 business." September 8, 1981, p. 29.

3 68. The effect of the differences in profita-
4 bility can be illustrated by reference to the example
5 utilized in this affidavit. The income attributable to
6 State B under traditional formula apportionment with the
7 systematic under-valuation of assets typical for oil and gas
8 production was \$31.1 million even though the company was
9 actually earning \$150 million in State B. The activities in
10 State B are more profitable relative to factors.

11 69. The situation in the example parallels the
12 situation for the State of Alaska with respect to the
13 relative profitability of oil and gas production compared to
14 other company operations. The State of Alaska is similar to
15 State B in the example because the predominant activities of
16 exploration and production are so much more profitable than
17 other activities. Even if the formula factors could be
18 appropriately measured, they do not reflect the relative
19 profitability of oil and gas production as required in the
20 theory of formula apportionment.

21 70. In the aggregate, income from exploration and
22 production is disproportionate to the traditional formula
23 apportionment elements which seek to apportion that income.
24 A survey of the 1980 annual reports of the major oil compa-
25 nies show that on average, income (however defined by each
26 reporting company) from U.S. exploration and production as a
27 percentage of total U.S. income was as follows (Exhibit B):

1980	77.5%
1979	68.1%
1978	65.6%

29 71. These results are consistent with Exxon's
30 statement that approximately 90% of its income was derived
31 from Exploration and Production. Exxon v. South Carolina
32 Tax Commission, Jurisdictional Statement before the U.S.
33 Supreme Court, No. 79-843, Appendix B, p. 29.
34

1 72. By contrast, the 1980 annual reports of the
2 major oil companies show that on average, book assets
3 related to U.S. oil and gas exploration and production
4 activities as a percentage of total U.S. assets were as
5 follows (Exhibit IV to this affidavit):

6 1980	39.6%
7 1979	37.4%
8 1978	39.3%

9 These amounts are book values and do not reflect the further
10 bias that exists if federal income tax values were used.
11 The percentage of assets employed significantly understates
12 the relative profitability of exploration and production
13 compared to other activities of an integrated oil company.

14 73. In addition, the 1980 annual reports of the
15 major oil companies show that on average, U.S. produced
16 crude oil sales and the value of transfers of crude oil and
17 gas in the field related to U.S. total sales activities were
18 as follows (Exhibit V):

19 1980	21.6%
20 1979	19.3%
21 1978	19.9%

22 These amounts are values at the point of transfer in the
23 field and do not reflect the further distortions from
24 provisions of the UDITPA which provide for inclusion of
25 sales in the destination state rather than in the state of
26 origin. These sales value percentages are significantly out
27 of proportion to the profitability of exploration and
28 production activities compared to other activities of oil
29 and gas companies.

30 74. Comparisons of profitability ratios for
31 independent refiners and independent oil and gas companies
32 show similar results. That is, in general, oil and gas
33 exploration and production is more profitable relative to
34 sales and assets than is refining or marketing, the other
primary functions of an integrated oil and gas company.

1 75. The disproportionate nature of the relation-
2 ship between profitability from exploration and production
3 and traditional elements of the three-factor formula have
4 also been noted by industry representatives.

5 N. Rusch of Shell Oil Co. states:

6 At that point [1975 repeal of percentage
7 depletion] I believe most companies found
8 themselves in the same position as we did,
9 i.e. Exploration and Production's share of
the factors approximated 30 percent, while
its contribution to profit was some 70
percent!

10 76. Exxon has previously noted

11 For Exploration and Production for this
12 three year period it [an exhibit] reflects
13 that the Exploration and Production
14 department contributed on the average
29.5% of the factor attributes but it
contributed 92.9% of the income on the
South Carolina basis.

15 R. Koonce, Exxon v. South Carolina Tax Commission, Tr. p.
16 455; Exhibits at Tr. pp. 1045 - 1048. And, on the Wisconsin
17 basis, exploration and production had 22.6% of the factor
18 attributes, but contributed 74.4% of the income. Exxon v.
19 Wisconsin Tax Commission, U.S. Supreme Court 79-506, Tr. p.
20 A 396.

21 77. Similar disparities between profitability and
22 profit measures appear in the U.S. Department of Energy
23 survey of segment profitability for the industry. Their
24 data show "production" net income at 70.2% of total domestic
25 net income. Production sales are 25.5% and property is
26 55.1%. These data are based on book values rather than tax
27 values. U.S. Department of Energy, Performance Profiles of
28 Major Energy Producers - 1978, p. 22. The relevant schedule
29 is attached hereto as Exhibit VI to this affidavit.

30 SUMMARY CONCLUSIONS: FORMULA APPORTIONMENT

31 78. The inappropriateness of formula appor-
32 tionment for oil and gas exploration and production activities
33
34

1 has been articulately stated by a representative of Shell
2 Oil Co.

3 The paradox in the oil industry is that
4 the division that generates the most
5 profit has the lease representation in the
6 standard apportionment formula.

7 The property factor is low because unsuc-
8 cessful efforts in Exploration and Produc-
9 tion are written off

10 Payroll in Exploration and Production is
11 small since most of the drilling is done
12 by outside crews, and it takes relatively
13 few people to oversee the producing wells.
14 Sales are also small when compared with
15 sales of refined products and chemicals.

16 Rusch, N., "Fair Apportionment of Income of Oil Companies:
17 The Impossible Dream," Revenue Administration - 1979,
18 p. 105.

19 79. The impact of the inappropriate estimation of
20 Alaska's share of income under PSP formula apportionemnt vs.
21 a separate accounting may be illustrated using Sohio as an
22 example 4/. Sohio states in its complaint that Alaska
23 measures its income under AS 43.21 at \$569 million. Sohio's
24 complaint, p. 19. Under PSP formula apportionment, Sohio
25 indicates that Alaska's share of Sohio's 1978 income should
26 be \$110.6 million (based on Sohio's stated estimate of a
27 \$10.4 million PSP-based tax liability at a 9.4% tax rate).
28 Sohio's income under PSP formula apportionment is slightly
29 less than 20% of the amount under separate accounting. By
30 contrast, Sohio's 1978 book income was \$672.2 million with
31 virtually all of that production coming from Alaska. The
32 \$110.6 million estimate of the contribution of Alaskan
33 activities of Sohio's total income is not even a reasonable
34 approximation.

4. Indeed, because Alaskan activities account for such a
large part of Sohio, analysts usually use Sohio's financial
statements as a basis for estimating the profitability and
other aspects of North Slope production activity.

1 80. PSP formula apportionment misestimates
2 Alaska's share of oil and gas production income due to the
3 systematic understatement of property values, the failure to
4 recognize values of production when earned, the unusual
5 structure of labor use in Alaskan oil and gas operations and
6 the failure of factors to represent relative profitability
7 of oil and gas operations. The distortion could easily
8 result in attributing to Alaska 20% or less of the income
9 actually earned in Alaska.

10
11 SUITABILITY OF SEPARATE ACCOUNTING

12 81. Accounting in the oil industry is based on
13 separate accounting for each individual lease. Separate
14 accounting, therefore, is a feasible alternative to formula
15 apportionment for estimating the income earned in a given
16 state.

17 82. Separate accounting provides the most accu-
18 rate measure of a corporation's income in any given state.
19 As noted by the National Industrial Conference Board "For
20 corporations that can make a separate accounting, such
21 provision assures the most accurate basis for income taxa-
22 tion." National Industrial Conference Board, op. cit., p.
23 791.

24 83. Separate accounting is valid for oil and gas
25 production activities as state by Exxon Corporation
26 representatives. Exxon v. South Carolina Tax Commission,
27 Appellant's Brief before the South Carolina Supreme Court,
28 p. 22.

29 84. Separate accounting on a lease basis was
30 required by federal tax laws as a result of depletion
31 regulations. Depletion is normally a method for allocating
32 costs of a wasting asset to specific time periods. Cost
33 depletion is computed for each lease by dividing the total
34 capitalized costs (§ 102, infra) by the total expected

1 production from the lease. The resulting cost per unit is
2 multiplied by the production in any given year to determine
3 the cost depletion for that year. However, to promote
4 exploration a special depletion provision was enacted in the
5 federal tax laws that allowed a company to deduct a certain
6 percentage of its revenues in lieu of cost-based depletion.
7 This percentage depletion was allowed regardless of the
8 actual cost associated with the property. There was a
9 further provision that percentage depletion could not exceed
10 50% of the net income from each specific property. To make
11 certain that this limitation was not exceeded, it was
12 necessary to compute income on each specific lease. F.
13 Burke and R. Bowhay, Income Taxation of Natural Resources,
14 Englewood Cliffs: Prentice-Hall, Inc., 1981, ¶ 8.07; Inter-
15 nal Revenue Code, Section 613.

16 85. For all practical purposes, companies are
17 required to compute income on each barrel of oil for the
18 "Windfall Profits Tax." The "Windfall Profits Tax Act"
19 contains a provision that the "windfall profits tax" shall
20 not exceed 90% of the net income from a barrel of oil.
21 Burke and Bowhay, op. cit., ¶ 31.22. Since the 90% income
22 limitation is, in many cases, less than the amount of tax
23 that would be due by applying the Windfall Profits Tax rate
24 to the production from a field, a company can reduce its tax
25 by claiming the benefit of the 90% net income limitation
26 whenever it results in a lower tax than would be due using
27 the basic tax calculation.

28 86. Separate accounting is required to meet the
29 requirements of the profit sharing arrangements established
30 by governmental bodies for oil leases on certain publicly
31 held lands. The State of Alaska has a set of profit sharing
32 rules in effect for certain of its oil and gas leases. 11
33 AAC 83. The U.S. Department of Energy has established
34 profit sharing rules under which several offshore lease

1 tracts have been leased to companies. 10 C.F.R. Part 390
2 (45 Federal Register 106, pp. 36784 - 36807). Both of these
3 regulations require the determination of profits on the
4 basis of a specific lease. Separate accounting for costs
5 and revenues on each lease is required to determine the
6 profits to be shared by the government and the company.
7 Both regulations have been accepted by companies in the
8 industry as evidenced by the fact that companies have bid
9 on, obtained and now operate leases under these regulations.

10 87. Separate accounting is required for govern-
11 mental surveys. The U.S. Bureau of Census requires oil
12 companies to report all of the revenues and direct costs of
13 operations in Alaska separate from operations elsewhere.
14 U.S. Bureau of Census, Form MA 13-K, pp. A-2 - A-3 (1977).
15 The required information covers practically all of the
16 components of net income called for in the Alaska Oil and
17 Gas Tax Act. A similar separate reporting requirement
18 exists for the Department of Energy (Form EIA-28).

19 88. Separate accounting is required and practiced
20 for segments of a unitary business. Wisconsin requires
21 separate accounting for crude oil produced and sold in the
22 same state. Exxon v. Wisconsin Tax Commission, U.S. Supreme
23 Court No. 79-509, Tr. pp. 526-527. Other producing states
24 (e.g., Kansas, Oklahoma, Louisiana) require separate
25 accounting for oil and gas production. Additional examples
26 of separate accounting requirements are discussed in other
27 affidavits in this case and, hence, are not covered in
28 detail here.

29 89. Management uses separate accounting for
30 internal evaluation purposes. It is common practice to
31 determine net income or operating profit on a functional
32 basis (i.e. exploration, production, refining, marketing)
33 for management purposes. Oil companies, including Exxon,
34 also follow this practice. Exxon v. South Carolina Tax

1 Commission, Appellant's Brief before the South Carolina
2 Supreme Court, pp. 3-4, p. 7; Legion, op. cit., p. 451;
3 Atlantic Richfield Co., 1978 Annual Report, pp. 1-6. 5/

4
5 5. Exxon noted in Exxon v. South Carolina Tax Commission:

6 Each functional department [Exploration and
7 Production, Refining, Marketing] was a
8 separate profit center. In addition, each
9 department was a separate investment center,
10 and separate records were maintained for
11 each of these departments to reflect the
12 investments in properties in fixed plant.
13 Each operating department had its own
14 separate accounting office which maintained
15 accounting records and prepared financial
16 reports of its operations.

17 Exxon v. South Carolina Tax Commission, Jurisdictional
18 Statement to the U.S. Supreme Court, No. 79-843, p. 5. It
19 elaborated:

20 Each of these functions is managed and
21 accounted for on a functional operating
22 basis. Each is a segment of plaintiff's
23 total corporate enterprise, but each has its
24 own accounting, budgeting and forecasting,
25 its own management and staff, its own profit
26 center, its own investment center, its own
27 physical facilities, etc. The profit or
28 loss of each function is separately and
29 accurately computed.

30 Ibid., at Appendix p. 47. And, in the Wisconsin case

31 Each functional segment [exploration and
32 production, refining, marketing] was orga-
33 nized into a separate department which
34 operated independently of each other opera-
35 ting segment and was organized in a way so
36 that it could perform pretty much on a
37 stand-alone basis as a separate, single
38 function company. . . . Each operating
39 department is responsible for its own
40 performance, both operationally and finan-
41 cially. It has been the philosophy of the
42 company's management for a long-standing
43 period that each department is evaluated
44 separately and independently of each other
45 department from a profitability standpoint
46 and operational standpoint.

47 Exxon v. Wisconsin Department of Revenue, U.S. Supreme Court
48 No. 79-509, Tr. p. A193 (emphasis added).

49 And further,

50 Each department had a separate profit center which
51 provided a means for recording the transactions
52 involving expense and revenue so that a profit for
53 that function could be determined.

54 Ibid. at Tr. p. A204.

1 90. Separate accounting is required to determine
2 the share of profits, costs and expenses among joint owners
3 in a specific lease. Such joint interest agreements are so
4 widespread in the industry that an organization was esta-
5 blished to promulgate accounting rules for such joint
6 interests. The organization is called the Council of
7 Petroleum Accounting Societies (COPAS) and it has published
8 seventeen accounting bulletins for joint interest arrange-
9 ments. Indeed, Sohio's North Slope production is subject to
10 a net profits interest held by British Petroleum. Amended
11 Complaint of Sohio Alaska Petroleum Company in this case, ¶
12 2; and Standard Oil Company - Ohio, 1980 Annual Report, Note
13 I to the Financial Statements, p. 47. Separate accounting
14 is the only possible way to determine Sohio's and British
15 Petroleum's share of profits under the net profit arrange-
16 ment.

17 91. In summary, separate accounting is common and
18 widespread practice in the industry for taxation purposes,
19 for the settlement of contractual agreements (both those
20 with governmental bodies and those among companies), for
21 governmental surveys, for management's internal evaluation
22 purposes and for financial reporting purposes.

23 OIL AND GAS ACCOUNTING PRACTICE

24 92. The procedure for accounting for oil and gas
25 production is outlined in the following sections. The basic
26 accounting unit in the industry is the lease. Costs are
27 accumulated by lease and revenues are attributed to each
28 producing lease.

29 93. For accounting purposes, oil and gas explora-
30 tion and production activities may be divided into four
31 phases:

- 32 (a) pre-acquisition exploration;
- 33 (b) post-acquisition exploration;
- 34

- (c) development; and
- (d) production.

94. During the pre-acquisition phase, companies engage in geophysical and geological examinations of prospective areas of interest. Costs are incurred in these studies but the costs are written off as expenses in the period in which they are incurred. Normally a company will keep track of the pre-acquisition exploration costs incurred in various geographic regions. The primary objective of these activities, though, is to see if leases should be acquired in a given area.

95. If the results of these exploration tests indicate an economically justifiable prospect for oil and gas, then the company will attempt to acquire lease rights in the area. The company will seek to acquire as many leases as is economically justifiable. Due to competitive bidding practices and to other reasons, a company may be unable to obtain all of the leases in the area. Moreover, it may have to share some of the leases with other companies. Hence, the company may have several different leases in the area with several different ownership interests. Separate accounts must be maintained for each such lease.

96. To operate a field efficiently, the various owners in the field may decide, or may be required, to unitize the field. That is, the various interests in different leases will be combined into one "unit" which will be operated as a single lease. Costs are still accumulated separately for this unit.

97. Once a lease is obtained, all costs to explore, develop and produce from that lease are charged to the lease. The costs that can be directly associated with the lease (e.g., costs of wells drilled on the lease) are charged directly to the lease. Costs that cannot be directly associated with the lease (e.g., costs of corporate

1 overhead, research, general legal and accounting) are
2 charged through the use of an overhead allowance. The costs
3 to acquire the lease are charged directly to the specific
4 lease account.

5 98. At some point, management must decide whether
6 to drill an exploratory well on a given lease. The costs to
7 drill the exploratory well together with the costs of the
8 feasibility study, legal fees to obtain permits, and other
9 related costs are considered direct costs of the lease and
10 are charged to it. A charge for overhead is also made
11 usually as a percentage of the direct costs. The Council of
12 Petroleum Accounting Societies specifies the use of percent-
13 ages for overhead allocation when the lease is jointly owned
14 (e.g., Council of Petroleum Accounting Societies, Bulletin
15 No. 15, "Accounting Procedure Offshore Joint Operations,"
16 1977.)

17 99. If the exploratory well is not successful,
18 the costs of that well are written off as period expense.
19 Some of the other costs charged to the lease may also be
20 written off at this time if it appears that the lease value
21 has been impaired.

22 100. If the exploratory well is successful the
23 costs are capitalized for financial accounting purposes.
24 For federal tax purposes 80% of the intangible drilling
25 costs of that well are written off as period expense. The
26 intangible drilling costs are any drilling costs which do
27 not have a salvage value. If an outside drilling contractor
28 is hired, the use of the contractor's equipment and
29 personnel are considered intangible costs. On the other
30 hand, if a company uses its own personnel and equipment, the
31 equipment costs would not be considered intangible. To
32 obtain a faster, and hence more valuable, deduction
33 companies generally hire outside contractors.
34

101. If the exploratory well is successful, a drilling plan will be established to develop the field and begin production. The costs to develop the plan and the costs of any drilling are charged to the lease. The costs of tankage, gathering lines, administrative support facilities and other related items are also charged to the specific lease. An overhead allowance is also charged to the lease based on the direct costs of the lease.

102. At the point in time that the lease is developed and ready to begin production, then, the following costs have been charged to the lease and either expensed or capitalized for financial and federal tax purposes:

Cost category	<u>Financial accounting treatment</u>	<u>Federal tax treatment</u>
Pre-acquisition exploration	Expensed	Expensed
Acquisition costs	Capitalized	Capitalized
Exploratory drilling	Capitalized	Some expensed Some capitalized
Unsuccessful exploratory well costs	Expensed	Expensed
Development well costs	Capitalized	Some expensed Some capitalized

All of these costs are necessary to find and develop an oil and gas field, yet only some of the costs are recorded in the property amounts.

103. Once production begins, revenue is earned from the field. Revenue is determined on the basis of either third party sales or inter-divisional transfer prices.

104. The direct costs of production are deducted from the lease revenues. In addition, an overhead allowance is charged to the lease for production overhead. This allowance is usually a percentage of the other direct production costs. This particular method of overhead allocation is used in joint interest agreements, federal and Alaskan profit share leasing, and for other tax purposes.

1 105. All of the acquisition, exploration and
2 development costs which had been previously capitalized are
3 written off as expenses in proportion to the production from
4 the lease. For tax and financial reporting, these costs are
5 usually depleted by taking the total of these costs and
6 dividing by the total estimated production over the life of
7 the lease. The result is a depletion charge per unit of
8 production. This charge is written off as an expense on
9 each unit produced. This depletion method is referred to as
10 the units-of-production method. It is the method used for
11 financial reporting by Exxon, ARCO and Sohio. Exxon, ARCO
12 and Sohio Annual Reports for 1978, 1979 and 1980.

13 106. Some capitalized costs which are related to
14 production from a lease have lives that differ from the life
15 of the producing field. For example, trucks and automobiles
16 used in a field usually have shorter lives than the life of
17 the producing field. These costs may be depreciated over
18 the useful life of the specific asset rather than depleted
19 with the producing life of the field. Normally depreciation
20 is computed by taking the cost of the asset and dividing it
21 by the life of the asset (in years). The depreciation
22 charge each year is an equal share of the original cost of
23 the asset. This is referred to as straight line deprecia-
24 tion and is the method followed for financial reporting by
25 ARCO, Exxon and Sohio. ARCO, Exxon and Sohio Annual Reports
26 for 1978, 1979 and 1980.

27 107. To promote capital investment, Congress has
28 permitted accelerated depreciation methods to be used for
29 federal tax purposes. Asset costs may be written off over
30 time periods that are significantly shorter than the actual
31 life of the asset. Indeed, the "Tax Reform Act of 1981"
32 allows a company to write equipment costs off over five
33 years and real property costs over fifteen years regardless
34 of the actual life of the equipment or real property.

1 Moreover, larger deductions may be taken earlier in the
2 depreciation period. However, these methods do not purport
3 to show the actual cost for the period and, indeed, the
4 plaintiffs in this case do not use these methods for report-
5 ing income to the U. S. Securities and Exchange Commission,
6 the Federal Energy Regulatory Commission, or their share-
7 holders.

8 108. In addition, under financial reporting, a
9 company deducts a share of the estimated future cost of
10 dismantling and abandoning a field. This charge will not be
11 incurred until many years in the future, but is recorded for
12 financial reporting purposes. The federal tax law does not
13 allow deductions for future dismantling costs but rather
14 only allows the deduction as the costs are incurred.

15 109. In each accounting period, the direct and
16 indirect production costs less the depletion allowance and
17 less any other permitted costs (e.g., future abandonment
18 provisions, interest, or other costs) are deducted from
19 lease revenues to determine the income from a particular
20 lease. 6/

21 6. Exxon notes:

22 Every oil and gas producer must determine
23 his gross income and net income for each
24 particular well or unit of property in order
25 to settle with adverse parties such as
26 royalty owners and working interest owners,
27 and to compute depletion for income tax
28 purposes. . . . This information can be
29 consolidated until it shows a company's
30 income from its entire E&P operation.

31 Exxon v. South Carolina Tax Commission, Appellant's Brief
32 before the South Carolina Supreme Court, p. 9; also testi-
33 mony of Robert Koonce, Exxon v. South Carolina, Tr. 447-449.

34 And, further

Q. (Counsel for Exxon) Would you explain
just briefly the variations in net income on
various types of sales by Humble?

(FN cont. on p. 38)

110. Revenues, costs, expenses and income computed on individual leases may be combined in any manner to produce income data at any desired level of aggregation. Management may wish to compute income for all of its interests in a field, state, or larger geographic or political division. 7/

6. (FN cont.)

A. (Exxon's state tax accountant) Well, the net income on each sale of crude oil varies from lease to lease depending on the expenses and et cetera incurred applicable to the operation of that lease. And some of them are different from others.

Exxon v. Wisconsin Tax Commission, U.S. Supreme Court No. 79-509, Tr. p. A 401.

And, the same witness in cross-examination:

Q. Do your accounting records show the costs and net profits broken down for each well or lease?

A. We have to determine the net income from the property for depletion purposes, yes, sir.

Ibid., Tr. pp. 419-420.

And, testimony by Exxon's accounting witness

[F]or the computation of depletion we have to arrive at a net . . . income by unit of property. That unit of property can take the form of either a well or several wells or in most cases not anything larger than a single oil and gas lease. There are also many types of drilling arrangements that a company will enter into which will make it necessary to account separately for the oil and gas net income from one lease, so I would say that within the industry it is practically universal that they are on accountability by wells. In some cases not all the way down to net income, but certainly with respect investment, with respect to growth income and some direct expenses. . .

Ibid., Tr. p. 438.

7. Exxon noted:

[B]y combinations of the factors making up the net income on a specific well, income can be determined for statistical purposes, for example, to determine production from an oil and gas field . . . and to determine the profitability of a district or a division.

(FN cont. on p. 39)

111. It is possible to compute income separately for Alaskan exploration and production operations. Standard

7. (FN cont.)

Exxon v. Wisconsin Tax Commission, U.S. Supreme Court No. 79-509, Tr. p. 439.

And in South Carolina,

Pursuant to accounting principles, a multifunctional oil company can ascertain derived income from its exploration and production function by accumulating data starting at the individual oil or gas well and that data can be consolidated into larger groups and built up until it involves the entire exploration and production function of the company.

Exxon v. South Carolina Tax Commission, Jurisdictional Statement, op. cit., pp. 7-8.

And, further

Plaintiff [Exxon] maintains books of account and records in such manner as to clearly reflect its true net income accruing or arising from sources within South Carolina and its true net income from sources without South Carolina.

Exxon v. South Carolina Tax Commission, Jurisdictional Statement, op. cit., Appendix p. 49.

This accounting system is not unique for South Carolina as Exxon notes:

Humble kept separate geographical accounting records for its Oregon operation, following the practice of its Oregon predecessor by merger.

Exxon v. South Carolina Tax Commission, Appellant's Reply Brief, p. 8.

And, in Wisconsin

Exxon has geographically decentralized operating segments.

Exxon v. Wisconsin Department of Revenue, U.S. Supreme Court No. 79-509, Tr. p. 214. Nor is such a decentralized approach unique to Exxon. ARCO notes:

We use what we call a sub-district, which means very close to what the industry calls an area of interest, except we bring another discipline to that, break it down into manageable units, and cut it off at political boundaries. We also have an offshore district for Federal states, and also for state, to make it easier for tax records, so as, well as for management.

U.S. Securities and Exchange Commission, Accounting For Oil and Gas Producers, File S7-715, Tr. p. 314.

1 accounting methods exist which enable companies to do this
2 for internal and external purposes.

3 112. Public comments by major oil companies to the
4 U. S. Securities and Exchange Commission indicated that
5 reporting of costs by geographic basis (including specifi-
6 cally the issue of separate reporting for Alaska) was
7 feasible. U.S. Securities and Exchange Commission, File
8 S7-708, comments of Standard Oil Co. - Indiana, Ashland
9 Exploration, Inc., Mobil Corporation, Standard Oil Company
10 of California, Sun Company, Marathon Oil Company, Conti-
11 nental Oil Company, Exxon, and Standard Oil Company - Ohio.

12 113. As noted in ¶ 87, supra, the U. S. Bureau of
13 Census requires separate reporting of production, lease
14 reveueus and direct costs of Alaskan oil and gas producing
15 operations. U. S. Bureau of Census, Form MA 13-K, Survey of
16 Oil and Gas Producing Companies. These data may be combined
17 with the depletion rates of Sohio (since virtually all of
18 Sohio's production is from Alaska -- See FN 3) and with an
19 allocation of indirect costs using the method prescribed in
20 the COPAS Accounting Bulletins to derive an alternative
21 estimate of income from Alaska oil producing activities for
22 all Alaska oil producers. As detailed in Exhibit VII to
23 this affidavit, the estimated net income from Alaskan
24 production is as follows:

Year	Amount
1979	\$3,011.9 million
1978	975.7 million

25
26
27 114. Although not specifically required to do so,
28 in 1980, 10 of 18 integrated companies separately reported
29 to their shareholders revenues (including values of inter-
30 nally transferred crude oil), earnings, and identifiable
31 assets for the exploration and production segment of their
32 operaitons. The companies that did report such data inclu-
33 ded Exxon, Atlantic Richfield and Standard Oil Company -
34 Ohio.

115. The income reported on financial statements before income taxes for each of the plaintiffs for each of the past three years was

Company	1980	1979	1978
	(millions of dollars)		
ARCO	\$ 2,893.6	\$ 2,144.4	\$1,399.8
Exxon	11,446.0	8,122.0	5,643.0
Sohio	3,845.5	2,077.0	672.2

The income before tax from exploration and production for each of these companies was

Company	1980	1979	1978
	(millions of dollars)		
ARCO	\$ 2,234.	\$ 1,541.	\$ 1,097.
Exxon	7,904.	5,575.	4,256.
Sohio	3,562.	1,869.	546. <u>8/</u>

116. The most significant problem in the determination of income on a geographic basis is the allocation of costs to the specific geographic region. These costs which can be directly traced to the region are assigned directly with no accounting problems. Indirect costs are usually allocated on some acceptable basis. While it is widely recognized that all allocation rules are arbitrary, it is also widely recognized that the amounts subject to allocation are relatively low and that so long as the allocation provides a reasonable approximation of the relationship between costs and benefits it is acceptable.

117. For oil and gas exploration and production operations, indirect overhead is a relatively small percentage of total expenditures. For the United States, the general administrative overhead that could not be directly assigned geographically (according to 1977 U. S. Bureau of Census data) was as follows:

8. For Sohio we have deducted all interest costs from the exploration and production segment earnings. If the interest were ignored, the related income amounts would be \$3,588; \$2,226; and \$1,004 for 1980, 1979 and 1978 respectively.

Exploration	\$ 422 million
Development	384 million
Production	<u>906 million</u>
Total	<u>\$1,712 million</u>

This is equal to 6.7% of the \$25,615 in reported 1977 expenditures. Table V, U.S. Bureau of Census, Annual Survey of Oil and Gas, 1977.

118. The reason the percentage is relatively low is that many costs that are accumulated in cost centers that are physically removed from the specific operating area can be directly related to the operating area. Cost centers are established for activities that generate no revenues on their own but are necessary to support revenue generating activities. Some cost centers would include reservoir engineering, research and development, legal and accounting. The costs of these cost centers that can be traced to Alaska (e.g., the time spent by reservoir engineers on solving North Slope issues) would be charged directly to Alaska. Only those costs that cannot be related directly to Alaska would be part of the general overhead.

119. Although this general overhead cannot be directly assigned, it is common practice in the industry to allocate the overhead. Usually this is accomplished by adding an overhead allowance as a percentage of the other expenditures. For example, the COPAS accounting bulletins contain provisions for applying overhead as a percentage of costs. Council of Petroleum Accounting Societies, "Overhead--Joint Operations," Bulletin No. 16 (1980).

120. The U.S. Department of Energy regulations on profit share leasing allow overhead costs on a percentage basis with either 4% or 10% as the allowed percentage depending on the type of cost. 10 C.F.R. Part 390 (45 Federal Register 106, pp. 36784-36807). These percentages

1 were established based on industry comments which suggested
2 the appropriate overhead percentages.

3 121. Moreover, as noted in ¶ 85 above, federal tax
4 rules also effectively require the allocation of overhead to
5 specific barrels of oil. Burke and Bowhay, op. cit., ¶
6 12.05-12.09; U. S. Treasury Regulations, Section 1.613-5(a).

7 122. Legion notes "this [income] computation
8 requires an allocation of many of the overhead and
9 administrative expenses, which is not required from an
10 operating control standpoint." Legion, op. cit., p. 459.

11 123. Therefore, although the allocation of
12 overhead is the most difficult question in the determination
13 of net income on a geographic basis, the relative amount is
14 small and standard methods exist within the industry for
15 approximating the overhead that should be allocated to
16 specific geographic locations.

17 124. If an overhead rate of 10% were applied to
18 the estimated production cost outlays for the North Slope
19 producers, the following overhead allowances would be
20 obtained per equivalent barrel of production

Year	Estimated outlays	10% Overhead Allowance
1978	\$.57/bbl.	\$.057/bbl.
1979	.80/bbl.	.080/bbl.

21 This compares with the \$.12/bbl. limitation established in
22 the original version of the Alaska oil company income tax
23 act. The 1981 revisions permit companies to deduct overhead
24 in excess of this amount.

25 125. In 1978 the actual claim for administrative
26 overhead on all Alaska oil income tax returns amounted to an
27 average of \$.067 per barrel. In 1979 the amount was \$.063
28 per barrel. These claimed deductions are well within the
29 original \$.12 per barrel limitation.

30 126. Separate accounting provides a reasonable way
31 for Alaska to estimate its share of the income for oil and
32
33
34

1 gas companies doing business in Alaska. Clearly, if a
2 company were doing business only in Alaska then all of its
3 income would be taxable in Alaska. The tax act results in
4 multi-state companies being placed on the same basis as in-
5 state companies.

6 127. From an accounting and economic standpoint,
7 it is clear that separate accounting results in a more
8 reasonable estimate of Alaska's share of production income
9 from PSP formula apportionment.

10
11 EFFECTS OF SEPARATE ACCOUNTING ON TAPS

12 128. Pipelines have been treated as separate
13 accounting entities since the early days of pipeline
14 regulations. Interstate pipelines were regulated beginning
15 with the Hepburn Act in 1906. Specific accounting rules
16 were established by the Interstate Commerce Commission in
17 1914.

18 129. The oil pipeline accounting rules require
19 separate accounting for crude oil pipelines and for product
20 pipelines. Oil pipeline accounting rules are specified in
21 detail in 18 C.F.R. 352. Such rules require separate
22 reporting of pipeline accounts by integrated oil companies.

23 130. Interstate oil pipeline tariffs, and, hence
24 profits, are regulated as to reasonableness under the
25 Interstate Commerce Act. The basis on which the tariffs
26 and, hence the profits, are determined is not any of the
27 factors included in PSP formula apportionment.

28 132. The tariff for the pipeline is determined on
29 an allowable return basis. The tariff is in essence a
30 service fee and not a sales value. Since the tariff is
31 determined based on the allowed rate of return on assets,
32 the allowed profit determines the revenues. PSP formula
33 apportionment is based on the opposite assumption -- namely
34 that sales determine profits.

1 133. ARCO Pipeline, Sohio Pipeline, Exxon Pipeline
2 and all other interstate oil pipeline companies file 10-K
3 forms with the Securities and Exchange Commission separate
4 from their consolidated financial statements.

5 134. The oil pipelines also file a more
6 comprehensive annual report on Form P with the Federal
7 Energy Regulatory Commission. This report is separate from
8 the parent company's financial report and details revenues
9 and expenses of solely the pipeline companies.

10 135. Federal regulations require that for
11 regulatory purposes pipeline companies keep records of asset
12 values by individual state. Porter, S., Petroleum
13 Accounting Practices, New York: McGraw-Hill, p. 353
14 (1965).

15 136. In addition to federal regulation, oil
16 pipelines are required to maintain separate accounts for the
17 states in which they maintain intrastate operations. TAPS
18 is subject to federal regulation as an interstate pipeline.
19 However, because some crude is shipped intrastate, separate
20 accounts are required for the Alaska Public Utility
21 Commission. ARCO Pipeline Co., Annual Report, p. 1 (1978).

22 137. ARCO Pipeline Company, Exxon Pipeline Company
23 and Sohio Pipeline Company, which have pipeline operations
24 in states other than Alaska, must nonetheless report to the
25 Alaska Public Utility Commission income and expenses
26 associated solely with their separate Alaska operations.
27 All other TAPS owners have separate Alaska pipeline
28 subsidiaries.

29 138. Because the pipeline companies are separate
30 legal entities from the parent companies the income from the
31 pipeline companies is often excluded from the income
32 apportioned under formula apportionment methods. This was
33 the situation for South Carolina. Unless the pipelines are
34

1 treated separately a great deal of their income can escape
2 taxation altogether.

3 139. Respondents to the TAPS rate investigation
4 proceeding before the Federal Energy Regulatory Commission
5 have consistently argued that income for TAPS should be
6 determined based on a separate consideration of the project.
7 Respondents' Joint Reply Brief, p. 186-189; Exxon Pipeline
8 Co., Supp. Phase I Reply Brief, pp. 18-19; Phillips Alaska
9 Corp., Supp. Reply Brief, p. 7; Union Alaska Pipeline Co.,
10 Supp. Reply Brief, p. 11; Exxon Pipeline Co. Response (Mar.
11 2, 1978), pp. 16-20; Mobil Alaska Pipeline Co. Memorandum
12 (March 6, 1978), p. 4; U.S. Department of Justice, Proposed
13 Findings, p. 18; Union Alaska Supp. Brief, pp. 7-8. It
14 would be consistent to tax that income on a separate
15 accounting basis also.

16 140. Respondents to the TAPS proceedings argued
17 that TAPS is riskier than the oil industry in general and
18 riskier than lower-48 oil pipelines, and, hence, should be
19 allowed a higher rate of return to compensate for that
20 additional risk. Respondents' Joint Reply Brief, p. 292.
21 If the pipeline would thereby earn income that is
22 disproportionate to the assets employed in other segments of
23 the parent company's business, then the misallocations of
24 income illustrated in ¶ 65-77, supra, would also apply to
25 pipeline income attribution.

26 141. For each of these pipeline companies, the
27 investment in TAPS is overwhelmingly the largest property
28 item. For 1980, the TAPS property amounted to the following
29 percentages of total pipeline company property:

30	ARCO	85.4% (estimated)
	Exxon	80.9%
31	Sohio	98.9%

SUMMARY CONCLUSIONS - TAPS

142. Income for oil pipelines in general, and for TAPS as a specific case, is based on the value of the pipeline property, not on any of the elements in PSP formula apportionment. Therefore, it would only be by chance that PSP formula apportionment methods would result in an appropriate estimate of Alaska's share of income from TAPS. Moreover, separate accounting is the norm for pipeline rate making purposes and is also used as a basis for pipeline state income taxation. TAPS's owners (including the plaintiffs in this case) have emphasized the unique nature of the TAPS asset in rate-making proceedings. As a result of all this, it appears that the only reasonably certain way of estimating TAPS income is to use separate accounting as called for in AS 43.21.

DATED this 10th day of November, 1981.


Edward B. Deakin III

SUBSCRIBED AND SWORN to before me this _____
day of _____, 1981.

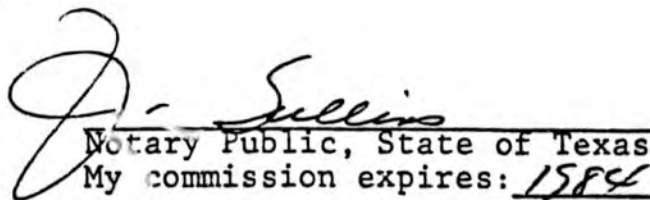

Notary Public, State of Texas
My commission expires: 1984

EXHIBIT I

October, 1981

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ACADEMIC BACKGROUND: Ph.D., Accounting, 1972, University of Illinois at Urbana-Champaign
M.B.A., 1969, Drexel University, Philadelphia
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EMPLOYMENT BACKGROUND: 1981-date Professor, University of Texas at Austin
1978-1979 Visiting Associate Professor, Stanford University
1978 Visiting Professor, Kuwait University
1976-1981 Associate Professor, The University of Texas at Austin
1972-1976 Assistant Professor, The University of Texas at Austin
1970-1972 Graduate Assistant, Department of Accountancy,
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1968-1970 Instructor, Department of Business, Lehigh County
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1967-1968 Systems Analyst, First Pennsylvania Bank, Philadelphia
1965 Staff Accountant, Coopers & Lybrands, Philadelphia

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1973 - Academic Development Award, College of Business Administration
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1972 - Elijah Watts Sells Foundation Certificate, Honorable Mention,
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Arthur Andersen Doctoral Fellow
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1971 - American Accounting Association Fellow
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1970 - Departmental Fellowship, University of Illinois
1965 - Pennsylvania Institute of CPA's Award, Muhlenberg College
1961 - Muhlenberg College Competitive Scholarship Holder
1960 - National Merit Finalist

PROFESSIONAL MEMBERSHIPS: American Accounting Association
American Institute of Certified Public Accountants
American Statistical Association
Texas Society of Certified Public Accountants

COMMITTEES: FASB Task Force on Oil & Gas Disclosure Issues, 1981
University Research Institute, 1981
Editor, Department Working Paper Series, 1981
Academic Development Committee, College of Business Administration, 1980
Dean's Advisory Committee to Select a New Chairman for the Department of Accounting, 1980
Committee on the Doctoral Consortium, American Accounting Association, 1980-81
Competitive Manuscript Committee, American Accounting Association (Chairman, 1977)
Editorial Board, The Accounting Review
Committee on Cost Accounting Standards, American Accounting Association
Courses and Curriculum Committee, College of Business Administration
Ph.D. Admissions and Continuance Committee, Department of Accounting
Policy and Advisory Committee, Department of Accounting
Task Group on Reporting the Effects of Changing Prices and Costs in the Oil and Gas Industry, Financial Accounting Standards Board
Technical Program Committee, American Accounting Association, 1979-1980

SPONSORED RESEARCH PROJECTS: U. S. Department of Interior, "Estimating Rates of Return on Offshore Oil and Gas Leases," 1980-81
U. S. Department of Energy, Advisor to the Office of Leasing Policy Analysis on Net Profit Share Leasing on the Outer Continental Shelves, 1978-81
U. S. Department of Energy, Lawrence Berkeley Laboratories, "Sources of Information Parallel to the Oil and Gas Financial Reporting System," 1979
Arthur Young & Co., on "Issues Before the Securities and Exchange Commission: RE: Oil and Gas Accounting Under FASB Standard 19," 1978
Research Director: American Petroleum Institute Project on "Replacement Cost for Mineral Resources Assets," 1976-1977
Director: Peat, Marwick, Mitchell & Co. Project on Professional Education, The University of Texas, 1975

SPONSORED RESEARCH PROJECTS (cont'd):

Consultant to: American Institute of Certified Public Accountants Project: "A Body of Knowledge for Management Advisory Services," The University of Texas (June-July, 1974)

RESEARCH AND PUBLICATIONS:

a. Articles Published

"Auditor Selection, Organization Control, Adverse Events, and the Selection of Accounting Method for Oil Exploration," Quarterly Review of Economics and Business, Vol. 20, No. 3, Autumn 1980, pp. 77-85

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(with Michael H. Granof and Charles H. Smith), "Educational Objectives for an Accounting Program," The Accounting Review (July 1974), pp. 584-589

"Statistical Sampling for the Auditor," The Chartered Accountant in Australia (September 1974)

"A Discriminant Analysis of Predictors of Business Failure," Journal of Accounting Research (Spring 1972), pp. 167-179

b. Invited Presentations

Current Issues in Oil and Gas Accounting, Advanced International Program in Oil and Gas Financial Management, Southwestern Legal Foundation, Dallas, May 1981

RESEARCH AND PUBLICATIONS (cont'd):

Stanford Summer Workshop, July 1978; July 1979

Financial Accounting Standards Board, May 1977 (with
Glenn A. Welsch)

University of Michigan, Accounting Colloquium, February
1977

Salomon Brothers Conference on Financial Institutions,
New York, May 1976

Virginia Polytechnic Institute, Blacksburg, February 1976

c. Presentations

"Direct Testimony of Edward B. Deakin III before the
Securities and Exchange Commission: RE: FASB Standard
No. 19," (File S7-715), March 30, 1978

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(with Glenn A. Welsch)

"Financial Reporting in the Oil and Gas Industry,"
University of New Orleans Oil and Gas Accounting
Conference, April 1977 (with Glenn A. Welsch)

"Financial Accounting and Reporting in the Extractive
Industries," FASB Hearings, March 1977

"Accounting Reports and Policy Interventions," Western
AIDS, San Diego, March 20, 1976

"Using Regression Analysis in Auditing," Western AIDS,
Las Vegas, March 26, 1975

(with Charles H. Smith), "The Absorption of Accounting
Information on International Stock Exchanges," Interna-
tional Conference on Accounting, University of Illinois,
Urbana (May 9-11, 1974)

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"Predictions of Corporate Failure," The University of Texas Accounting Department (December 1972)

d. Reprints

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e. Books

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f. Booklets

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g. Chapters

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h. Monograph

"Accounting for Net Profit Share Leases," Los Alamos Scientific Laboratory, May 1981

i. Book Reviews

Fultz, "Overhead: What It Is and How It Works," in Accounting Review, July 1981, p. 370

j. Publications in Progress

"An Investment Account System for Net Profit Share Leasing," Los Alamos National Laboratories report to the U. S. Department of Energy, in draft (1980)

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TEACHING
EXPERIENCE:

The University of Texas at Austin
Graduate: Accounting 380K.10--Research Methods in Accounting
Accounting 380K.3 --Quantitative Methods in Accounting
Accounting 382 --Studies in Managerial Accounting
Professional Reports--8 chaired, 32 committees
Ph.D. Committees --6 chaired, 17 committees

Undergraduate:
Accounting 329--Managerial Cost Accounting
--Coordinator, 1973 to 1975

University of Illinois
Undergraduate:
Accounting 108--Intermediate Accounting
Accounting 105--Managerial Accounting, Introduction
Accounting 101--Introductory Accounting

PROFESSIONAL
DEVELOPMENT:

Accounting Policy Formulation, U. T. Management Development Programs

"Reserve Recognition Accounting," Executive Enterprises, Inc. (1980: February, May & June)

"Intermediate Accounting," special seminar for Esso Standard Libya, Ltd. (Summer, 1980)

"Current Value Accounting for Oil and Gas," 2nd International Accounting Education Program, Southwestern Legal Foundation (May, 1980)

EXHIBIT II

Theory of Formula Apportionment

Facts:

Two states (A and B)

Net income to be apportioned \$ 50

Location of factor components:

	<u>State A</u>	<u>State B</u>	<u>Total</u>
Property (assets)	\$ 70	\$ 30	\$ 100
Sales	200	65	265
Payrolls	5	2	7

Formula apportionment:

To State B

$$\begin{aligned} & \text{Net income} \quad X \quad \frac{\text{Assets in B}}{\text{Total assets}} + \frac{\text{Sales in B}}{\text{Total sales}} + \frac{\text{Payrolls in B}}{\text{Total payrolls}} \quad \frac{1}{3} \\ \\ = & \quad \$50 \quad X \quad \frac{\$30}{\$100} + \frac{\$65}{\$265} + \frac{\$2}{\$7} \quad X \quad \frac{1}{3} \\ \\ = & \quad \underline{\underline{\$13.85}} \text{ appportioned to B} \end{aligned}$$

EXHIBIT III

Estimated Book Values Of Reserves

Major U. S. Oil Companies

Year: Method:	1980		1979		1978	
	BV	DD&A	BV	DD&A	BV	DD&A
Amerada-Hess	\$1.91	\$1.82	\$1.39	\$1.66	na	\$2.04
Ashland	.97	1.30	1.07	.70	na	na
Atlantic-Richfield	.66a	1.52	.53	1.15	\$.43	1.10
Cities Service	1.71	2.03	1.26	1.54	na	1.47
Continental Oil Co.	1.54a	1.57	1.26	1.16	na	1.34
Exxon	1.22	1.47	.99	1.32	na	.81
Getty	1.59	2.16	1.19	2.00	.92	1.56
Gulf	2.92	2.64	2.40	2.15	1.94	na
Marathon	.90	1.49	.70	1.00	na	.71
Mobil	2.27c	2.38c	1.84	1.59	na	1.34
Phillips	1.03	2.43d	.83	2.18	.67	1.02
Shell	2.42c	2.20c	2.17	1.48	1.12	1.23
Standard-California	1.48	1.64	1.08	1.56	.83	1.30
Standard-Indiana	1.20a	1.84	.99	1.39	na	1.10
Standard-Ohio	.50	1.28	.43	.96	.37	.87
Sun	4.93c	3.07c	1.34	1.75	1.10	1.75
Texaco	1.72	1.75	1.30	1.51	na	1.21
Union-California	.90b	1.72	.69	1.06	na	.81
Weighted Average	<u>\$1.46</u>	<u>\$1.88</u>	<u>\$1.11</u>	<u>\$1.47</u>	<u>\$.78</u>	<u>\$1.14</u>
Average for year	<u>\$1.67</u>		<u>\$1.29</u>		<u>\$.96</u>	

BV Method: Book value of exploration and production property, plant and equipment divided by proved reserves.

DD&A Method: Depreciation, depletion and amortization of exploration and production property divided by production for the year.

U. S. Domestic reserves, production and values only.

Notes:

- a. proved properties only
- b. production properties only
- c. includes significant purchased reserves
- d. includes retirements

EXHIBIT IV

Exploration and Production Income Over
Total Income

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Amerada - Hess *			
Atlantic Richfield	.772	.719	.784
Cities Service	.718	.697	.645
Continental Oil Co.	.700	.556	.540
Exxon	.866	.823	*
Getty	.855	.708	.601
Gulf	.767	.623	.679
Marathon	.762	.828	.834
Mobil	.852	.664	*
Phillips	.943	.637	.546
Shell	.454	.388	.393
Standard - California	.564	.505	.529
Standard - Indiana	.868	.811	*
Standard - Ohio	.928	.915	.888
Sun	.764	.628	.710
Texaco *			
Union - California	.819	.720	.720
	-----	-----	-----
Unweighted average	<u>==.775==</u>	<u>==.681==</u>	<u>==.656==</u>

*Comparable data not available. Ashland Oil Co. has sold most of its producing properties and has announced its intentions to liquidate its remaining producing operations.

Due to noncomparable reporting methods, these data are subject to some estimation error. Certain companies include their foreign operations in the U.S. data when the foreign operations are immaterial. Other companies vary the reporting of transportation activities with some including them in exploration and production. Some companies report segment income before taxes and others after. On balance, these differences should not materially affect the conclusions drawn from the data.

EXHIBIT V

Exploration and Production Assets to Total Assets Major U. S. Oil Companies

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Amerada-Hess *	.	.	.
Ashland **	.	.	.
Atlantic Richfield	.288	.257	.246
Cities Service	.475	.457	.490
Continental Oil Co.	.269	.267	*
Exxon	.394	.381	*
Getty *	.	.	.
Gulf	.520	.513	.517
Marathon	.297	.270	*
Mobil *	.	.	.
Phillips	.196	.190	.209
Shell	.555	.527	.393
Standard - California	.326	.305	.276
Standard - Indiana	.440	.400	*
Standard - Ohio	.510	.653	.754
Sun	.486	.308	.342
Texaco *	.	.	.
Union - California	.394	.339	.308
	-----	-----	-----
Unweighted average	<u>==.396==</u>	<u>==.374==</u>	<u>==.393==</u>

* Data not available

** Ashland has sold most of its producing properaties and has announced its intentions to liquidate its remaining producing operations.

Due to noncomparable reporting methods, these data are subject to some estimation error. Certain companies include their foreign operations in the U.S. data when the foreign operations are immaterial. Other companies vary the reporting of transportation activities with some including them in exploration and production. On balance, these differences should not materially affect the conclusions drawn from the data.

EXHIBIT VI

Exploration and Production Sales to Total Sales Major U. S. Oil Companies

	<u>1980</u>	<u>1979</u>	<u>1978</u>
Amerada-Hess*			
Ashland**			
Atlantic-Richfield	.197	.178	.206
Cities Service	.272	.259	.234
Continental Oil Co.	.119	.111	.118
Exxon	.240	.196	.200
Getty	.288	.351	.350
Gulf	.181	.143	.158
Marathon	.126	.111	*
Mobil*			
Phillips	.123	.119	.131
Shell	.252	.207	.207
Standard - California	.163	.136	.150
Standard - Indiana	.197	.184	*
Standard - Ohio	.408	.308	.189
Sun	.216	.190	.225
Texaco*			
Union - California	<u>.245</u>	<u>.207</u>	<u>.216</u>
Unweighted average	<u><u>.216</u></u>	<u><u>.193</u></u>	<u><u>.199</u></u>

* Comparable data not available.

** Ashland has sold most of its producing properties and has announced its intentions to sell its remaining producing operations.

EXHIBIT VII

Estimated Alaskan Income Using Census Data
(millions of dollars)

<u>Item</u>	<u>1979</u>	<u>1978</u>
<u>Revenues:</u>		
Crude petroleum and condensate	\$ 4,563.4	\$ 2,065.6
Natural gas	109.5	92.5
Royalties and other	9.1	22.0
Total revenues	\$ 4,682.1	\$ 2,180.1
<u>Expenses:</u>		
Direct operating expenses	\$ 294.1	\$ 247.9
Taxes (excluding income taxes)	587.3	239.9
Other indirect expenses	52.3	30.0a
Total reported operating expenses	\$ 933.7	\$ 517.8
Dry hole costs	87.3	166.3
Geological and geophysical	73.5	80.1
Lease rents	10.9	6.7
Total expensed exploratory costs	\$ 171.7	\$ 253.1
Estimated depletion, depreciation and amortization (\$.96/bbl. in 1979 and \$.87/bbl. in 1978 using Sohio's rates)	455.6	363.8
Estimated indirect (overhead) costs:		
Production costs (11.2% in 1979; 12.0% in 1978)	104.6	62.1
Exploration costs (2.7% in 1979; 3.0% in 1978)	4.6	7.6
Total direct costs plus estimated overhead and depletion, depreciation and amortization	\$ 1,670.2	\$ 1,204.4
<u>Estimated Net Income</u>	<u>\$ 3,011.9</u>	<u>\$ 975.7</u>

Source: U. S. Bureau of Census, Survey of Oil and Gas, 1978 & 1979.

a. Data for this specific item for this year were not presented. The estimate is based on the data for the available year adjusted for any change in activity.

Overhead percentages are based on the average of overhead costs to the other costs in each major cost category (Exploration, Production).

Estimated depletion, depreciation and amortization rate is based on Sohio's reported data since over 90% of Sohio's production comes from Alaska.

**INTERIM REPORT OF THE
HOUSE FINANCE SUBCOMMITTEE ON OIL AND GAS**

Prepared by

Louann Cutler, Staff
Representative Al Adams

and

Sharman Piper, Staff
Representative Sam Cotten

at the direction of

Rep. Sam Cotten, Chairman
House Finance Subcommittee on Oil and Gas

January 17, 1986

REPRESENTATIVE
SAM COTTEN
DISTRICT 15



P.O. BOX 296, EAGLE RIVER, AK 99577
POUCH V, JUNEAU, AK 99811

ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES

MEMORANDUM

FROM: Representative Sam Cotten *Sam Cotten*
Chairman, House Finance Subcommittee on Oil and Gas

TO: Members of the Alaska State Legislature

RE: Interim Report of the House Finance Subcommittee
on Oil and Gas

DATE: January 17, 1986

One of the most important aspects of Alaska public policy is our treatment of the oil and gas industry. Formulating oil and gas policy is difficult because of the huge amounts of money involved and because the state and the industry have different points of view. The industry is naturally interested in maximizing its profits. State government is concerned with adequately providing for the health, education and welfare of all Alaskans as well as developing its natural resources in a manner consistent with the public interest. Even though the state and the industry are united in our desire to promote oil and gas development, multi-million dollar disputes over fair tax policy and proper valuation of North Slope oil divide us.

Currently facing us is whether to reinstate separate accounting, proposed in House Bill 353, introduced last session by the House Finance Committee. The oil corporations have widely advertised their opposition to the bill throughout the state. Ironically, while they resist the tax changes embodied in HB 353, they have not paid taxes due the state from past tax years, choosing instead to dispute these taxes through established channels. Recent figures from the Department of Revenue (DOR) show the oil companies are hundreds of millions of dollars behind in tax payments to the state, under former and existing tax laws.

During the interim I examined these tax issues and other areas of dispute in order to suggest improvements to state policy, increase our understanding of the issues involved,

and improve our relationship with this vital Alaskan industry.

We depend on an unstable entity -- world oil prices -- for the bulk of our state revenues and this makes it difficult to plan. But even with this uncertainty, Alaska can implement smart business practices. For example, we can't let the oil and gas industry write its own tax laws. On the other hand, we need a policy that encourages exploration and development. We also have to be realistic and realize that state tax incentives alone cannot overcome the current world-wide slump in oil prices.

We need to spend less on government operations and broaden our economic base. Our policies should focus on the decline in Prudhoe production, which will start occurring in the next few years, and the inability of subsequent oil fields to come close to equalling Prudhoe's output. In other words, our present generous level of oil revenues is short-lived. Our goals should be to maximize our benefits now from this non-renewable resource and to encourage additional exploration and production so that we can prepare for a future without as many oil dollars.

It is my hope that this report will help provide a framework for our continuing relationship with the oil industry. Some of the issues discussed here include recommendations for legislation, others are offered as background information.

The topics discussed in the report are as follows: 1) prepayment of disputed taxes; 2) an examination of the issues having to do with separate accounting (HB 353); 3) a discussion of the severance tax and the economic limit factor; 4) an overview of the major oil litigation.

I. Prepayment of Disputed Taxes

One of the most disturbing developments to surface during the interim was the discovery that the oil companies are \$908 million behind in tax payments to the state as of January 6, 1986. Confidentiality statutes prevent disclosing the names of the corporations and exactly how much each owes, but the large sums and statutes involved make it obvious that the major North Slope producers -- Arco, Exxon, Sohio -- are some of the taxpayers whose accounts are at issue. Furthermore, current law offers little incentive for them to pay in a timely manner.

Properly written statutes could have the companies prepay assessed amounts at a set point in the appeals process -- late enough to protect the taxpayers from auditing errors yet early enough to ensure that the taxes are collected in a timely manner.

Additionally, the Legislative Budget and Audit Committee has requested an opinion from the attorney

general's office on the constitutionality of revealing the names of taxpayers whose accounts are past due.

II. The Issues Pertaining to Separate Accounting -- HB 353

HB 353 would reinstate separate accounting as the method used to calculate the oil industry's tax liability. It would also reduce the severance tax from 15% to 12.25%, a substantial incentive to smaller fields. Industry protests about the bill obscure the fact that it is a fairer tax because it lowers the income tax on less profitable ventures, like marginal fields, and puts the tax burden on the most profitable developments, such as Prudhoe Bay and Kuparuk.

HB 353 would ensure that the state receives its fair share of Alaskan oil wealth. On Jan. 13, 1986 the U.S. Supreme Court agreed with the Alaska Supreme Court that separate accounting is constitutional. Furthermore, the state supreme court said that separate accounting is the prevailing method used throughout the United States for reporting income from oil production because it conforms more to an oil company's financial accounting procedures and "more accurately reflects income than formula apportionment".

Under pressure from important US trading partners, President Reagan has asked Congress to force states to abandon worldwide combination formula apportionment.

Whether or not we decide this session to return the former tax law to the books, it's important to understand the basic issues involved and let our decisions on tax policy be guided by facts, not by high-priced media campaigns aimed at our emotions.

III. The Severance Tax and the Economic Limit Factor

This is an issue that needs to be addressed this session because state revenues from severance taxes will be severely reduced beginning in FY 88 if the ELF law isn't changed. The ELF is a statutory reduction to the severance tax, created to extend production on marginal fields, but it is not working as well as it could. Two problems with present law are: 1) it doesn't give marginal fields enough of a tax break; and 2) it will provide Prudhoe with a premature tax reduction decades before it can be considered marginal. A simple change in the ELF law could solve both these problems.

IV. Major Oil Litigation with the Oil and Gas Industry

The amounts at issue in the state's oil and gas litigation are at least \$15 to 20 billion dollars and the state has spent millions of dollars so far to pursue these cases. Major litigation with the oil industry highlights the many points during the production and marketing process that provide profit-making opportunities for the industry and revenue opportunities for the state.

This chapter of the report highlights two major cases that affect the value of the oil and revenues to the state. The cases are the Amerada Hess royalty case and the TAPS tariff case. While the issues involved are in litigation and therefore out of the legislature's immediate realm of influence, I believe knowing more about the nature of the disputes adds to our overall understanding of the subject. Fair prices for the oil and fair charges for transportation costs are the key areas in which the state and oil companies disagree.

The issues summarized above constitute this interim report. It is my hope that the information will be of use to you as we begin the 1986 session. The report does not attempt to address all the facets of the state's complex relationship with the oil and gas industry, but it does touch on some of the important points. I believe staying abreast of the industry and its goals will enhance the quality of state government, because without this knowledge it will be difficult to maintain our positions as the real policymakers of Alaska.

INTERIM REPORT OF THE HOUSE FINANCE SUBCOMMITTEE
ON OIL AND GAS

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I.

PREPAYMENT OF DISPUTED TAXES

I. The Problem

As of January 6, 1986, the oil companies owed the state \$908 million in disputed taxes. Due to the ARCO settlement of \$243 million on January 13, 1986, this total will be adjusted (new figures from DOR are expected next week). Since \$243 million is the amount of the settlement, it may not be the exact amount of taxes previously in dispute between ARCO and the state. The phrase "disputed taxes" refers to audited tax amounts contested by the companies, plus interest and penalties. Unfortunately, existing state law does not encourage speedy resolution of these cases and some of the disputes go back as far as 15 years.

The total reported by DOR to be disputed on Jan. 6, 1986 was \$908,293,008.61. The total amount varies from month to month due to such causes as interest charges and settlement of some of the disputes. For a schedule of all tax accounts receivable, see Attachment A. Here is a breakdown of what is owed:

-- Approximately \$524 million of the total is owed under the former separate accounting oil and gas corporate income tax for the years 1979 to 1981. (AS 43.21)

-- Approximately \$322 million is owed under the severance tax for the years 1976 to 1982. (AS 43.55)

-- The balance of about \$62 million is owed under the income tax statute for all corporate taxpayers.¹ (AS 43.20) While the \$62 million includes contested taxes for all corporate taxpayers, it is estimated that almost all of this amount is owed by the oil and gas corporations.

The main reason the taxes have not been paid is because the oil companies disagree with the state over the amount of their tax liability. They are contesting the tax assessments through established administrative channels in the Department of Revenue. At issue is the methodology for calculating certain revenues and expenses in order to determine the amount of tax owed to the state.

A second reason the taxes have not been paid is that many of the issues involved in the tax disputes are the subjects of major oil and gas litigation between the companies and the state.

A third reason the taxes have not been paid is that the companies appear to have little incentive to do so. Although interest rates on disputed tax liability (12% per AS 43.05.225) may currently be higher than commercial interest rates, it is clearly in the taxpayers' interest to

¹Before 1979 oil and gas companies paid income taxes under AS 43.20, like all other corporate taxpayers. Between 1979 and 1981 they paid income taxes under the separate accounting statute, AS 43.21, and also paid income tax for their non-oil and gas activities under AS 43.20. From 1982 to now, the companies again pay all their income tax under AS 43.20.

prolong the tax disputes and avoid payment for as long as possible. They may also hope for a settlement with the state in which they ultimately pay a smaller amount than originally assessed.

II. The Disputed Issues

The major severance tax issues are similar to those involved in the State v. Amerada Hess, et. al case, though resolution of the tax issues may well be different than the case itself. (The last chapter in this report discusses this case in more detail.) The amount of our royalty share is in question in this lawsuit because of a dispute over the wellhead value of the oil. The wellhead value is determined by the destination price of the oil minus the transportation costs -- primarily pipeline tariffs and tanker charges. The tanker charges and destination price are at issue in the Amerada Hess case and about 95 percent of the total disputed taxes owed under the severance tax law involve these issues.

The remaining severance tax disputes primarily involve:

- 1) what production expenses can be deducted; 2) the computation of pipeline income; 3) what income and expenses are non-oil related and should be taxed under the income tax statutes; and 4) proper pipeline tariffs for non-TAPS pipelines, such as the Kuparuk pipeline and the Panama Canal pipeline.

Roughly half of the separate accounting disputes involve all the issues involved in the severance tax

disputes. The other half of the separate accounting disputes involves these major issues: 1) how to compute production expenses; 2) how to compute pipeline income; 3) income and expenses that should be apportioned to AS 43.20; 4) appropriate pipeline tariff charges; 5) how much should be spent for the eventual closing down of the pipeline; and 6) how much value should be placed on recoverable reserves.

The separate accounting tax disputes are also similar to those in Arco, et. al. v. State, the lawsuit over the state's former separate accounting law (described in the second chapter of this report). Now that separate accounting has been upheld at every level of court review -- most recently by the US Supreme Court this past Monday when it dismissed the oil companies' appeal -- the Department of Revenue expects these tax disputes to progress further.

III. Existing Process for Resolving Tax Disputes

After an oil and gas corporation submits a tax return it is audited by the Department of Revenue. Generally speaking, the audit shows that the taxpayer owes more than the taxpayer's return says. The taxpayer is then assessed the audited amount. Again, generally speaking, the taxpayer contests the audit and the arduous process of resolving the dispute begins.

The first stage of the resolution process is referred to as the informal conference stage and almost 90 percent of currently disputed taxes are in this stage. This is when

DOR and the taxpayer try to resolve factual issues and agree on the amount of tax owed, a process that can take several years. If the dispute is resolved, the taxpayer pays the additional amount and the case is closed. (In some rare instances, the informal conference is skipped and the dispute is taken up immediately at the formal hearing level.)

If it is not resolved, the case moves along to the formal hearing stage. A DOR hearing examiner essentially acts in the capacity of a judge and decides the case. This stage can also take years. The Commissioner can either adopt or reject the decision, although all decisions ever issued have all been adopted.

After adoption of the decision, the taxpayer is required to pay the tax if no appeal is filed in the superior court. If the taxpayer pursues the dispute by appealing to court, then the court will require that a bond be posted in order to continue contesting DOR's decision.

IV. Inadequacy of the current resolution process

Because of our current dispute resolution process, it may take years before the taxpayers will settle or be required to pay the audited tax amounts. Some of the disputes concern taxes that were owed as far back as 1970 although in certain instances, audits may not have been performed until years after a return is filed because the assessment period has been waived.

The taxpayer then has no incentive to resolve the matter since he is not required to pay the audited tax until all the administrative and judicial channels to overturn the audit have been exhausted. By allowing the taxpayer to keep the disputed amounts for so long, current laws appear to encourage the taxpayer to prolong the dispute. Thus the taxpayer will have the disputed funds to invest and earn interest on, or to use for other purposes.

V. A Solution: Prepayment of Assessed Tax Amounts

In order for the state to collect taxes in a more reasonable time frame, the oil companies should be required to prepay the audited amount at some point in the dispute resolution process.

Prepayment could be required after the informal conference stage. At this point the taxpayer and the state have been negotiating and fine-tuning the tax liability for some time. Errors and omissions by the taxpayer and auditor are likely to have been corrected.

Alternatively, prepayment could be required after the formal hearing. The dispute has been reviewed by the entire DOR hierarchy and the Commissioner has adopted a decision. If prepayment is not required until after the formal hearing, specific time frames could be provided in law for each stage of the resolution process. Once the taxpayer has been assessed the audited amount, both the informal conference and formal hearing stages would have to be

completed within a certain number of years established in statute. This would guard against continued prolonging of disputes since prepayment would not be required until the end point of the department's internal review.

It makes fiscal sense to put some or all of the prepayments in escrow until the dispute is finally resolved. The escrow account could be viewed as a form of state savings, since it could still be several years until a particular dispute is finally resolved. In the meantime, the escrowed amounts could ~~earn~~ be invested and earn additional income. This would allow the state to save for the future and also provide protection in the event that the disputed tax liability would be resolved in the taxpayer's favor.

The prepayment requirement should also be applied to amounts owed for prior tax years. Applying the prepayment requirement to past years is essential in order to bring about faster resolution of the current tax disputes, since these disputes involve tax liabilities for earlier years.

Prepayment has precedents at both the state and federal levels. It is currently required by the IRS if the taxpayer decides to appeal to the federal district court or court of claims rather than to tax court. In fact, DOR currently has a prepayment regulation on the books that requires payment of estimated severance taxes but it only applies to the returns for the years after 1984 (14 AAC 55.165). (It also only addresses the issue of oil valuation, not

transportation assessments.) The regulation requires prepayment of an average amount owed by all taxpayers; it does not relate to actual assessed tax liability. This regulation only applies to the severance tax and does not capture back taxes owed under the two corporate income taxes.

A form of prepayment was also a provision of the state's former separate accounting law (in effect for the years 1979-1981). Since the language was vague on whether audited amounts were covered, DOR never enforced the statutory prepayment requirement for the assessed amounts. In enacting this prepayment provision, it is likely that the legislature did not foresee the need for extensive audits and the resultant lengthy dispute resolution process. However, the former prepayment provision can certainly be thought of as a precedent for the kind of prepayment advocated here, especially since the language was never contested by the taxpayers.

The Department of Law has informally advised that there are no legal problems with prepayment. A comprehensive and formal opinion, prepared by both the attorney general's office and the Department of Revenue, is expected early next week.

VI. Conclusion

The legislature should provide by statute for prepayment of audited tax amounts at a set point in the resolution process. This will insure the state receives its

share of oil revenues in a more timely manner and also protect the taxpayers from any initial auditing errors.

Such a prepayment requirement should not be viewed as an additional burden to the oil companies since the revenue that could be raised does not come from implementing new taxes; rather, it is revenue the state should have already received.

ALASKA DEPARTMENT OF REVENUE
APPEALED TAX ASSESSMENTS BY APPEAL LEVEL
 January 6, 1986

TAX TYPE	STATUTE	VALUE OF ACCOUNTS	CONFERENCE	FORMAL	COURT
OIL & GAS CORP INC	AS 43.21	\$524,163,096.65	\$438,358,422.69	\$85,804,673.96	\$.00
OIL & GAS PRODUCTION	AS 43.55	321,697,462.15	300,848,926.97	20,848,535.18	.00
CORPORATE INCOME	AS 43.20	62,432,449.81	47,639,282.76	13,773,985.93	1,019,181.12
INDIVIDUAL INCOME	AS 43.20	2,844,081.31	2,828,965.29	15,116.02	.00
BUSINESS LIC GR RCPT	AS 43.70	2,686,323.31	1,777,731.64	524,380.37	384,211.30
FISHERIES	AS 43.75	1,925,335.87	1,150,173.69	775,162.18	.00
MOTOR FUEL	AS 43.40	1,525,206.60	970,498.59	554,708.01	.00
MINING	AS 43.65	828,697.24	828,697.24	.00	.00
OIL & GAS PROPERTY	AS 43.56	385,779.18	9,321.98	.00	376,457.20
FIDUCIARY INCOME	AS 43.20	183,636.52	183,636.52	.00	.00
SALMON ENHANCEMENT	AS 43.76	42,535.97	29,618.97	12,917.00	.00
ESTATE	AS 43.31	30,840.49	30,840.49	.00	.00
SEAFOOD MARKETING	AS 16.51	8,119.55	8,119.55	.00	.00
INDIVIDUAL WITHHOLD	AS 43.20	7,610.85	7,610.85	.00	.00
TOBACCO (CIGARETTE)	AS 43.50	4,487.22	4,487.22	.00	.00
WHSL CANNED SALMON	AS 43.80	2,250.00	2,250.00	.00	.00
LIQUOR EXCISE	AS 43.60	485.13	485.13	.00	.00
COIN OPERATED DEVICE	AS 43.35	.00	.00	.00	.00
TOTAL TAX ACCOUNTS RECEIVABLE		<u>\$918,768,397.85</u>	<u>\$794,679,069.58</u>	<u>\$122,309,478.65</u>	<u>\$1,779,849.62</u>
PERCENT OF TOTAL VALUE		100.00%	86.49%	13.31%	0.20%

TAX TYPE	STATUTE	NUMBER OF ACCOUNTS	CONFERENCE	FORMAL	COURT
OIL & GAS PRODUCTION	AS 43.55	496	413	83	0
CORPORATE INCOME	AS 43.20	405	314	82	9
INDIVIDUAL INCOME	AS 43.20	253	243	10	0
MOTOR FUEL	AS 43.40	153	92	61	0
FISHERIES	AS 43.75	54	41	13	0
BUSINESS LIC GR RCPT	AS 43.70	42	32	8	2
OIL & GAS CORP INC	AS 43.21	36	21	15	0
SALMON ENHANCEMENT	AS 43.76	20	18	2	0
MINING	AS 43.65	8	8	0	0
SEAFOOD MARKETING	AS 16.51	7	7	0	0
FIDUCIARY INCOME	AS 43.20	7	7	0	0
INDIVIDUAL WITHHOLD	AS 43.20	5	5	0	0
OIL & GAS PROPERTY	AS 43.56	5	4	0	1
WHSL CANNED SALMON	AS 43.80	3	3	0	0
TOBACCO (CIGARETTE)	AS 43.50	2	2	0	0
ESTATE	AS 43.31	2	2	0	0
LIQUOR EXCISE	AS 43.60	1	1	0	0
COIN OPERATED DEVICE	AS 43.35	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL TAX ACCOUNTS		<u>1,499</u>	<u>1,213</u>	<u>274</u>	<u>12</u>
PERCENT OF TOTAL ACCOUNTS		100.00%	80.92%	18.28%	0.80%

II.

**OVERVIEW OF ISSUES
PERTAINING TO HB 353**

I. What does HB 353 do?

- A. HB 353 would reinstate separate accounting as the method that the oil industry must use to compute income earned in Alaska to determine its income tax liability to the state.
- B. HB 353 returns the nominal severance tax rate from 15% to its pre-1981 level of 12.25%. The nominal rate was raised in 1981 at the same time that separate accounting was repealed in order to compensate for the loss in tax revenue anticipated at the time due to implementation of modified apportionment.

II. Summary

- A. HB 353 will insure that the state receives its fair share of Alaskan oil wealth. The industry's share has increased since the 1981 tax changes while the state's share has decreased. The changeover has cost the state approximately \$850 million from FY82 through FY86 and an additional \$1.4 billion can be raised from FY87 through FY2005 if the state returns to its pre-1981 tax structure.
- B. The Alaska Supreme Court has found that separate accounting is constitutional in every respect. The court even declared that it is a better measure of oil industry income in Alaska than formula apportionment. The US Supreme Court essentially concurred in this decision on January 13, 1986, when it refused to review the industry's appeal of the state court's ruling.
- C. Separate accounting is a fairer tax because it will lower the income tax on less profitable investments like marginal field exploration and development and raise the income tax on highly profitable fields like Prudhoe Bay (i.e., conventional recovery in the Sadlerochit reservoir). The industry can afford a higher income tax on Prudhoe because it made as much in FY 85 as it made in FY 82 (about \$6 billion in real terms) even with the downward price spiral. Additionally, the income tax increase on Prudhoe would be coupled with a 22% severance tax decrease under HB 353.
- D. Future tax policy should be directed by the overwhelming importance of Prudhoe Bay to our revenue stability. Even with marginal field development, Prudhoe is still expected to provide almost 80% of production through 2010. Almost two thirds of recoverable reserves in Alaska are found in Prudhoe.

III. Background

- A. After four years of comprehensive study, the 1978 legislature changed the method of accounting that oil companies must use to compute their corporate income tax liability from formula apportionment to separate accounting.

It was determined that separate accounting would more accurately reflect how much of an oil company's income is earned in Alaska.

B. The constitutionality of separate accounting was quickly challenged by the major oil companies in Arco v. State. The 1981 legislature was faced with the threat of having to refund about \$9 billion in 1985 when resolution of the litigation was expected. In response to this threat, the legislature repealed separate accounting and enacted modified apportionment in its place. In 1983, an Anchorage superior court judge ruled that separate accounting is constitutional. This decision was unanimously upheld by the Alaska Supreme Court in August, 1985. It was again upheld this past Monday, January 13, 1986, when the US Supreme Court refused to review the industry's appeal of the state supreme court's ruling, thus ending the lawsuit.

C. Definitions:

1. Formula apportionment: If a firm operates in several states and one of the states wishes to tax its income, a method must be chosen to determine how much income was actually earned in the taxing state. The formula apportionment method looks at the firm's worldwide income and, by use of a formula, attributes part of it to the taxing state. The standard formula uses three indicators of business presence in the state: payroll, property and sales.
2. Modified apportionment: This is a modified version of formula apportionment. It is different because of the substitution of the extraction factor for the payroll factor since the former is a better indicator of oil industry presence in Alaska. The extraction factor helps to determine income from oil production by measuring the amount of a company's in-state production activity. Since in Alaska production is far more prevalent than marketing and refining, modified apportionment more accurately determines oil company income and profitability in Alaska than does the standard formula apportionment method.
3. Separate accounting: This method does not use a formula to carve out a portion of worldwide income and attribute it to Alaska. Instead, it takes the wellhead value of oil (gross income) in Alaska and deducts from it all the costs of production to arrive at net income. This amount is then taxed at the same corporate income tax rate that all other non-oil businesses pay. Because it is considered by many to be the most accurate way to measure the value of oil production activity it comes closest to measuring income earned only in Alaska, and therefore, the income of oil companies directly attributable to business activities in Alaska.

IV. What important issues are involved in deciding whether to enact HB 353?

A. Is separate accounting a better, fairer way to tax the oil

industry in Alaska?

- B. Will HB 353 discourage further exploration and development of new oil fields in Alaska?
- C. Will HB 353 destabilize Alaska's business climate?
- D. How will a return to separate accounting affect our tax revenues?
- E. How will a reduction in the severance tax affect our tax revenues?
- F. How will the inevitable decline in Prudhoe Bay production affect Alaska's revenue picture?
- G. Should the legislature consider any other changes to our oil & gas tax structure?
- H. What is the current status of Arco v. State?
- I. Was there a conspiracy in 1981?
- J. How healthy is the oil industry at present?
- K. How does taxation of the oil industry in Alaska compare to taxation of the industry in other states and at the federal level?

These questions are answered in the following sections.

V. Is separate accounting a better and fairer tax accounting method for Alaska?

- A. This issue poses two major questions: (1) Which method -- separate accounting or formula apportionment type of accounting -- best measures the amount of income earned within the taxing state? A fair tax will only apply to income earned in that particular state. (2) What is Alaska's "fair share" of the oil wealth provided by our oil resources?
- B. Question #1 was answered by the legislature in 1978, again by Alaska courts in both 1983 and 1985, and again by the US Supreme Court last Monday. In August, '85, the Alaska Supreme Court stated that separate accounting is the prevailing method throughout the United States for reporting income from oil production because it conforms more to an oil company's financial accounting procedures and "more accurately reflects income than formula apportionment. ...[T]he Alaska legislature turned to separate accounting for oil producing businesses only after it determined that the use of formula apportionment to compute Alaska's share of oil production income would

seriously underestimate the production income that was rightly subject to taxation by this state (emphasis added)." The Court noted further that the case of Sohio is the best illustration of the superiority of separate accounting as a means of allocating income earned in a particular jurisdiction. During the period 1978-80, Sohio maintained that only 10% of its payroll, 12% of its sales and 50% of its property were in Alaska. Yet its 1980 annual report states that over 90% of its total oil production derived from reserves in Alaska. Additionally, documents submitted to the Court (and not disputed by the companies) indicate that Sohio's earnings had elevated it from 17th to 7th industrywide. So, the Court concluded, "... the traditional formula apportionment method would inadequately reflect the phenomenal value of the companies' oil reserves in Alaska."

C. Separate accounting is also superior to modified apportionment because it taxes conventional recovery at Prudhoe Bay more heavily than less profitable ventures, such as new technology applications at Prudhoe, and exploration and development in marginal fields. These less profitable ventures will actually experience an income tax reduction under separate accounting, just as Prudhoe will experience a tax increase. Prudhoe can afford to pay more taxes and still be highly profitable. A 1984 Institute of Social & Economic Research (ISER) study found that Prudhoe had made the companies about \$9 billion in net profits and that its 1982 profit rate hovered around 25%. But some of the riskier investments that industry is making in Alaska that are expected to yield a less-than-average profit could use an additional tax break. This would be a much more equitable approach than modified apportionment which taxes all industry activities at approximately the same rate regardless of risk and expected profit.

D. With regard to question #2, Alaska's fair share should be thought of principally in philosophical terms rather than only in terms of numbers. The following comments were made in a joint statement from the Governor and the legislative leadership in March, 1981: "[A]ny significant decreases in State oil and gas revenues appear both unwarranted and unsupported by the majority of Alaskans. The State's current level of taxation ... provides that both the oil companies and the federal government will receive greater shares of Alaska's wealth than will Alaskans. Accordingly, any greater percentage granted the former at the expense of the latter would be inequitable ... All agree that any changes [to the tax code] that would give large sums of money to the oil industry at the expense of the people of Alaska are unacceptable." These statements express the philosophy behind Alaska's oil and gas tax code and provide a framework for determining if Alaska receives its fair share of the oil wealth. They continue to be relevant in 1986.

E. With this philosophy firmly in mind, consider a "shares" analysis prepared by economist Eban Goodstein in mid 1985. He found that in FY82, shares of oil wealth in Alaska were divided as follows: industry - 41%, federal government - 30%, and state government - 29%. By FY85, the shares had shifted such that industry received 50%, the federal government received 22% and the state received 27%.

F. Alaska is not receiving its fair share as defined by the Governor and the legislature in 1981 because its share has declined while the oil industry's share has increased. Goodstein's analysis further suggests that the change from separate accounting to modified apportionment was one of the reasons why Alaska's share diminished and the industry's share increased. His study concludes that if separate accounting had not been repealed, the FY82 shares would have been 42% industry, 30% federal government and 28% state government while the FY85 shares would have been 47% industry, 21% federal government and 33% state government. A shares analysis prepared by the House Research Agency in December, 1985, compares closely with the Goodstein analysis for the years FY82 through FY85.

VI. Will HB 353 discourage exploration and development?

A. The major determinants of a company's decision to explore and develop a particular oil field are availability of the oil, the price of oil, and the cost of production in that particular field. These factors determine the rate of return which in turn determines whether or not a field will be explored or developed. Since a state's tax rate is only one aspect of the cost of production, and the cost of production is only one factor in the rate of return equation, it follows that the tax rate can only play a small role in the company's final decision to explore or develop. Although taxation may have a psychological affect on a company's decision, it will rarely be the principal factor in the decision making process. The overall rate of return is the ultimate decision maker and the rate of taxation plays only a small part in determining that rate of return. As the ISER report states: "[F]our factors are typically more important than state tax rates in shaping the pattern of resource development." These factors are described as geologic good fortune, ownership of the mineral rights, cost environment and world energy prices.

B. Unlike formula or modified formula apportionment, separate accounting only taxes a company on profits made in Alaska. In fact, a company will only pay a tax on profitable fields in Alaska so that if it has production activity at Prudhoe Bay and exploratory activities elsewhere, it will only pay taxes on the Prudhoe production activity because it does not yet derive any income from its exploratory work. Moreover, separate accounting would allow the company to deduct its

exploratory expenses from its Prudhoe tax liability. Apportionment, on the other hand, taxes a portion of a company's worldwide income so the company will pay taxes in Alaska even if all its profits were made elsewhere and even if its Alaskan activities operate at a loss. Separate accounting, then, is a better incentive for exploration and development since a company will not pay taxes until the field it is exploring or developing starts to produce and generates a profit. In a letter to the House Finance Committee, ISER economics professor Matthew Berman explained this effect as follows: "[S]eparate accounting...has virtually no adverse effect on development of marginal fields. A firm ...will make the investment only if it expects such development to be profitable after subtracting all taxes. Under... separate accounting... the proposed investment...will generate a tax liability...only if the investment is profitable anyway." Berman continues, "Corporate income taxes assessed under the modified apportionment system... may have some adverse effects [because] any investment, profitable or not, will generate an Alaska income tax liability." Berman reaches the same conclusion for exploration of marginal fields. A mid 1985 issue of Pacific OCS News, a trade journal, made a similar observation about Conoco's development of Milne Point: "The start up of this field begins a new era of marginal, N. Slope projects ... If the state returns to the pre-1982 'separate accounting' tax methods, it could offer a significant incentive to this type of small development, because it would be taxed on its own profitability and not on the companies' national profit base."

C. Exploration and development takes place in many jurisdictions that require separate accounting. Foreign nations, the US Government, Oklahoma, Louisiana and Mississippi all utilize separate accounting and all have experienced exploration and development activity.

D. Although the industry indicated to the legislature last session that a return to separate accounting would hamper their exploration and development activities in Alaska, their annual reports appear to lead their shareholders to a much different conclusion. Take, for example, the annual reports of ARCO from 1978 to 1981, the years that separate accounting was on the books. In 1978, ARCO's earnings were up 15%; in 1979, they were up 45%; in 1980, they were up 42%; and in 1981, they were up slightly again. "As it was in 1978", ARCO informed its shareholders, "the North Slope of Alaska was a prime source of the Company's earnings improvement in 1979." Clearly, separate accounting did not interfere with its earnings nor its exploration and development plans. These plans were in fact expanded dramatically during the separate accounting years. The 1979 annual report states: "For its part, Atlantic Richfield has dramatically intensified its search for new domestic reserves of oil and gas." Exploration and development occurred within Alaska during

these years. For example, Kuparuk development was started in 1979 and completed in 1981, "three months ahead of schedule", according to the 1981 ARCO annual report. Surprisingly, the first year that ARCO complains about its tax burden to its shareholders is 1982 -- a full year after Alaska repealed its separate accounting statute.

E. According to economist Goodstein, the oil companies made so much money in Alaska between 1982 and 1985 that \$24 billion in profits went outside. According to ARCO Alaska president Harold Heinze's remarks to the Committee last spring, the industry has invested about \$6 billion in Alaska during this period. Perhaps more of the \$24 billion that went outside would also have been invested in Alaska if separate accounting had been on the books to encourage marginal exploration and development without paying taxes.

F. HB 353 should also encourage exploration and development because it reduces the amount of severance tax that a company would pay. As Vince Wright with the Department of Revenue pointed out to the House Finance Committee in May, 1985, "On the severance tax side ... what you have done is lowered the rate from 15% to 12.25% so in fact ... this might be more of an inducement to expand exploration." For fields that have a 15% rate now, HB 353 would result in a 22.4% reduction in severance taxes.

VII. Will HB 353 create an unstable business climate for the oil industry in Alaska?

A. Since HB 353 will encourage exploration and development, it should make Alaska's business climate even more attractive to the industry.

B. Since 1955, the state's oil tax structure has been through eleven major changes. HB 353 must be viewed in this historical context. A state's tax code should be dynamic and flexible as well as a reflection of a state's changeable economic picture and public policy goals.

C. HB 353 does not create any new taxes. It merely reinstates taxes that were on the books before 1981. Moreover, separate accounting was repealed in 1981 largely because of the threat posed by the lawsuit. The US Supreme Court has laid that issue to rest and HB 353 merely returns our system to its pre-1981 state. The House floor debate on the 1981 amendments indicates that a bill like HB 353 was in fact anticipated. Consider the comments of the majority leader in the House at the time the amendments were enacted: "[B]y that time... we should have an answer to that lawsuit. And with that answer, we should be able to develop possibly a more consistent taxing policy at that time." Apparently it was expected that the legislature would reconsider its oil and gas tax structure

once the constitutional status of separate accounting was determined.

D. It is perhaps more appropriate to view the legislature's 1981 action as the one that created an unstable business climate. This is especially true in light of the fact that the 1981 revisions did create an entirely new method of accounting for income tax liability. Modified apportionment is not used by any other state that relies heavily on oil production activity. And, whereas separate accounting was adopted only after four years of careful, comprehensive study of all tax possibilities, modified apportionment was adopted with little analysis and hardly any debate.

E. Another way to look at stability is from the state's point of view. A stable revenue stream to provide necessary public services is just as important to Alaskans as maintaining a stable business climate. This is especially true in light of the fact that government dollars in large part determine the health of Alaska's economy. The 1981 amendments destabilized our revenue stream because they reduced our share of the oil money. HB 353 returns us to the old system, returns us to our pre-1981 share of the wealth, and, therefore, stabilizes our revenue stream.

VIII. How will a return to separate accounting affect our tax revenues?

A. The Department of Revenue's 10/31/85 fiscal analysis of HB 353 shows that, according to the mean revenue projections, the bill would increase our tax revenues by about \$1.4 billion between FY87 and FY2005. (A new fiscal analysis from DOR is expected in early 1986 that will analyze the impact of the TAPS settlement on the tax structure proposed in HB 353.) Beginning in FY2000, the DOR fiscal note predicts that the state would make less from separate accounting and the lowering of the severance tax than if the higher severance tax and modified apportionment were in effect. This is because of Prudhoe's decline in relation to profits companies will make elsewhere in the world.

B. It is disturbing to note that the Department's analysis shows that the 1981 tax changes have cost the state approximately \$850 million in tax revenues from FY82 through the end of the current fiscal year.

IX. How will the proposed severance tax affect our tax revenues?

A. Because HB 353 lowers the nominal severance tax rate from 15% to 12.25%, severance tax revenues are reduced. However, because of the separate accounting impact, overall tax revenues are increased (see previous section). The DOR fiscal note shows that if the nominal rate was not reduced in HB 353,

the state would gain an additional \$1.5 billion between FY87 and FY2005 or a total additional gain of approximately \$2.9 billion from reimposition of separate accounting and leaving the nominal severance tax rate at 15%.

B. It is important to understand another impact of reducing the nominal severance tax. The actual severance tax paid by the taxpayer depends on the economic limit factor (ELF). When applied to the nominal rate, the ELF reduces the effective rate and therefore the actual amount of severance tax that is paid to the state. Beginning in FY88 when Prudhoe production starts to decline, the ELF will cause our severance tax receipts to decline dramatically because it will lower our severance tax revenues from Prudhoe considerably. According to DOR's June 1985 revenue forecast, FY88 severance tax receipts will be \$230 million less than FY87 receipts. Since HB 353 drops the nominal rate, that change in combination with the ELF will increase the \$230 million drop by another \$143 million, according to calculations made from OMB data.

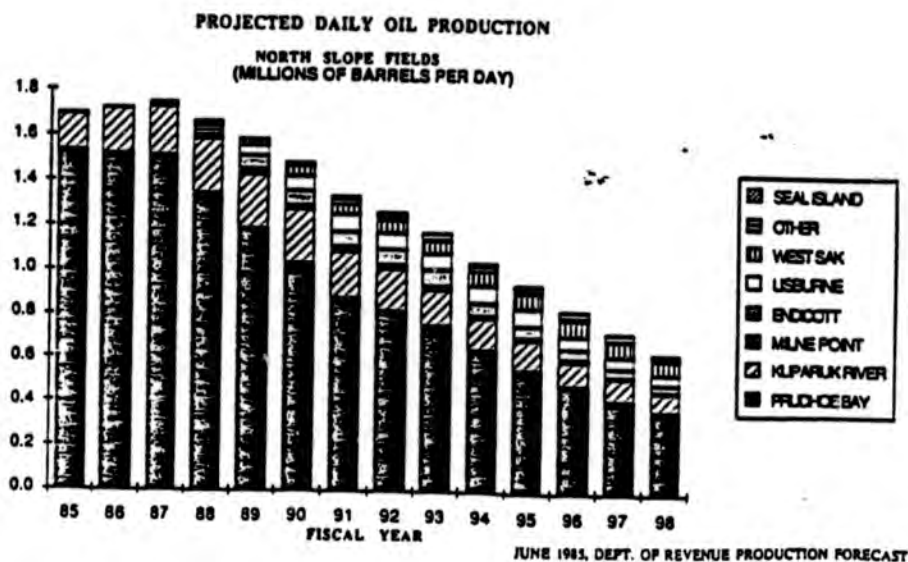
C. An OMB analysis indicates that repeal of the ELF could bring the state an additional \$2.4 billion in revenues from FY87 to FY94.

D. The ELF was developed because it was thought that the burden of the severance tax would tend to close a field down before all the oil was taken out of it. The ELF is designed to prolong the life of a field -- and therefore stretch oil revenues out further over time -- by lowering the tax burden when the field is not producing very much oil. But in its 1984 report, ISER concluded that the ELF does not do a very good job of stretching out our revenues; in fact it only adds an additional year or two to the revenue stream. However, the report does conclude that the ELF is valuable as an incentive to explore and develop marginal fields. This is because marginal fields generally have lower production rates per well, so that the ELF significantly lowers their actual severance tax burden. These conclusions suggest that further consideration of the ELF's impact on revenues and production is warranted and that it should be looked at on an individual field basis since it may encourage production where there otherwise might not be any, such as in a marginal field, but may not have its intended effect on a very profitable field, such as Prudhoe Bay. (Another chapter of this report deals specifically with this problem and proposes one solution to it.)

X. How does the decline of Prudhoe Bay affect our revenues?

A. Prudhoe Bay production to date far outweighs production from any other field in Alaska. The ISER study shows that of the 3.6 billion barrels of oil produced in Alaska from 1959 to 1983, about 3.2 billion of those barrels -- or 90.3% came out of Prudhoe even though the field did not start production

until 1977. ISER also forecast production in the future and found a similar pattern. Using ISER's base case assumptions (real wellhead price of \$17.50 per barrel, declining TAPS tariff, and no change in the federal or state tax structure), of the 8.9 billion barrels likely to be produced between 1983 and 2010, about 6.9 billion -- or 79.4% -- will come from Prudhoe. These figures show that the Prudhoe Bay field is extremely important to Alaska's revenue stability. One draws the same conclusion from the following chart, which depicts production for FY85 through FY98.



B. As Prudhoe declines then, so do our revenues. What is perhaps less apparent is that analysis of future oil production shows that even if all the currently known marginal fields are developed, their combined production cannot make up for the decline of Prudhoe. Lease, tax, and other revenue from development of these fields will not come close to providing Alaska with the wealth it now receives from Prudhoe Bay. As Kay Brown, Director of the Division of Oil & Gas stated to the Permanent Fund trustees, "[B]ased on current knowledge, it is unlikely that new oil and gas discoveries from state lands alone will be sufficient to offset the decline in the main Prudhoe Reservoir. Most of the remaining best prospects appear to be in federal waters and perhaps in the Arctic National Wildlife Refuge." The Division of Oil &

Gas estimates that about 62% of recoverable state reserves in Alaska are in the Sadlerochit (Prudhoe Bay) reservoir.

C. The importance of Prudhoe to our revenue stability should be a driving force in determining the future of Alaska's oil and gas tax structure. It is certainly a valid public policy goal to tax the tremendous profits of Prudhoe Bay. Policy makers should not forget that revenue from production in new fields is not going to make up for the loss of Prudhoe Bay revenues. The \$24 billion in profits that the companies took out of Alaska in the last four years is gone forever; it would be a mistake to continue encouraging them to take their money elsewhere.

D. Although much of Alaska's oil reserves lie off shore, development of these resources will not be a panacea for the decline of Prudhoe, either. These resources are owned by the federal government and therefore, most tax and other revenue benefits will flow back to the feds, not to the state. The only taxes that the state will get are property taxes from onshore facilities. It will not get any lease payments (except from 3-6 miles offshore if President Reagan approves a bill that may be taken up again by Congress in early 1986).

XI. Should any additional changes to the tax code be considered?

A. Ideally, the Alaskan tax code will provide revenue stability to the state even when market forces bring about lower oil prices and even when the quantity of oil in Alaska that can be taxed diminishes. Measuring price and quantity sensitivity is not easy, however.

B. Section VI discusses the fact that separate accounting is a better incentive for exploration and development than modified apportionment because it only requires the payment of taxes when a field is profitable. Many economists believe that a state can facilitate exploration and development of marginal oil fields if it increases the reliance on income taxes and decreases the reliance on severance taxes in the marginal fields. In other words, the state should consider emphasizing taxation of net income instead of gross income in marginal fields. For this reason, Professor Berman concludes that, for marginal fields, net income taxes and net profit shares in leases are superior to excise (such as severance) taxes and royalty shares in leases because a company shares profit with government, not income that just covers expenses. Although 1986 may not be the appropriate time to consider a complete overhaul of our tax and leasing policies, some comprehensive changes may eventually be desirable.

XII. What is the current status of ARCO v. State?

A. The Alaska Supreme Court ruled unanimously in the state's

favor on August 16, 1985. The decision fully supported the state's position that separate accounting is constitutional in every respect.

B. In fact, the Supreme Court went even farther than it had to in upholding the lower court's decision. Instead of stating that separate accounting was an acceptable method of tax accounting, it stated that, for Alaska, separate accounting is preferable to formula apportionment. (See section V for further details.)

C. The oil companies declined to petition the Alaska Supreme Court for a rehearing of the case. In November, 1985 they appealed the decision to the US Supreme Court. The justices declined to take the case on January 13, 1986, thus ending the lawsuit.

D. Though the industry challenged the use of separate accounting in Alaska, it has argued strenuously to be allowed to use it in other states. In at least two states, Wisconsin and South Carolina, the industry took their arguments to the top levels of the court system -- to the state supreme court in South Carolina and to the US Supreme Court in the Wisconsin case. Also, before Prudhoe Bay was in the production stage, the industry tried to file separate accounting returns in Alaska. This demonstrates that the industry is interested in separate accounting when it lowers its tax burden; in other words, when its operations in a state are less profitable than the industry average.

XIII. Was there a conspiracy in 1981?

A. It has been suggested that the oil companies and the Department of Revenue conspired to convince the legislature to enact amendments in 1981 that substantially lowered our fair share of Alaskan oil wealth. Although this point of view is strengthened by the fact that the 1981 amendments now appear to have cost the state about \$850 million, an analysis prepared by OMB suggests that there probably was no conspiracy. The fiscal information provided by the companies to the department, which in turn was used to prepare the legislation's fiscal note, has turned out to be wrong. But it does not appear likely that wrong information was intentionally provided. According to Gregg Erickson, Senior Economist at OMB, "I know of no evidence which would positively rule out the possibility that this discrepancy resulted from an effort to mislead; ... a more plausible explanation is that the oil company experts simply goofed."

B. Although the above information is interesting, what did or did not happen in 1981 should not be the motivation for a

return to our pre-81 tax structure. Rather, the motivating forces should be such aspects of HB 353 as the superiority of separate accounting as evidenced by the recent court ruling, its incentives for exploration and development, and the goal of restoring Alaska's fair share of the wealth created by our abundant oil. In this context it is interesting to note that when the legislature enacted the 1981 changes, it did not repeal the findings section of the original 1978 statute which stated the superiority of separate accounting over an apportionment method.

XIV. Is the oil industry healthy?

- A. It would certainly appear that Exxon is healthy. A recent Business Week article made the following observations: "The only surplus at Exxon Corp. is a surplus of cash. ... The bottom line is that Exxon can make a nice living even if the price of oil falls quite a bit more. ... Salomon Bros. estimates that Exxon will have as much as \$7 billion in spare cash to spend through 1988. ... In fact, Exxon's real limitation is not a lack of money but of enough places in which to invest it profitably." Because prices are down right now, Exxon is frugal with investments and cautious about the future. But it is hardly suffering and couldn't be accurately characterized as anything but very healthy.
- B. The legislature commissioned a report by Tanzer Economic Associates, Inc. in 1977. Among other things, the report examined many historical examples of tax changes throughout the world. It concluded that "there is one effect almost invariably caused by such tax changes. Namely, an almost automatic reaction of the oil companies to claim that such increased taxation will force them to look elsewhere for increased future production. These claims are sometimes backed up by actions, aimed at getting the country to rescind the tax increase, such as temporarily cutting present production or reducing exploration and development efforts. ... Some of the actions and much of the rhetoric ... is 'theater', aimed at improving a bargaining position, and often needs to be taken with a very large grain of salt." One can infer from this observation that the industry will often exaggerate how it will be affected by a tax change in order to keep the change from occurring.
- C. In 1985, the industry uses the current production surplus and price decline pattern as justification for laying off hundreds of Alaskans and cutting daily rates paid to the various oil industry support companies that operate on the Slope. Not surprisingly, it also comes to Juneau and complains bitterly about HB 353, implying that the bill is forcing it to cut back and to consider leaving Alaska. Industry testimony is difficult to accept since we know it is not leaving Alaska, with our Prudhoe bonanza and our

undeveloped reserves, and since we know that HB 353 provides the proper incentives to stay. It becomes even harder to accept when one considers the major factor that explains the majors' current restructuring efforts. Because of falling world oil prices, the fear of takeover is prevalent in industry thinking and the desire to cut costs to a minimum is really motivated by the need to have enough cash around to prohibit an unfriendly takeover (or in the case of some majors, to acquire less healthy companies). Furthermore, declining oil prices is a major factor in the majors' cut backs in exploration activity.

XV. How does taxation of the industry in Alaska compare to taxation in other states and at the federal level?

A. Of the top five oil producing states -- Alaska, California, Texas, Oklahoma and Louisiana, two currently require the use of separate accounting to determine income derived from oil production. These states are Louisiana and Oklahoma. California utilizes formula apportionment and Texas does not have a corporate income tax. (Actually California does require separate accounting in cases where formula apportionment under represents income generation within the state.) In addition, the United States government requires the use of separate accounting in certain instances. Moreover, President Reagan has recently taken an active stance against formula apportionment based on worldwide combination. Since apportionment taxes a portion of a company's worldwide income, some important US trading partners oppose it because they feel that American states take tax dollars away from them. Thus, Reagan has asked Congress to prohibit the use of this kind of formula apportionment at the state level.

B. Another way to compare taxation of the industry in Alaska to industry taxation elsewhere is to compare how much is collected by states from the whole tax code and leasing structure, not just the income tax. The ISER study compared tax and leasing policies in Alaska to such policies in Texas and concluded that "... Alaska and Texas collected approximately the same amount of revenue from oil and gas production." This is interesting because the tax and leasing structure in Texas and Alaska are very different yet, essentially, industry is treated the same. Alaska should not be judged by whether it has a separate accounting or a formula apportionment based income tax but rather by how its policies as a whole impact the oil industry.

XVI. Conclusion

A. HB 353 is well constructed tax reform legislation. It is an attempt to restore Alaska's fair share of the oil wealth to provide Alaskans with desired public services, provide an atmosphere that encourages the oil industry to remain in Alaska, and return Alaska's tax structure to the exhaustively

studied and carefully refined one that existed before it was challenged by the oil companies in the late 1970s.

III.

**THE SEVERANCE TAX AND THE
ECONOMIC LIMIT FACTOR**

I. Introduction

It is generally known that oil producers in Alaska are assessed severance tax rates of 12.25 or 15 percent. However, it may not be so well known that the actual tax rates they pay are much lower than this because of the economic limit factor or ELF. (A severance tax or production tax is a flat tax based solely on the amount produced; in contrast, an income tax is based on profits.)

The ELF is a statutory reduction to the severance tax. It was adopted in 1977¹ to promote production on oil and gas fields with low output and presumably little profit. As the cost of producing the oil gets closer to its value -- the economic limit -- the ELF reduces the tax that is owed. When a field reaches the economic limit the ELF reduces the severance tax to 0. The ELF is applied to both oil and gas, but this discussion deals only with oil.

In practical terms, the ELF dramatically reduces the state's base severance tax rates of 12.25% or 15% on all fields. Prudhoe Bay is a temporary exception to this

¹In anticipation of North Slope production, the Department of Revenue recommended the ELF in its exhaustive 1977 study: "Alaska's Oil and Gas Tax Structure: A Study with Recommendations for Improvement." Previously a "stair-step" approach to severance taxes was used, keyed to Cook Inlet production, with graduated rates to 8 percent. The ELF improved upon the stair steps, retaining the idea that the tax should be reduced as production declined. The ELF also was able to adjust tax rates for both high-volume North Slope fields and the lower-volume Cook Inlet fields.

because of a provision that suspends the ELF for 10 years on high volume fields. However, in FY 88 the 10-year limit expires and Prudhoe will also enjoy tax concessions of the ELF -- and the state will lose \$156 million, according to OMB calculations (see Attachment A). Another example is Kuparuk. In FY 86 the ELF reduced Kuparuk's effective severance tax rate to 6%, and the state lost \$58 million.

An unforeseen consequence of the ELF is that it will greatly reduce the severance tax rates on most of the fields that have yet to begin producing. For example, in FY 90 the effective severance tax rate for Lisburne will be 3% and for Endicott it will be 4%. These cases show that the ELF is actually providing these marginal fields with a substantial incentive -- reducing costs at field start-up.

The ELF's original goal was to extend the life of fields, and thus extend revenues to the state. However, one study shows that the ELF only prolongs a field's life for one or two years, thus its direct benefit to the state is limited. Nonetheless, the ELF does appear to provide an incentive to developers of marginal fields because it reduces the severance tax rate. If the ELF were eliminated, for example, it is likely that some of the marginal fields would not be feasible to develop.²

²In a study entitled "Alaska North Slope Oil Production and Revenue Projections" published Feb. 1985 by the Institute of Social and Economic Research, author and UAA economist Matthew Berman concluded that the Endicott and Milne Point fields might not be feasible to develop without the ELF.

It's also apparent that fields with substantial output and correspondingly high profit rates, such as Prudhoe and Kuparuk, do not require the production incentive that the ELF provides.

II. How the ELF Works

The ELF is a formula that is multiplied by the nominal rate of 12.25% or 15% to obtain the effective rate actually applied to a field. The ELF will never be more than 1. If the ELF is 1, then 100% of the severance tax is owed. An ELF of .8 means 80% of the tax is owed; 80% of 15% equals an effective tax rate of 12%.

Since 1981 the severance tax rate has been 15%, with an exception for new fields; fields that start producing after June 30, 1981 pay a reduced rate of 12.25% for the first five years. The law also requires that the ELF be calculated at 1 during the first 10 years of a field's production any time the ELF goes above .7. (Currently this provision only affects Prudhoe.) For fields with an ELF at or below .7, the actual ELF used. After 10 years the actual ELF is used in all cases.

For example, the ELF for Prudhoe Bay in FY 85 was .864. Since this is more than .7 and within the first 10 years of production, the 1 figure is used. Thus the full 15% severance tax was owed.

In FY 88, however, the 10-year limit will no longer be in effect for Prudhoe (production began in FY 78) and the actual ELF of .82 will be used. This means the amount of severance tax owed will be 82% of 15%, or an effective rate

of 12.5%. The amount to be paid to the state will be \$714 million, \$156 million less than if the full 15% severance tax were paid.

III. Modifying the ELF

It is apparent that the ELF accomplishes its goals but not without some drawbacks. One drawback is providing and unnecessary tax reduction for Prudhoe and Kuparuk. Another issue is whether it goes far enough in reducing the severance tax rate on marginal fields. (A problem with a severance tax as opposed to an income tax is that it is not sensitive to profits or costs, thus a fair tax rate for a large field may be a burden for a small field.)

An additional problem with the current ELF formula is that it is based on daily output per well; total field production is not taken into account. This penalizes a marginal field like Milne Point (30,000 bbls/day) which has high output per well but few wells (about 22). Under the current ELF formula Milne is subject to a severance tax rate almost as high as the tax applied to Kuparuk (240,000 bbls/day), which is clearly not a marginal field. For example, in FY 88, Milne Point will be paying a 7.35% severance tax compared to Kuparuk's rate of 7.6%.

Instead of basing the ELF on individual wells, total field production could be included in the ELF formula to compensate for this inequity, keeping the severance tax low on the smaller fields that would benefit most from a tax break.

The ELF could be modified to accomplish these goals:

-- Dramatically reduce the effective severance tax rates for all marginal fields, including Cook Inlet.

-- Prevent a premature reduction to the severance tax rates for Prudhoe and Kuparuk. These highly profitable fields are years away from being marginal. When they do start approaching the economic limit, the ELF formula will provide them with a tax break.

-- More equitably set the tax rate for each field.

This formula modification would bring Prudhoe's ELF to .99 (now it is at .83); raise Kuparuk's to .8 and drop Milne Point's to .3. These ELF's translate into effective severance tax rates of about 14.85%, 12% and 4.5%.

Here are the current ELF's compared with ELF's under the revised formula.

	Current ELF	Modified ELF	% change
Prudhoe Bay	.80	.99	+23
Kuparuk	.50	.86	+72
Milne Point	.60	.31	-48
Endicott	.31	.0	-100
Lisburne	.11	.05	-54
West Sak	.0	.0	no change
Cook Inlet	.03	.0	-100

The formula change would result in the following positive state severance tax collections*:

FY	millions	
87	\$ 32	* These numbers, based on June 1985 revenue projections, assume the actual ELF is used in all cases and assume a 15% severance tax rate across the board. (If the 12.25% for the first 5 years were retained, there would be little change in these amounts.)
88	179	
89	192	
90	184	
91	175	
92	173	
93	170	
94	158	

IV. What Legislation Would Require

1) Simplify the law so the actual ELF is always applied. Current law requires that an ELF of 1 be used if the actual ELF goes above .7 any time during the first 10 years of a field's production. (AS 43.55.013)

2) Change the ELF formula. (AS 43.55.013) This modification only alters the exponent part of the formula. It uses a different number as a constant and takes into account average daily production from the whole field.

Current ELF formula:

$$ELF = \left(1 - \frac{PEL}{TP}\right) \exp \left(\frac{460 \times WD}{PEL}\right)$$

Revised ELF formula:

$$ELF = \left(1 - \frac{PEL}{TP}\right) \exp \left(\frac{37,000,000 \times WD}{PEL \times TP / \text{Days}}\right)$$

PEL = monthly production rate at the economic limit
(300 barrels x number of well days a month)
TP = total production (number of barrels) during the month
WD = well days in the month
exp = the expression following this is an exponent
Days = The number of days in the month for which the tax is to be paid

The numbers 460 and 37,000,000 are constants or scaling factors.

V. Conclusion

Enacting these changes to the severance tax would not only maintain our current level of severance tax revenue. More importantly, the revised ELF would provide a new

incentive for future oil exploration and production in
Alaska by lowering the severance tax on marginal fields.

ALASKA NORTH SLOPE OIL AND GAS REVENUES

Alaska North Slope Oil Revenue

	Fiscal Years									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
June 1985 Pet. Rev. Assumptions										
World Oil Price	26.37	24.81	22.41	22.206	22.733	23.464	24.362	25.565	26.934	28.379
Average Rate of Inflation	4.83	3.92	4.81	4.76	4.76	4.76	4.76	4.76	5.184	5.184
ANS/World Qual. & Marketing Adjust	3.253	2.532	2.663	2.639	2.386	2.447	2.475	2.528	2.587	2.612
TransAlaska Pipeline Tariff	6.887	6.887	6.887	6.887	6.887	6.887	6.887	6.887	6.887	6.887
ANS Netback Price 9801 (\$/bbl)	17.11	15.471	13.74	13.56	14.34	15.01	15.88	17.03	18.34	19.76
Prudhoe Bay Prod. (MMbbl/d)	1.528	1.517	1.588	1.34	1.188	1.03	.874	.815	.753	.641
Prudhoe Bay Price (\$/bbl)	17.11	15.471	13.74	13.56	14.34	15.01	15.88	17.03	18.34	19.76
Wells	468.25	589.6	527.1	548.6	524.85	585.15	489.9	466.45	447.65	428.65
ELF	.8648387	.8496946	.8437862	.8285288	.8041141	.7834653	.7548433	.7491265	.7399281	.7145822
Nominal Tax Rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
Effective Tax Rate	.15	.15	.15	.1238793	.1286171	.1175198	.1131865	.1123698	.1109892	.1071753
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELF)	1252.465	1124.336	992.6137	714.2504	656.2593	588.2696	501.3609	498.1835	489.5263	433.5515
SEVERANCE TAX (NO ELF)	1252.465	1124.336	992.6137	870.4757	816.1278	748.6458	664.8966	664.9124	661.5863	606.7882
CONSERVATION TAX	.6188863	.6856148	.6878219	.5349531	.4742719	.4111953	.3489172	.3253633	.3086117	.2558992
Gathering & Cleaning Charge	.7	.72821	.7567558	.7871817	.8245678	.8638172	.9049349	.9488898	.9931351	1.044619
ROYALTIES	1144.823	1028.395	893.2797	788.9031	732.5782	664.7822	597.1494	597.9988	595.9624	547.3478
TOTAL OIL PROD REVENUES	2396.488	2144.731	1885.893	1495.153	1388.829	1245.052	1090.518	1096.182	1085.489	988.8945
Kuparuk River Prod. (MMbbl/d)	.167	.2	.219	.239	.239	.239	.21	.187	.162	.143
Kuparuk River Price (\$/bbl)	16.29	14.651	12.92	12.74	13.52	14.19	15.86	16.21	17.52	18.94
Wells	154.5	248.5	284	285.25	285.25	285.25	276.5	276.5	254	254
ELF	.69	.4891136	.4697785	.5067934	.5067938	.5067938	.4627634	.4878192	.3773622	.3112742
Nominal Tax Rate	.1225	.1225	.1363	.15	.15	.15	.15	.15	.15	.15
Effective Tax Rate	.084525	.0599164	.0648297	.0768191	.0768191	.0768191	.0694145	.0618529	.0566843	.0466911
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELF)	73.43848	56.87173	57.86143	73.92498	78.45892	82.33865	78.11249	59.18682	51.38973	48.38798
SEVERANCE TAX (NO ELF)	106.4326	114.6395	123.1696	145.8678	154.7985	162.4697	151.5083	145.2168	135.9694	129.7582
CONSERVATION TAX	.0666695	.0798438	.0874289	.0954133	.0954133	.0954133	.0838359	.0746539	.0646734	.0578883
Gathering & Cleaning Charge	.4	.4885	.4818886	.4815819	.4828838	.4825863	.4838894	.4835132	.4848175	.4845226
ROYALTIES	121.8719	138.8358	125.8883	134.5436	143.8436	158.3448	148.4323	134.8598	126.5885	128.9324
TOTAL OIL PROD REVENUES	194.5183	186.1875	182.9497	204.4685	221.4945	232.6827	218.5448	193.9658	177.8182	161.3283
Milne Point Prod. (MMbbl/d)	8	8	.888	.823	.823	.823	.823	.823	.818	.816
Milne Point Price (\$/bbl)	17.48	15.841	14.11	13.93	14.71	15.38	16.25	17.4	18.71	20.13
Wells	1	1	21.15	21.15	21.15	21.15	21.15	19.6	17.1	15.6
ELF	8	8	.8892881	.6896111	.6896111	.6896111	.6896111	.6159828	.5978649	.5882759
Nominal Tax Rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
Effective Tax Rate	8	8	.8133928	.8914417	.8914417	.8914417	.8914417	.8951853	.8896797	.8882414
Royalty Percentage	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625
SEVERANCE TAX (ELF)	8	8	.4621848	8.955726	9.457195	9.887944	10.44728	11.46987	9.232479	8.687879
SEVERANCE TAX (NO ELF)	8	8	5.175981	14.69888	15.51349	16.22888	17.13761	18.35842	15.44242	14.76837

	84	86	87	88	89	90	91	92	93	94
Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0
ROYALTIES	0	0	6.495195	19.40111	20.06720	20.90120	22.16005	21.71606	19.47526	19.10337
TOTAL OIL PROD REVENUES	0	0	7.157300	27.95006	29.52439	30.06915	32.61532	35.40593	29.20714	27.19125
Indicott Prod. (MMbbl/d)	0	0	0	.019	.063	.065	.067	.069	.07	.056
Indicott Price (\$/bbl)	15.99	14.351	12.62	12.44	13.22	13.89	14.76	15.91	17.32	18.64
Wells	1	1	1	34.5	111.5	111.5	111.5	111.5	111.5	100.05
ELF	0	0	0	.2992290	.3132327	.3301150	.3462700	.3617316	.3692130	.3000971
Nominal Tax Rate	0	0	0	0	0	0	.1225	.1225	.1225	.1225
Effective Tax Rate	0	0	0	0	0	0	.0404392	.0424101	.0443121	.0452207
Royalty Percentage	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430	.1430
SEVERANCE TAX (ELF)	0	0	0	0	0	11.41001	13.10932	15.20232	17.03779	12.31192
SEVERANCE TAX (NO ELF)	0	0	0	0	0	34.56366	37.05067	42.02652	46.14614	39.96116
CONSERVATION TAX	0	0	0	.0074222	.0246104	.0253917	.0261730	.0269542	.0273449	.0210759
Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0
ROYALTIES	0	0	0	12.40503	43.71432	47.30789	51.90544	57.61970	61.26781	54.70003
TOTAL OIL PROD REVENUES	0	0	0	12.40503	43.71432	50.79790	65.01476	72.02202	80.30562	67.09995
Lisburne Prod. (MMbbl/d)	0	0	.009	.017	.041	.061	.074	.075	.076	.078
Lisburne Price (\$/bbl)	16.04	15.201	13.47	13.29	14.07	14.74	15.61	16.76	18.07	19.49
Wells	1	1	79.5	79.5	104.25	116.9	116.9	116.9	116.9	116.9
ELF	0	0	0	0	.1101111	.2693556	.3734924	.3001931	.3071543	.4002726
Nominal Tax Rate	0	.1225	.1225	.1225	.1225	.1225	.15	.15	.15	.15
Effective Tax Rate	0	0	0	0	.0134006	.0329961	.0560239	.0570590	.0500731	.0600409
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELF)	0	0	0	0	2.405111	9.475243	20.66040	22.90657	25.47112	29.15107
SEVERANCE TAX (NO ELF)	0	0	4.742934	0.039150	22.56914	35.17745	55.33043	60.21016	65.79061	72.02004
CONSERVATION TAX	0	0	.0035930	.0067067	.0163680	.0243523	.0295422	.0299414	.0303406	.0311391
Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0
ROYALTIES	0	0	5.531119	10.30006	26.31969	41.02326	52.70326	57.35063	62.65771	69.36004
TOTAL OIL PROD REVENUES	0	0	5.531119	10.30006	20.00481	50.49051	73.37174	80.25719	88.12004	98.51110
West Sak Sands Prod. (MMbbl/d)	0	0	0	.022	.03	.044	.05	.055	.057	.062
West Sak Sands Price (\$/bbl)	15.33	13.691	11.96	11.70	12.56	13.23	14.1	15.25	16.56	17.98
Wells	1	76	83.5	91	169.5	169.5	204	204	204	204
ELF	0	0	0	0	0	0	0	0	0	0
Nominal Tax Rate	0	0	0	0	.1225	.1225	.1225	.1225	.1225	.15
Effective Tax Rate	0	0	0	0	0	0	0	0	0	0
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELF)	0	0	0	0	0	0	0	0	0	0
SEVERANCE TAX (NO ELF)	0	0	0	0	14.74171	22.77454	27.50202	32.01478	36.92940	53.40397
CONSERVATION TAX	0	0	0	.0007020	.0119766	.0175656	.0199609	.0219570	.0227555	.0247516
Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0
ROYALTIES	0	0	0	11.02410	17.1915	26.55923	32.16563	38.26797	43.06635	50.06093
TOTAL OIL PROD REVENUES	0	0	0	11.02410	17.1915	26.55923	32.16563	38.26797	43.06635	50.06093
Unspecified Onshore Prod. (MMbbl/d)	0	0	0	0	0	.010	.032	.033	.034	.035
Unspecified Onshore Price (\$/bbl)	15.19	13.551	11.02	11.64	12.42	13.09	13.96	15.11	16.42	17.04
Wells	1	1	1	1	33.3	45.15	42	37.5	33	27.75
ELF	0	0	0	0	0	.1175305	.4642302	.5276755	.5099642	.6593604
Nominal Tax Rate	0	0	0	0	0	0	.1225	.1225	.1225	.1225
Effective Tax Rate	0	0	0	0	0	0	.0560602	.0646427	.0722706	.0807716
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELF)	0	0	0	0	0	0	8.111455	10.29435	12.00590	16.10730
SEVERANCE TAX (NO ELF)	0	0	0	0	0	0	17.47722	19.50012	21.04101	24.42067
CONSERVATION TAX	0	0	0	0	0	.0071059	.012775	.0131742	.0115734	.0139727
Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0
ROYALTIES	0	0	0	0	0	10.75016	20.7016	22.74999	25.47153	20.40025
TOTAL OIL PROD REVENUES	0	0	0	0	0	10.75016	20.49505	31.04434	30.35742	44.59555
Seal Island Prod. (MMbbl/d)	0	0	0	0	0	0	0	0	0	0
Seal Island Price (\$/bbl)	15.54	13.901	12.17	11.99	12.77	13.44	14.31	15.46	16.77	18.19
Wells	1	1	1	1	1	1	1	1	1	1
ELF	0	0	0	0	0	0	0	0	0	0
Nominal Tax Rate	0	0	0	0	0	0	0	0	0	0

SEVERANCE TAX (ELF)	0	0	0	0	0	0	0	0	0	0
SEVERANCE TAX (NO ELF)	0	0	0	0	0	0	0	0	0	0
CONSERVATION TAX	0	0	0	0	0	0	0	0	0	0
Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0
ROYALTIES	0	0	0	0	0	0	0	0	0	0
TOTAL OIL PROD REVENUES	0	0	0	0	0	0	0	0	0	0

NORTH SLOPE Prod. (MMbbl/d)	1.695	1.717	1.744	1.66	1.504	1.40	1.33	1.257	1.17	1.031
AVG. NORTH SLOPE PRICE (\$/bbl)	17.02921	15.37540	13.63733	13.40789	14.13640	14.74674	15.57237	16.70090	18.00509	19.39853
AVG. NOMINAL TAX RATE	.1472906	.1467967	.1401377	.1460136	.1420015	.1450169	.1469192	.1465652	.1462150	.1475727
AVG. EFFECTIVE TAX RATE	.1435491	.1395069	.1370037	.1115651	.1036090	.0906205	.0934909	.0912105	.0892272	.0830136
AVG. ROYALTY PERCENTAGE	.125	.125	.1251720	.1257340	.1262922	.1264004	.1265956	.1267101	.1267017	.1266031
SEVERANCE TAX	1325.903	1100.400	1050.937	797.1311	746.6525	693.3015	623.0119	617.2010	605.4633	540.1976
CONSERVATION TAX	.6766750	.6054506	.6961006	.6621466	.6314206	.5090927	.5299927	.5000326	.4661775	.4100404
ROYALTIES	1245.093	1150.430	1030.594	960.9079	902.9065	961.0279	916.9057	932.5029	936.9096	890.0760
TOTAL OIL PROD REVENUES	2591.675	2331.524	2082.220	1766.701	1730.190	1655.799	1541.240	1550.366	1542.039	1431.404
	14.35491	13.95069	13.70037	11.15651	10.36090	9.062054	9.349006	9.121049	8.922717	8.301360

FISCAL IMPACT OF ELF REPEAL ON SEVERANCE TAX INCOME
ALL NORTH SLOPE FIELDS

	F185	86	87	88	89	90	91	92	93	94
SEVERANCE TAX (MILLIONS OF \$)										
NO ELF	1350.097	1230.976	1125.702	1039.074	1023.750	1011.050	971.7900	903.0472	903.7061	941.9207
WITH ELF	1325.903	1100.400	1050.937	797.1311	746.6525	693.3015	623.0119	617.2010	605.4633	540.1976
REVENUES RESULTING FROM REPEAL OF ELF	32.99410	50.56776	74.76406	242.7425	277.0974	310.4690	347.9070	365.7653	370.2420	401.7311
CUMULATIVE TOTAL	32.99410	91.56106	166.3267	409.0693	686.1667	1004.636	1352.623	1710.300	2096.631	2490.362

PRUDHOE BAY ONLY

SEVERANCE TAX (MILLIONS OF \$)										
NO ELF	1252.465	1124.336	992.6137	870.4757	816.1270	740.6450	664.0966	664.9124	661.9063	606.7002
WITH ELF	1252.465	1124.336	992.6137	714.2504	656.2593	500.2696	501.3609	490.1035	409.5263	433.5515
REVENUES RESULTING FROM REPEAL OF ELF	0	0	0	156.2253	159.8670	160.3754	163.5357	166.0009	172.0600	173.2367
CUMULATIVE TOTAL	0	0	0	156.2253	316.0931	476.4605	640.0042	806.0131	970.0730	1152.110

Figures calculated
by OMB

IV.

MAJOR LITIGATION

WITH THE OIL AND GAS INDUSTRY

A. Introduction

Alaska is currently involved in one of the largest litigation efforts in U.S. history. The amounts at issue in the state's oil and gas litigation total at least \$15 to \$20 billion. This section of the report focuses on two of the most important disputes with the oil and gas industry, both of which have to do with a single concern: the value of North Slope oil at the point it enters the pipeline. This is referred to as the wellhead value, and the state's tax revenue and royalty value are based on it. The State v. Amerada Hess case is a dispute over the value of the state's royalty oil; the Trans Alaska Pipeline Rate Case addresses proper pipeline tariffs. Both cases involve all the major oil producers and are characterized by their complexity and the enormous effort required to litigate them successfully.

B. The Process of Valuing North Slope Oil

Putting a price on North Slope oil is difficult because unlike oil produced in the Lower 48, most North Slope oil is not sold at the wellhead but rather far from its source, most often on the West Coast or Gulf Coast. Another complication is that much of the oil is refined by the producers themselves, so there are internal transfers within one company rather than third-party sales. In addition, many third-party sales are often done by

exchanges with other considerations rather than a simple price. Thus the value of the oil at those distant markets is not a clearcut issue, and the state contends the producers significantly understate the value of the oil when it reaches its ultimate destinations.

It is important to determine the wellhead value of North Slope oil, however, because it is at this point where the state determines the value of its royalty share and levies the severance tax. The federal government also sets the windfall profits tax at the wellhead.

Thus the value of the oil is determined by the process called netback. To arrive at netback, a destination price is set for the oil (by the oil companies) and then the costs of transportation -- primarily pipeline and tanker -- are subtracted. All three of these values, destination price, tanker costs, and pipeline tariffs, are not easy to determine and thus are the subject of litigation. It is usually to the benefit of the producers to keep transportation costs high in order to keep the wellhead price down and thus reduce the royalties and severance taxes they owe the state.

Compounding the difficulty of valuing North Slope oil is the fact that the producers, notably the three major North Slope producers, Arco, Exxon and Sohio, have different netback methods. They use different methods to set the destination price, different methods to determine tanker transportation costs and different methods of setting the pipeline tariff. Furthermore, a company's

valuation methods may change from month to month. Some months the state may agree with a particular company's figures; another month, it may disapprove of the same company's figures.

The destination price and tanker transportation costs are currently the subject of multi-million dollar litigation over the value of the state's royalty oil. The State v. Amerada Hess case is a dispute over the proper value to be attributed to crude oil when it reaches the Lower 48 and the proper deductions to be made for tanker transportation. (Similar issues are involved in the company's severance tax disputes with the state, but with this case the royalty contracts are at issue.) The TAPS tariff case addresses the third major area of dispute, proper pipeline charges.

C. State v. Amerada Hess

The amounts at issue in this case for both past and future royalties is probably upwards of \$2 billion in present day dollars.

In general, Alaska's position is that the value of the oil should be higher for West Coast destinations than for Gulf or East Coast destinations (because transportation costs to the West Coast are lower). Some companies agree with this premise but disagree with the actual prices, while other companies disagree with this approach altogether.

While it is not easy to get information on the record on the specifics of the valuation disputes, federal hearings¹ in early 1983 over the windfall profits tax reveal how the major producers value their North Slope oil. The hearings focused in particular on the method used by Arco.

Arco sets a single price for North Slope oil regardless of its destination. The price is based on West Texas sour, an oil comparable in quality to ANS crude and actively traded in the Gulf. Transportation costs to the Gulf Coast are then deducted to arrive at a wellhead value for all its North Slope oil. Thus Arco is valuing all of its oil as though it were sent to the Gulf Coast (it costs roughly \$4 more to transport oil to the Gulf). This pricing method has merit in theory, but was severely criticized during the hearings because in fact, Arco sells 70% of its oil on the West Coast. From Alaska's and the federal government's perspective, Arco is artificially setting its West Coast price too low and thus avoiding paying millions of dollars in taxes and royalties.

The oil companies again explained their valuation methods to the Alaska Senate Resources Committee in late

¹The hearings on the windfall profits tax were held in February 1983 before the House of Representatives Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce.

1983.² One of the points made then was that Alaska prefers Sohio's valuation method. Sohio, which doesn't own refineries on the West Coast or in the Gulf, determines value for North Slope crude by finding out how much refiners would pay for comparable foreign crude. Sohio also adjusts its price for destination.

The disparity between the companies' valuation methods results in strikingly different wellhead values. For example, Arco's West Coast price averaged about \$2.50 per barrel less than Sohio's throughout 1984. For 1985, Arco's price averaged about \$1.50 less.

The transportation part of the dispute is complicated by the fact that some producers own their own tankers while others charter tankers. For example, Arco owns about 70 percent of its tankers; Sohio owns none and charters U.S. flagships; Exxon charters about 70 percent of its tankers.

Sohio deducts the actual costs it is charged, while Arco deducts costs based on a national shipping standard called U.S. Freight Rate Averages. Other producers that own their own tankers deduct actual costs of operation and capital investment. Yet another variable for those who charter tankers is whether to use long-term or short-term rates. According to company figures supplied to the federal government, 1982 shipping charges ranged from .78

²The committee held hearings in September 1983 on oil and gas issues.

to 2.35 a barrel for West Coast deliveries, and from 4.29 to 6.63 for Gulf/East Coast deliveries.

In late 1984 the U.S. General Accounting Office³ drew the following profiles of the major North Slope producers based on information obtained from the windfall profits tax hearings. (While the figures are based on 1982 production, the methods and amounts are still fairly representative today.)

SOHIO

Sohio has no refineries on either the West or Gulf coasts. Thus the company either sells or exchanges all of its North Slope oil, about 597,000 barrels daily in 1982. About 40 percent of Sohio's North Slope oil went to the West Coast, about 60 percent went to the Gulf Coast and Caribbean.

For each of these market areas, Sohio negotiates a selling price for North Slope oil based on prices customers would pay for competing imported crude oils, with what the company considers appropriate adjustments for differences in oil quality.

Sohio transports its North Slope oil in chartered US-flag tankers operated by contract with outside parties. From the value received from those arm's-length, third-party transactions in each geographic area, Sohio deducts the pipeline tariff and waterborne and other transportation costs to establish wellhead price in Alaska.

ARCO

Arco uses most of its North Slope crude in its own refineries. In 1982, about 70 percent of Arco's 340,000 barrels per day went to the company's West Coast refinery at Los Angeles. Arco sold an additional 25,000 barrels on the West Coast. The remainder of Arco's North Slope oil, 50,000 to 75,000 barrels, went to the Gulf Coast.

Arco establishes a single wellhead price for its North Slope oil, regardless of its destination. Arco sets its price in the Gulf Coast, based on West Texas sour which is actively traded in the area. From this market price, Arco deducts pipeline tariffs and waterborne costs to the Gulf Coast. The resulting price is the wellhead value for both West Coast and Gulf Coast deliveries.

³The GAO report entitled "Response to Questions About the Windfall Profit Tax on Alaskan North Slope Crude Oil" was published in December 1984.

About 70 percent of Arco's North Slope production is transported in company-owned ships. For these ships Arco deducts U.S. Freight Rate Averages as costs. Actual charges are used for shipments on chartered vessels.

EXXON

In 1982 Exxon produced about 325,000 barrels a day and used about 94 percent of North Slope oil in its own refineries. About one third of its production went to the West Coast, about two-thirds went to its Gulf and East Coast refineries.

Exxon's general approach to pricing recognizes the West and Gulf/East Coasts as separate marketing areas. Exxon's assessment of market value is based on factors such as its own commercial transactions and posted prices of domestic crudes in the area as adjusted for quality. Then Exxon deducts transportation costs to arrive at netback value. These netback values are then averaged by volume shipped to each market area to arrive at wellhead value.

About 70 percent of Exxon's marine transportation is by U.S. chartered tankers.

The Amerada Hess case will require the state to make a detailed factual review of all West Coast and Gulf Coast oil marketing transactions for a seven-year period. The state will have to track the disposition of billions of barrels of North Slope oil. Fiscal years 1986 and 1987 will be peak years of activity for this case, which is currently in the stage of preliminary discovery.

D. The Trans Alaska Pipeline Rate Case

This is the case which has received the most intense litigation effort at this point. The amounts at issue between the best case and worst case outcomes, over the life of the field, are approximately \$7 to \$10 billion.

Ever since start-up of the Trans Alaska Pipeline System (TAPS) in 1977, the state and the pipeline owners have been in litigation over how much the tariff should be. The pipeline tariff -- the per barrel amount TAPS owners

charge for transporting oil through the pipeline -- affects the wellhead value of North Slope oil. The higher the tariff, the lower the wellhead price and the less the state collects in royalties and severance taxes. The state and others say the tariff is too high. (The prevailing tariff charges have ranged from about \$5.60 to \$6.40 per barrel.)

Last summer the state and six of the eight TAPS owners signed a settlement which affects tariffs through 2011; the Federal Energy Regulatory Commission subsequently approved the settlement which is now in effect. The remaining issue is whether to include the other pipeline owners, Sohio and Amerada Hess, in the settlement. After consulting with legislators and state officials in December, the governor decided to give the companies until February 12 to voluntarily join the settlement. If they don't, the state will continue litigation. However, FERC still has the option of imposing the settlement on the companies.

The settlement has had an immediate impact on state revenues, providing a welcome cushion against declining world oil prices. The increase in revenues is due to lower tariffs and therefore higher wellhead values. This TAPS money⁴ has already been incorporated into current revenue forecasts and increased the forecasts by these amounts:

⁴These amounts are what could be termed net gain to the state's unrestricted revenues. The law requires that 25 percent of royalties be put into the Permanent Fund, so the net amount is what is left over after the Permanent Fund contributions.

FY 86	\$ 59.2 million
FY 87	156.9 million
FY 88	136.6 million

The Department of Revenue estimates the settlement will bring from \$120 to \$150 million each year to the state until 1992 and then the amounts will decline. In the late 1990s, the tariffs will start rising and revenues to the state will accordingly decrease.

In addition to the above amounts, the state expects to receive another \$120 million in refunds and legal expense reimbursements. This money has not yet been added to the current revenue projections. If Sohio signs the settlement, the state would receive an additional \$70-\$75 million in refunds. On the other hand, if litigation continues, the state may ultimately receive more money, although litigation always has its risks and resolution could be years away. It's hard to predict at this point if an eight-company settlement will ultimately occur.

FERC's decision approving the six-company settlement has been appealed by the Arctic Slope Regional Corporation and the Alaska Public Interest Research Group (AKPIRG). If an appeal is successful, FERC will hold more hearings.

This is the second attempt in more than eight years of litigation to settle the case. The 1982 effort failed, and the legislature decided to continue litigation to obtain two goals: to establish a rate-making methodology to last through the century, and to establish a methodology that would aid further oil development on the North Slope (meaning lower tariffs in the 1990s). Litigation has been

expensive. The Department of Law has spent over \$36 million on this case alone, not including in-house costs.

The settlement has been highly controversial, drawing fire from several quarters. Last summer the House Majority Leader hired independent economist Jamie Love to analyze the settlement. Love concluded the state gave away too much when it exchanged its litigation position for the settlement. According to Love's calculations, the settlement means the state will lose from \$5.2 to \$6.4 billion through the life of the settlement -- an amount that would be collected if the state's litigation position were to prevail. According to Department of Law figures, however, the settlement means an overall loss of \$2.5 billion (over the life of the settlement) when compared with the state's litigation position. The settlement is also a \$4.5 billion gain when compared with the TAPS owners' litigation position.

Bob Maynard, the assistant attorney general who's handling the TAPS case for the state, says Love made some big errors and used wrong assumptions in his report. Memos from attorneys working on the case to the Department of Law said Love's conclusions shouldn't be the basis of any policy. Maynard also pointed out that the settlement is a compromise which necessarily means the state gets less than if its litigation position were to prevail.

The Alaska Public Utilities Commission also did its own in-house analysis of the settlement late last year and concluded the settlement is not in the public's best

interest and may have an adverse effect on oil exploration and production on the North Slope. APUC thinks the settlement does not adequately balance the competing interests of past, present and future shippers, carriers, producers, royalty owners, the state of Alaska and the federal government. It also shares Arctic Slope Regional Corporation's concern that the rising tariffs at the end of the century will prevent future developers from producing North Slope oil.

There are many aspects of the settlement that contribute to higher tariffs in later years. One of APUC's biggest criticisms of the settlement is that the 35 cent barrel return is not cost-based and may lead to excessive rates of return and tariffs after 1989. APUC also criticized the settlement for eliminating all refund obligations prior to 1982. This means a potential loss of billions of dollars to early year shippers as well as the state of Alaska and the federal government.

A recent decision by FERC on pipeline ratemaking dubbed "Williams II" has been the subject of much speculation. The decision was handed down the same day last June that the state submitted its settlement proposal. The decision appeared to be more favorable to the state's litigation position, though a Department of Revenue analysis of the settlement shows that the settlement may actually be better than a "Williams II" outcome. In any case, it is difficult to say exactly how or if this case would apply to Alaska. In response to a letter written by

some House Majority members opposing the settlement late last year, FERC said the case was not applicable to TAPS.

Settling the dispute relies on how to compute the tariff, which is made up of operating expenses, depreciation, income taxes and after-tax return. Of these four, operating expenses is the least controversial, depreciation and after-tax return the most controversial. The Williams II decision adopted a hybrid ratemaking methodology involving part depreciated original cost and part trended original cost. A depreciated original cost scenario, as set out in the state's litigation position, is much better for the state than the trended for inflation rate base used in the settlement. The inflated base is somewhat of a compromise between the valuation methodology originally sought by TAPS owners and the state's position.

The six TAPS owners who have signed the settlement are: Arco, BP, Exxon, Mobile, Union and Phillips. They collectively own 65% of the pipeline. The other two owners are Amerada Hess and Sohio; Sohio has submitted its own settlement offer to FERC (which Love said would be "disastrous" to the state were it to be approved).

Comments opposing the settlement were filed by Arctic Slope Regional Corporation, Amerada Hess Pipeline Corp., Sohio Pipeline Co. and Sohio Petroleum Co., Tosco Corp., Alaska Oil Co. and AKPIRG.

E. Conclusion

These cases illustrate how various aspects of the

production and marketing process provide profit making opportunities for the industry and revenue opportunities for the state. They show the complexity of valuing our oil and how important that value is to maintaining the financial wellbeing of both parties.

MEMORANDUM

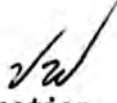
State of Alaska

TO: Mary A. Nordale
Commissioner of Revenue

DATE: October 31, 1985

FILE NO:

TELEPHONE NO:

FROM: Vincent D. Wright 
Chief, Research Section

SUBJECT: HB 353

The HB 353 versus current law analysis is virtually complete with the exception of the TAPS settlement impact. The incorporation of the TAPS settlement and its impact on HB 353 versus current law we hope to complete by the end of November.

I naturally have greater confidence in the results of this project as compared to our preliminary work in that we took the time to conduct a thorough analysis of all the revenue and expenditure items necessary to put together this report. The various items, particularly on the expenditure side, are very complex in their construction and require a great deal of time and effort in order to obtain accuracy and objectivity. I insisted on this approach, however, in the belief that our decision-makers would prefer being able to make informed, and therefore, responsible decisions.

The basis of this report is also much broader in scope than our original analysis in that we addressed additional questions such as the effect of differing tax structures on the "marginal fields", various definitions of the "pie", alternative price scenarios, and a much longer time period.

The scope of study, assumptions, and conclusions are attached but I would like to reiterate in this letter our basic conclusions in synopsis form.

1. If, for the years FY 1982 through FY 1985, the old separate accounting and severance tax laws had been in effect, the State would have received more revenue disregarding, of course, what might happen in future court actions.
2. Our projections indicate that under a proposal such as HB 353 and for the period projected (FY 1985 - FY 2005), the amount of cumulative revenue would be greater than under current tax law.
3. During the first few years, more revenue is generated under HB 353 than under current law. Our projections also indicate, however, that in later years a crossover point exists with the result that more revenue is generated under the current tax structure than under the HB 353 proposal. The causes for this are discussed in detail in the report.
4. Under both tax structures, revenues will decline on a year-to-year basis.

Mary A. Nordale
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5. A proposal such as HB 353 is more oil price sensitive than the current tax structure. This means that if oil prices move up, the State would gain more revenue under an HB 353 type proposal than under existing law. It also means that if oil prices move down, the State will lose more revenue under an HB 353 type proposal than under existing tax law.
6. The State's share of the "pie" is defined via two approaches, both described in detail later in this report. In the period FY 1982 through FY 1985, there is no evidence to support a trend indicating that the State received more or less of the total "pie".
7. Based on the period FY 1985 through FY 2005 and under all scenarios, the State generally receives an increasing share of the "pie".
8. The proposed change from existing law to HB 353 does not, given our assumptions, materially effect the feasibility of developing the "marginal fields". However, there are other factors which must be considered that are explained in the body of this report.
9. The change in the price of oil does have a significant impact, relatively speaking, on whether or not a corporation would pursue the development of a "marginal field".

ANALYSIS OF HB 353

The following materials contain our analysis of the projected revenue impact of HB 353 based on the June, 1985, Petroleum Revenue Forecast assumptions. The analysis was performed for the time period fiscal year (FY) 1985 through FY 2005 and for three alternative oil price and production scenarios; moderate, low and high, corresponding approximately with the Mean, 30 percent and 70 percent forecast assumptions. The analysis shows the projected change in Petroleum Corporate Income Tax and Petroleum Severance Tax collections for the time period under the three scenarios, as a result of enacting HB 353 given the provisions and effective dates contained in that bill.

The materials also contain our analysis of the estimated revenue impact of SB 524 (current law) for the time period FY 1982 through FY 1985, given the oil and price and production which actually occurred during that time period. Again, the analysis shows the estimated change in Petroleum Corporate Income Tax and Petroleum Severance Tax collections for the time period as a result of the enactment of SB 524.

The materials are presented in the following order:

- I. A description of the changes made and proposed changes to the Petroleum Corporate Income Tax and the Petroleum Severance Tax as a result of the enactment of SB 524 and the proposed enactment of HB 353.

- II. A description of the methodology and assumptions used to estimate the revenue collections under the pre-SB 524 separate accounting Petroleum Corporate Income Tax for fiscal years 1982 through 1985 and to project what the revenue collections under the HB 353 separate accounting Petroleum Corporate Income Tax would be for fiscal years 1985 through 2005.
- III. A description of the methodology and assumptions used to project what revenue collections will be under the current modified apportionment Petroleum Corporate Income Tax for fiscal years 1985 through 2005.
- IV. Summary tables and descriptions showing the numerical results of the analysis.
- V. Conclusions of our analysis and comparison with earlier analysis.

I.

Prior to enactment of SB 524, the Petroleum Corporate Income Tax was determined on a separate accounting basis and taxed at a maximum marginal rate of 9.4 percent. This separate accounting corporate tax structure was in effect for calendar years 1978 through 1981.

Under separate accounting, a corporation's gross petroleum production and gross petroleum pipeline transportation income was the starting point for calculation of taxable income. Gross petroleum production income was determined by taking the product of the corporation's field production and wellhead value. Gross petroleum pipeline transportation income was determined by taking the product of the corporation's pipeline thruput and tariff. Deductions from gross petroleum production or gross petroleum pipeline transportation income specifically associated with those activities in the State were allowed in calculating the corporation's net income subject to the tax rate.

The Oil Severance Tax, which was in effect prior to the enactment of SB 524, and which was an allowable deduction from gross petroleum production income under the separate accounting corporate tax, had a rate of 12.25 percent modified by an economic limit factor (ELF) for production from all fields. The effective tax rate, the product of 12.25 percent and the ELF, was levied against the product of net (after royalty share) production and gross wellhead value to determine the tax liability.

With enactment of SB 524, the current tax structure with respect to the Petroleum Corporate Income Tax and the Petroleum Severance Tax was put into effect. The determination of taxable income under the Petroleum Corporation Tax was changed from the separate accounting basis described above to a modified apportionment basis which is currently in effect.

Under the provisions of SB 524, modified apportionment was put into effect starting in calendar year (CY) 1982 with a maximum marginal tax rate of 9.4 percent. In addition, the maximum marginal tax rate for the last year that separate accounting was in effect, CY 1981, was increased to 11 percent. Under modified apportionment, a corporation's adjusted worldwide petroleum business federal taxable income is allocated to Alaska based on an apportionment factor to determine its Alaska net petroleum business income subject to the tax rate. If the corporation is engaged in both petroleum production and petroleum pipeline transportation in Alaska, the apportionment factor is calculated as the average of three factors. The factors are: (1) extraction, the corporation's Alaska net petroleum production divided by its total worldwide net petroleum production; (2) property, the corporation's Alaska average petroleum business property divided by its total worldwide average petroleum business property; and (3) sales, the corporation's Alaska petroleum business sales and tariffs divided by its total worldwide petroleum business sales and tariffs.

The Oil Severance Tax rate under the provisions of SB 524 was changed from 12.25 percent to 15 percent for production from the Sadlerochit and Cook Inlet fields. The ELF was set to equal 1.00 as long as the calculated ELF was .7 or greater or for the first 10 years of production. The tax rate for production from Kuparuk and other North

Slope fields remained at 12.25 percent for the first 5 years of production from the field and then went to 15 percent. The ELF provisions for these fields were the same as for Sadlerochit and Cook Inlet. This represents the current Oil Severance Tax structure and has been in effect since the beginning of FY 1982.

HB 353 proposes to once again change the tax structure with respect to the Petroleum Corporate Income Tax and the Petroleum Severance Tax. Under the provisions of HB 353, the Petroleum Corporation Income Tax would again be determined on a separate accounting basis, very similar to the method used prior to passage of SB 524. For corporations engaged in petroleum production or petroleum pipeline transportation, gross petroleum production and transportation income would be determined in the same manner as pre-SB 524. Deductions allowed in determining net taxable income would also be similar but with a few exceptions. Under HB 353, the Federal Crude Oil Windfall Profits Tax would not be an allowable deduction where it was under the pre-SB 524 separate accounting corporate income tax. Also, although Oil Severance Taxes are allowed as a deduction under both laws, HB 353 proposes to change the Oil Severance Tax law provisions. Thus, the severance tax would be different under each law. Under HB 353, corporations engaged in petroleum exploration activities in Alaska but with no petroleum production or pipeline transportation activities would also be subject to the separate

accounting tax. This was not the case under the pre-SB 524 law. The maximum marginal tax rate would remain at 9.4 percent. HB 353 would enact this new separate accounting Petroleum Corporate Income Tax beginning with CY 1985.

HB 353 would change the Oil Severance Tax rate back to 12.25 percent for all fields beginning in CY 1987. The ELF provisions would remain the same as in the current law.

II.

The analysis of Petroleum Corporate Income Tax collections under separate accounting was performed on a disaggregated basis by producing field and pipeline. Estimates and projections of gross production income and allowable production deductions were developed for all fields which have produced in Alaska since FY 1982 or which are projected to have commercial production by FY 2005. The fields included were Cook Inlet, Sadlerochit and Kuparuk, all of which are currently producing. In addition, the "marginal" North Slope fields of Milne Point, Endicott, Lisburne, West Sak and Point Thompson were also included. The only prospective North Slope field excluded was Seal Island as it is not expected to have commercial production before FY 2005. Estimates and projections of gross pipeline transportation income and allowable deductions were also developed for TAPS for fiscal years 1982 through 2005.

Actual gross production and wellhead values by field were used to derive estimated gross production income for fiscal years 1982 through 1985. Also, actual TAPS thruput and tariffs were used to derive estimated gross transportation income for this period.

Using the Petroleum Revenue Forecasting Simulation model with its feasibility analysis capabilities, six separate production scenarios by field were generated for fiscal years 1986 through 2005. This means that for each field where three different price scenarios and two different tax structures (current law and HB 353) are considered, then six different production scenarios will result. The three different future oil price scenarios corresponded approximately with the June, 1985 Forecast, Mean, 30 percent and 70 percent price assumptions. It should be noted that for the purposes of this sensitivity analysis, three distinct future price scenarios were used in the model whereas for the normal forecasting analysis, the Mean, 30 percent and 70 percent scenarios are a result of an entire probability distribution of inputs and outputs. Therefore, the correspondence with the June, 1985 Forecast will not be exact.

In addition, production effects by field for each future oil price scenario were analyzed assuming both the current tax structure and the proposed HB 353 tax structure would be in effect for the period. The results of this analysis indicated that the aggregate production impacts of HB 353 over the time period would be insignificant when compared to

the current tax structure. Cumulative North Slope production for the period FY 1986 through FY 2005 would be only 0.43 percent lower under HB 353 than under current law given the Mean case price scenario, 0.27 percent lower given the 30 percent case price scenario and 0.10 percent lower given the 70 percent case price scenario.

The impact of alternative price scenarios, however, was found to be much more significant than alternative law scenarios. Cumulative North Slope production through FY 2005 given the current law was found to be 3.39 percent lower under the 30 percent price scenario than under the Mean and 7.32 percent higher under the 70 percent price scenario when compared to the Mean.

This feasibility analysis was based on a real after tax discounted cash flow rate of return (DCFROR) analysis applied to each current and prospective North Slope field along with assumptions about oil prices, development and operating costs, effective tax rates and desired rates of return. A detailed description of the feasibility submodel can be found in the appendix to the June, 1985 quarterly Petroleum Production Revenue Forecast.

The gross production and wellhead values under HB 353 given each future price scenario generated by this analysis were used to project future gross production income by field. The sum of production from all North Slope fields under each price scenario was used to project TAPS thruput under each scenario. The TAPS tariff was assumed to remain at

\$6.00 per barrel from FY 1986 through FY 2005 and along with TAPS thruput was used to project gross pipeline transportation income. Possible effects of the TAPS tariff settlement have not been considered in this analysis but will be analyzed in the near future. All wellhead value projections in this analysis assume a \$6.00 per barrel TAPS tariff. If the tariff were changed it would impact wellhead value and therefore, also production and thruput which could in turn impact the tariff itself. So, the analysis is somewhat complex and will be presented separately.

Allowable separate accounting deductions by field and TAPS were estimated for FY 1982 through FY 1985 under the pre-SB 524 Petroleum Corporate Income tax law. Allowable deductions by field and TAPS were projected based on the three price and production scenarios for FY 1985 through 2005 under HB 353.

Deductions from gross production income by field were derived as follows:

Royalties which would have been deductible under the pre-SB 524 separate accounting law for FY 1982 through FY 1985 and which would be deductible under the proposed HB 353 for FY 1985 through FY 2005 were derived on the same basis. For each field, royalties were based on the State's royalty share of the field, the production from the field and the

field wellhead value less any field gathering and cleaning costs. For the period from FY 85 through FY 2005, under HB 353, royalties were different under each price scenario as each scenario had a different wellhead value and production associated with it.

Severance taxes were calculated as a deduction under both pre-SB 524 and proposed HB 353 income tax laws. However, since both SB 524 and HB 353 also change the severance tax law, the basis for calculation had to be different. For the period from FY 1982 through FY 1985 under the pre-SB 524 severance tax law, a rate of 12.25 percent modified by a calculated ELF was applied to the net after royalty share production multiplied by the wellhead value for all fields. Under HB 353, the current severance tax structure was applied to all fields from FY 1982 through the first half of FY 1987. The current tax structure taxes the Sadlerochit and Cook Inlet fields at a rate of 15 percent modified by an ELF set equal to 1.00 as long as the calculated ELF is .7 or above or for the first 10 years the field produces. Kuparuk and all other North Slope fields are taxed at a rate of 12.25 percent for the first 5 years of production and 15 percent thereafter with ELF provisions the same as for Sadlerochit and Cook Inlet. Since HB 353 proposes to change the severance tax law beginning in CY 1987, the proposed new tax structure was applied to all fields for the period from the second half of FY 1987 through FY 2005. That structure taxes production from all fields at a

rate of 12.25 percent with ELF provisions the same as under the current law. Severance taxes will be different under each price scenario for the period through FY 2005 as production and wellhead values would differ in each scenario.

Property taxes under the Alaska Petroleum Production and Pipeline Property Tax were computed as a deduction under both the pre-SB 524 law and the HB 353 proposal. The basis for each producing field was the same under both approaches. The property tax is levied at a rate of 2 percent on the assessed value of tangible production property in the field. Assessed value for production property is based on trended original cost of tangible investments considering both depreciation and replacement cost. Property taxes for most fields did not vary between one price scenario and another as the production differences were not great enough to require significantly different development costs given the capital cost functions of the Petroleum Revenue Forecasting model. The only fields for which there were property tax differences between alternative scenarios were West Sak and Sadlerochit due to the enhanced recover phase.

Federal Crude Oil Windfall Profits Tax (WPT) was calculated as a deduction under the pre-SB 524 law for the period from FY 1982 through FY 1985. The only fields subject to this tax are Sadlerochit and Cook Inlet. The tax calculation was based on the difference between wellhead value and the adjusted base price modified by a severance tax adjustment. This net windfall per barrel was multiplied by the

production from the field and then by the WPT rate of 70 percent to calculate the tax. The WPT is not an allowable deduction under HB 353 and therefore, was not deducted in calculation of net income under the tax.

Direct operating costs for each field are allowed as a deduction under both pre-SB 524 and HB 353. Operating costs were calculated for each field based on cost functions in the Petroleum Revenue Forecasting model. These functions were specified with a fixed component and a variable component which was a function of production volume. They also contained specific cost escalation rates. Operating costs varied between scenarios for each field as production volumes varied. It should be noted that operating costs used in this analysis are significantly higher than those used in the March, 1985 analysis of HB 353. This is because the operating cost estimates used in March were "bare bones" minimum estimates and included no well workovers or field engineering.

Depreciation of development costs and amortization of lease acquisition costs calculated on a units of production basis were deducted for each field for both pre-SB 524 and HB 353. Development costs include both tangible and intangible costs and are consistent with capital cost functions in the Petroleum Revenue Forecasting Model. Development cost scenarios for the fields considered did not vary with price scenarios except in the case of West Sak and Sadlerochit in the enhanced recovery

phase. Acquisition costs include lease bonus payments, successful exploration expenses and property taxes paid before production. Reserve estimates used for calculating units of production factors were based on estimated total recoverable reserves. Unit of production factors varied between scenarios as production volumes varied.

In addition to the aforementioned production deductions developed by field for analysis of pre-SB 524 and HB 353, three other deductions are allowed under both laws and were estimated on an aggregate basis instead of by field. These deductions were made against the total gross production income of all producing fields.

Uncapitalized interest and general overhead and administration expense were projected based on historical trends actually reported under the pre-SB 524 separate accounting law through CY 1981. The projections also consider the provisions of both laws which cap the maximum allowable deduction a corporation may claim for each item. The cap is the total expense of the corporation's consolidated worldwide business in those categories multiplied by the ratio of the cost of real and tangible personal property used in production in Alaska to the cost of real and tangible personal property used in the consolidated business worldwide.

Unsuccessful exploration and abandonment expenses are also allowed as a deduction under both pre-SB 524 and HB 353 separate accounting approaches. The projections were based on historical trends actually reported under the pre-SB 524 separate accounting law and allowing for

possible impacts on exploration expenditures of alternative price scenarios. The projected exploration expense was assumed to be deducted in the year of abandonment even though it may be that the corporation with the expense would have insufficient production income against which to write off their full exploration expense and hence, would have to carry losses forward. Also, as mentioned earlier under HB 353, corporations with exploration expenses but no production income would fall under separate accounting, a provision different from the pre-SB 524 law. This could increase total exploration expenses reported. However, these corporations would be carrying losses forward until they had production income to expense against and thus, this difference would not materially impact tax collections in the time frame of this analysis.

Deductions from gross transportation for TAPS were derived as follows:

All deductions allowed from gross transportation income are the same for both pre-SB 524 and HB 353 separate accounting approaches and therefore, were projected on the same basis throughout the FY 1982 through FY 2005 time period.

Direct operating costs were projected based on an operating cost function with both a fixed component and a variable component based on thruput. Specific cost escalation factors were also considered. The function was derived based on actual FERC filings. The projections differ between price scenarios as thruput varies.

Depreciation and amortization were calculated on a straight line basis and using useful life estimates as allowed by FERC. This would be the same regardless of thruput and those would not vary between scenarios.

Uncapitalized interest was calculated based on the actual TAPS debt schedule and would not vary between scenarios.

Property taxes under the Alaska Petroleum Production and Pipeline Property Tax were computed based on the assessed value of tangible TAPS property multiplied by the rate of 2 percent. The assessed value was assumed not to vary between scenarios.

Total separate accounting gross production income for all fields and gross transportation income for TAPS less all allowable production and transportation separate accounting deductions were calculated to arrive at net separate accounting income subject to the tax rate for each year. Pre-SB 524 provisions were applied for FY 1982 through FY 1985. HB 353 provisions were applied for FY 1985 through 2005. Thus, two estimates for FY 85 were made: one under pre-SB 524; the other under HB 353. This was done in order to be able to show the impact of SB 524 from FY 1982 through FY 1985 and also, the impact of HB 353 from FY 1985 through FY 2005. Net separate accounting income on a fiscal year basis was used to derive separate accounting tax liability on a fiscal year basis which in turn, was used to derive estimated separate accounting tax collections on a fiscal year basis.

III.

Under the current (SB 524) Petroleum Corporate Income Tax, corporate income is taxed on a modified apportionment basis as described earlier. The projection of future tax collections under this tax was performed on a disaggregated basis by corporation instead of by field. This is because under apportionment, the worldwide petroleum business income of each corporation is apportioned to Alaska based on factors specific to that corporation. Thus, for example, even though two corporations may have identical production, income and costs in Alaska they may not have the same taxable income under apportionment if their worldwide operations and hence, apportionment factors are different.

The current apportionment tax has been in effect since the beginning of CY 1982. Corporations thus far have filed returns for two years, CY 1982 and CY 1983, under this tax structure. The three major taxpayers are ARCO, Exxon and Sohio-BP which account for approximately 90 percent of the total tax collected. Using the information for CY 1982 and CY 1983 as a basis, projections of worldwide apportionable petroleum business income and Alaska apportionment factors for each of these three corporations were made on a calendar year basis through 2005. Calendar year tax liability for the "Big Three" corporations was thus derived. Based on the corporate ownership percentages of current and prospective fields the Big Three were assumed to continue to account for 90 percent

of total tax liability throughout the period to 2005. Thus, projections of total apportionment tax liability on a calendar year basis were derived and used to project apportionment tax collections on a fiscal year basis through FY 2005.

For each corporation, projections of Alaska Production, Property and Sales used in calculating the apportionment factors were made based on the various field production and development costs and TAPS thruput and tariff rates associated with the three different price scenarios. Also, the specific corporation's ownership percentage of each field and TAPS was considered. Worldwide income, production, sales and property projections were also made assuming different growth rates consistent with the various price scenarios.

IV.

The following tables summarize the results of our analysis under the Mean, 30 percent and 70 percent price and production scenarios.

There are three sections, each corresponding with a specific scenario.

Each section contains seven tables. The tables are described as follows:

Table 1:

The first part of Table 1 summarizes the estimated impact of SB 524 (current law) on both the Petroleum Corporate Income Tax and the Petroleum Severance Tax for FY 1982 through FY 1985.

The comparison on the Petroleum Corporate Income Tax side of the table is between the pre-SB 524 separate accounting corporate tax and the current apportionment corporate tax. Two sets of figures are shown for FY 1982. The first is as if apportionment had been in effect for the full year. The second is the actual amount collected for FY 1982 which is a combination of apportionment and separate accounting. The reason for this is that SB 524 put the current apportionment tax in effect at the beginning of CY 1982, midway through FY 1982, and also raised the maximum marginal rate under the pre-SB 524 separate accounting tax from 9.4 percent to 11 percent for the last year it was in effect, CY 1981.

The comparison on the Petroleum Severance Tax side of the table is between the pre-SB 524 severance tax and the current (SB 524) severance tax. Again, two sets of figures are shown for FY 1982, however, they are both the same because SB 524 changed the severance tax effective at the beginning of FY 1982.

The second part of Table 1 summarizes the projected impact of HB 353 on both the Petroleum Corporate Income tax and the Petroleum Severance Tax for FY 1985 through FY 2005.

The comparison on the Petroleum Corporate Income Tax side is between the current apportionment corporate tax and the proposed HB 353 separate accounting corporate tax. The figures presented assume the HB 353 separate accounting tax will be effective at the beginning of CY 1985, midway through FY 1985.

The comparison on the Petroleum Severance Tax side is between the current severance tax and the proposed HB 353 severance tax. The figures presented assume the HB 353 severance tax will be effective at the beginning of CY 1987, midway through FY 1987.

Table 2a:

Table 2a summarizes estimated and projected state petroleum revenues from production as a percentage of net production revenues.

Gross revenue for each year is the sum of production multiplied by wellhead value for all producing fields. Costs are all allowable, non-tax, separate accounting deductions associated with production. Net revenue for each year is gross revenue less costs.

State petroleum revenues include royalties, severance taxes, property taxes on production facilities and income taxes. Royalties and property taxes included are the same for all tax structures presented. Property taxes are gross and include amounts credited to local governments. Severance taxes are included on the same basis and timing

as those shown in Table 1 as to pre-SB 524, current (SB 524) and proposed HB 353 laws. Income taxes included are on the same basis and timing as those shown in Table 1 except separate accounting corporate tax under pre-SB 524 and HB 353 exclude amounts attributable to TAPS which are included in Table 1. No such adjustment was made to apportionment income taxes included under current law as it was not possible to calculate separately amounts attributable to TAPS.

Table 2b:

Table 2b summarizes estimated and projected state petroleum revenues from production and pipeline transportation as a percentage of net production and transportation revenues.

Gross revenue for each year is the sum of production multiplied by wellhead value for all producing fields plus thruput multiplied by tariff for TAPS. Costs are all allowable, non-tax, separate accounting deductions associated with production and pipeline transportation. Net revenue for each year is gross revenue less costs.

State petroleum revenues include royalties, severance taxes, property taxes on production and TAPS facilities and income taxes. Royalties and property taxes included are the same for all tax structures presented. Property taxes are gross and include amounts credited to local governments. Severance taxes are included on the same basis and

timing as those shown in Table 1 as to pre-SB 524, current (SB 524) and proposed HB 353 laws. Income taxes are included on the same basis and timing as those shown in Table 1. Separate accounting corporate tax included under pre-SB 524 and HB 353 includes amounts attributable to TAPS.

Table 3:

Table 3 summarizes income and deductions on a separate accounting basis for all petroleum production, pipeline transportation and exploration activities in the State. The fields included in production activities are Cook Inlet, Sadlerochit and Kuparuk, all of which are currently in commercial production. In addition, the prospective "marginal" North Slope fields of Milne Point, Lisburne, Endicott, West Sak and Point Thompson are also included. TAPS is included in transportation activities.

The figures presented in all columns from FY 1982 through the first FY 1985 row are based on pre-SB 524 separate accounting law. The figures presented from the second FY 1985 row through FY 2005 are based on the proposed HB 353 separate accounting law. As discussed earlier, the severance tax law and the WPT deductibility provisions are different under these two laws. The figures shown in the severance tax column were calculated based on pre-SB 524 severance tax law through the first FY 1985 row and on HB 353 severance tax law from the second FY 1985 row on.

Figures shown in the WPT column are included in total deductions and deducted in calculating net income only under pre-SB 524 law through the first FY 1985 row. All tax liability and collection figures shown in this table are calculated assuming the relevant tax structure is in effect for the full year.

Table 4:

Table 4 summarizes income and deductions on a separate accounting basis for all producing fields. All calculations are on the same basis as in Table 3 except only the producing fields are included.

Table 5:

Table 5 summarizes income and deductions on a separate accounting basis for TAPS. As discussed earlier, treatment of petroleum pipeline transportation income and deductions is the same under both the pre-SB 524 and the proposed HB 353 separate accounting tax laws. All figures presented are calculated assuming separate accounting is in effect for a full year.

Table 6:

Table 6 summarizes the impact of the WPT deduction on separate accounting tax liability. Only Sadlerochit and Cook Inlet production is subject to the WPT. All other North Slope fields are exempt.

HB 353 AND SB 524
ANALYSIS
JUNE, 1985
MEAN CASE ASSUMPTIONS
SUMMARY TABLES

TABLE 1
Old Law (Pre SB 524)
Current Law (AS43.20 & AS 43.55)
Proposed Law (HB 353)
(all current FY \$)

Fiscal Year	To. Corp Pre	Inc Tax AS 43.20	Collections Diff	Total Prodn Tax Liability Pre	AS 43.55	Liability Diff	Total Gain or Loss
	SB 524			SB 524			
82	837.62	242.50	-595.12 1)	1219.03	1581.70	362.67	-232.45
			Impact SB 524			Impact SB 524	Impact SB 524
82	837.62	668.90	-168.72 2)	1219.03	1581.70	362.67	193.95
83	796.15	236.00	-560.15	1098.94	1493.70	394.76	-165.39
84	782.86	265.10	-517.76	1032.93	1393.10	360.17	-157.59
85	797.00	168.60	-628.40	1013.86	1388.50	374.64	-253.76
			Impact HB 353	existing		Impact HB 353	Impact HB 353
	HB 353			AS 43.55			
85	448.48	168.60	279.88 3)	1388.50	1388.50	0.00	279.88
86	698.21	228.07	470.15	1204.74	1204.74	0.00	470.15
				HB 353			
87	607.04	241.37	365.67	979.68	1072.99	-93.31	272.36
88	567.21	249.25	317.96	685.93	830.45	-144.52	173.44
89	550.19	252.48	297.71	661.33	794.12	-132.79	164.92
90	519.30	254.00	265.30	640.39	761.26	-120.87	144.43
91	476.02	251.48	224.55	603.23	707.14	-103.91	120.64
92	466.96	248.45	218.51	610.04	715.61	-105.57	112.94
93	466.49	244.40	222.09	609.35	719.25	-109.90	112.19
94	434.06	236.82	197.24	562.39	660.96	-98.57	98.67
95	403.64	228.19	175.44	535.46	631.20	-95.74	79.70
96	370.16	219.58	150.58	490.99	580.20	-89.21	61.37
97	343.05	211.35	131.69	456.78	539.66	-82.88	48.81
98	321.93	204.13	117.80	427.43	503.60	-76.17	41.63
99	302.91	197.49	105.42	402.26	471.98	-69.72	35.70
2000	290.31	190.00	100.31	372.55	437.26	-64.71	35.60
01	257.19	180.10	77.09	326.22	377.30	-51.08	26.01
02	212.73	169.31	43.42	279.22	322.12	-42.90	0.52
03	170.62	159.82	10.81	245.16	260.13	-14.97	-24.16
04	141.77	150.55	-8.78	221.49	247.03	-25.54	-34.32
05	109.07	140.64	-31.57	201.66	221.37	-19.51	-51.08
SUM85-05	8157.35	4426.09	3731.26	11905.00	13466.67	-1561.67	2169.39

1) FY 1982 receipts are estimated as if AS43.21 were in effect for the whole year in column 2 then as if AS43.20 were in effect for the whole year in column 3 though each was in effect only half the fiscal year.

2) FY 1982 collections under SB 524 of \$668.9a are comprised of \$579.2a from AS43.21 "OLD SEPARATE ACCT" law and \$130.7 from AS43.20 "CURRENT MODIFIED APPORTIONMENT" law.

3) FY 1985 HB353 Corp. Inc. Tax includes \$60.9m of AS43.20 already collected through December 31, 1984.

4) FY 1985 AS43.20 collections are expected to be low due to substantial refunds and credits for prior year's tax overpayments. Tax liability on a calendar year basis under AS43.20 was CY82, \$236.50m; CY83, \$224.01m; CY84 \$241.54m.

5) Based on 6/85 Mean case price and production assumptions.

TABLE 2a
Calculation of State Petroleum Revenues as a
Percent of Adjusted Production Income
6/85 Forecast Assumptions Mean Case FY 85-05 Using MHV

				With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax							
Fiscal Year	Total Gross Revenue	Petroleum Cost Deductns	Production Net Revenue	State Petrol Revenues	State / Net Rev %	Fiscal Year	Total Gross Revenue	Petroleum Cost Deductns	Production Net Revenue	State Petrol Revenues	State / Net Rev %
82	12958.93	1740.58	11218.35	3525.22	31.42%	82	12958.93	1740.58	11218.35	3502.40	31.22%
				Pre SB 524						AS43.20 & 55	
				Impact SB 524							
82	12958.93	1740.58	11218.35	3525.22	31.42%	82	12958.93	1740.58	11218.35	3928.80	35.02%
83	11941.70	2113.21	9828.49	3270.36	33.27%	83	11941.70	2113.21	9828.49	3321.58	33.80%
84	11327.62	2511.29	8816.33	3148.49	35.71%	84	11327.62	2511.29	8816.33	3220.43	36.53%
85	11382.33	2832.59	8549.74	3161.10	36.97%	85	11382.33	2832.59	8549.74	3154.10	36.89%
				HB 353 as of 1/1/85 1)						AS43.20 & 55	
				Impact HB 353							
85	11382.33	2832.59	8549.74	3297.36	38.57%	85	11382.33	2832.59	8549.74	3154.10	36.89%
86	10144.92	3016.23	7128.69	3133.99	43.96%	86	10144.92	3016.23	7128.69	2918.12	40.93%
87	9186.96	3365.90	5821.05	2739.66	47.06%	87	9186.96	3365.90	5821.05	2728.41	46.87%
88	9007.17	3588.61	5418.56	2386.40	44.04%	88	9007.17	3588.61	5418.56	2463.54	45.46%
89	9143.65	3773.47	5370.17	2372.84	44.19%	89	9143.65	3773.47	5370.17	2446.11	45.55%
90	9095.93	3923.57	5172.36	2363.66	45.70%	90	9095.93	3923.57	5172.36	2441.83	47.21%
91	8808.87	3896.45	4912.42	2277.76	46.37%	91	8808.87	3896.45	4912.42	2354.81	47.94%
92	9018.44	3900.45	5117.99	2314.22	45.22%	92	9018.44	3900.45	5117.99	2381.93	46.54%
93	9112.08	3835.75	5276.33	2336.99	44.29%	93	9112.08	3835.75	5276.33	2390.22	45.30%
94	8711.44	3691.57	5019.87	2233.22	44.49%	94	8711.44	3691.57	5019.87	2275.33	45.33%
95	8469.24	3564.66	4904.58	2163.87	44.12%	95	8469.24	3564.66	4904.58	2202.06	44.90%
96	8114.79	3453.17	4661.62	2058.35	44.16%	96	8114.79	3453.17	4661.62	2191.17	47.00%
97	7908.83	3371.45	4537.38	1983.17	43.71%	97	7908.83	3371.45	4537.38	2010.93	44.32%
98	7745.92	3316.04	4429.88	1918.21	43.30%	98	7745.92	3316.04	4429.88	1936.69	43.72%
99	7613.86	3292.00	4321.86	1861.46	43.07%	99	7613.86	3292.00	4321.86	1871.94	43.31%
2000	7505.98	3233.04	4272.94	1803.53	42.21%	2000	7505.98	3233.04	4272.94	1802.25	42.18%
01	7058.19	3191.10	3867.09	1646.97	42.59%	01	7058.19	3191.10	3867.09	1640.85	42.43%
02	6540.09	3147.51	3392.58	1468.94	43.30%	02	6540.09	3147.51	3392.58	1473.12	43.42%
03	6137.45	3175.88	2961.57	1311.45	44.28%	03	6137.45	3175.88	2961.57	1327.19	44.81%
04	5860.91	3099.70	2761.21	1185.11	43.87%	04	5860.91	3099.70	2761.21	1199.96	44.42%
05	5388.99	3063.13	2325.86	1051.88	45.23%	05	5388.99	3063.13	2325.86	1072.99	46.13%

1) FY 1985 HB353 Corp. Inc. Tax includes \$60.8m of AS43.20 already collected through December 31, 1984 and half a year of the new tax.

2) Based on 6/85 Mean case price and production assumptions.

TABLE 2b
Calculation of State Petroleum Revenues as a
and as a Percent of Prod'n & Pipeline Income
6/85 Forecast Assumptions Mean Case FY 85-05 Using WHV

Fiscal Year	-----Total Petroleum-----			State Petrol Revenues	State / Net Rev %	With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax					State Petrol Revenues	State / Net Rev %
	Gross Revenue	Cost Deductns	Net Revenue			Fiscal Year	-----Total Petroleum-----	Gross Revenue	Cost Deductns	Net Revenue		
82	16455.80	2839.52	13616.28	3896.85	28.62%	82	16455.80	2839.52	13616.28	3664.40	26.91%	
				Pre SB 524							AS43.20 & 55	
				Impact SB 524								
82	16455.80	2839.52	13616.28	3896.85	28.62%	82	16455.80	2839.52	13616.28	4090.80	30.04%	
83	15469.75	3156.70	12313.06	3644.37	29.60%	83	15469.75	3156.70	12313.06	3478.98	28.25%	
84	14955.03	3492.67	11462.37	3544.02	30.92%	84	14955.04	3492.67	11462.37	3386.43	29.54%	
85	15135.98	3750.89	11385.10	3569.86	31.36%	85	15135.99	3750.89	11385.10	3316.10	29.13%	
				HB 353 as of 1/1/85 1)							AS43.20 & 55	
				Impact HB 353								
85	15135.98	3750.89	11385.10	3585.00	31.49%	85	15135.98	3750.89	11385.10	3316.10	29.13%	
86	13905.72	3905.70	10000.02	3544.03	35.44%	86	13905.72	3905.70	10000.02	3073.89	30.74%	
87	13017.77	4248.71	8769.06	3150.31	35.93%	87	13017.77	4248.71	8769.06	2877.95	32.82%	
88	12634.59	4451.25	8183.34	2780.29	33.97%	88	12634.59	4451.25	8183.34	2606.85	31.86%	
89	12632.58	4620.60	8011.98	2748.11	34.30%	89	12632.58	4620.60	8011.98	2583.19	32.24%	
90	12386.26	4760.52	7625.75	2717.11	35.63%	90	12386.26	4760.52	7625.75	2572.68	33.74%	
91	11789.54	4722.70	7066.85	2600.06	36.79%	91	11789.54	4722.70	7066.85	2479.43	35.09%	
92	11834.36	4712.14	7122.22	2613.25	36.69%	92	11834.36	4712.14	7122.22	2500.31	35.11%	
93	11738.58	4632.28	7106.30	2614.56	36.79%	93	11738.58	4632.28	7106.30	2502.37	35.21%	
94	11023.65	4473.66	6550.00	2479.92	37.86%	94	11023.65	4473.66	6550.00	2381.25	36.36%	
95	10538.09	4336.33	6201.77	2381.46	38.40%	95	10538.09	4336.33	6201.77	2301.75	37.11%	
96	9936.752	4216.39	5720.36	2248.00	39.30%	96	9936.752	4216.39	5720.36	2284.63	39.94%	
97	9515.632	4126.62	5389.01	2146.98	39.84%	97	9515.632	4126.62	5389.01	2098.16	38.93%	
98	9171.577	4062.83	5108.75	2059.32	40.31%	98	9171.577	4062.83	5108.75	2017.69	39.49%	
99	8885.202	4032.89	4852.31	1982.41	40.85%	99	8885.202	4032.89	4852.31	1946.71	40.12%	
2000	8645.682	3969.34	4676.34	1906.39	40.77%	2000	8645.682	3969.34	4676.34	1870.79	40.01%	
01	8025.031	3925.09	4099.94	1729.17	42.18%	01	8025.031	3925.09	4099.94	1703.16	41.54%	
02	7343.314	3884.93	3458.38	1529.72	44.23%	02	7343.314	3884.93	3458.38	1529.20	44.22%	
03	6811.310	3922.66	2888.65	1352.87	46.83%	03	6811.310	3922.66	2888.65	1377.04	47.67%	
04	6367.785	3858.14	2509.65	1209.26	48.18%	04	6367.785	3858.14	2509.65	1243.58	49.55%	
05	5850.748	3834.13	2016.62	1059.29	52.53%	05	5850.748	3834.13	2016.62	1110.37	55.06%	

1) FY 1985 HB353 Corp. Inc Tax includes \$60.8m of AS43.20 already collected through December 1, 1984 and half a year of the new tax.

2) Based on 6/85 Mean case price and production assumptions.

TABLE 3
Pipeline, Production & Exploration
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Total Revenue	State Royalty Share	Prod'n& Cons Tax	Total Property Tax	Total Oper'g Costs	Total Depre	Total Acquis Costs	Windfall Profits Tax	Interest Expense Uncap	Exploratr'n Costs	Admin Costs	Other Deductns	Total Deductns	Total Net Income	Liability-----HB 353 1)	Collections-----HB 353 1)	AS 43.20 2)	Diff
82	16455.80	1564.30	1219.03	275.90	939.80	602.58	0.77	2017.66	720.69	190.90	236.20	148.58	7916.41	8539.40	802.70	837.62	130.72	706.90
83	15469.75	1442.73	1098.94	306.55	1100.56	780.16	0.98	1018.38	676.04	204.26	252.30	142.39	7023.30	8446.46	793.97	796.15	236.00	560.15
84	14955.04	1370.57	1032.93	357.66	1259.34	998.45	1.09	412.33	614.13	218.56	264.90	136.20	6666.16	8288.87	779.15	782.86	265.10	517.76
85	15135.99	1362.44	1013.86	396.56	1449.17	1093.32	0.80	70.26	565.55	233.86	278.20	130.00	6594.01	8541.97	802.95	797.00	168.60	628.40
85	15135.99	1362.44	1377.52	396.56	1449.17	1093.32	0.80	69.59	565.55	233.86	278.20	130.00	6887.41	8248.58	775.37	581.52	168.60	412.92
86	13905.72	1220.61	1204.74	420.27	1477.66	1224.05	0.76	39.85	541.76	245.55	292.10	123.82	6751.52	7154.20	672.50	698.21	228.07	470.15
87	13017.78	1098.54	979.68	465.05	1599.63	1441.20	7.86	18.80	517.87	257.83	306.70	117.63	6791.98	6225.79	585.22	607.04	241.37	365.67
88	12634.59	1025.54	685.93	501.61	1644.96	1583.60	25.26	9.83	490.28	270.72	322.00	114.43	6664.33	5970.26	561.20	567.21	249.25	317.96
89	12632.59	1017.67	661.33	518.92	1672.48	1698.84	55.27	6.32	466.41	284.26	338.10	105.24	6818.52	5814.06	546.52	550.19	252.48	297.71
90	12386.27	1014.66	640.39	542.76	1760.02	1711.70	93.64	4.14	442.64	298.47	355.30	99.05	6958.33	5427.94	510.23	519.30	254.00	265.30
91	11789.55	981.67	603.23	537.14	1747.62	1653.39	124.08	2.71	418.55	313.40	372.80	92.86	6846.74	4942.81	464.62	476.02	251.48	224.55
92	11634.36	1008.55	610.04	528.09	1763.64	1618.38	129.44	1.72	393.54	329.07	391.40	86.67	6858.43	4975.93	467.74	466.96	248.45	218.51
93	11738.58	1022.99	609.35	515.73	1761.02	1535.91	130.52	0.70	367.83	345.52	411.00	80.48	6780.35	4958.23	466.07	466.41	244.40	222.09
94	11023.66	982.41	562.39	501.06	1727.71	1405.20	126.96	0.03	345.21	362.79	431.50	74.29	6519.52	4504.14	423.39	434.06	236.82	197.24
95	10538.10	958.25	535.46	484.11	1674.87	1305.73	124.63	0.00	328.97	380.93	453.10	68.10	6314.15	4223.95	397.05	403.64	228.19	175.44
96	9936.75	922.47	490.99	464.38	1649.40	1199.88	113.07	0.00	316.45	399.98	475.70	61.91	6094.23	3842.52	361.20	370.16	236.82	133.34
97	9515.63	904.71	456.78	442.44	1632.22	1116.78	97.80	0.00	304.62	419.98	499.50	55.72	5930.55	3585.08	337.00	343.05	211.35	131.69
98	9171.58	891.76	427.43	418.20	1621.84	1052.52	80.44	0.00	293.02	440.98	524.50	49.53	5800.22	3371.36	316.91	321.93	204.13	117.80
99	8865.20	884.73	402.26	392.51	1619.95	1002.70	70.07	0.00	283.10	463.03	550.70	43.34	5712.39	3172.81	298.24	302.91	197.49	105.42
2000	8645.68	877.78	372.55	365.75	1584.89	949.30	59.65	0.00	273.89	486.18	578.30	37.14	5585.42	3060.26	287.66	290.31	190.00	100.31
01	8025.03	831.91	326.22	313.85	1580.39	879.42	50.65	0.00	265.99	510.49	607.20	30.95	5397.07	2627.96	247.03	257.19	180.10	77.09
02	7343.31	775.51	279.22	262.26	1567.70	812.89	43.16	0.00	262.91	536.01	637.50	24.76	5201.92	2141.39	201.29	212.73	169.31	43.42
03	6811.31	725.47	245.16	211.62	1580.84	762.60	35.11	0.00	263.33	562.81	699.40	18.57	5104.91	1706.40	160.40	170.62	159.82	10.81
04	6367.79	684.66	221.49	161.34	1539.73	719.23	28.51	0.00	264.44	590.95	702.90	12.38	4925.63	1442.16	135.56	141.77	150.55	-8.78
05	5850.75	637.09	201.86	111.27	1507.31	672.99	24.26	0.00	264.88	620.50	738.00	6.19	4784.35	1066.40	100.24	109.07	140.64	-31.57

1) These estimates assume the tax plan is in effect for the whole year; for FY 1982-85 this is Pre SB 524, for FY 1985-05 this is HB 353.

2) FY82 collections of \$130.72m are the actual amounts collected or credited to CY82 liability. The estimate for a full year under AS43.20 in FY82 is \$242.5m which would result in a difference of \$595.12m as presented in column 4 of Table 1. FY 1985 AS43.20 collections are expected to be low due to substantial refunds and credits for prior year's tax overpayments. Tax liability on a calendar year basis under AS43.20 was CY82, \$236.50m; CY83, \$224.01m; CY84 \$241.54m.

3) Based on 6/85 Mean case price and production assumptions.

TABLE 4
All Producing Fields
Income Tax Estimates
(as current FY \$)

Fiscal Year	Dil Prod'n (oil B/D) (cur \$)	Wellhead Value \$)	Gas Prod'n (acft/day) (acft)	Gas Price	Total Revenue (cur \$)	State Royalty Share	Prod'n Cons Tax	Property Tax	Total Oper'g Costs	Depr Devel Costs	Acquis Costs	Windfall Profits Tax	Interest Expense	Exploratin Costs (expen'd)	Admin Cost	Other Deductns	Total Deductns	Total Taxable Income	Total Tax Liability	Total Tax Collectns
82	1.6533	21.293	507000	0.590	12958.93	1564.30	1219.03	113.90	710.80	333.93	0.77	2017.66	119.40	190.90	236.20	148.58	6655.47	6303.46	592.53	627.99
83	1.7006	19.040	503000	0.670	11941.70	1442.73	1098.94	149.15	880.56	511.51	0.98	1018.38	121.20	204.26	252.30	142.39	5822.41	6119.30	575.21	579.54
84	1.7183	17.864	505000	0.670	11327.62	1370.57	1032.93	191.66	1038.34	729.80	1.09	412.33	122.40	218.56	264.90	136.20	5518.78	5808.83	546.03	553.33
85	1.7523	17.483	565091	0.971	11382.33	1362.44	1013.86	234.56	1237.67	824.67	0.80	70.26	127.40	233.86	278.20	130.00	5513.71	5868.61	551.65	550.24
85	1.7523	17.483	565091	0.971	11382.33	1362.44	1377.52	234.56	1237.67	824.67	0.80	69.59	127.40	233.86	278.20	130.00	5807.11	5575.22	524.07	393.05
86	1.7528	15.521	537624	1.097	16144.92	1220.81	1204.74	264.50	1266.76	955.40	0.76	39.85	131.90	245.55	292.10	123.82	5706.28	4478.64	417.23	443.94
87	1.78-8	13.713	625000	1.200	9186.96	1098.54	979.68	315.51	1367.24	1172.55	7.86	18.80	136.10	257.83	306.70	117.63	5759.63	3427.32	322.17	345.93
88	1.6838	14.108	705650	1.306	9007.17	1025.54	885.93	358.30	1402.65	1314.95	25.26	7.83	138.60	270.72	322.00	114.43	5658.38	3348.79	314.79	316.63
89	1.6171	14.872	714549	1.400	9143.65	1017.67	661.33	381.84	1421.01	1430.19	55.27	6.32	139.40	284.26	338.10	105.24	5834.31	3309.33	318.88	312.00
90	1.5236	15.535	797800	1.570	9095.93	1014.66	640.39	411.91	1494.06	1443.05	93.64	4.14	140.30	298.47	355.00	99.05	5990.53	3105.40	291.91	296.70
91	1.3796	16.431	858950	1.706	8808.87	983.67	603.23	412.52	1467.67	1384.74	124.08	2.71	140.90	313.40	372.80	92.86	5895.87	2913.00	273.82	278.34
92	1.3020	17.691	902485	1.856	9018.44	1008.16	610.04	409.71	1473.04	1349.73	129.44	1.72	141.10	329.07	391.40	86.67	5928.36	3070.08	290.47	286.31
93	1.2133	19.063	920067	1.995	9112.08	1022.99	609.35	403.58	1459.67	1267.26	130.52	0.70	141.30	345.52	411.00	80.48	5871.67	3240.41	304.60	301.07
94	1.0681	20.548	893060	2.149	8711.44	982.41	562.39	395.14	1418.28	1136.55	126.96	0.03	141.20	362.79	431.50	74.29	5631.51	3079.93	289.51	293.28
95	0.9563	22.107	906349	2.270	8469.24	958.25	535.46	384.42	1358.12	1037.08	124.63	0.00	142.70	380.93	453.10	68.10	5442.79	3026.45	284.49	295.74
96	0.8435	23.745	920462	2.395	8114.79	922.47	490.99	370.92	1324.58	931.23	113.07	0.00	146.70	399.98	475.70	61.91	5237.55	2877.24	270.46	273.97
97	0.7449	25.868	936358	2.562	7908.83	904.71	456.78	355.21	1298.82	848.13	97.80	0.00	151.50	419.98	499.50	55.72	5088.15	2820.68	265.14	266.47
98	0.6617	28.124	924349	2.737	7745.92	891.76	427.43	337.20	1279.92	783.87	60.44	0.00	156.80	440.98	524.50	49.53	4972.43	2773.49	260.71	261.82
99	0.5910	30.529	943764	2.987	7613.86	884.73	402.26	317.74	1268.61	734.05	70.07	0.00	162.20	463.03	550.70	43.34	4896.73	2717.13	255.41	256.73
2000	0.5296	33.163	924739	3.244	7505.98	877.78	372.55	297.21	1223.13	680.65	59.65	0.00	168.00	486.18	578.30	37.14	4760.58	2725.40	256.19	255.99
01	0.4497	35.970	890963	3.550	7058.19	831.91	326.22	251.54	1207.04	610.77	50.65	0.00	174.00	510.49	607.20	30.93	4600.77	2457.42	231.00	237.30
02	0.3739	38.662	899667	3.847	6540.09	775.51	279.22	206.18	1181.44	544.24	43.16	0.00	180.40	536.01	637.50	24.76	4408.42	2131.67	200.38	208.03
03	0.3140	41.858	879601	4.172	6137.45	725.47	245.16	161.77	1178.94	493.95	35.11	0.00	187.10	562.81	699.40	18.57	4308.28	1829.17	171.94	179.05
04	0.2645	45.394	860541	4.518	5800.91	684.66	221.49	117.72	1120.38	450.58	28.51	0.00	194.00	590.95	702.90	12.38	4123.57	1677.34	157.67	161.24
05	0.2158	49.264	843787	4.896	5388.99	637.09	201.86	75.89	1068.44	404.34	24.26	0.00	201.40	620.50	738.00	6.19	3975.97	1413.02	132.82	139.04

1) These prices are weighted average wellhead values derived from the various values at the N. Slope and Cook Inlet fields evaluated in this study.

TABLE 5
Trans Alaska Pipeline
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Pipeline Thruput (mil B/D)	Tariff (\$/B)	Total Revenue	Operat'g Costs/Year	Amort & Deprec	Uncap Interest	Property Tax	Total Deduction	Net Income	Tax Liability (9.4%)
82	1.5680	6.11	3496.88	229.00	268.65	601.29	162.00	1260.94	2235.94	210.18
83	1.6300	5.93	3528.05	220.00	268.65	554.84	157.40	1200.89	2327.16	218.75
84	1.6536	6.01	3627.42	221.00	268.65	491.73	166.00	1147.38	2480.04	233.12
85	1.7140	6.00	3753.66	211.50	268.65	438.15	162.00	1080.30	2673.36	251.30
86	1.7173	6.00	3760.80	210.96	268.65	409.86	155.77	1045.24	2715.56	255.26
87	1.7492	6.00	3830.82	232.39	268.65	381.77	149.54	1032.35	2798.47	263.06
88	1.6564	6.00	3627.42	242.31	268.65	351.68	143.31	1005.95	2621.47	246.42
89	1.5931	6.00	3488.94	251.47	268.65	327.01	137.08	984.21	2504.73	235.44
90	1.5024	6.00	3290.34	265.96	268.65	302.34	130.85	967.80	2322.54	218.32
91	1.3610	6.00	2980.68	279.95	268.65	277.65	124.62	950.87	2029.81	190.80
92	1.2858	6.00	2815.92	290.60	268.65	252.44	118.38	930.07	1885.85	177.27
93	1.1993	6.00	2626.50	301.35	268.65	226.53	112.15	908.68	1717.82	161.48
94	1.0558	6.00	2312.22	309.43	268.65	204.01	105.92	888.01	1424.21	133.88
95	0.9447	6.00	2068.86	316.75	268.65	186.27	99.69	871.36	1197.50	112.57
96	0.8319	6.00	1821.96	324.82	268.65	169.75	93.46	856.68	965.28	90.74
97	0.7337	6.00	1606.80	333.40	268.65	153.12	87.23	842.40	764.40	71.85
98	0.6510	6.00	1425.66	341.92	268.65	136.22	81.00	827.79	597.87	56.20
99	0.5805	6.00	1271.34	351.34	268.65	120.90	74.77	815.66	455.68	42.83
2000	0.5204	6.00	1139.70	361.76	268.65	105.89	68.54	804.84	334.86	31.48
01	0.4415	6.00	966.84	373.35	268.65	91.99	62.31	796.30	170.54	16.03
02	0.3668	6.00	803.22	386.26	268.65	82.51	56.08	793.50	9.72	0.91
03	0.3077	6.00	673.86	401.90	268.65	76.23	49.85	796.63	-122.77	-11.54
04	0.2588	6.00	566.88	419.35	268.65	70.44	43.62	802.06	-235.18	-22.11
05	0.2108	6.00	461.76	438.87	268.65	63.48	37.38	808.38	-346.62	-32.58

- 1) No gas production considered (26 TCF).
- 2) No TAPS settlement.
- 3) Some amount of total crude taken off at N. Pole i.e. does not go to Valdez.
- 4) Based on 6/85 Mean case price and production assumptions.
- 5) Seal Is. excluded.

ASSUMPTIONS:

Property taxes per AS43.56 @2% gross.

TABLE 6
WINDFALL PROFITS TAX DEDUCTION
(mil current FY \$)

DEDUCTION FROM FY TAXABLE INCOME

<u>Fiscal Year</u>	<u>Sadlerochit</u>	<u>Cook Inlet</u>	<u>Total</u>	<u>Impact on FY Tax Liability (Total * .094)</u>
<u>Under Pre-SB 524</u>				
a)				
82	1750.61	267.05	2017.66	189.66
83	848.78	169.60	1018.38	95.73
84	289.25	123.08	412.33	38.76
85	8.93	61.33	70.26	6.60

Under HB 353

b)				
85	8.51	61.09	69.60	6.54
86	-0-	39.85	39.85	3.75
87	-0-	18.80	18.80	1.77
88	-0-	9.83	9.83	.92
89	-0-	6.32	6.32	.59
90	-0-	4.14	4.14	.39
91	-0-	2.71	2.71	.25
92	-0-	1.72	1.72	.16
93	-0-	.70	.70	.07
94	-0-	.03	.03	-0-

Note:

- 1/ Based on 6/85 Mean case price and production assumptions.
- 2/ Windfall Profits Tax is phased out and no longer in effect in FY 1995 and thereafter.
- 3/ The reason for the slight difference in FY 85 under Pre-SB 524 compared to HB 353 is the difference in the Oil Severance Tax law and thus, the severance tax adjustment under the WPT.
- a) For FY 1982 through 1985, these impacts are included in Tables 3 and 4 under the Pre-SB 524 separate accounting corporate tax. If the WPT was not a deduction for those years, the total tax liability columns would have been increased by these amounts.
- b) For FY 1982 through 2005, these impacts are not included in Tables 3 and 4 under the HB 353 separate accounting corporate tax. If the WPT was a deduction for these years, the total tax liability columns would be reduced by these amounts. In FY 1985, the reduction would be approximately one half the amount because HB 353 goes into effect midway through the fiscal year.

HB 353 AND SB 524
ANALYSIS
JUNE, 1985
30% CASE ASSUMPTIONS

SUMMARY TABLES

TABLE 1
Old Law (Pre SB 524)
Current Law (AS43.20 & AS 43.55)
Proposed Law (HB 353)
(mil current FY \$)

Fiscal Year	To. Corp Pre SB 524	Inc Tax AS 43.20	Collections Diff	Total Prodn Tax Liability Pre SB 524	AS 43.55	Diff	Total Gain or Loss
62	837.62	242.50	-595.12 1)	1219.03	1581.70	362.67	-232.45
			Impact SB 524			Impact SB 524	Impact SB 524
82	837.62	668.90	-168.72 2)	1219.03	1581.70	362.67	193.95
83	796.15	236.00	-560.15	1098.94	1493.70	394.76	-165.39
84	782.86	265.10	-517.76	1032.93	1393.10	360.17	-157.59
85	797.00	168.60	-628.40	1013.36	1388.50	374.64	-253.76
			Impact HB 353	existing AS 43.55		Impact HB 353	Impact HB 353
85	448.48	168.60	279.88 3)	1388.50	1388.50	0.00	279.88
86	684.73	223.67	461.06	1172.84	1172.84	0.00	461.06
				HB 353			
87	563.79	232.71	331.09	904.34	939.98	-85.64	245.44
88	515.28	238.38	276.90	638.67	773.71	-135.04	141.86
89	491.39	241.26	250.13	610.81	737.68	-127.07	123.06
90	456.84	241.28	215.56	586.91	703.35	-116.44	99.12
91	410.91	238.09	172.82	541.91	642.15	-100.24	72.58
92	401.05	235.48	165.57	546.70	646.31	-99.61	65.96
93	401.31	232.44	168.87	552.78	639.54	-86.76	82.11
94	373.10	225.67	147.43	507.40	595.90	-88.50	59.93
95	344.91	217.58	127.33	480.40	562.13	-81.73	45.60
96	316.61	209.73	106.88	443.18	516.64	-73.46	33.42
97	292.49	202.00	90.49	415.23	494.75	-69.52	20.97
98	270.06	194.51	75.55	388.95	451.24	-62.29	13.26
99	247.16	167.15	60.01	361.51	418.64	-57.13	2.88
2000	226.90	178.63	48.27	332.77	384.15	-51.38	-3.11
01	184.23	167.79	16.45	283.19	328.46	-45.27	-28.82
02	141.64	156.78	-15.14	245.12	278.92	-33.80	-48.94
03	102.09	147.24	-45.15	214.75	243.63	-29.28	-74.43
04	70.65	137.62	-66.97	198.20	217.30	-19.10	-86.07
05	29.57	126.56	-96.99	181.65	199.81	-18.16	-115.15
SUM95-05	6973.24	4203.18	2770.05	10995.41	12375.83	-1380.42	1369.63

1) FY 1982 receipts are estimated as if AS43.21 were in effect for the whole year in column 2 then as if AS43.20 were in effect for the whole year in column 3 though each was in effect only half the fiscal year.

2) FY 1982 collections under SB 524 of \$668.9m are comprised of \$538.2m from AS43.21 "OLD SEPARATE ADCT" law and \$130.7 from AS43.20 "CURRENT MODIFIED AFFORTIONMENT" law.

3) FY 1985 HB353 Corp. Inc. Tax includes \$60.8m of AS43.20 already collected through December 31, 1984.

4) FY 1985 AS43.20 collections are expected to be low due to substantial refunds and credits for prior year's tax overpayments. Tax liability on a calendar year basis under AS43.20 was CY82, \$236.50m; CY83, \$224.01m; CY84 \$241.54m.

5) Based on 6/85 30% case price and production assumptions.

TABLE 2a
Calculation of State Petroleum Revenues as a
Percent of Adjusted Production Income
6/85 Forecast Assumptions 30% Case FY 85-05 Using WHV

					With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax						
Fiscal Year	Total Petroleum Production			State Petrol Revenues	State / Net Rev %	Fiscal Year	Total Petroleum Production			State Petrol Revenues	State / Net Rev %
	Gross Revenue	Cost Deductns	Net Revenue				Gross Revenue	Cost Deductns	Net Revenue		
82	12958.93	1740.58	11218.35	3525.22	31.42%	82	12958.93	1740.58	11218.35	3502.40	31.22%
					Pre SB 524						AS43.20 & 55
					Impact SB 524						
82	12958.93	1740.58	11218.35	3525.22	31.42%	82	12958.93	1740.58	11218.35	3928.80	35.02%
83	11941.70	2113.21	9828.49	3270.36	33.27%	83	11941.70	2113.21	9828.49	3321.58	33.80%
84	11327.62	2511.29	8816.33	3148.49	35.71%	84	11327.62	2511.29	8816.33	3220.43	36.53%
85	11382.33	2832.59	8549.74	3161.10	36.97%	85	11382.33	2832.59	8549.74	3154.10	36.89%
					HB 353 as of 1/1/85 1)						AS43.20 & 55
					Impact HB 353						
85	11382.33	2832.59	8549.74	3297.36	38.57%	85	11382.33	2832.59	8549.74	3154.10	36.89%
86	9887.72	3015.48	6872.24	3055.24	44.46%	86	9887.72	3015.48	6872.24	2848.45	41.45%
87	8471.80	3356.83	5114.97	2532.10	49.50%	87	8471.80	3356.83	5114.97	2547.16	49.80%
88	8329.60	3543.97	4785.63	2211.37	46.21%	88	8329.60	3543.97	4785.63	2316.57	48.41%
89	8353.24	3632.71	4720.52	2186.06	46.31%	89	8353.24	3632.71	4720.52	2290.29	48.52%
90	8258.78	3741.13	4517.65	2166.34	47.95%	90	8258.78	3741.13	4517.65	2274.97	50.36%
91	7904.70	3688.01	4216.70	2064.21	48.95%	91	7904.70	3688.01	4216.70	2173.54	51.55%
92	8107.26	3709.46	4397.81	2094.52	47.63%	92	8107.26	3709.46	4397.81	2194.70	49.90%
93	8221.24	3673.21	4548.02	2123.74	46.70%	93	8221.24	3673.21	4548.02	2194.89	48.26%
94	7885.09	3559.52	4325.56	2028.93	46.91%	94	7885.09	3559.52	4325.56	2101.34	48.58%
95	7646.27	3432.19	4214.09	1957.90	46.46%	95	7646.27	3432.19	4214.09	2021.91	47.98%
96	7363.98	3335.04	4028.95	1867.70	46.36%	96	7363.98	3335.04	4028.95	2019.17	50.12%
97	7169.51	3252.94	3916.57	1796.94	45.88%	97	7169.51	3252.94	3916.57	1847.31	47.17%
98	6955.00	3173.31	3781.69	1724.47	45.60%	98	6955.00	3173.31	3781.69	1766.06	46.70%
99	6738.45	3115.29	3623.15	1649.99	45.54%	99	6738.45	3115.29	3623.15	1687.16	46.57%
2000	6513.93	3032.96	3480.97	1573.83	45.21%	2000	6513.93	3032.96	3480.97	1604.07	46.08%
01	5912.10	2940.61	2971.49	1388.82	46.74%	01	5912.10	2940.61	2971.49	1428.57	48.08%
02	5485.48	2915.17	2570.31	1232.63	47.96%	02	5485.48	2915.17	2570.31	1277.36	49.70%
03	5109.57	2945.74	2163.83	1091.16	50.43%	03	5109.57	2945.74	2163.83	1148.81	53.09%
04	4743.44	2867.67	1875.77	974.30	51.94%	04	4743.44	2867.67	1875.77	1032.52	55.05%
05	4269.43	2865.16	1404.27	830.15	59.12%	05	4269.43	2865.16	1404.27	906.04	64.52%

1) FY 1985 HB353 Corp. Inc. Tax includes \$60.8m of AS43.20 already collected through December 31, 1984 and half a year of the new tax.

2) Based on 6/85 30% case price and production assumptions.

TABLE 2b
Calculation of State Petroleum Revenues as a
and as a Percent of Prod'n & Pipeline Income
6/85 Forecast Assumptions 30% Case FY 85-05 Using WHV

Fiscal Year	-----Total Petroleum-----			State Petrol Revenues	State / Net Rev %	With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax	Fiscal Year	-----Total Petroleum-----			State Petrol Revenues	State / Net Rev %
	Gross Revenue	Cost Deductns	Net Revenue					Gross Revenue	Cost Deductns	Net Revenue		
82	16455.80	2839.52	13616.28	3896.85	28.62%		82	16455.80	2839.52	13616.28	3664.40	26.91%
				Pre SB 524							AS43.20 & 55	
				Impact SB 524								
82	16455.80	2839.52	13616.28	3896.85	28.62%		82	16455.80	2839.52	13616.28	4090.80	30.04%
83	15469.75	3156.70	12313.06	3644.37	29.60%		83	15469.75	3156.70	12313.06	3478.98	28.25%
84	14955.03	3492.67	11462.37	3544.02	30.92%		84	14955.04	3492.67	11462.37	3386.43	29.54%
85	15135.98	3750.89	11385.10	3569.86	31.36%		85	15135.99	3750.89	11385.10	3316.10	29.13%
				HB 353 as of 1/1/85 1)							AS43.20 & 55	
				Impact HB 353								
85	15135.98	3750.89	11385.10	3585.00	31.49%		85	15135.98	3750.89	11385.10	3316.10	29.13%
86	13648.51	3904.95	9743.57	3465.28	35.56%		86	13648.51	3904.95	9743.57	3004.22	30.83%
87	12293.67	4239.30	8054.38	2942.14	36.53%		87	12293.67	4239.30	8054.38	2696.70	33.48%
88	11908.05	4404.62	7503.44	2601.74	34.67%		88	11908.05	4404.62	7503.44	2459.88	32.78%
89	11697.09	4473.67	7223.42	2550.43	35.31%		89	11697.09	4473.67	7223.42	2427.37	33.60%
90	11377.10	4570.41	6806.69	2504.94	36.80%		90	11377.10	4570.41	6806.69	2405.82	35.35%
91	10708.14	4505.98	6202.17	2370.74	38.22%		91	10708.14	4505.98	6202.17	2298.16	37.05%
92	10766.04	4513.45	6252.60	2379.04	38.05%		92	10766.04	4513.45	6252.60	2313.08	36.99%
93	10718.43	4463.08	6255.35	2389.15	38.19%		93	10718.43	4463.08	6255.35	2307.04	36.88%
94	10099.08	4336.29	5762.79	2266.19	39.32%		94	10099.08	4336.29	5762.79	2207.26	38.30%
95	9623.390	4198.63	5424.77	2167.20	39.95%		95	9623.390	4198.63	5424.77	2121.60	39.11%
96	9118.502	4094.19	5024.32	2050.85	40.82%		96	9118.502	4094.19	5024.32	2112.63	42.05%
97	8719.606	4004.47	4715.14	1955.51	41.47%		97	8719.606	4004.47	4715.14	1934.54	41.03%
98	8319.520	3915.96	4403.56	1860.32	42.25%		98	8319.520	3915.96	4403.56	1847.06	41.94%
99	7936.706	3850.96	4085.74	1764.81	43.19%		99	7936.706	3850.96	4085.74	1761.93	43.12%
2000	7567.690	3762.81	3805.08	1669.50	43.88%		2000	7567.890	3762.81	3805.08	1672.61	43.96%
01	6769.499	3665.94	3103.56	1462.05	47.11%		01	6769.499	3665.94	3103.56	1490.88	48.04%
02	6187.359	3643.99	2543.37	1284.50	50.50%		02	6187.359	3643.99	2543.37	1333.44	52.43%
03	5687.426	3684.00	2003.43	1124.23	56.12%		03	5687.426	3684.00	2003.43	1198.66	59.83%
04	5211.317	3616.86	1594.46	990.07	62.09%		04	5211.317	3616.86	1594.46	1076.14	67.49%
05	4618.090	3624.93	993.16	828.28	83.40%		05	4618.090	3624.93	993.16	943.42	94.99%

1) FY 1985 HB353 Corp. Inc Tax includes \$60.8m of AS43.20 already collected through December 1, 1984 and half a year of the new tax.

2) Based on 6/85 30% case price and production assumptions.

TABLE 3
Pipeline, Production & Exploration
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Total Revenue	State Royalty Share	Prod'n& Cons Tax	Total Property Tax	Total Oper'g Costs	Total Depre	Total Acquis Costs	Windfall Profits Tax	Interest Expense Uncap	Exploratn Costs	Admin Costs	Other Deductns	Total Deductns	Total Net Income	Liability-----HB 353 1)	Collections-----HB 353 1)	AS 43.20 2)	Diff
62	16455.80	1564.30	1219.03	275.90	939.80	602.58	0.77	2017.66	720.69	190.90	236.20	148.58	7916.41	8539.40	802.70	837.62	130.72	66.90
83	15469.75	1442.73	1098.94	306.55	1100.56	780.16	0.98	1018.38	676.04	204.26	252.30	142.39	7023.30	8446.46	793.97	796.15	236.00	560.15
84	14955.04	1370.57	1032.93	357.66	1259.34	998.45	1.09	412.33	614.13	218.56	264.90	136.20	6666.16	8288.87	779.15	782.86	265.10	517.76
85	15135.99	1362.44	1013.86	396.56	1449.17	1093.32	0.80	70.26	565.55	233.86	278.20	130.00	6594.01	8541.97	802.95	797.00	168.60	628.40
85	15135.99	1362.44	1377.52	396.56	1449.17	1093.32	0.80	69.59	565.55	233.86	278.20	130.00	6887.41	8248.58	775.37	581.52	168.60	412.92
86	13648.52	1187.44	1172.84	420.27	1477.66	1224.05	0.76	35.96	541.76	244.80	292.10	123.82	6685.50	6963.02	654.52	684.73	223.67	461.06
87	12293.68	1008.96	904.34	465.05	1597.00	1437.62	6.25	10.87	517.87	256.24	306.70	117.63	6617.65	5676.03	533.55	563.79	232.71	331.08
88	11908.06	946.18	638.67	501.61	1629.36	1562.56	17.75	4.06	490.28	268.23	322.00	114.43	6491.08	5416.98	509.20	515.28	238.38	276.90
89	11697.10	929.31	610.81	518.92	1625.11	1624.89	33.16	2.14	466.41	280.77	338.10	105.24	6532.71	5164.38	485.45	491.39	241.26	250.13
90	11377.10	922.19	586.91	539.00	1702.64	1619.49	57.70	0.51	442.64	293.90	355.00	99.05	6618.51	4758.59	447.31	456.84	241.28	215.56
91	10708.14	685.09	541.91	532.83	1686.99	1546.15	80.98	0.00	418.55	307.65	372.80	92.86	6465.81	4242.34	398.78	410.91	238.09	172.82
92	10766.04	908.04	546.70	523.25	1709.49	1516.09	94.23	0.00	393.54	322.03	391.40	86.67	6491.44	4274.61	401.81	401.05	235.48	165.57
93	10718.44	924.67	552.78	510.39	1715.39	1448.71	102.58	0.00	367.83	337.09	411.00	80.48	6450.92	4267.51	401.15	401.31	232.44	168.87
94	10099.09	890.42	507.40	495.27	1691.98	1333.24	107.22	0.00	345.21	352.86	431.50	74.29	6229.38	3869.70	363.75	373.10	225.67	147.43
95	9623.39	863.98	480.40	477.91	1640.12	1230.56	108.41	0.00	328.97	369.36	453.10	68.10	6020.92	3602.48	338.63	344.91	217.58	127.33
96	9118.50	833.24	443.18	457.82	1621.89	1127.87	103.73	0.00	316.45	386.63	475.70	61.91	5828.43	3290.08	309.27	316.61	225.67	90.93
97	8719.61	812.20	415.23	435.59	1606.92	1035.88	97.12	0.00	304.62	404.71	499.50	55.72	5667.49	3052.12	286.90	292.49	202.00	90.49
98	8319.52	769.94	388.95	411.37	1592.93	947.57	84.77	0.00	293.02	423.64	524.50	49.53	5506.22	2813.30	264.45	270.06	194.51	75.55
99	7936.71	770.14	361.51	386.00	1584.30	871.20	74.87	0.00	283.10	443.45	550.70	43.34	5368.61	2568.09	241.40	247.16	187.15	60.01
2000	7567.89	750.23	332.77	359.60	1542.66	802.43	64.20	0.00	273.69	464.19	578.30	37.14	5205.41	2362.48	222.07	226.90	178.63	48.27
01	6769.50	687.20	283.19	307.43	1513.33	709.22	53.36	0.00	265.99	485.89	607.20	30.95	4943.76	1825.74	171.62	184.23	167.79	16.45
02	6187.36	640.81	245.12	256.93	1516.82	647.61	45.77	0.00	262.91	508.62	637.50	24.76	4786.85	1400.51	131.65	141.64	156.78	-15.14
03	5687.43	601.02	214.35	206.77	1533.59	598.56	38.15	0.00	263.33	532.40	699.40	18.57	4706.14	981.29	92.24	102.09	147.24	-45.15
04	5211.32	564.20	198.20	157.02	1489.05	559.16	31.62	0.00	264.44	557.30	702.90	12.38	4536.28	675.04	63.45	70.65	137.62	-66.97
05	4618.09	509.52	181.65	107.53	1494.37	511.86	26.27	0.00	264.88	583.36	738.00	6.19	4423.63	194.46	18.28	29.57	126.56	-96.99

1) These estimates assume the tax plan is in effect for the whole year; for FY 1982-85 this is Pre SB 524, for FY 1985-05 this is HB 353.

2) FY82 collections of \$130.72m are the actual amounts collected or credited to CY82 liability. The estimate for a full year under AS43.20 in FY82 is \$242.5m which would result in a difference of \$595.12m as presented in column 4 of Table 1. FY 1985 AS43.20 collections are expected to be low due to substantial refunds and credits for prior year's tax overpayments. Tax liability on a calendar year basis under AS43.20 was CY82, \$236.50m; CY83, \$224.01m; CY84 \$241.54m.

3) Based on 6/85 30% case price and production assumptions.

TABLE 4
All Producing Fields
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Oil Prod'n (mil B/D)	Wellhead Value (cur \$)	Gas Prod'n (acft/day)	Gas Price (1/acft)	Total Revenue (cur \$)	State Royalty Share	Prod'n Cons Tax	Property Tax	Total Oper'tg Costs	Depre Devel Costs	Acquis Costs	Windfall Profits Tax	Interest Expense	Exploratin Costs (expen'd)	Admin Cost	Other Deductns	Total Deductns	Total Taxable Income	Total Tax Liability	Total Tax Collectns
82	1.6533	21.293	507000	0.590	12958.93	1564.30	1219.03	113.90	710.80	333.93	0.77	2017.66	119.40	190.90	236.20	148.58	6655.47	6303.46	592.53	627.99
83	1.7006	19.040	503000	0.670	11941.70	1442.73	1098.94	149.15	880.56	511.51	0.98	1018.38	121.20	204.26	252.30	142.39	5822.41	6119.30	575.21	579.54
84	1.7183	17.864	505000	0.670	11327.62	1370.57	1032.93	191.66	1038.34	729.80	1.09	412.33	122.40	218.56	264.90	136.20	5518.78	5808.83	546.03	553.33
85	1.7523	17.483	565091	0.971	11382.33	1362.44	1013.86	234.56	1237.67	824.67	0.80	70.26	127.40	233.86	278.20	130.00	5513.71	5868.61	551.65	550.24
85	1.7523	17.483	565091	0.971	11382.33	1362.44	1377.52	234.56	1237.67	824.67	0.80	69.59	127.40	233.86	278.20	130.00	5807.11	5575.22	524.07	393.05
86	1.7528	15.119	537624	1.097	9887.72	1187.44	1172.84	264.50	1266.70	955.40	0.76	35.96	131.90	244.80	292.10	123.82	5640.26	4247.46	399.26	430.46
87	1.7767	12.642	625000	1.200	8471.80	1008.96	904.34	315.51	1364.95	1168.97	6.25	10.87	136.10	256.24	306.70	117.63	5585.64	2886.16	271.30	303.29
88	1.6615	13.181	705650	1.306	8329.60	946.18	638.67	358.30	1389.04	1293.91	17.75	4.06	138.60	268.23	322.00	114.43	5487.12	2842.48	267.19	268.22
89	1.5509	14.111	714549	1.400	8353.24	929.31	610.81	381.84	1379.81	1356.24	33.16	2.14	139.40	280.77	338.10	105.24	5554.67	2798.56	263.06	264.10
90	1.4450	14.792	797800	1.570	8258.78	922.19	586.91	408.15	1444.35	1350.84	57.70	0.51	140.30	293.90	355.00	99.05	5658.38	2600.40	244.44	249.09
91	1.2987	15.548	858950	1.706	7904.70	885.09	541.91	408.21	1415.32	1277.50	80.98	0.00	140.90	307.65	372.80	92.86	5523.22	2381.49	223.86	229.00
92	1.2702	16.693	902485	1.856	8107.26	908.04	546.70	404.87	1426.59	1247.44	94.23	0.00	141.10	322.03	391.40	86.67	5569.07	2538.20	238.59	234.91
93	1.1542	17.924	920067	1.995	8221.24	924.67	552.78	398.24	1420.70	1180.06	102.58	0.00	141.30	337.09	411.00	80.48	5548.90	2672.33	251.20	248.05
94	1.0233	19.236	893060	2.149	7885.09	890.42	507.40	389.35	1387.87	1064.59	107.22	0.00	141.20	352.86	431.50	74.29	5346.69	2538.39	238.61	241.76
95	0.9146	20.654	906549	2.270	7646.27	863.98	480.40	378.22	1328.60	961.91	108.41	0.00	142.70	369.36	453.10	68.10	5154.79	2491.49	234.20	235.30
96	0.8127	22.114	920462	2.395	7363.98	833.24	443.18	364.36	1301.14	859.22	103.73	0.00	146.70	386.63	475.70	61.91	4975.82	2288.17	224.49	226.92
97	0.7190	23.983	936358	2.562	7169.51	812.20	415.23	348.36	1277.16	767.23	97.12	0.00	151.50	404.71	499.50	55.72	4828.73	2340.78	220.03	221.15
98	0.6338	25.944	954349	2.737	6955.00	789.94	388.95	330.37	1255.15	678.92	84.77	0.00	156.80	423.64	524.50	49.53	4682.57	2272.43	213.61	215.21
99	0.5576	28.054	943764	2.987	6738.45	770.14	361.51	311.23	1238.18	602.55	74.87	0.00	162.20	443.45	550.70	43.34	4558.17	2180.27	204.95	207.11
2000	0.4905	30.268	924739	3.244	6513.93	750.23	332.77	291.06	1187.35	533.78	64.20	0.00	168.00	464.19	578.30	37.14	4407.02	2106.91	198.05	199.77
01	0.3997	32.611	890963	3.550	5912.10	687.20	283.19	245.12	1148.64	440.57	53.36	0.00	174.00	485.69	607.20	30.95	4156.12	1755.98	165.06	173.31
02	0.3277	35.304	899667	3.847	5485.48	640.81	245.12	200.85	1139.16	378.96	45.77	0.00	180.40	508.62	637.50	24.76	4001.95	1483.53	139.45	145.85
03	0.2762	38.227	879601	4.172	5109.57	601.02	214.35	156.92	1140.21	329.91	38.15	0.00	187.10	532.40	699.40	18.57	3918.03	1191.54	112.00	118.87
04	0.2193	41.539	860541	4.518	4743.44	564.20	198.20	113.40	1078.95	290.51	31.62	0.00	194.00	557.70	702.90	12.38	3743.47	999.97	94.00	98.50
05	0.1642	46.078	843787	4.896	4269.43	509.52	181.65	70.15	1066.73	243.21	26.27	0.00	201.40	583.36	718.00	6.19	3626.48	642.95	60.44	68.83

1) These prices are weighted average wellhead values derived from the various values at the N. Slope and Cook Inlet fields evaluated in this study.

TABLE 5
Trans Alaska Pipeline
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Pipeline Tariff Thruput (\$/B) (mil B/D)	Total Revenue	Operat'g Costs/ Amort & Deprec Year	Uncap Interest	Property Tax	Total Deduction	Net Income	Tax Liability (9.4%)		
82	1.5680	6.11	3496.88	229.00	268.65	601.29	162.00	1260.94	2235.94	210.18
83	1.6300	5.93	3528.05	220.00	268.65	554.84	157.40	1200.89	2327.16	218.75
84	1.6536	6.01	3627.42	221.00	268.65	491.73	166.00	1147.38	2480.04	233.12
85	1.7140	6.00	3753.66	211.50	268.65	438.15	162.00	1080.30	2673.36	251.30
86	1.7173	6.00	3760.80	210.96	268.65	409.86	155.77	1045.24	2715.56	255.26
87	1.7452	6.00	3821.88	232.05	268.65	381.77	149.54	1032.01	2789.87	262.25
88	1.6340	6.00	3578.46	240.32	268.65	351.68	143.31	1003.96	2574.50	242.00
89	1.5269	6.00	3343.86	245.30	268.65	327.01	137.08	978.04	2365.82	222.39
90	1.4239	6.00	3118.32	258.29	268.65	302.34	130.85	960.13	2158.19	202.87
91	1.2801	6.00	2803.44	271.67	268.65	277.65	124.62	942.59	1660.85	174.92
92	1.2141	6.00	2658.78	282.90	268.65	252.44	118.38	922.37	1736.41	163.22
93	1.1403	6.00	2497.20	294.69	268.65	226.53	112.15	902.02	1595.18	149.95
94	1.0110	6.00	2214.00	304.11	268.65	204.01	105.92	882.69	1331.31	125.14
95	0.9028	6.00	1977.12	311.52	268.65	186.27	99.69	866.13	1110.99	104.43
96	0.8012	6.00	1754.52	320.75	268.65	169.75	93.46	852.61	901.91	84.78
97	0.7078	6.00	1550.10	329.76	268.65	153.12	87.23	838.76	711.34	66.87
98	0.6231	6.00	1364.52	337.78	268.65	136.22	81.00	823.65	540.87	50.84
99	0.5472	6.00	1198.26	346.12	268.65	120.90	74.77	810.44	387.82	36.46
2000	0.4813	6.00	1053.96	355.31	268.65	105.89	68.54	798.39	255.57	24.02
01	0.3915	6.00	857.40	364.69	268.65	91.99	62.31	787.64	69.76	6.56
02	0.3205	6.00	701.88	377.66	268.65	82.51	56.08	784.90	-83.02	-7.80
03	0.2639	6.00	577.86	393.38	268.65	76.23	49.85	788.11	-210.25	-19.76
04	0.2136	6.00	467.88	410.10	268.65	70.44	43.62	792.81	-324.93	-30.54
05	0.1592	6.00	348.66	427.64	268.65	63.48	37.38	797.15	-448.49	-42.16

- 1) No gas production considered (26 TCF).
- 2) No TAPS settlement.
- 3) Some amount of total crude taken off at N. Pole i.e. does not go to Valdez.
- 4) Based on 6/85 30% case price and production assumptions.
- 5) Seal Is. excluded.

ASSUMPTIONS:

Property taxes per AS43.56 @2% gross.

TABLE 6
WINDFALL PROFITS TAX DEDUCTION
(mil current FY \$)

DEDUCTION FROM FY TAXABLE INCOME

<u>Fiscal Year</u>	<u>Sadlerochit</u>	<u>Cook Inlet</u>	<u>Total</u>	<u>Impact on FY Tax Liability (Total * .094)</u>
<u>Under Pre-SB 524</u>				
a)				
82	1750.61	267.05	2017.66	189.66
83	848.78	169.60	1018.38	95.73
84	289.25	123.08	412.33	38.76
85	8.93	61.33	70.26	6.60
<u>Under HB 353</u>				
b)				
85	8.51	61.09	69.60	6.54
86	-0-	35.96	35.96	3.38
87	-0-	10.87	10.87	1.02
88	-0-	4.06	4.06	.38
89	-0-	2.14	2.14	.20
90	-0-	.51	.51	.05
91	-0-	-0-	-0-	-0-
92	-0-	-0-	-0-	-0-
93	-0-	-0-	-0-	-0-
94	-0-	-0-	-0-	-0-

Note:

- 1/ Based on 6/85 30% case price and production assumptions.
- 2/ Windfall Profits Tax is phased out and no longer in effect in FY 1995 and thereafter.
- 3/ The reason for the slight difference in FY 85 under Pre-SB 524 compared to HB 353 is the difference in the Oil Severance Tax law and thus, the severance tax adjustment under the WPT.
 - a) For FY 1982 through 1985, these impacts are included in Tables 3 and 4 under the Pre-SB 524 separate accounting corporate tax. If the WPT was not a deduction for those years, the total tax liability columns would have been increased by these amounts.
 - b) For FY 1982 through 2005, these impacts are not included in Tables 3 and 4 under the HB 353 separate accounting corporate tax. If the WPT was a deduction for these years, the total tax liability columns would be reduced by these amounts. In FY 1985, the reduction would be approximately one half the amount because HB 353 goes into effect midway through the fiscal year.

HB 353 AND SB 524
ANALYSIS
JUNE, 1985
70% CASE ASSUMPTIONS

SUMMARY TABLES

TABLE 1
Old Law (Pre SB 524)
Current Law (AS43.20 & AS 43.55)
Proposed Law (HB 353)
(mil current FY \$)

(mil current FY \$)							
Fiscal Year	To. Corp Pre	Inc Tax AS 43.20	Collections Diff	Total Prodn Tax Liability Pre	AS 43.55	Diff	Total Gain or Loss
SB 524							
82	837.62	242.50	-545.12 1)	1219.03	1581.70	362.67	-232.45
Impact SB 524				Impact SB 524		Impact SB 524	
82	837.62	668.90	-168.72 2)	1219.03	1581.70	362.67	193.95
83	796.15	236.00	-560.15	1098.94	1493.70	394.76	-165.39
84	782.86	265.10	-517.76	1032.93	1393.10	360.17	-157.59
85	797.00	168.60	-628.40	1013.86	1388.50	374.64	-253.76
Impact HB 353				Impact HB 353		Impact HB 353	
HB 353				existing AS 43.55			
85	448.48	168.60	279.88 3)	1388.50	1388.50	0.00	279.88
86	723.72	235.73	487.99	1262.27	1262.27	0.00	487.99
HB 353							
87	664.57	260.61	403.96	1076.73	1180.56	-103.83	300.13
88	652.24	286.69	365.54	785.41	949.86	-164.45	201.09
89	666.33	305.76	360.57	778.54	930.19	-151.65	208.92
90	670.13	314.61	355.52	784.53	927.21	-142.68	212.84
91	644.76	313.14	331.61	749.98	872.96	-122.98	208.63
92	652.14	311.00	341.14	768.16	894.45	-126.29	214.65
93	664.12	306.83	357.28	772.90	912.04	-139.14	218.14
94	633.70	298.04	335.66	718.76	844.67	-125.91	209.75
95	604.66	287.54	317.12	691.55	819.80	-128.25	188.87
96	566.06	276.00	290.06	636.25	755.74	-119.49	170.57
97	531.12	263.02	268.09	589.58	700.65	-112.07	156.02
98	499.12	249.03	250.09	535.28	635.29	-100.01	150.08
99	464.59	234.66	229.93	481.42	567.82	-86.40	143.53
2000	429.55	219.24	210.31	426.21	502.15	-75.94	134.37
01	368.43	201.62	166.81	354.12	415.11	-60.99	105.82
02	297.67	183.82	113.85	285.39	333.60	-47.61	66.24
03	228.30	167.72	60.58	237.25	270.89	-33.63	26.95
04	158.93	152.99	5.94	195.90	221.31	-25.41	-19.47
05	103.98	139.26	-35.28	173.46	194.21	-20.75	-56.03
SUM85-05	10672.59	5175.91	5496.67	13691.19	15578.67	-1687.48	3609.19

1) FY 1992 receipts are estimated as if AS43.21 were in effect for the whole year in column 2 then as if AS43.20 were in effect for the whole year in column 3 though each was in effect only half the fiscal year.

2) FY 1982 collections under SB 524 of \$668.9m are comprised of \$538.2m from AS43.21 "OLD SEPARATE ACCT" law and \$130.7 from AS43.20 "CURRENT MODIFIED APPORTIONMENT" law.

3) FY 1995 HB353 Corp. Inc. Tax includes \$60.8m of AS43.20 already collected through December 31, 1984.

4) FY 1985 AS43.20 collections are expected to be low due to substantial refunds and credits for prior year's tax overpayments. Tax liability on a calendar year basis under AS43.20 was CY82, \$236.50m; CY83, \$224.01m; CY84 \$241.54m.

5) Based on 6/85 70% case price and production assumptions.

TABLE 2a
Calculation of State Petroleum Revenues as a
Percent of Adjusted Production Income
6/85 Forecast Assumptions 70% Case FY 85-05 Using MHV

Fiscal Year	Total Petroleum Production			State Petrol Revenues	State / Net Rev %	With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax					
	Gross Revenue	Cost Deductns	Net Revenue			Fiscal Year	Total Petroleum Production Gross Revenue	Cost Deductns	Net Revenue	State Petrol Revenues	State / Net Rev %
82	12958.93	1740.58	11218.35	3525.22	31.42%	82	12958.93	1740.58	11218.35	3502.40	31.22%
				Pre SB 524						AS43.20 & 55	
				Impact SB 524							
82	12958.93	1740.58	11218.35	3525.22	31.42%	82	12958.93	1740.58	11218.35	3928.80	35.02%
83	11941.70	2113.21	9828.49	3270.36	33.27%	83	11941.70	2113.21	9828.49	3321.58	33.80%
84	11327.62	2511.29	8816.33	3148.49	35.71%	84	11327.62	2511.29	8816.33	3220.43	36.53%
85	11382.33	2832.59	8549.74	3161.10	36.97%	85	11382.33	2832.59	8549.74	3154.10	36.89%
				HB 353 as of 1/1/85 1)						AS43.20 & 55	
				Impact HB 353							
85	11382.33	2832.59	8549.74	3297.36	38.57%	85	11382.33	2832.59	8549.74	3154.10	36.89%
86	10626.57	3018.24	7608.33	3277.37	43.08%	86	10626.57	3018.24	7608.33	3043.65	40.00%
87	10097.40	3372.15	6725.24	3008.16	44.73%	87	10097.40	3372.15	6725.24	2969.30	44.15%
88	10290.63	3724.11	6566.52	2737.62	41.69%	88	10290.63	3724.11	6566.52	2794.18	42.55%
89	10851.82	4006.66	6845.16	2811.92	41.08%	89	10851.82	4006.66	6845.16	2856.64	41.73%
90	11219.23	4192.75	7026.48	2890.57	41.14%	90	11219.23	4192.75	7026.48	2921.76	41.58%
91	11135.31	4239.84	6895.47	2845.35	41.26%	91	11135.31	4239.84	6895.47	2858.94	41.46%
92	11619.35	4306.37	7312.98	2937.53	40.17%	92	11619.35	4306.37	7312.98	2929.87	40.06%
93	11906.75	4294.64	7612.10	2999.89	39.41%	93	11906.75	4294.64	7612.10	2974.17	39.07%
94	11555.98	4200.03	7355.96	2896.65	39.38%	94	11555.98	4200.03	7355.96	2853.84	38.80%
95	11412.40	4134.28	7278.12	2839.38	39.01%	95	11412.40	4134.28	7278.12	2793.96	38.39%
96	11031.65	4068.39	6963.25	2715.29	38.99%	96	11031.65	4068.39	6963.25	2775.67	39.86%
97	10742.51	3988.64	6753.87	2606.74	38.60%	97	10742.51	3988.64	6753.87	2548.60	37.74%
98	10330.41	3814.79	6515.62	2478.06	38.03%	98	10330.41	3814.79	6515.62	2405.06	36.91%
99	9886.53	3668.77	6217.76	2343.22	37.69%	99	9886.53	3668.77	6217.76	2257.66	36.31%
2000	9386.09	3490.23	5895.86	2196.96	37.26%	2000	9386.09	3490.23	5895.86	2103.35	35.68%
01	8490.22	3343.89	5146.33	1936.40	37.63%	01	8490.22	3343.89	5146.33	1852.20	35.99%
02	7572.23	3202.43	4369.80	1665.97	38.12%	02	7572.23	3202.43	4369.80	1602.40	36.67%
03	6788.11	3173.14	3614.98	1430.85	39.58%	03	6788.11	3173.14	3614.98	1390.72	38.47%
04	5928.08	3088.80	2839.28	1190.54	41.93%	04	5928.08	3088.80	2839.28	1182.56	41.65%
05	5324.82	3045.12	2279.70	1009.80	44.30%	05	5324.82	3045.12	2279.70	1027.10	45.05%

1) FY 1985 HB353 Corp. Inc. Tax includes \$60.8m of AS43.20 already collected through December 31, 1984 and half a year of the new tax.

2) Based on 6/85 70% case price and production assumptions.

TABLE 2b
Calculation of State Petroleum Revenues as a
and as a Percent of Prod'n & Pipeline Income
6/85 Forecast Assumptions 70% Case FY 85-05 Using WHV

-----Total Petroleum-----				State		With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax				State	
Fiscal	Gross	Cost	Net	Petro	State /	Fiscal	-----Total Petroleum-----			Petrol	State /
Year	Revenue	Deductns	Revenue	Revenues	Net Rev	Year	Gross	Cost	Net	Revenues	Net Rev
					%		Revenue	Deductns	Revenue		%
82	16455.80	2839.52	13616.28	3896.85	28.62%	82	16455.80	2839.52	13616.28	3664.40	26.91%
				Pre SB 524						AS43.20 & 55	
				Impact SB 524							
82	16455.80	2839.52	13616.28	3896.85	28.62%	82	16455.80	2839.52	13616.28	4090.80	30.04%
83	15469.75	3156.70	12313.06	3644.37	29.60%	83	15469.75	3156.70	12313.06	3478.98	28.25%
84	14955.03	3492.67	11462.37	3544.02	30.92%	84	14955.04	3492.67	11462.37	3366.43	29.54%
85	15135.98	3750.89	11385.10	3569.86	31.36%	85	15135.99	3750.89	11385.10	3316.10	29.13%
				HB 353 as of 1/1/85 1)						AS43.20 & 55	
				Impact HB 353							
85	15135.98	3750.89	11385.10	3585.00	31.49%	85	15135.98	3750.89	11385.10	3316.10	29.13%
86	14397.36	3907.71	10479.66	3687.41	35.19%	86	14387.36	3907.71	10479.66	3199.42	30.53%
87	13930.61	4255.05	9675.56	3418.97	35.34%	87	13930.61	4255.05	9675.56	3118.84	32.23%
88	14021.78	4590.92	9430.87	3138.59	33.28%	88	14021.78	4590.92	9430.87	2937.49	31.15%
89	14534.91	4861.97	9672.95	3202.64	33.11%	89	14534.91	4861.97	9672.95	2993.72	30.95%
90	14762.89	5041.00	9721.89	3265.45	33.59%	90	14762.89	5041.00	9721.89	3052.61	31.40%
91	14396.60	5079.20	9317.41	3192.20	34.26%	91	14396.60	5079.20	9317.41	2983.56	32.02%
92	14737.37	5132.85	9604.52	3263.10	33.97%	92	14737.37	5132.85	9604.52	3048.25	31.74%
93	14836.00	5106.76	9729.24	3304.47	33.96%	93	14836.00	5106.76	9729.24	3086.32	31.72%
94	14159.38	4997.89	9161.50	3169.51	34.60%	94	14159.38	4997.89	9161.50	2959.76	32.31%
95	13768.29	4922.30	8846.00	3082.52	34.85%	95	13768.29	4922.30	8846.00	2893.65	32.71%
96	13116.52	4847.39	8269.13	2928.73	35.42%	96	13116.52	4847.39	8269.13	2859.13	34.70%
97	12584.20	4758.72	7825.49	2791.86	35.68%	97	12584.20	4758.72	7825.49	2635.83	33.68%
98	11935.47	4573.61	7361.86	2636.14	35.81%	98	11935.47	4573.61	7361.86	2486.06	33.77%
99	11277.87	4418.18	6859.69	2475.96	36.09%	99	11277.87	4418.18	6859.69	2332.43	34.00%
2000	10584.46	4230.95	6353.52	2306.26	36.30%	2000	10581.46	4230.95	6353.52	2171.89	34.18%
01	9464.018	4078.47	5385.55	2020.33	37.51%	01	9464.018	4078.47	5385.55	1914.51	35.55%
02	8342.030	3937.21	4404.82	1724.72	39.16%	02	8342.030	3937.21	4404.82	1658.48	37.65%
03	7399.393	3914.46	3484.94	1467.52	42.11%	03	7399.393	3914.46	3484.94	1440.57	41.34%
04	6391.219	3837.70	2553.52	1206.71	47.26%	04	6391.219	3837.70	2553.52	1226.18	48.02%
05	5683.562	3806.07	1877.49	1008.45	53.71%	05	5683.562	3806.07	1877.49	1064.48	56.70%

1) FY 1985 HB353 Corp. Inc Tax includes \$60.8m of AS43.20 already collected through December 1, 1984 and half a year of the new tax.

2) Based on 6/85 70% case price and production assumptions.

TABLE 3
Pipeline, Production & Exploration
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Total Revenue	State Royalty Share	Prod'n& Cons Tax	Total Property Tax	Total Oper'g Costs	Total Depre	Total Acquis Costs	Windfall Profits Tax	Interest Expense Uncap	Exploratr'n Costs	Admin Costs	Other Deductns	Total Deductns	Total Net Income	Liability----- HB 353 1)	-----Collections----- HB 353 1)	AS 43.20 2)	Diff
82	16455.80	1564.30	1219.03	275.90	939.80	602.58	0.77	2017.66	720.69	190.90	236.20	148.58	7916.41	8539.40	802.70	837.62	130.72	706.90
83	15469.75	1442.73	1098.94	306.55	1100.56	780.16	0.98	1018.38	676.04	204.26	252.30	142.39	7023.30	8446.46	793.97	796.15	236.00	560.15
84	14955.04	1370.57	1032.93	357.66	1259.34	998.45	1.09	412.33	614.13	218.56	264.90	136.20	6666.16	8288.87	779.15	782.86	265.10	517.76
85	15135.99	1362.44	1013.86	396.56	1449.17	1093.32	0.80	70.26	565.55	233.86	278.20	130.00	6594.01	8541.97	802.95	797.00	168.60	628.40
85	15135.99	1362.44	1377.52	396.56	1449.17	1093.32	0.80	69.59	565.55	233.86	278.20	130.00	6887.41	8248.58	775.37	581.52	168.60	412.92
86	14387.37	1281.15	1262.27	420.27	1477.66	1224.05	0.76	46.77	541.76	247.56	292.10	123.82	6871.40	7515.97	706.50	723.72	235.73	487.99
87	13930.62	1212.62	1076.73	465.05	1600.34	1442.16	8.29	29.02	517.87	262.07	306.70	117.63	7009.45	6921.16	650.59	664.57	260.61	403.96
88	14021.79	1178.25	785.41	522.69	1735.17	1619.02	32.60	20.35	490.28	277.42	322.00	114.43	7077.27	6944.52	652.78	652.24	286.69	365.54
89	14534.92	1214.68	778.54	543.09	1796.67	1790.55	71.31	17.39	466.41	293.68	338.10	105.24	7398.28	7136.64	670.84	666.33	305.76	360.57
90	14762.89	1259.40	784.53	551.39	1854.43	1861.31	117.68	16.27	442.64	310.89	355.00	99.05	7636.32	7126.57	669.90	670.13	314.61	355.52
91	14396.61	1251.54	749.98	545.92	1855.24	1859.87	150.78	14.42	418.55	329.10	372.80	92.86	7626.64	6769.97	636.38	644.76	313.14	331.61
92	14737.37	1305.88	768.16	536.92	1880.35	1880.23	152.28	9.36	393.54	348.38	391.40	86.67	7743.81	6993.56	657.39	652.14	311.00	341.14
93	14836.01	1343.04	772.90	524.41	1881.28	1846.17	151.20	3.87	367.83	368.80	411.00	80.48	7747.11	7088.89	666.36	664.12	306.83	357.28
94	14159.38	1307.55	718.76	509.50	1846.56	1764.64	145.28	0.14	345.21	390.40	431.50	74.29	7533.70	6625.69	622.81	633.70	298.04	335.66
95	13768.30	1294.13	691.55	492.18	1794.52	1721.36	142.96	0.00	328.97	413.28	453.10	68.10	7400.16	6368.14	598.61	604.66	287.54	317.12
96	13116.53	1255.86	636.25	470.56	1762.00	1665.21	128.63	0.00	316.45	437.49	475.70	61.91	7210.06	5906.46	555.21	566.06	298.04	268.02
97	12584.21	1226.77	588.58	445.39	1735.20	1590.25	110.30	0.00	304.62	463.13	499.50	55.72	7019.46	5564.75	523.09	531.12	263.02	268.09
98	11935.47	1182.46	535.28	419.28	1701.13	1425.06	90.11	0.00	293.02	490.26	524.50	49.53	6710.63	5224.84	491.14	499.12	249.03	250.09
99	11277.87	1136.99	481.42	392.96	1672.97	1271.87	77.21	0.00	283.10	518.99	550.70	43.34	6429.55	4848.32	455.74	464.59	234.66	229.93
2000	10584.47	1085.01	426.21	365.49	1609.52	1120.11	62.59	0.00	273.89	549.40	578.30	37.14	6107.66	4476.81	420.82	429.55	219.24	210.31
01	9464.02	984.97	354.12	312.81	1579.08	962.54	51.13	0.00	265.99	581.59	607.20	30.95	5730.37	3733.65	350.96	368.43	201.62	166.81
02	8342.03	881.27	285.39	260.39	1541.87	813.50	41.00	0.00	262.91	615.66	637.50	24.76	5364.26	2977.77	279.91	297.67	183.82	113.85
03	7399.39	793.12	237.25	208.85	1539.02	708.25	34.14	0.00	263.33	651.74	699.40	18.57	5153.68	2245.72	211.10	228.30	167.72	60.58
04	6391.22	694.26	195.90	157.62	1538.45	605.57	24.04	0.00	264.44	689.92	702.90	12.38	4885.48	1505.74	141.54	158.93	152.99	5.94
05	5683.56	624.48	173.46	106.53	1518.24	530.99	17.43	0.00	264.88	730.35	738.00	6.19	4710.54	973.02	91.46	103.98	139.26	-35.28

1) These estimates assume the tax plan is in effect for the whole year; for FY 1982-85 this is Pre SB 524, for FY 1985-05 this is HB 353.

2) FY82 collections of \$130.72m are the actual amounts collected or credited to CY82 liability. The estimate for a full year under AS43.20 in FY82 is \$242.5m which would result in a difference of \$595.12m as presented in column 4 of Table 1. FY 1985 AS43.20 collections are expected to be low due to substantial refunds and credits for prior year's tax overpayments. Tax liability on a calendar year basis under AS43.20 was CY82, \$236.50m; CY83, \$224.01m; CY84 \$241.54m.

3) Based on 6/85 70% case price and production assumptions.

TABLE 4
All Producing Fields
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Oil Prod'n (mil B/D)	Wellhead Value (1) (cur \$)	Gas Prod'n (mcf/day)	Gas Price (1) (mcf)	Total Revenue (cur \$)	State Royalty Share	Prod'n Cons Tax	Property Tax	Total Oper'tg Costs	Depr Devel Costs	Amort of Acquis Costs	Windfall Profits Tax	Interest Expense	Exploratn Costs (expen'd)	Admin Cost	Other Deductns	Total Deductns	Total Taxable Income	Total Tax Liability	Total Tax Collectns
82	1.6533	21.293	507000	0.590	12958.93	1564.30	1219.03	113.90	710.80	333.93	0.77	2017.66	119.40	190.90	236.20	148.58	6655.47	6303.46	592.53	627.99
83	1.7006	19.040	503000	0.670	11941.70	1442.73	1098.94	149.15	880.56	511.51	0.98	1018.38	121.20	204.26	252.30	142.39	5822.41	6119.30	575.21	579.54
84	1.7183	17.864	505000	0.670	11327.62	1370.57	1032.93	191.66	1038.34	729.80	1.09	412.33	122.40	218.56	264.90	136.20	5518.78	5808.83	546.03	553.33
85	1.7523	17.483	565091	0.971	11382.33	1362.44	1013.86	234.56	1237.67	824.67	0.80	70.26	127.40	233.86	278.20	130.00	5513.71	5868.61	551.65	550.24
86	1.7523	17.483	565091	0.971	11382.33	1362.44	1377.52	234.56	1237.67	824.67	0.80	69.59	127.40	233.86	278.20	130.00	5807.11	5575.22	524.07	393.05
86	1.7523	16.273	537624	1.097	10626.57	1281.15	1262.77	264.50	1266.70	955.40	0.76	46.77	131.90	247.56	292.10	123.82	5826.16	4800.41	451.24	469.45
87	1.7819	15.105	625000	1.200	10097.40	1212.62	1076.73	315.51	1367.86	1173.51	8.29	29.02	136.10	262.07	306.70	117.63	5977.01	4120.38	387.32	403.30
88	1.7312	15.753	705650	1.306	10290.63	1178.25	785.41	379.38	1488.69	1350.37	32.60	20.35	138.60	277.42	322.00	114.43	6067.15	4223.48	397.01	394.58
89	1.7058	16.843	714549	1.400	10851.82	1214.68	778.54	406.01	1537.02	1521.90	71.31	17.39	139.40	293.68	338.10	105.24	6405.89	4445.93	417.92	412.69
90	1.6392	17.987	797800	1.570	11219.23	1259.40	784.53	420.54	1577.17	1592.66	117.68	16.27	140.30	310.89	355.00	99.05	6657.22	4562.01	428.83	426.10
91	1.5077	19.262	858950	1.706	11135.31	1251.54	749.98	421.30	1562.18	1591.22	150.78	14.42	140.90	329.10	372.80	92.86	6662.66	4472.65	420.43	422.53
92	1.4399	20.945	902485	1.856	11619.35	1305.88	768.16	418.54	1574.96	1611.58	152.28	9.36	141.10	348.38	391.40	86.67	6798.95	4820.40	453.12	444.95
93	1.3515	22.778	920067	1.995	11906.75	1343.04	772.90	412.26	1564.34	1577.52	151.20	3.87	141.30	368.80	411.00	80.48	6822.84	5083.90	477.89	471.69
94	1.2011	24.762	893060	2.149	11555.98	1307.55	718.76	403.58	1521.36	1495.99	145.28	0.14	141.20	390.40	431.50	74.29	6629.92	4926.07	463.05	466.76
95	1.0876	26.856	906549	2.270	11412.40	1294.13	691.55	392.49	1461.42	1452.71	142.96	0.00	142.70	413.28	453.10	68.10	6512.45	4899.95	460.60	461.21
96	0.9635	29.080	920462	2.395	11031.65	1255.86	636.25	377.10	1421.40	1396.56	128.63	0.00	146.70	437.49	475.70	61.91	6337.60	4694.04	441.24	446.08
97	0.8521	31.723	936358	2.562	10742.51	1226.77	588.58	358.16	1386.89	1321.60	110.30	0.00	151.50	463.13	499.50	55.72	6162.15	4580.36	430.55	433.23
98	0.7436	34.548	954349	2.737	10330.41	1182.46	535.28	338.28	1347.18	1156.41	96.11	0.00	156.80	490.26	524.50	49.53	5870.81	4459.60	419.20	422.04
99	0.6457	37.580	943764	2.987	9886.53	1136.99	481.42	318.19	1313.11	1003.22	77.21	0.00	162.20	518.99	550.70	43.34	5605.37	4281.16	402.43	406.62
2000	0.5564	40.823	924739	3.244	9386.09	1085.01	426.21	296.95	1243.34	851.46	62.59	0.00	168.00	549.40	578.30	37.14	5298.40	4087.69	384.24	388.79
01	0.4528	44.381	890963	3.550	8490.22	984.97	354.12	250.50	1205.14	693.89	51.13	0.00	174.00	581.59	607.20	30.95	4933.48	3556.74	334.33	346.81
02	0.3587	48.191	899667	3.847	7572.23	881.27	285.39	204.31	1158.25	544.85	41.00	0.00	180.40	615.66	637.50	24.76	4573.40	2998.83	281.89	295.00
03	0.2655	52.293	879601	4.172	6788.11	793.12	237.25	159.00	1142.58	439.60	34.14	0.00	187.10	651.74	699.40	18.57	4362.51	2425.61	228.01	241.48
04	0.2171	56.904	860541	4.518	5928.08	694.26	195.90	114.00	1128.64	336.92	24.04	0.00	194.00	689.92	702.90	12.38	4092.96	1835.12	172.50	186.38
05	0.1688	61.951	843787	4.896	5324.82	624.48	173.46	69.15	1089.42	262.34	17.43	0.00	201.40	730.35	738.00	6.19	3912.21	1412.61	132.79	142.71

1) These prices are weighted average wellhead values derived from the various values at the M. Slope and Cook Inlet fields evaluated in this study.

TABLE 5
Trans Alaska Pipeline
Income Tax Estimates
(mil current FY \$)

Fiscal Year	Pipeline Throughput (mil B/D)	Tariff (\$/B)	Total Revenue	Operat'g Costs/Year	Amort & Deprec	Uncap Interest	Property Tax	Total Deduction	Net Income	Tax Liability (9.4%)
82	1.5680	6.11	3496.88	229.00	268.65	601.29	162.00	1260.94	2235.94	210.18
83	1.6300	5.93	3528.05	220.00	268.65	554.84	157.40	1200.89	2327.16	218.75
84	1.6536	6.01	3627.42	221.00	268.65	491.73	166.00	1147.38	2480.04	233.12
85	1.7140	6.00	3753.66	211.50	268.65	438.15	162.00	1080.30	2673.36	251.30
86	1.7173	6.00	3760.80	210.96	268.65	409.86	155.77	1045.24	2715.56	255.26
87	1.7503	6.00	3833.22	232.48	268.65	381.77	149.54	1032.44	2800.78	263.27
88	1.7037	6.00	3731.16	246.48	268.65	351.68	143.31	1010.12	2721.04	255.78
89	1.6818	6.00	3683.10	259.65	268.65	327.01	137.08	992.39	2690.71	252.93
90	1.6181	6.00	3543.66	277.26	268.65	302.34	130.85	979.10	2564.56	241.07
91	1.4892	6.00	3261.30	293.06	268.65	277.65	124.62	963.98	2297.32	215.95
92	1.4238	6.00	3118.02	305.39	268.65	252.44	118.38	944.86	2173.16	204.28
93	1.3376	6.00	2929.26	316.94	268.65	226.53	112.15	924.27	2004.99	188.47
94	1.1888	6.00	2603.49	325.20	268.65	204.01	105.92	903.78	1699.62	159.76
95	1.0758	6.00	2355.90	333.10	268.65	186.27	99.69	887.71	1468.19	138.01
96	0.9520	6.00	2084.88	340.60	268.65	169.75	93.46	872.46	1212.42	113.97
97	0.8410	6.00	1841.70	348.31	268.65	153.12	87.23	857.31	984.39	92.53
98	0.7329	6.00	1605.06	353.95	268.65	136.22	81.00	839.82	765.24	71.93
99	0.6353	6.00	1391.34	359.86	268.65	120.90	74.77	824.18	567.16	53.31
2000	0.5472	6.00	1198.38	366.18	268.65	105.89	68.54	809.26	389.12	36.58
01	0.4447	6.00	973.80	373.94	268.65	91.99	62.31	796.89	176.91	16.63
02	0.3515	6.00	769.80	383.62	268.65	82.51	56.08	790.86	-21.06	-1.98
03	0.2791	6.00	611.28	396.44	268.65	76.23	49.85	791.17	-179.89	-16.91
04	0.2115	6.00	463.14	409.81	268.65	70.44	43.62	792.52	-329.38	-30.96
05	0.1638	6.00	358.74	428.82	268.65	63.48	37.38	798.33	-439.59	-41.32

- 1) No gas production considered (26 TCF).
- 2) No TAPS settlement.
- 3) Some amount of total crude taken off at N. Pole i.e. does not go to Valdez.
- 4) Based on 6/85 70% case price and production assumptions.
- 5) Seal Is. excluded.

ASSUMPTIONS:

Property taxes per AS43.56 @2% gross.

TABLE 6
WINDFALL PROFITS TAX DEDUCTION
(mil current FY \$)

DEDUCTION FROM FY TAXABLE INCOME

<u>Fiscal Year</u>	<u>Sadlerochit</u>	<u>Cook Inlet</u>	<u>Total</u>	<u>Impact on FY Tax Liability (Total * .094)</u>
<u>Under Pre-SB 524</u>				
a)				
82	1750.61	267.05	2017.66	189.66
83	848.78	169.60	1018.38	95.73
84	289.25	123.08	412.33	38.76
85	8.93	61.33	70.26	6.60
<u>Under HB 353</u>				
b)				
85	8.51	61.09	69.60	6.54
86	-0-	46.77	46.77	4.40
87	-0-	29.02	29.02	2.73
88	-0-	20.35	20.35	1.91
89	-0-	17.39	17.39	1.63
90	-0-	16.27	16.27	1.53
91	-0-	14.42	14.42	1.36
92	-0-	9.36	9.36	.88
93	-0-	3.87	3.87	.36
94	-0-	.14	.14	.01

Note:

- 1/ Based on 6/85 70% case price and production assumptions.
 - 2/ Windfall Profits Tax is phased out and no longer in effect in FY 1995 and thereafter.
 - 3/ The reason for the slight difference in FY 85 under Pre-SB 524 compared to HB 353 is the difference in the Oil Severance Tax law and thus, the severance tax adjustment under the WPT.
- a) For FY 1982 through 1985, these impacts are included in Tables 3 and 4 under the Pre-SB 524 separate accounting corporate tax. If the WPT was not a deduction for those years, the total tax liability columns would have been increased by these amounts.
 - b) For FY 1982 through 2005, these impacts are not included in Tables 3 and 4 under the HB 353 separate accounting corporate tax. If the WPT was a deduction for these years, the total tax liability columns would be reduced by these amounts. In FY 1985, the reduction would be approximately one half the amount because HB 353 goes into effect midway through the fiscal year.

V.

This section will present comments and conclusions relative to HB 353 based on the analysis outlined and summarized in preceding sections.

As to the feasibility analysis performed relative to the impact of HB 353 on development and production of the "marginal" North Slope fields, the following qualifications should be noted:

The feasibility analysis performed in the Petroleum Revenue Forecasting Model tests the real after tax discounted cash flow rate of return from a field against an assumed "hurdle" real rate of return to determine feasibility. If the rate of return for the field given projected production, prices, development costs, operating costs and tax rates exceeds the hurdle rate, development of the field is deemed feasible.

There are three potential problems with applying this quantitative analysis to the "marginal" North Slope fields and then drawing conclusions about the actual timing and magnitude of their development. The first is the "hurdle" rate used in the model may not be the same as the "hurdle" rate actually used by the corporations with lease rights to develop the field. The second is that the model analysis assumes no capital budget constraint. In reality, the corporations have a limited amount of capital to invest in the development of fields in Alaska and

elsewhere in the world. Even though development of a field in Alaska may be projected by the corporation to provide an acceptable rate of return given the corporation's actual "hurdle" rate, there may be other even more attractive projects elsewhere which would be developed instead, given a limited capital budget. Finally, there may be non-quantifiable judgmental factors which the corporations consider in making their investment decisions. These types of judgmental considerations are necessary to distinguish between two investment alternatives which are projected to be equally attractive on a quantitative basis.

Regardless of these three potential problems in applying the feasibility model to analyze when and at what level a field will actually be developed, the model is useful in analyzing the relative effect of alternative tax structures on rates of return and feasibility of development given projected production, costs and prices. Here, as discussed earlier, our analysis indicated the impact of the HB 353 tax structure with respect to Petroleum Corporate Income Tax and Petroleum Severance Tax on the feasibility of development was relatively insignificant. The future of oil prices will have a much more significant effect on the feasibility of development for these fields.

As to the revenue impact of HB 353, the analysis indicated that under all alternative price and production scenarios examined, cumulative revenues from income and severance taxes for FY 1985 through FY 2005 were greater under HB 353 than under the current tax structure. The absolute and percentage gain, however, varied significantly between scenarios.

For example, cumulative revenues from income and severance taxes for FY 1985 through FY 2005 were 12.12 percent higher under HB 353 than under current law given the Mean case price and production scenario, 8.38 percent higher given the 30 percent scenario and 17.39 percent higher given the 70 percent scenario.

This is because the tax structure proposed by HB 353 is more sensitive to price and production changes than the current tax structure. The severance tax under HB 353 is slightly less sensitive to price and production changes than the current severance tax simply because it is levied at a lower maximum rate, 12.25 percent as compared to 15 percent under the current law. However, this is more than offset by the income tax which is significantly more sensitive under HB 353 than under current law resulting in greater overall revenue sensitivity under HB 353.

The cumulative revenues collected from income taxes for FY 1985 through FY 2005 under the current apportionment tax structure were projected to be 5.04 percent lower given the 30 percent scenario as compared to the Mean scenario and 16.94 percent higher given the 70 percent scenario as compared to the Mean scenario. The cumulative revenues collected under the proposed HB 353 separate accounting income tax were projected to be 14.52 percent lower given the 30 percent scenario compared to the Mean scenario and 30.83 percent higher given the 70 percent scenario compared to the Mean scenario. The reason for this

is under separate accounting, revenue collections are directly dependent upon the level of production and wellhead values in Alaska. Under apportionment, however, revenue collections are dependent on both worldwide income and the level of Alaska activity compared to worldwide activity as measured by apportionment factors. Therefore, the apportionment tax structure is less directly sensitive to changes in Alaska production and wellhead values. Also, it should be noted that a given percentage change in worldwide oil prices results in a greater percentage change in Alaska wellhead values due to the fixed transportation cost differential which exists between the two. For example, if world crude prices were \$20.00 per barrel and there was a total fixed transportation cost of \$10.00 per barrel to get Alaska crude to market, the wellhead value of Alaska crude would be \$10.00 per barrel. If world prices were to increase by 5 percent to \$21.00 per barrel, Alaska wellhead value would increase from \$10.00 to \$11.00 per barrel which would represent a 10 percent increase. Therefore, alternative price scenarios result in greater percentage differences in Alaska activity and income upon which separate accounting is based than in worldwide activity and income upon which apportionment is based.

The HB 353 proposal, because it is more sensitive to oil prices, has the potential for greater upside gain should prices increase and the potential for greater downside risk should prices decrease when compared to the current tax structure.

It should be noted that by FY 2005, the revenues collected under apportionment were projected to be greater than under separate accounting given all alternative scenarios. This is because under apportionment, worldwide income was assumed to increase over time and was only partially offset by declining apportionment factors as Alaska activity declined. Under separate accounting, collections declined directly over time with declining Alaska activity and income.

It is also interesting to note that by FY 2005, collections under the current apportionment tax are approximately equal given both the Mean and 70 percent assumptions. This is because even though the 70 percent case assumes a higher long-run worldwide apportionable income growth rate it also assumes a higher growth rate in worldwide production which acts to reduce the apportionment factor at a faster rate thus offsetting the higher income growth rate. As noted earlier, however, over the entire period from FY 1985 through FY 2005, the 70 percent case assumptions resulted in revenue collections which were 16.94 percent higher than the Mean.

In comparing revenue collections under separate accounting in FY 2005 given Mean and 70 percent scenario assumptions, the 70 percent case generates less revenue than the Mean case. The reason for this is that under the 70 percent scenario, development of fields in Alaska occurs earlier and at a more rapid pace. Therefore, by FY 2005, production

under the 70 percent scenario is less than production under the Mean scenario. As noted earlier, however, over the entire period from FY 1985 through FY 2005, the 70 percent case assumptions resulted in revenue collections which were 30.83 percent higher than the Mean.

A number of revisions have been made to the analysis compared with the preliminary analysis previously presented to the Legislature during the 1985 legislative session. The previous analysis was based on March, 1985 Mean case price assumptions whereas this analysis is based on June, 1985 price assumptions which are significantly lower in the Mean case. This analysis includes two additional marginal fields, West Sak and Point Thompson which were not included before. The March analysis included projections only through FY 1995. Total projected cumulative revenue collections from both income and severance taxes given Mean case assumptions under both current and proposed tax structures are lower now than in March.

Severance taxes projected under both laws are lower due to lower price and wellhead value projections in spite of somewhat higher production from the inclusion of the two additional fields in the analysis.

Income tax projections under the current apportionment law are lower due primarily to lower expectations for long-run worldwide apportionable income growth rates. Income tax projections under the proposed HB 353 separate accounting law are lower due to lower wellhead

values and hence, gross revenues. The inclusion of additional fields does not result in enough additional production to offset the effect of lower wellhead values on gross revenues, and the additional fields included also had deductions associated with them which reduced net taxable income even more. Also, as discussed earlier, separate accounting deductions primarily operating cost estimates, have been revised upward since March.

The revisions since March have resulted in a greater downward revision in projected collections under the current income and severance tax laws than under the proposed HB 353 income and severance tax laws. Therefore, the absolute and percentage revenue gain from HB 353 is projected to be greater now than in March. Total cumulative revenues collected for FY 1985 through FY 1995 were projected to be 13.46 percent higher under HB 353 than under current law given the Mean case assumptions in March and now are projected to be 16.79 percent higher for the same period (1985-1995) given the Mean case assumptions.

It should also be noted that due to the revision in the operating cost deduction, the estimates of revenues which would have been collected under the pre-SB 524 separate accounting corporate tax for FY 1982 through FY 1985 are lower now than in March.

Vincent D. Wright
Chief of Research
Office of the Commissioner
Department of Revenue

December 19, 1986

465-2300

Sensitivity Analysis of
HB 353

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Roger Marks, Petroleum Economist *RM*

Per your instructions we have conducted a price sensitivity analysis of a separate accounting (HB 353) versus a modified apportionment approach to oil corporate income taxation. The results are outlined in the executive summary.

The important aspect of this study is the relative relationship between the two different types of tax structures. This study is not designed to forecast revenues under the two approaches but rather to examine the relationship between the two tax structures and thus answer fundamental questions about price sensitivity.

We will be submitting to you on occasion updated information as events change in what is obviously a dynamic tax and oil arena.

**SENSITIVITY ANALYSIS
OF
PROJECTED REVENUE COLLECTIONS**

**HB 353
COMPARED TO
CURRENT LAW**

**ALASKA DEPARTMENT OF REVENUE
DECEMBER 1986**

**By
John Larson, Economist
Charles Logsdon, Petroleum Economist
Roger Marks, Petroleum Economist**

Executive Summary

This study is a follow-up to a previous study on corporate income taxation presented by the Department of Revenue on October 31, 1985. At that time we evaluated HB 353, a separate accounting approach to income taxation, versus the current modified apportionment approach. Subsequent to the completion of the previous study two significant events transpired. First, worldwide crude oil prices and hence Alaskan wellhead values (WHV) have declined considerably. Second, the State of Alaska and the TAPS oil pipeline owner corporations have negotiated a settlement on TAPS tariffs which is known as the TAPS Settlement Methodology (TSM). As a result of these two events we updated and modified our analysis. This analysis further differs from the previous one in that it is a sensitivity study of possible revenue collections for the period (FY) 1986 through FY 2005 under both current law and HB 353 with respect to a broad range of Alaskan crude oil wellhead values. The present study was done entirely in terms of constant 1986 dollars as opposed to current or inflated dollars which were used in the previous study. Also, projected revenue collections associated with TAPS in this study fully incorporate the provisions of TSM.

As a result of the fact that worldwide crude oil prices have recently been on the decline, concern has been expressed as to the relative oil price sensitivity of revenue collections under HB 353 and current law. At what crude oil world price level and associated Alaska wellhead value would revenue collections under HB 353 exceed those under current law. This is the type of sensitivity question which this current study was designed to answer.

The results of the analysis done for the current study support the basic conclusions of the previous October 31, 1985 study. Those conclusions being as follows:

- 1) The proposed tax law changes under HB 353 would not significantly impact the projected development feasibility or production volume profiles of any of the currently producing or prospective Alaskan oil or gas fields. The feasibility of development and production volume profile for a field are primarily dependent on WHV in conjunction with certain technical and cost considerations for that particular field. The impact of alternative WHV scenarios on projected total Alaska oil and gas production volumes can be seen in Graphs I-1 through I-3 presented at the end of this summary section.
- 2) The revenues projected to be collected under HB 353 particularly from the petroleum corporate income tax would be more sensitive to Alaska crude oil WHV and production volume changes than revenues projected under the current tax structure. This can be seen in Graphs III-8605-1 and III-8605-2 presented at the end of this summary section. The sum from FY 1986 through FY 2005 of projected income taxes and production taxes combined for current law and HB 353 are shown as functions of alternative WHV scenarios.

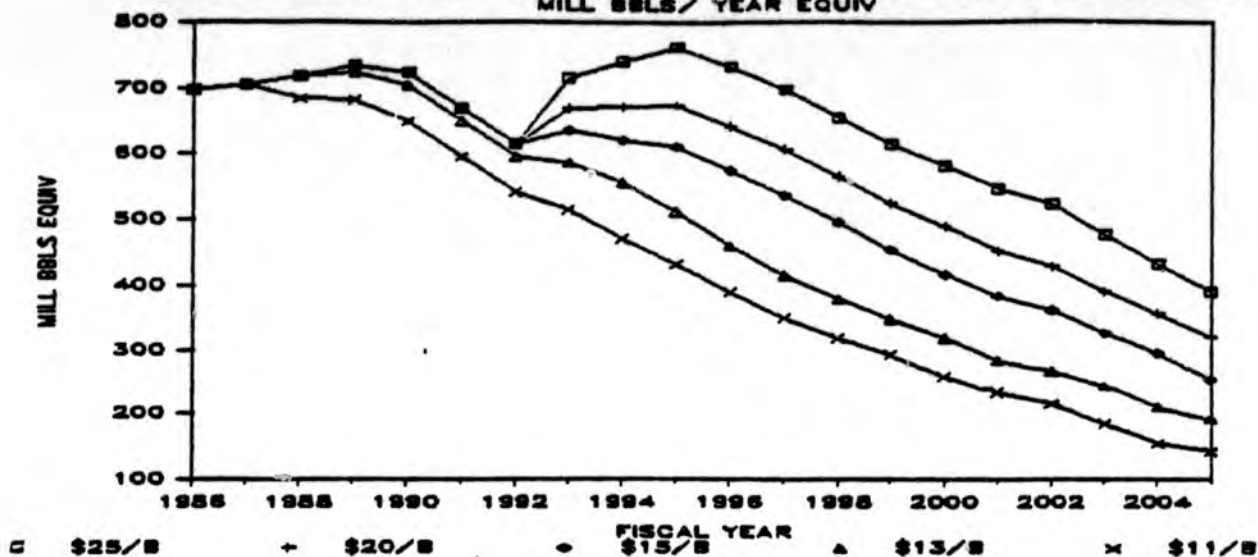
Due to the way in which the current analysis is structured, it is not only possible to conclude whether the current law or HB 353 has greater revenue sensitivity to oil price changes but also to quantify the relative sensitivity of the two tax structures. This was not possible in the previous study. The conclusions which can be drawn from the results of this analysis are summarized in Graphs III-8605-1, III-8605-2, III-8605-PV@5-1, III-8605-PV@5-2, III--8605-PV@10-1 and III-8605-PV@10-2 presented at the end of this summary section. These graphs show the cumulative revenues for the entire period from FY 1986 through FY 2005 which are projected to accrue from the petroleum corporate income tax alone and petroleum corporate income tax and petroleum production tax combined under both current law and HB 353. The projected revenues are shown on an undiscounted basis and also on a discounted basis, discounted at both 5 and 10 percent. The conclusions relative to the oil price sensitivity of revenues under the two tax structures are as follows:

- 1) Considering only the petroleum corporate income tax aspects of the two tax structures on an undiscounted basis, Graph III-8605-1 shows the crossover WHV is just slightly over \$9 per barrel. This is the WHV where the cumulative income tax revenues for FY 1986 through FY 2005 under HB 353 exceed those under current law.
- 2) When both the income and production tax aspects of HB 353 are considered together, Graph III-8605-2 shows the crossover WHV is between \$15 and \$20 per barrel.

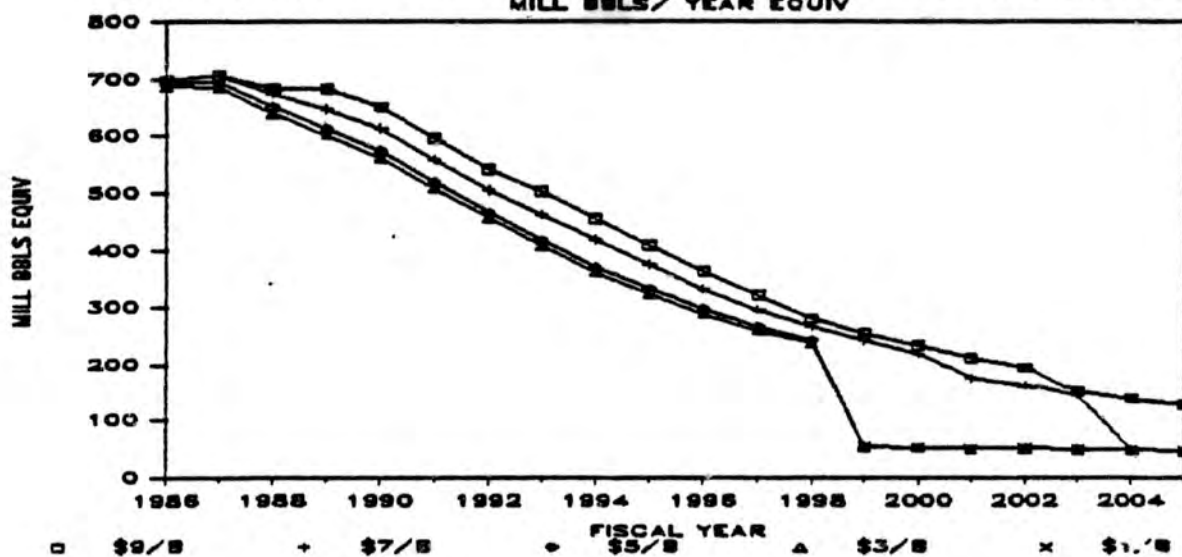
- 3) In addition to simply comparing the cumulative sum of projected revenues over the period, it is also useful to compare the discounted present value of projected future revenues for the two tax structures. Discounting takes account of the fact that differences in revenue collections between the two tax structures may not be uniformly distributed over time and that revenue received earlier is worth more than revenue received later due to the time value of money. Discount rates of both 5 and 10 percent were used for the comparison. These rates encompass a reasonable range of real discount rates for the State. On a discounted basis at both 5 and 10 percent respectively, the crossover WHVs for the income tax aspect of the two tax structures are shown in Graphs III-8605-PV@5-1 and III-8605-PV@10-1. Note that the crossover WHV is somewhat less in both these discounted cases than is the undiscounted case shown in Graph III-8605-1. This is because the income tax under HB 353 generally produces more revenue than current law in earlier years for the various WHV scenarios because production volumes are higher.
- 4) A comparison on the same discounted basis for both income and production taxes combined is shown in Graphs III-8605-PV@5-2 and III-8605-PV@10-2. Note that when discounted at 5 percent the total revenue crossover WHV changes to just slightly over \$15 per barrel. When discounted at 10 percent the crossover is approximately \$13 per barrel.

5). At the present time the North Slope weighted average netback WHV is below \$6 per barrel. This is well below any of the crossover WHV's discussed above. Thus, unless real WHV's increase significantly from their present levels, enactment of HB 353 would result in a net revenue loss over the next 20 years when compared to current law. This would also be true if only the separate accounting income tax aspects of HB 353 were enacted without enacting the offsetting changes to the production tax currently included in HB 353.

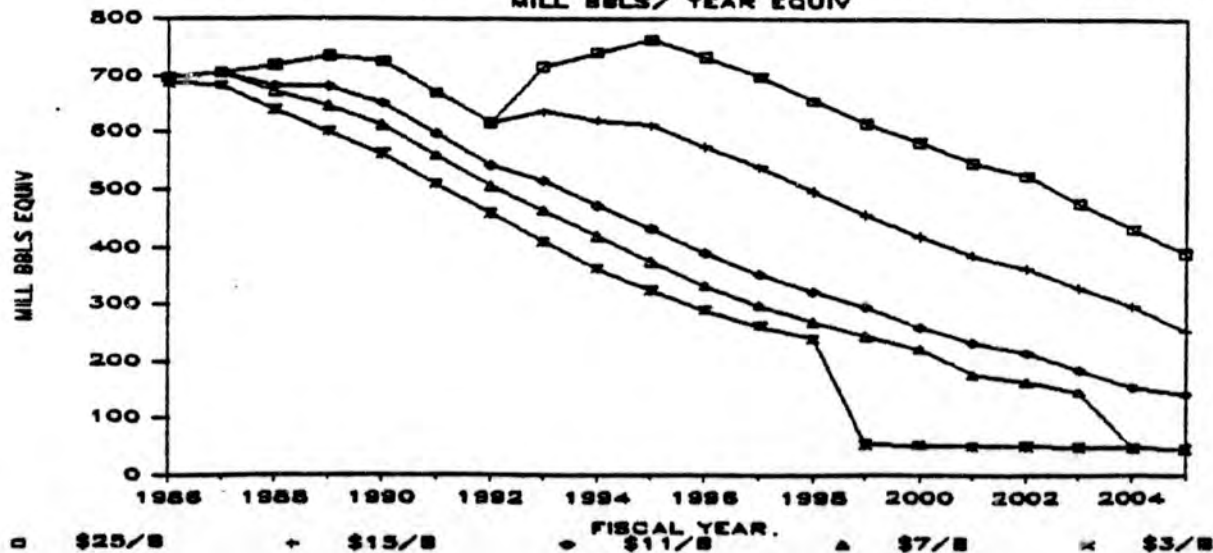
GRAPH I-1
TOTAL AK OIL & GAS PRODN COMPARISON
MILL BBLs/ YEAR EQUIV



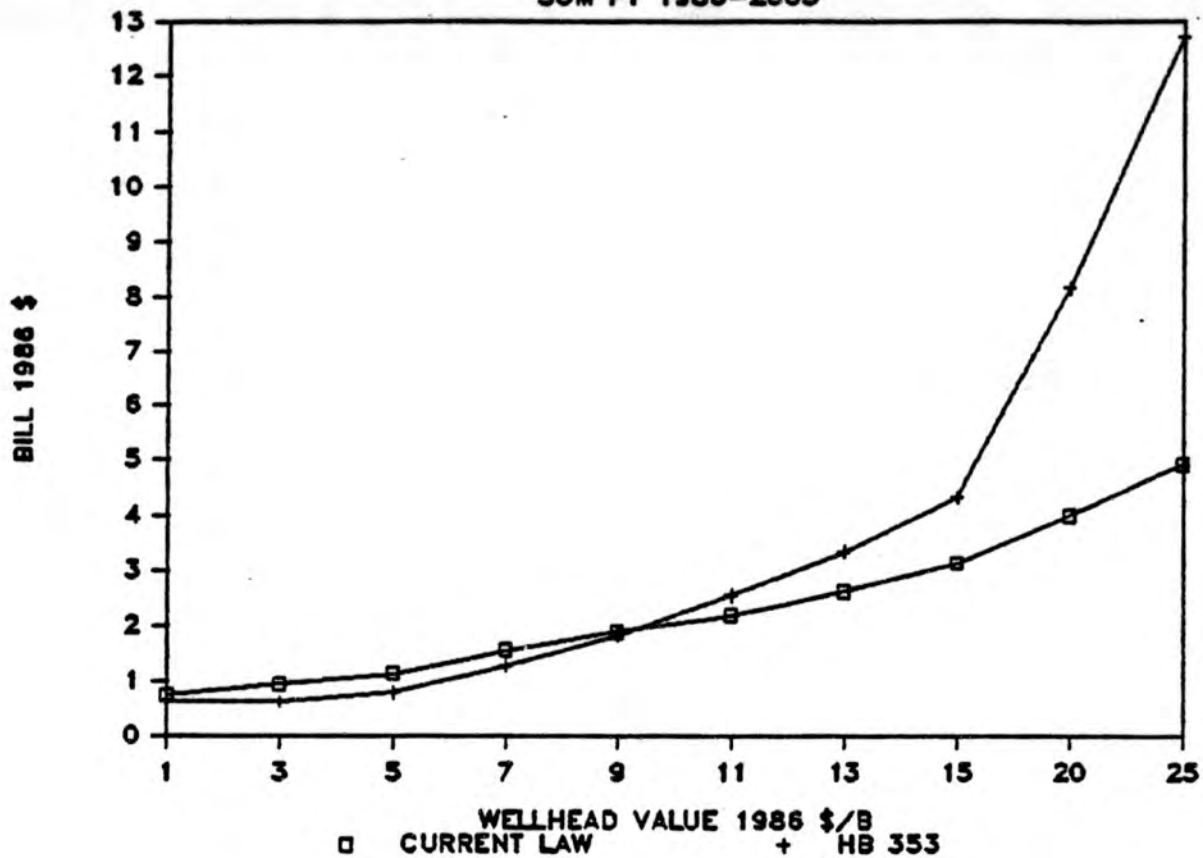
GRAPH I-2
TOTAL AK OIL & GAS PRODN COMPARISON
MILL BBLs/ YEAR EQUIV



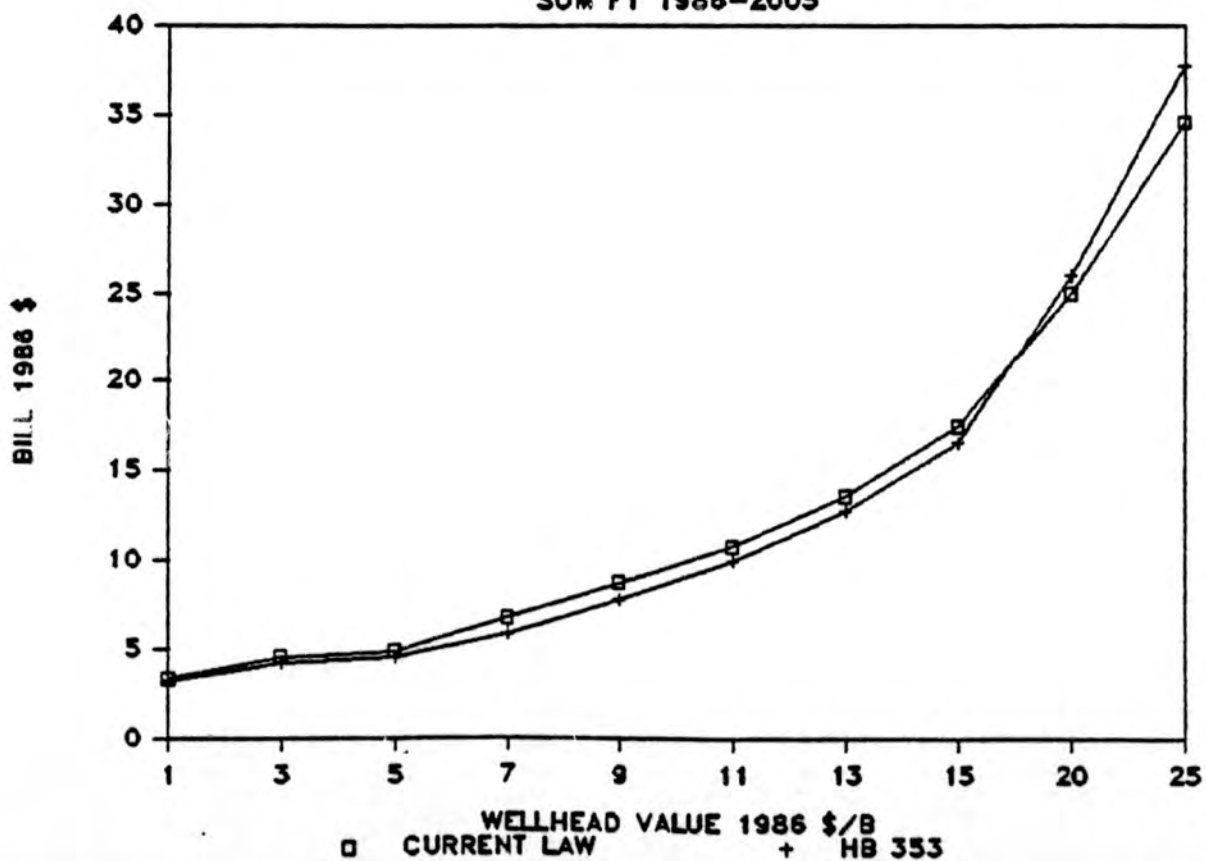
GRAPH I-3
TOTAL AK OIL & GAS PRODN COMPARISON
MILL BBLs/ YEAR EQUIV



GRAPH III-8605-1
INCOME TAX COMPARISON
 SUM FY 1986-2005



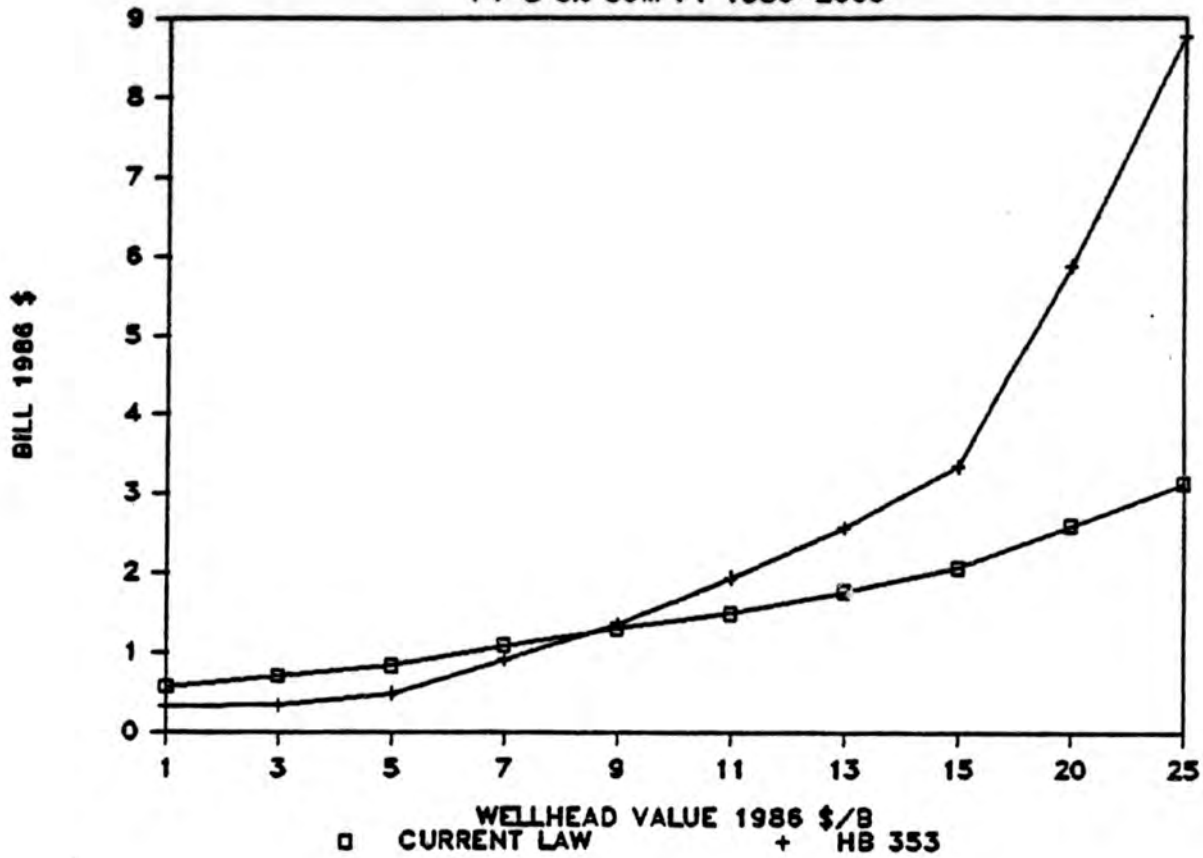
GRAPH III-8605-2
INCOME + PRODN TAX COMPARISON
 SUM FY 1986-2005



GRAPH III-8605-PV05-1

INCOME TAX COMPARISON

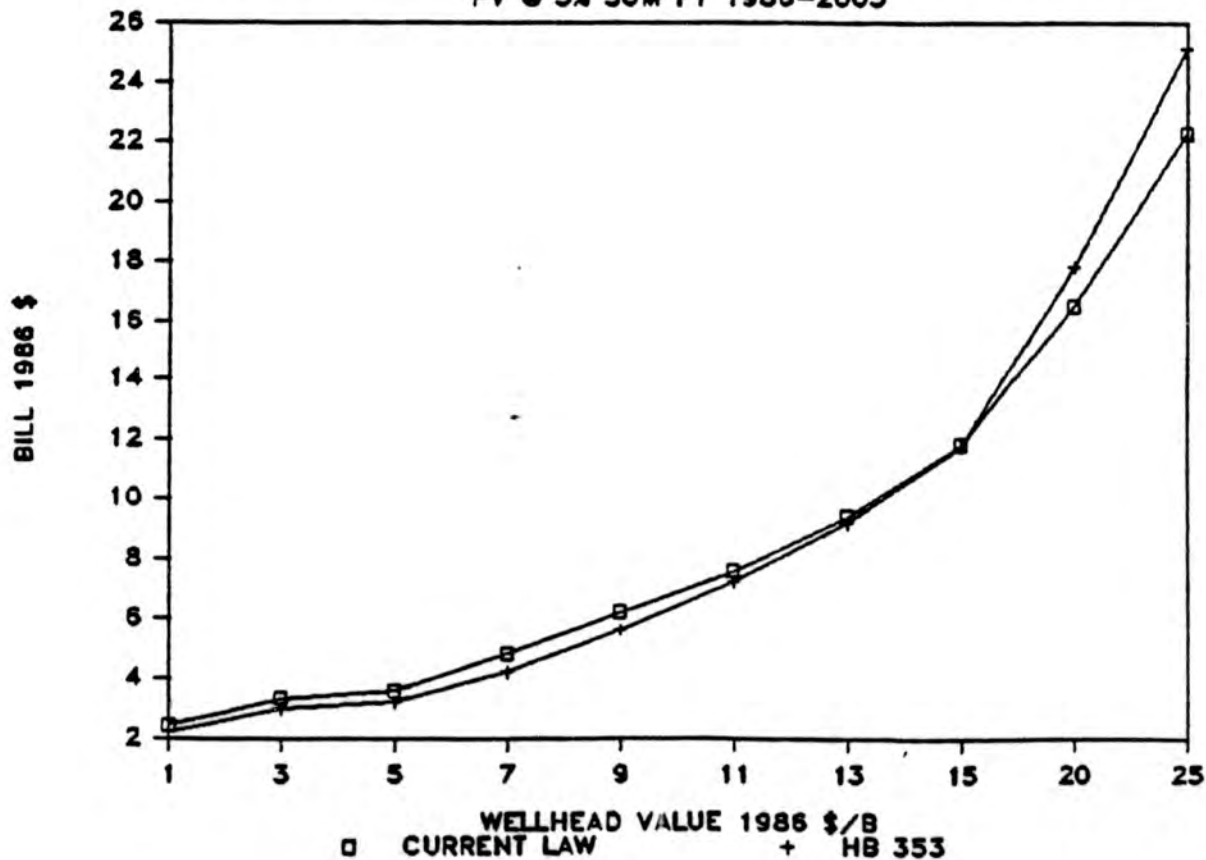
PV @ 5% SUM FY 1986-2005



GRAPH III-8605-PV05-2

INCOME + PRODN TAX COMPARISON

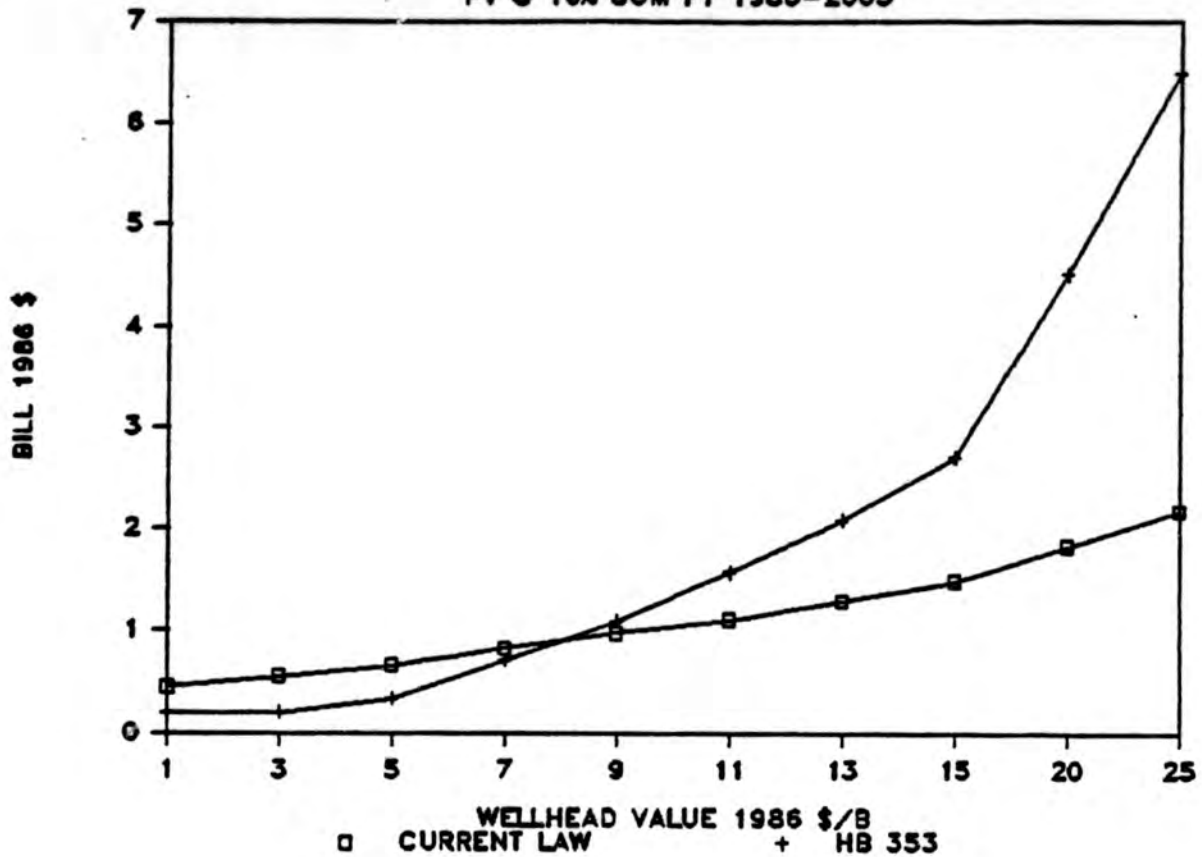
PV @ 5% SUM FY 1986-2005



GRAPH III-8605-PV010-1

INCOME TAX COMPARISON

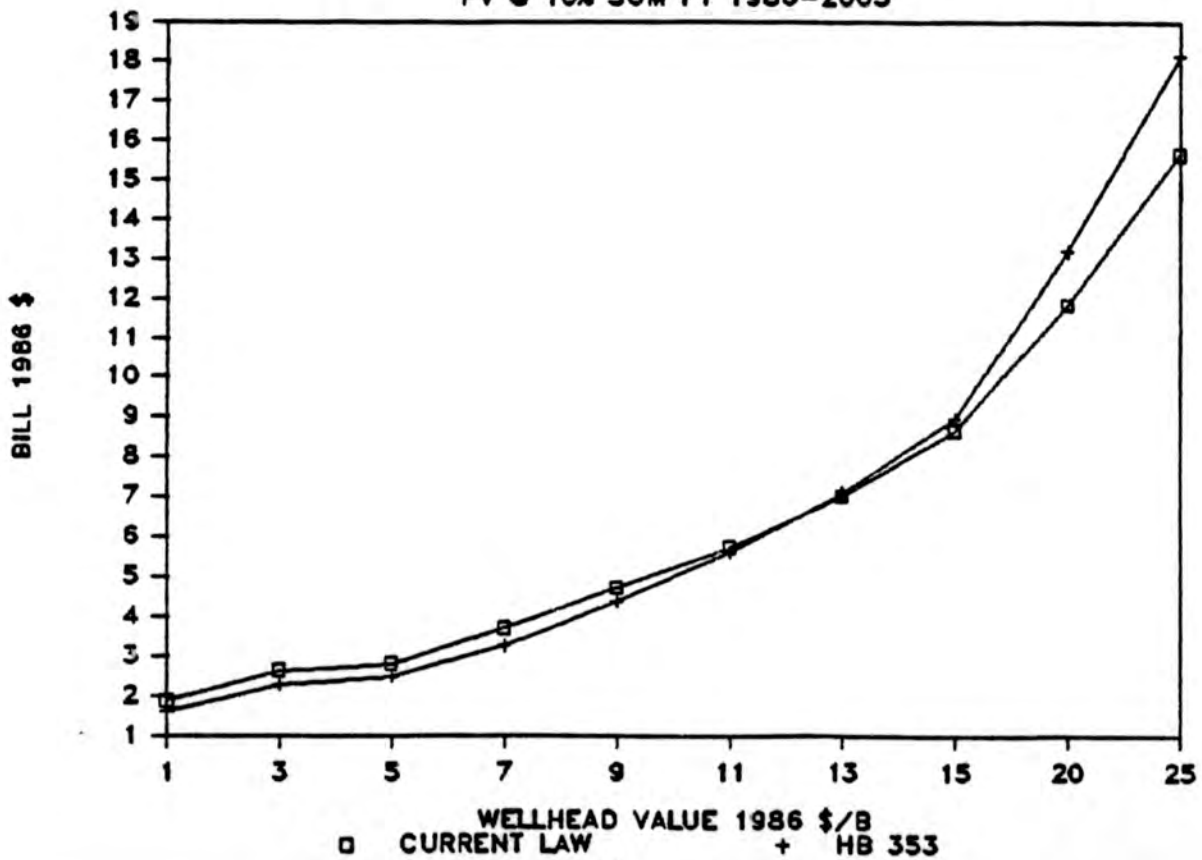
PV @ 10% SUM FY 1986-2005



GRAPH III-8605-PV010-2

INCOME + PRODN TAX COMPARISON

PV @ 10% SUM FY 1986-2005



Introduction

This study is a follow-up to a study presented by the Department of Revenue in a memorandum dated October 31, 1985 on the impact of HB 353. Subsequent to that memorandum, which presented the impact of HB 353 under the assumptions of the June 1985 Petroleum Revenue Forecast, crude oil prices have declined considerably. A primary concern among decision makers now regarding HB 353 seems to be the question: At what crude oil world price level and associated Alaska wellhead value (WHV) would revenue collections under HB 353 exceed those under the current law? This study was designed to answer that type of "sensitivity" question.

The study shows the projected change in revenue collections from the Petroleum Corporate Income Tax and the Petroleum Production (severance) Tax under the provisions and effective dates of HB 353 compared to current law. The comparison was done for fiscal years (FY) 1986 through 2005 under ten different Alaska North Slope (Sadlerochit TAPS-Pump Station No. 1) wellhead value scenarios. The entire analysis was done in constant 1986 dollars and the WHV scenarios used ranged from \$25 per barrel to \$1 per barrel.

A detailed description of the historical legal development of the Petroleum Corporate Income and Petroleum Production taxes along with a description of changes proposed to those taxes under HB 353 can be found in the aforementioned October 31, 1985 memorandum. To summarize: The Petroleum Corporation Income tax levied under current law, AS 43.20.072, uses a modified three factor formula based on on the average ratio of Alaska to worldwide extraction (net oil and gas production), property and

sales to apportion a corporation's worldwide petroleum business income to Alaska. The corporation's Alaska petroleum business income is taxed under a graduated rate schedule with the maximum rate being 9.4 percent. Under the provisions proposed by HB 353, the Petroleum Corporate Income tax would be levied on a separate accounting basis similar to the now repealed AS 43.21 which was in effect for tax years 1978 through 1981. A Corporation's Alaska petroleum production and pipeline transportation income would be calculated on a separate accounting basis considering only income and deductions directly associated with its Alaskan operations. This income would be taxed at a maximum rate of 9.4 percent. Petroleum Production tax on crude oil production, under current law AS 43.55, is levied at a maximum nominal rate of 15 percent on the value of the oil at the point of production modified by an economic limit factor (ELF) to determine the effective tax rate on the production value. The ELF is calculated on a per well basis and attempts to adjust tax rates for changes in well economics when operating costs and production rates are considered. The ELF is set equal to 1 by law if it is calculated to be greater than .7 for the first ten years of production. The nominal tax rate for all North Slope fields other than Sadlerochit is 12.25 percent for the first five years of production and 15 percent thereafter. Also there is a floor tax of 80 cents per barrel which is also modified by the ELF. HB 353 proposes to change the maximum nominal rate to 12.25 percent for all fields beginning in calendar year (CY) 1987. The ELF and floor provisions would remain the same as under current law.

Results of the study are presented in three parts as follows:

- A. Conclusions relative to the results of the study.
- B. Summary tables, graphs and descriptions showing the quantitative results of the study.
- C. A description of the analysis, methodology, and assumptions used in this study.

A.

Conclusions

This part of the paper will summarize the major conclusions which may be drawn from the results of this analysis.

Two of the basic conclusions of this study are the same as in the previously presented October 31, 1985 study. First, that the proposed law changes under HB 353 would not significantly impact the projected development feasibility or production volume profiles of any of the currently producing or prospective Alaskan oil or gas fields. Second, that the revenues projected to be collected under HB 353, particularly from the petroleum corporate income tax, would be more sensitive to Alaska crude oil WHV and production volume changes than the revenues projected under the current tax structure.

Given the assumptions made in this study, the feasibility of development and production volumes for a field are primarily dependent on WHV in conjunction with certain technical and cost considerations for that particular field. The tax structure change proposed under HB 353 would have no significant impact on field feasibility. The impact of alternative WHV scenarios on projected oil and gas production volumes can be seen in Part B, Section I, Table I-1 and Graphs I-1 through I-3. Cumulative Alaska oil and gas production for FY 1986 through FY 2005 is projected to be over twice as great in the \$25 per barrel WHV scenario

than in the \$1 per barrel WHV scenario. In graph I-1 the impact of enhanced recovery investments on the production volume curves for the higher WHV scenarios can be seen. Note, that in performing this feasibility analysis, assumptions had to be made relative to the project evaluation criteria which would be used by the corporations with leases in the various fields. The major explicit assumption relative to economic evaluation criteria was the specific after tax discounted cash flow rate of return (DCFROR) from the project, which the corporations would require to deem a project feasible and go ahead with development. The major implicit assumption relative to economic evaluation criteria was that the corporations would have an unlimited ability to secure the capital necessary to invest in any project which meets their required DCFROR. Also, there is an implicit assumption in this feasibility analysis that non-economic judgmental factors will not override the economic factors, in the decisions by the corporations to develop these fields. To the extent these assumptions differ from the assumptions actually used by these corporations, the actual timing and magnitude of field development may differ. However, the feasibility analysis utilized is a valid tool for determining the relative significance of WHV changes and tax law changes, such as those proposed under HB 353, for field economics.

This study was designed to answer questions which the previous HB 353 study did not. The broad range of real 1986 \$ WHVs selected for study along with the assumption of constant real price levels throughout the projection period allowed for a true sensitivity analysis to be

performed. In contrast, the previous study was based on a probabilistic simulation type of analysis and attempted to forecast future nominal and real price levels and the associated production volumes and revenues. In that analysis various higher and lower price vector forecasts were used in alternative scenarios deemed to be the 70 percent, mean and 30 percent cases. In each case, however, the real price changed over the forecast period. While that methodology was certainly realistic and valid for forecasting purposes it made it difficult to characterize a particular forecast scenario for sensitivity analysis purposes. In addition, the probabilistic nature of the simulation forecasting model can produce average revenue forecast results which appear inconsistent with the weighted average assumptions used in the forecast. This is because the probability distribution of revenue results will not be exactly the same as the probability distribution of input assumptions. This is in turn a result of the revenue laws which are modeled, where there are constraints on the revenue distribution, such as with the cents per barrel floor for the production tax, which do not apply to the input WHV distribution. Under the methodology used for the present study, projected scenarios are clearly characterized and differentiated from one another. Again, this analysis is a series of hypothetical projections based on a series of alternate assumptions and is not meant to be used as a forecast of future revenue collections. The methodology is valid and useful for determining the relative price and production sensitivity of revenue collections under different tax structures.

The primary sensitivity question with respect to HB 353 is: At what Alaska North Slope WHV would revenues under HB 353 exceed those under

current law? The answer to that question depends on the time period for which it is asked. This is because revenues are not only sensitive to WHV but also to production volumes. Note from Table I-1 and Graphs I-1 through I-3, in Part B, Section I, that under all WHV scenarios Alaska petroleum production declines over the period. The specific path of the decline differs for each scenario. However in all cases, even the higher WHV scenarios where very significant enhanced recovery is feasible, the general trend is down. Analysis of the graphs presented in Part B, Section III indicates that the crossover WHV, that WHV for which revenues from HB 353 exceed current law, changes depending on the year for which the revenue comparison is presented and on whether income tax alone is considered or whether the sum of income and production taxes together is considered. Generally, over time as production declines the crossover wellhead value becomes greater, until by FY 2000 the sum of income and production taxes combined under HB 353 produces less revenue than current law even under the \$25 per barrel WHV scenario. This is because by FY 2000 production volumes have declined to levels under all scenarios such that there is no WHV within the range of WHV's considered where HB 353 is projected to generate more revenue than current law. Note that for FY 2000 and FY 2005 there is a double crossover or reverse crossover, where under lower WHVs, revenue projected under HB 353 exceeds that under current law. This effect is due to the fact that by FY 2000 and FY 2005, given the lower WHV scenarios, there would be no North Slope production, and therefore, no TAPS operation. Only Cook Inlet would then be in production. Thus, HB 353, separate accounting applied to Cook Inlet alone would generate more revenue than current law.

Also note from Tables 7 and Graph 2 in the various Part B, Section II, subsections that for WHV scenarios of \$5 per barrel and below and for later years in the WHV scenarios above \$5 per barrel when there is no North Slope production, that production taxes under the two tax structures are essentially the same. Thus, there is no significant revenue loss from production taxes due to HB 353. This effect is due to the operation of the cents per barrel floor which is the same for both current law and HB 353 and also the fact that in later years there is no Cook Inlet oil production. There is only gas production for which HB 353 does not change the tax provisions.

The way it is most useful to look at this question is over the entire period from FY 1986 through FY 2005. In Part B, Section III, Graph III-8605-1 shows the undiscounted sum from FY 1986 through FY 2005 of income taxes under HB 353 and the current law as a function of WHV. Note that the crossover WHV, where the sum of revenues projected from FY 1986 through FY 2005 under HB 353 exceed those under current law, is just slightly over \$9 per barrel when only the income tax aspect of HB 353 is considered alone. The crossover WHV is between \$15 and \$20 per barrel when both the income and production tax aspects of HB 353 are considered together. This can be seen in Graph III-8605-2. In addition to simply comparing the cumulative sum of projected revenues over the period, it is also useful to compare the discounted present value of projected future revenues over the period for the two alternative tax structures. Discounting takes account of the fact that differences in revenue collections between the two tax structures may not be uniformly

distributed over time. Due to the time value of money, gains or losses in earlier years are weighted more heavily than gains or losses in later years for comparison purposes on a discounted basis. The time value of money can be illustrated by the fact that money the State has now can be invested at some positive interest rate and is therefore worth more in "present value" than money the State will receive a year from now. Discount rates of both 5 and 10 percent were used for the comparison. These rates encompass a reasonable range of real discount rates for the State. Graphs III-8605-PV@5-1 and III-8605-PV@10-1 show the present value, discounted at rates of 5 percent and 10 percent respectively, of the sum of projected future income tax revenues under current law and HB 353 as a function of WHV. Note that the crossover WHV is somewhat less in both of these discounted cases than in the undiscounted case shown in Graph III-8605-1. This is because the income tax under HB 353 generally produces more revenue than under current law in earlier years, when production volumes are higher, for the various WHV scenarios. Since revenue received earlier has a greater "present value", HB 353 income taxes appear relatively more advantageous in discounted than in undiscounted terms. A comparison on the same discounted basis for both income and production taxes combined can be seen in Graphs III-8605-PV@5-2 and III-8605-PV@10-2. Note that when discounted at 5 percent the total revenue crossover WHV changes from midway between \$15 and \$20 per barrel on an undiscounted basis, as shown in Graph III-8605-2, to just slightly over \$15 per barrel. When discounted at 10 percent, the crossover is approximately \$13 per barrel.

At the present time the North Slope weighted average netback WHV is

below \$6 per barrel. This is well below any of the crossover WHV's discussed above. Thus, unless real WHVs increase significantly from their present levels enactment of HB 353 would result in a net revenue loss over the next 20 years when compared to current law. This would also be true if only the separate accounting income tax aspects of HB 353 were enacted, without enacting the offsetting changes to the production tax currently included in HB 353.

B.

Results

The quantitative results of this analysis are summarized in the tables and graphs presented in this part of the report. There are three sections which are described as follows:

Section I contains a table and graphs which summarize the results of the field feasibility analysis which was performed to determine the impact on production volumes of alternative WHV scenarios. Table I-1 shows total Alaska - (North Slope and Cook Inlet) oil and gas production volume expressed in millions of barrels of oil per year equivalents for each year and cumulatively from 1986 through 2005, given each WHV scenario analyzed. Graphs I-1 through I-3 provide a graphic representation of the information contained in Table I-1.

Section II contains tables and graphs which summarize the results of the revenue projections which were done for current law and HB 353 given the alternative WHV scenarios analyzed. Section II is divided into ten subsections, II-25, II-20, II-15, II-13, II-11, II-9, II-7, II-5, II-3 and II-1 each corresponding to the WHV scenario equal to the subsection number. Each subsection contains nine tables numbered 1 to 9 and three graphs numbered 1 to 3. Tables and graphs with the same number in each subsection show the same information only for a different WHV scenario.

Table 1 in each subsection presents projected HB 353 petroleum corporate income tax liability for all North Slope producing fields. It summarizes income and deductions on a separate accounting basis for these fields. It also shows the petroleum production tax liability for all North Slope fields under current law and HB 353. The production taxes deducted in calculating HB 353 income tax liability are of course those projected under HB 353. Note that in all subsections the production volume weighted average gross WHV for all North Slope fields together is less than the Sadlerochit WHV associated with the scenario. This is because the non-Sadlerochit North Slope fields have lower WHV's than Sadlerochit due to additional transportation costs to get oil from those fields to TAPS Pump Station No. 1. Thus, when all North Slope fields are averaged together the WHV will be lower than for Sadlerochit alone. The production volume weighted average gross WHV column is derived by dividing the total gross revenue column by the total gross production volume column. Deductions, taxable income and tax liability are shown with and without the inclusion of Windfall Profit Taxes (WPT) in total deductions.

Table 2 in each subsection summarizes income, deductions and petroleum corporate income tax liability under HB 353 for Cook Inlet oil and gas fields. Again oil production taxes are shown under current law and HB 353. Also taxable income and tax liability are shown with and without a WPT deduction. Note that the oil gross WHV is always \$6 per barrel higher than the Sadlerochit WHV for the scenario due to the fixed transportation differential which was assumed.

Table 3 in each subsection summarizes HB 353 corporate income tax, taxable income, tax liability and tax collections for all Alaska producing fields, i.e. North Slope and Cook Inlet combined. Again the impact of allowing a WPT deduction is shown for comparison purposes. Note as will be explained in Part C of this report that North Slope and Cook Inlet tax liabilities are calculated independently and then added together to calculate total tax liability and collections.

Table 9 in each subsection summarizes projected HB 353 separate accounting income, deductions and tax liability for the TAPS oil pipeline under the provisions of the proposed HB 353 income tax.

Table 5 in each subsection summarizes HB 353 corporate income tax liability and tax collections for all petroleum production, exploration, and pipeline transportation activities in the State. The North Slope and Cook Inlet fields as well as TAPS are all combined. Note, as will be explained in Part C of this report, that tax liability is calculated jointly for the North Slope fields and the TAPS pipeline. That joint tax liability is then added to Cook Inlet liability which is calculated independently to arrive at total tax liability. Again, collections are shown with and without the WPT deduction. Also, current law modified apportionment petroleum corporate income tax collections from Table 6 are shown. The differences between current law and HB 353 income taxes with and without the WPT deduction are also calculated.

Table 6 in each subsection presents projected current law, AS 43.20,

modified apportionment petroleum corporate income tax collections. Estimated weighted average apportionment factors, worldwide net profits and tax liability are shown for the three largest corporate taxpayers combined as will be explained in Part C of this report. Total tax liability and tax collections for all corporate taxpayers is also shown.

Table 7 in each subsection shows the revenue comparison between current law and HB 353 for the period from FY 1986 through FY 2005 and cumulatively over the period. The comparison is shown separately for petroleum corporate income taxes, petroleum production taxes and the two taxes combined. Thus, the projected impacts of HB 353 on the two taxes which it would affect and on total State revenues are presented. The figures for HB 353 under the income tax comparison, show total production, exploration, and pipeline transportation separate accounting collections. They assume no WPT deduction is allowed as per the provisions drafted in HB 353. Also, note that under the production tax comparison the HB 353 figures assume the production tax provisions of HB 353 become effective at the beginning of CY 1987, midway through FY 1987.

Table 8 in each subsection shows projected State revenues associated with petroleum production activities under both current law and HB 353 as a percentage of projected net production income for all fields. Gross production income is the sum of gross production revenues from both North Slope and Cook Inlet fields. All non-tax HB 353 separate accounting deductions for these fields were deducted from gross income to compute net production income. State petroleum production revenues include royalties, production and conservation taxes, property taxes on field

production facilities and income taxes. Property taxes included are the total amount paid under the State petroleum property tax on field production facilities including amounts credited to local governments. The income taxes included in revenues under HB 353 are for all producing fields and exclude TAPS from consideration. Also, income taxes under HB 353 assume no WPT deduction. It was not possible to separate income taxes under current law between production and transportation activities of the corporate taxpayers due to the worldwide apportionment methodology. Thus, income taxes included under current law are the total for all petroleum activities in the State. Note that in some WHV scenarios net income in some years was calculated to be very low or negative and thus the percentage calculation is either very high or not possible.

Table 9 in each subsection shows projected State revenues associated with both petroleum production and pipeline transportation activities under both current law and HB 353 as a percentage of projected net production and pipeline transportation income for all fields and TAPS. Table 9 is basically the same as Table 8 except TAPS was included on both the income and State petroleum revenue side of the analysis. TAPS gross revenues and non-tax deductions were included in the net income calculation. Petroleum property taxes and separate accounting HB 353 income taxes on TAPS were included in the State revenue calculation.

Graphs 1 through 3 show a comparison of revenues projected under current law and HB 353 for FY 1986 through FY 2005. Graph 1 compares petroleum corporate income taxes, Graph 2 compares petroleum production

taxes and Graph 3 compares the sum of the two taxes.

Section III contains 16 graphs which summarize the results of the sensitivity analysis. They show projected revenues under current law and HB 353 as a function of alternative WHVs for given years and cumulatively from FY 1986 through FY 2005. There are eight subsections numbered corresponding to the fiscal year or years which are shown in the subsection. The subsections are III-86, III-90, III-95, III-00, III-05, III-8605, III-8605PV@5, III-8605PV@10. The last three subsections show cumulative revenues from FY 1986 through FY 2005 on an undiscounted basis, a present value basis discounted at 5 percent and a present value basis discounted at 10 percent respectively. There are two graphs in each subsection. Graph 1 shows petroleum corporate income taxes under current law and HB 353 as a function of WHV for the time period specified in the subsection. Graph 2 shows the sum of petroleum corporate income taxes and petroleum production taxes together under current law and HB 353 as a function of WHV for the time period specified in the subsection.

SECTION I

FEASIBILITY ANALYSIS RESULTS

**ALASKA OIL AND GAS PRODUCTION VOLUME COMPARISON
FOR FISCAL YEARS 1986-2005**

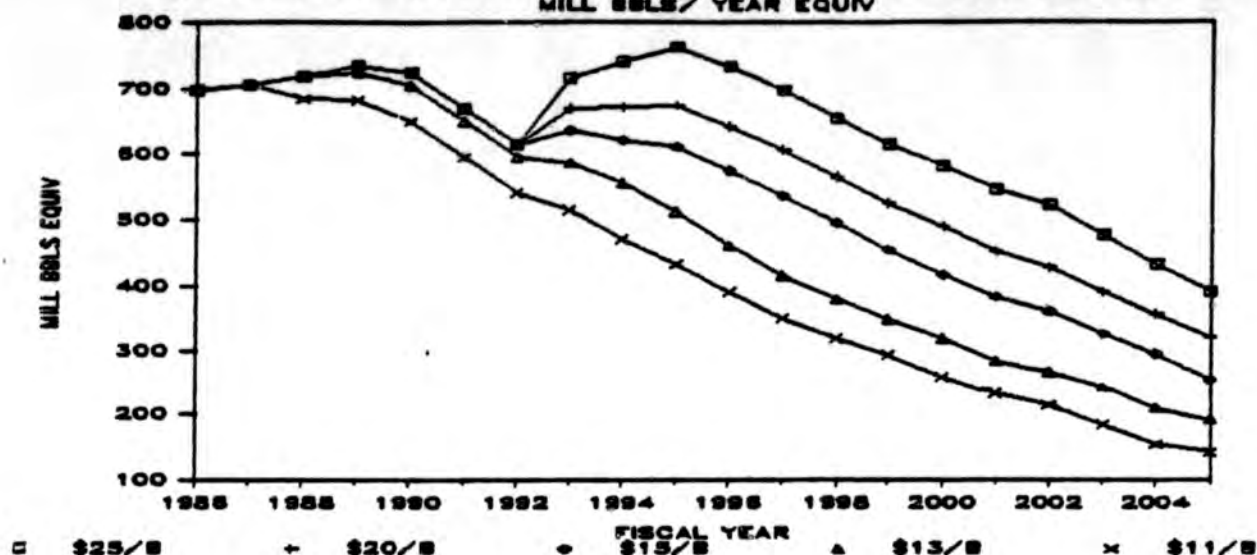
ASSUMING ALTERNATIVE (1986 \$) WELLHEAD VALUE SCENARIOS

SUMMARY TABLE AND GRAPHS

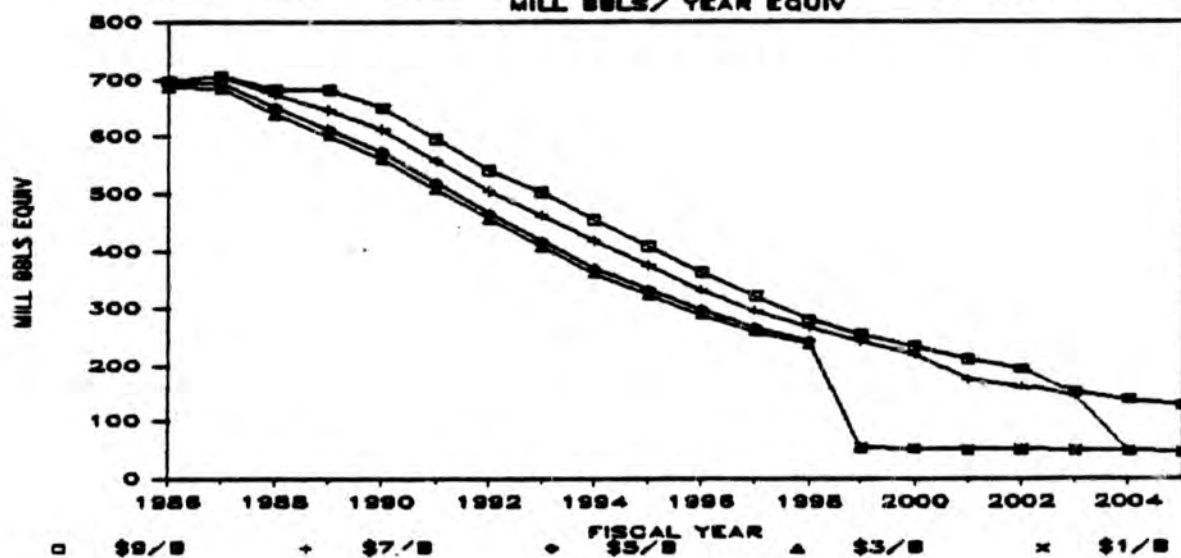
TABLE I-1
TOTAL AK G&S PRODUCTION
MMB/Y EQUIV
VARIOUS 1986 \$/B WHV

	\$25/B WHV	\$20/B WHV	\$15/B WHV	\$13/B WHV	\$11/B WHV	\$9/B WHV	\$7/B WHV	\$5/B WHV	\$3/B WHV	\$1/B WHV
FY	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y	PRODN MMB/Y
1986	696.67	696.67	696.67	696.67	696.67	696.67	696.67	693.67	687.67	687.67
1987	706.00	706.00	706.00	706.00	706.00	706.00	706.00	695.00	684.00	684.00
1988	717.68	717.68	717.68	717.68	683.68	683.68	672.68	650.68	639.68	639.68
1989	734.89	734.89	734.89	723.89	682.89	682.89	645.89	612.89	601.89	601.89
1990	724.34	724.34	724.34	705.34	650.34	650.34	613.34	574.34	563.34	563.34
1991	669.53	669.53	669.53	650.53	595.53	595.53	558.53	519.53	508.53	508.53
1992	615.74	615.74	615.74	596.74	541.74	541.74	504.74	465.74	457.74	457.74
1993	715.98	669.98	635.98	586.98	513.98	502.98	462.98	417.98	407.98	407.98
1994	741.35	672.35	621.35	556.35	471.35	455.35	419.35	371.35	362.35	362.35
1995	767.00	675.00	612.00	512.00	433.00	410.00	376.00	334.00	325.00	325.00
1996	773.48	642.48	575.48	461.48	390.48	363.48	333.48	298.48	290.48	290.48
1997	698.45	606.45	537.45	416.45	351.45	323.45	297.45	268.45	261.45	261.45
1998	655.42	564.42	495.42	379.42	320.42	281.42	268.42	243.42	238.42	238.42
1999	615.82	524.82	454.82	348.82	293.82	256.82	243.82	51.82	51.82	51.82
2000	581.78	459.78	415.78	319.78	258.78	233.78	220.78	50.78	50.78	50.78
2001	545.66	450.66	383.66	284.66	231.66	212.66	175.66	48.66	48.66	48.66
2002	527.15	428.15	361.15	267.15	214.15	195.15	162.15	49.15	49.15	49.15
2003	474.22	390.22	327.22	243.22	183.22	149.22	144.22	47.22	47.22	47.22
2004	472.15	357.15	296.15	209.15	153.15	137.15	46.15	46.15	46.15	46.15
2005	390.55	322.55	254.55	190.55	140.55	126.55	45.55	45.55	45.55	45.55
SUM84-05	12737.86	11658.86	10835.86	9572.86	8512.86	8204.86	7593.86	6484.86	6367.86	6367.86

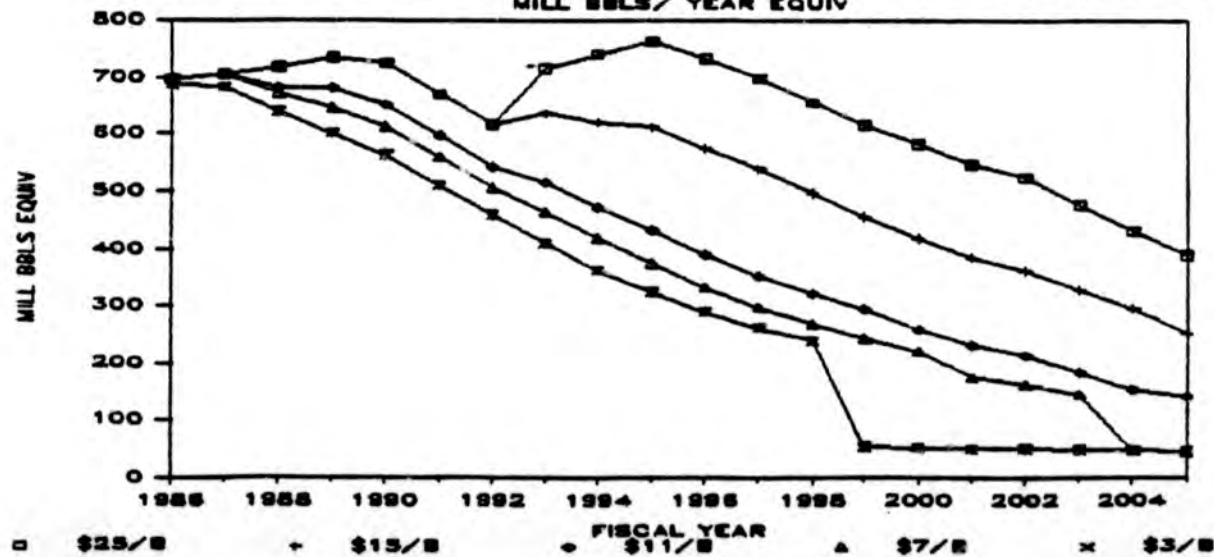
GRAPH I-1
TOTAL AK OIL & GAS PRODN COMPARISON
MILL BBLs/ YEAR EQUIV



GRAPH I-2
TOTAL AK OIL & GAS PRODN COMPARISON
MILL BBLs/ YEAR EQUIV



GRAPH I-3
TOTAL AK OIL & GAS PRODN COMPARISON
MILL BBLs/ YEAR EQUIV



SECTION II

REVENUE PROJECTION COMPARISON RESULTS

**PETROLEUM CORPORATE INCOME TAX & PETROLEUM PRODUCTION TAX
HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING ALTERNATIVE (1986 \$)WELLHEAD VALUE SCENARIOS

SECTION II-25

REVENUE PROJECTION COMPARISON

HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005

ASSUMING \$25/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-25-1

ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (M333) INCOME TAX ESTS
(8-1986 \$) SENSITIVITY ANALYSIS \$25/B MMV

FISCAL YEAR	PROD VOL MT AVG GROSS WELLHEAD VALUE \$/B	TOTAL GROSS PROBN VOL MMB/Y	TOTAL GROSS REV MMB/Y	ROYALTY SHARE MMB/Y	PROBN & CONS TAX MMB/Y	PTY TAX MMB/Y	OPER COSTS MMB/Y	DEPREC EXPENSE MMB/Y	AMORT EXPENSE MMB/Y	INTEREST & EXPENSE ALLOWED MMB/Y	ADMIN & OVERHD EXPENSE ALLOWED MMB/Y	EXPLOR (UNSUCCS) EXPENSE ALLOWED MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y	WINDFALL PROFITS TAX MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y	PROBN TAX MMB/Y	PROBN TAX MMB/Y
1986	24.81650	651.00	16155.54	1990.24	1964.41	215.43	1137.47	853.30	5.85	105.00	240.00	400.00	6919.69	9235.85	848.17	2003.33	8923.04	7232.50	679.85	1963.69	1963.69
1987	24.78849	661.00	16385.19	2015.51	1785.25	240.60	1157.10	1001.66	14.22	105.00	240.00	400.00	6959.34	9425.85	886.03	2010.10	8969.44	7415.75	697.00	1975.48	1784.32
1988	24.60535	671.00	16510.19	2038.87	1330.07	269.58	1287.09	1139.51	35.94	105.00	240.00	400.00	6846.66	9664.13	908.43	1909.77	8755.84	7754.35	728.91	1605.87	1329.33
1989	24.44170	689.00	16840.33	2093.50	1303.29	279.92	1352.21	1313.29	83.36	105.00	240.00	400.00	7170.56	9669.77	908.96	1771.24	8941.00	7898.53	742.46	1558.44	1302.54
1990	24.34475	676.00	16457.05	2048.36	1275.55	279.14	1356.02	1377.21	107.04	105.00	240.00	400.00	7188.32	9268.73	871.26	1617.54	8805.86	7651.19	719.21	1508.07	1274.81
1991	24.30961	619.00	15047.65	1875.81	1103.44	271.31	1290.25	1788.39	106.97	105.00	240.00	400.00	7181.17	7866.48	739.45	1377.50	8558.67	6488.98	609.96	1321.37	1102.76
1992	24.27798	564.00	13692.78	1707.35	972.31	432.28	1225.23	2594.31	105.37	105.00	240.00	400.00	7781.84	5910.94	555.63	807.25	8589.10	5103.68	479.75	1160.87	971.69
1993	24.38959	664.00	16194.69	2012.45	1254.43	592.61	2305.87	3833.41	104.90	105.00	240.00	400.00	10848.67	5346.02	502.53	440.19	11288.86	4905.83	461.15	1524.89	1253.70
1994	24.46065	691.00	16902.31	2093.32	1346.97	596.32	2232.16	4280.58	102.86	105.00	240.00	400.00	11397.22	5505.09	517.48	17.81	11415.03	5487.28	515.80	1648.42	1346.21
1995	24.44010	713.00	17425.79	2158.88	1430.78	594.17	2258.82	4646.11	102.34	105.00	240.00	400.00	11928.10	5497.69	516.78	0.00	11928.10	5497.69	516.78	1751.02	1430.00
1996	24.42593	683.00	16682.91	2057.46	1356.08	567.39	2139.83	4546.18	94.26	105.00	240.00	400.00	11506.20	5176.71	486.61	0.00	11506.20	5176.71	486.61	1659.60	1355.34
1997	24.40351	647.00	15789.07	1946.91	1284.80	535.74	2014.43	4370.59	86.91	105.00	240.00	400.00	10984.39	4801.68	451.64	0.00	10984.39	4801.68	451.64	1572.36	1284.09
1998	24.44167	603.00	14738.33	1816.65	1206.68	499.29	1881.31	4023.96	77.99	105.00	240.00	400.00	10250.88	4487.45	421.82	0.00	10250.88	4487.45	421.82	1476.76	1206.02
1999	24.48184	564.00	13807.76	1700.40	1132.42	462.84	1767.06	3715.87	67.87	105.00	240.00	400.00	9591.47	4216.29	396.33	0.00	9591.47	4216.29	396.33	1385.89	1131.81
2000	24.51446	531.00	13017.18	1602.25	1078.29	426.40	1672.26	3467.53	58.90	105.00	240.00	400.00	9050.63	3966.55	372.86	0.00	9050.63	3966.55	372.86	1319.65	1077.71
2001	24.54475	497.00	12198.74	1500.99	1022.47	389.95	1592.19	3221.49	53.63	105.00	240.00	400.00	8525.72	3673.02	345.26	0.00	8525.72	3673.02	345.26	1251.33	1021.92
2002	24.56097	474.00	11641.90	1432.63	991.12	353.50	1527.08	3054.42	49.27	105.00	240.00	400.00	8153.02	3488.88	327.95	0.00	8153.02	3488.88	327.95	1212.98	990.60
2003	24.57510	429.00	10542.72	1296.22	899.42	317.05	1470.37	2743.85	46.03	105.00	240.00	400.00	7517.95	3024.77	284.33	0.00	7517.95	3024.77	284.33	1100.76	898.96
2004	24.60731	386.00	9498.42	1144.64	813.52	280.60	1390.77	2427.01	39.21	105.00	240.00	400.00	6860.74	2637.68	247.94	0.00	6860.74	2637.68	247.94	995.63	813.10
2005	24.61820	345.00	8493.28	1041.02	726.96	245.30	1351.04	2165.79	34.58	105.00	240.00	400.00	6309.70	2183.58	205.26	0.00	6309.70	2183.58	205.26	889.70	726.59

TABLE 11-25-2

COOK INLET-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1986 \$) SENSITIVITY ANALYSIS \$25/D MMV

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/D	OIL GROSS PRODN VOL MMB/Y	OIL GROSS REV MM\$/Y	GAS GROSS WELLHEAD VALUE \$/MCF	GAS GROSS PRODN VOL BCF/Y	GAS GROSS REV MM\$/Y	TOTAL GROSS REV MM\$/Y	OIL ROYALTY SHARE MM\$/Y	GAS ROYALTY SHARE MM\$/Y	OIL PRODN & CONS TAX CURRENT MM\$/Y	OIL PRODN & CONS TAX H0353 MM\$/Y	GAS PRODN TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	OTHER DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX MM\$/Y
1986	31.00	18.03	358.93	0.79	193.45	152.83	711.76	69.07	19.10	0.61	0.61	9.09	11.00	225.54	135.74	240.00	22.64	147.14	93.66	8.00
1987	31.00	12.67	392.77	0.93	226.30	210.46	603.23	49.10	26.31	0.43	0.39	12.15	11.68	241.65	140.20	121.67	11.44	103.41	18.26	1.72
1988	31.00	10.18	315.58	1.06	255.50	278.83	586.41	39.45	33.85	0.30	0.25	15.17	12.32	241.65	142.62	101.10	9.50	83.11	18.00	1.49
1989	31.00	8.87	274.97	1.14	259.15	295.43	570.40	34.37	36.93	0.23	0.19	16.54	11.94	241.65	142.62	86.16	8.10	72.42	13.74	1.29
1990	31.00	7.15	221.65	1.32	288.35	380.62	602.27	27.71	47.58	0.15	0.13	21.31	11.55	241.65	142.62	109.73	10.31	58.39	31.34	4.83
1991	31.00	6.21	192.51	1.45	310.25	511.91	704.42	24.06	63.99	0.01	0.01	26.88	11.17	241.65	142.62	194.05	18.24	48.10	145.95	13.72
1992	31.00	5.33	165.23	1.80	324.05	584.73	749.96	20.65	73.09	0.01	0.01	30.19	10.78	241.65	142.62	230.97	21.71	27.22	203.75	19.15
1993	31.00	4.53	140.43	1.93	332.15	641.05	781.48	17.55	80.13	.00	.00	33.09	10.40	241.65	142.62	256.03	24.07	9.81	246.22	23.14
1994	31.00	3.94	122.14	2.46	324.85	799.13	921.27	15.27	99.89	.00	.00	42.65	10.01	241.65	142.62	369.17	34.70	0.32	368.85	34.67
1995	31.00	3.07	95.17	3.07	328.50	1008.50	1103.67	11.90	126.06	.00	.00	54.71	9.63	225.54	142.62	533.20	50.12	0.00	533.20	50.12
1996	31.00	3.03	93.93	3.07	332.15	1019.70	1113.63	11.74	127.46	.00	.00	56.21	9.24	209.43	142.62	556.92	52.35	0.00	556.92	52.35
1997	31.00	2.96	91.76	3.07	339.45	1042.11	1133.87	11.47	130.26	.00	.00	57.45	8.86	209.43	142.62	573.78	53.94	0.00	573.78	53.94
1998	31.00	2.88	89.28	3.07	346.75	1064.52	1153.80	11.14	133.07	.00	.00	59.61	8.47	209.43	142.62	589.44	55.41	0.00	589.44	55.41
1999	31.00	2.81	87.11	3.07	343.10	1053.32	1140.43	10.89	131.66	.00	.00	58.99	8.09	209.43	142.62	578.74	54.40	0.00	578.74	54.40
2000	31.00	2.81	87.11	3.07	335.80	1030.91	1118.02	10.89	128.86	.00	.00	57.73	7.70	193.32	142.62	576.89	54.23	0.00	576.89	54.23
2001	31.00	2.77	85.87	3.07	321.20	986.08	1071.95	10.73	123.26	.00	.00	54.35	7.32	177.21	142.62	556.45	52.31	0.00	556.45	52.31
2002	31.00	2.74	84.94	3.07	324.85	997.29	1082.23	10.62	124.66	.00	.00	54.10	6.93	177.21	142.62	566.08	53.21	0.00	566.08	53.21
2003	31.00	1.86	57.66	3.07	317.55	974.88	1032.54	7.21	121.86	.00	.00	52.03	6.55	177.21	142.62	525.06	49.36	0.00	525.06	49.36
2004	31.00	1.83	56.73	3.07	310.25	952.47	1005.20	7.09	119.06	.00	.00	50.84	6.16	177.21	142.62	506.22	47.58	0.00	506.22	47.58
2005	31.00	1.75	54.25	3.07	306.60	941.26	995.51	6.78	117.66	.00	.00	50.24	5.78	177.21	142.62	495.22	46.55	0.00	495.22	46.55

TABLE 11-25-3
ALL PRODUCING FIELDS SEPARATE ACCT (NO353) INCOME TAX ESTS
11-1986 01 SENSITIVITY ANALYSIS 425/8 MHV

FISCAL YEAR	NS		NS		NS		NS		NS		CI		CI		CI		CI		CI		NS+CI		NS+CI		NS+CI		NS+CI	
	TOTAL GROSS REV MM/Y	TOTAL DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX MM/Y	DEDUCT MM/Y	TOTAL INCOME MM/Y	TOTAL TAX MM/Y	LIAB MM/Y	TOTAL GROSS REV MM/Y	DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX MM/Y	LIAB MM/Y	DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX MM/Y	LIAB MM/Y	COLLECT MM/Y	DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX MM/Y	LIAB MM/Y	COLLECT MM/Y	DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX MM/Y	LIAB MM/Y	COLLECT MM/Y
1986	16155.54	6919.69	9235.85	868.17	8923.04	7232.50	679.85	711.76	470.95	240.80	22.64	618.09	93.66	8.80	890.80	723.50	688.66	571.89										
1987	16385.19	6959.34	9425.85	886.03	8969.44	7415.75	697.08	683.23	481.56	121.67	11.44	584.97	18.26	1.72	897.47	895.80	698.80	696.26										
1988	16510.19	6846.06	9664.13	908.43	8755.84	7754.35	728.91	586.41	485.31	101.10	9.50	568.41	18.00	1.69	917.93	912.82	730.60	722.65										
1989	16810.33	7170.56	9669.77	908.96	8941.80	7898.53	742.46	578.40	484.24	86.16	8.10	556.66	13.74	1.29	917.06	917.28	743.75	740.46										
1990	16457.05	7188.32	9268.73	871.26	8805.86	7651.19	719.21	602.27	492.55	109.73	10.31	550.93	51.34	4.83	881.58	890.45	724.04	728.97										
1991	15047.65	7181.17	7866.48	739.45	8558.67	6488.98	609.96	704.42	516.38	194.05	18.24	558.48	145.95	13.72	757.69	788.66	623.68	648.77										
1992	13692.78	7781.84	5910.94	555.63	8589.10	5103.68	479.75	749.96	518.99	230.97	21.71	546.21	203.75	19.15	577.34	622.43	498.90	530.89										
1993	16194.69	10849.67	5346.02	502.53	11288.86	4905.83	461.15	781.48	525.45	256.03	24.07	535.26	246.22	23.14	526.59	539.28	484.29	487.94										
1994	16902.31	11397.22	5505.09	517.46	11415.03	5487.28	515.80	921.27	552.10	369.17	34.70	552.42	368.85	34.67	552.18	545.78	550.48	533.93										
1995	17425.79	11928.10	5497.69	516.78	11928.10	5497.69	516.78	1103.67	570.46	533.20	50.12	570.46	533.20	50.12	566.90	563.22	566.90	562.80										
1996	16191.91	11506.20	5176.71	486.61	11506.20	5176.71	486.61	1113.63	556.71	556.92	52.35	556.71	556.92	52.35	538.96	545.95	538.96	545.95										
1997	15789.07	10984.39	4804.68	451.64	10984.39	4804.68	451.64	1133.87	560.09	573.78	53.94	560.09	573.78	53.94	505.58	513.92	505.58	513.92										
1998	14738.33	10250.88	4487.45	421.82	10250.88	4487.45	421.82	1153.80	564.36	589.44	55.41	564.36	589.44	55.41	477.23	484.31	477.23	484.31										
1999	13807.76	9591.47	4216.29	396.33	9591.47	4216.29	396.33	1140.43	561.68	578.74	54.40	561.68	578.74	54.40	450.73	457.36	450.73	457.36										
2000	13017.18	9050.63	3966.55	372.86	9050.63	3966.55	372.86	1118.02	541.13	576.89	54.23	541.13	576.89	54.23	427.08	433.00	427.08	433.00										
2001	12198.74	8525.72	3673.02	345.26	8525.72	3673.02	345.26	1071.95	515.51	556.45	52.31	515.51	556.45	52.31	397.57	404.95	397.57	404.95										
2002	11441.90	8153.02	3488.88	327.95	8153.02	3488.88	327.95	1082.23	516.14	566.08	53.21	516.14	566.08	53.21	381.17	385.27	381.17	385.27										
2003	10542.72	7517.95	3024.77	284.33	7517.95	3024.77	284.33	1032.54	507.48	525.06	49.36	507.48	525.06	49.36	333.68	345.55	333.68	345.55										
2004	9498.42	6860.74	2637.68	247.94	6860.74	2637.68	247.94	1009.20	502.98	506.22	47.58	502.98	506.22	47.58	295.53	305.07	295.53	305.07										
2005	8493.28	6309.70	2183.58	205.26	6309.70	2183.58	205.26	995.51	500.29	495.22	46.55	500.29	495.22	46.55	251.81	262.74	251.81	262.74										

TABLE 11-25-4
TAFS-SEPARATE ACCT (HB353) INCOME TAX ESTS
(1-1986 0) SENSITIVITY ANALYSIS 025/B MNV

FISCAL YEAR	TARIFF \$/B	PIPELINE THRUPT MMB/Y	TOTAL GROSS REV MMB/Y	OPER COSTS MMB/Y	AMORT & DEPREC EXPENSE MMB/Y	UNCAP INT EXPENSE MMB/Y	PTY TAX MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y
1986	4.78	651.00	3110.10	259.76	268.65	409.86	207.19	1145.47	1964.63	184.68
1987	4.53	661.00	2996.05	262.11	268.65	381.77	182.35	1094.88	1901.17	178.71
1988	3.95	671.00	2651.43	264.46	268.65	351.68	156.79	1041.57	1609.86	151.33
1989	3.31	689.00	2277.87	268.68	268.65	327.01	134.00	998.34	1279.53	120.28
1990	3.07	676.00	2076.08	265.63	268.65	302.34	114.81	951.42	1124.65	105.72
1991	2.91	619.00	1800.96	252.26	268.65	277.65	97.71	896.26	904.70	85.04
1992	2.73	564.00	1540.87	239.35	268.65	252.44	83.24	843.69	697.18	65.54
1993	2.20	664.00	1458.36	262.81	268.65	226.53	71.40	829.40	628.97	59.12
1994	1.95	691.00	1346.31	269.15	268.65	204.01	60.86	802.67	543.64	51.10
1995	1.77	713.00	1262.72	274.31	268.65	186.27	51.55	780.78	481.94	45.38
1996	1.64	683.00	1118.84	267.27	268.65	169.75	43.07	748.74	370.10	34.79
1997	1.50	647.00	971.85	258.83	268.65	153.12	36.00	716.59	255.26	23.99
1998	1.38	603.00	834.96	248.50	268.65	136.22	30.45	683.83	151.13	14.21
1999	1.39	564.00	785.46	239.35	268.65	120.90	26.32	655.23	130.23	12.24
2000	1.41	531.00	747.76	231.61	268.65	105.89	22.32	628.47	119.29	11.21
2001	1.38	497.00	688.18	206.99	268.65	91.99	18.33	585.95	102.23	9.61
2002	1.39	474.00	657.05	202.36	268.65	82.51	14.41	567.93	89.11	8.38
2003	1.40	429.00	600.97	193.31	268.65	76.23	10.50	548.69	52.27	4.91
2004	1.42	386.00	549.64	184.66	268.65	70.44	6.82	530.57	19.07	1.79
2005	1.45	345.00	501.35	176.42	268.65	63.48	3.32	511.87	-10.53	-0.99

TABLE 11-25-5
PRODUCTION, PIPELINE & EXPLORATION-SEPARATE ACCT (HB353) INCOME TAX ESTS
(1-1986 \$) SENSITIVITY ANALYSIS 425/0 MHV

[illegible]

TABLE 11-25-6
CURRENT LAW-MODIFIED APPORTIONMENT (AS4320) INCOME TAX ESTS
(8-1986)

SENSITIVITY ANALYSIS #25/B WHV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
					TOP 3 COMPANIES						
FISCAL YEAR	TOTAL AK OIL & GAS PROD MMB/Y EQUIV	CHG TOTAL AK OIL & GAS PROD MMB/Y %	APPNT FNG % FACTOR	NET PROFIT APPNT FACTOR	CALENDAR YEAR	WH NET PROFIT MMB/Y	AK TAXABLE INCOME MMB/Y	AK TAX LIAB MMB/Y	TOTAL AK TAX LIAB MMB/Y	FISCAL YEAR	TOTAL AK TAX COLLECT MMB/Y
1986	696.67	0.0000	0.0000	0.2787	1986	9206.98	2565.98	241.20	268.00	1986	249.64
1987	706.00	1.3396	1.0087	0.2783	1987	9206.98	2562.44	240.87	267.63	1987	267.86
1988	717.68	1.6546	1.0108	0.2785	1988	9206.98	2564.10	241.03	267.81	1988	267.78
1989	734.89	2.3982	1.0156	0.2800	1989	9206.98	2578.03	242.34	269.26	1989	268.61
1990	724.34	-1.4354	0.9907	0.2746	1990	9206.98	2528.44	237.67	264.00	1990	266.63
1991	669.53	-7.5671	0.9508	0.2585	1991	9247.86	2390.60	224.72	249.69	1991	256.68
1992	615.74	-8.0346	0.9478	0.2426	1992	9504.54	2305.36	216.70	240.78	1992	245.12
1993	715.98	16.2801	1.1058	0.2655	1993	9790.75	2599.82	244.38	271.54	1993	256.76
1994	741.35	3.5430	1.0230	0.2689	1994	9981.56	2684.41	252.33	280.37	1994	276.17
1995	763.00	2.9206	1.0190	0.2713	1995	10002.00	2713.56	255.07	283.42	1995	282.01
1996	733.48	-3.8688	0.9749	0.2618	1996	10002.00	2618.87	246.17	273.53	1996	278.35
1997	698.45	-4.7755	0.9690	0.2512	1997	10002.00	2512.20	236.15	262.39	1997	267.81
1998	655.42	-6.1618	0.9599	0.2387	1998	10002.00	2387.47	224.42	249.36	1998	255.69
1999	615.82	-6.0407	0.9607	0.2270	1999	10002.00	2270.79	213.45	237.17	1999	243.09
2000	581.78	-5.5280	0.9641	0.2167	2000	10002.00	2167.30	203.73	226.36	2000	231.62
2001	545.64	-6.2095	0.9596	0.2059	2001	10002.00	2059.03	193.55	215.05	2001	220.55
2002	523.15	-4.1251	0.9732	0.1983	2002	10002.00	1983.78	186.48	207.20	2002	211.03
2003	476.22	-8.9693	0.9417	0.1849	2003	10002.00	1849.44	173.85	193.16	2003	199.97
2004	432.15	-9.2546	0.9398	0.1720	2004	10002.00	1720.81	161.76	179.73	2004	186.24
2005	390.55	-9.6266	0.9374	0.1597	2005	10002.00	1597.00	150.12	166.80	2005	173.07

TABLE II-25-7
REVENUE COMPARISON
CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)
PRODUCTION TAX-15% MAX NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING
PRODUCTION TAX-12.25% MAX NOMINAL RATE
BEGINNING IN CY 1987

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT MM/Y	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT MM/Y	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT MM/Y
1986	249.64	862.00	612.36	1973.38	1973.38	0.00	2223.02	2835.38	612.36
1987	267.86	1076.00	808.14	1988.05	1797.06	-190.99	2255.91	2873.06	617.15
1988	267.78	1070.99	803.21	1621.33	1344.74	-276.59	1889.11	2415.72	526.62
1989	268.61	1045.31	776.70	1575.20	1319.26	-255.95	1843.82	2364.57	520.75
1990	266.63	999.80	733.17	1529.53	1296.24	-233.29	1796.16	2296.05	499.88
1991	256.68	878.87	622.20	1348.25	1129.64	-218.61	1604.93	2008.51	403.59
1992	245.12	692.84	447.72	1191.06	1061.88	-129.19	1436.18	1694.71	258.53
1993	256.76	600.00	343.24	1557.98	1285.80	-271.18	1814.75	1886.80	72.06
1994	276.17	598.89	322.72	1691.08	1388.87	-302.21	1967.25	1987.76	20.51
1995	282.01	609.98	327.97	1805.73	1484.71	-321.02	2087.74	2094.69	6.95
1996	278.35	583.36	305.02	1715.81	1411.55	-304.26	1994.16	1994.91	0.76
1997	267.81	540.62	272.81	1629.80	1341.54	-288.27	1897.61	1882.15	-15.46
1998	255.69	500.97	245.28	1536.37	1265.63	-270.74	1792.06	1766.60	-25.46
1999	243.09	470.09	227.00	1444.87	1190.79	-254.08	1687.97	1660.88	-27.08
2000	231.62	444.47	212.85	1377.38	1135.44	-241.94	1609.00	1579.91	-29.09
2001	220.55	414.96	194.41	1305.69	1076.28	-229.41	1526.24	1491.24	-35.00
2002	211.03	393.95	182.93	1267.08	1044.70	-222.38	1478.10	1438.65	-39.45
2003	199.97	351.33	151.37	1152.80	950.99	-201.81	1352.76	1302.32	-50.44
2004	186.24	307.64	121.40	1046.47	863.93	-182.53	1232.71	1171.57	-61.14
2005	173.07	262.44	89.38	939.94	776.83	-163.11	1113.00	1039.27	-73.73
SUM86-05	4904.67	12704.52	7799.86	29697.80	25080.25	-4617.55	34602.47	37784.78	3182.31

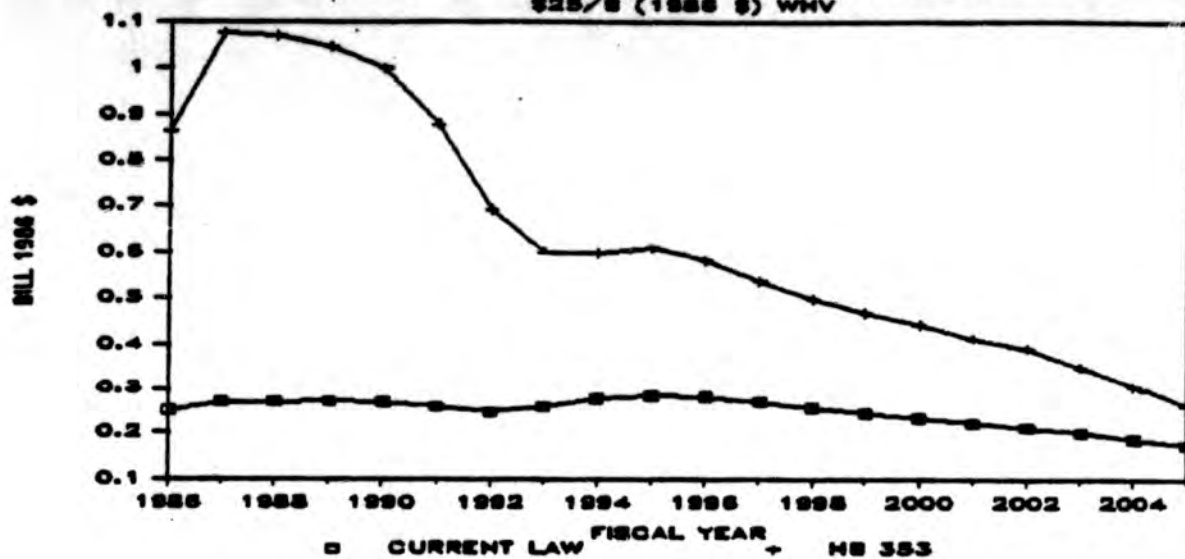
TABLE 11.25.8
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
10-158681 SENSITIVITY ANALYSIS #25/D MMV

FISCAL YEAR	TOTAL			CURRENT		HB353	
	PETRO PRODN GROSS INCOME MM\$/Y	PETRO PRODN NON TAX DEDUCTS MM\$/Y	PETRO PRODN NET INCOME MM\$/Y	LAW STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	16867.30	3102.89	13764.40	4537.39	32.96	5011.25	36.41
1987	16988.42	3299.91	13688.51	4599.85	33.60	5036.79	36.80
1988	17096.60	3591.81	13504.79	4283.93	31.72	4652.37	34.45
1989	17410.73	3878.12	13532.61	4301.24	31.78	4693.96	34.69
1990	17059.32	3969.54	13089.78	4211.24	32.17	4601.77	35.16
1991	15752.07	4314.88	11437.19	3851.95	33.68	4165.33	36.42
1992	14442.74	5054.18	9388.56	3680.96	39.21	3869.08	41.21
1993	16976.17	7373.45	9602.72	4528.62	47.16	4539.95	47.28
1994	17823.58	7744.87	10078.71	4782.82	47.45	4750.23	47.13
1995	18529.46	8112.43	10417.03	4989.16	47.89	4949.36	47.51
1996	17796.54	7877.32	9919.22	4748.20	48.07	4731.54	47.70
1997	16922.94	7568.98	9353.96	4531.57	48.45	4489.42	47.99
1998	15892.13	7080.31	8811.82	4261.36	48.36	4219.25	47.88
1999	14946.19	6647.85	8300.33	4002.47	48.22	3962.65	47.74
2000	14135.20	6279.63	7855.57	3785.68	48.19	3745.12	47.67
2001	13270.69	5932.15	7338.54	3559.03	48.50	3514.02	47.88
2002	12724.13	5695.61	7028.52	3406.96	48.47	3358.83	47.79
2003	11575.26	5325.08	6250.18	3102.12	49.63	3045.90	48.73
2004	10507.62	4921.82	5585.80	2810.68	50.32	2746.97	49.18
2005	9488.79	4616.24	4872.55	2529.92	51.92	2456.48	50.41

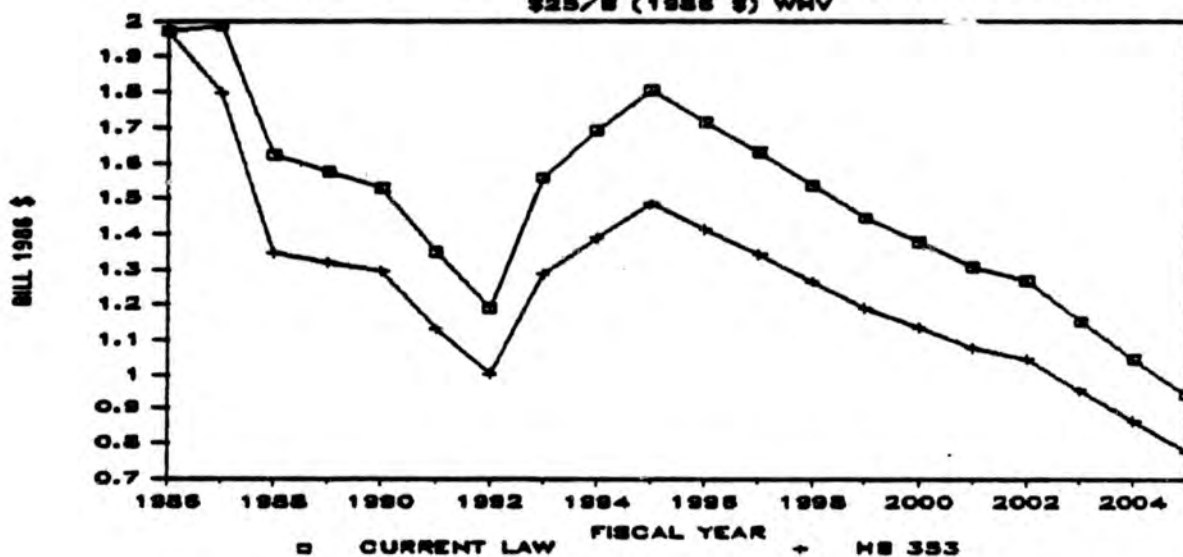
TABLE 11-25-9
 PERCENTAGE SHARE COMPARISON
 CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
 AS A PERCENTAGE OF
 PETROLEUM PRODUCTION & PIPELINE NET INCOME
 (1986)

FISCAL YEAR	SENSITIVITY ANALYSIS \$25/B MHW			CURRENT		HB353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME MM\$/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN & PIPE NET INCOME MM\$/Y	LAM STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	19977.39	4041.17	15936.22	4744.58	29.77	5356.95	33.61
1987	19984.47	4212.44	15772.03	4782.19	30.32	5399.34	34.23
1988	19748.03	4476.60	15271.43	4440.71	29.08	4967.33	32.53
1989	19686.60	4742.46	14944.14	4435.24	29.67	4955.99	33.16
1990	19135.40	4806.16	14329.24	4326.05	30.19	4825.93	33.68
1991	17553.04	5113.44	12439.60	3949.66	31.75	4353.24	35.00
1992	15983.61	5814.62	10168.99	3764.20	37.02	4022.73	39.56
1993	18434.53	8131.45	10303.09	4600.03	44.65	4672.08	45.35
1994	19169.89	8486.68	10683.21	4843.68	45.34	4864.19	45.53
1995	19792.18	8841.66	10950.52	5040.71	46.03	5047.66	46.10
1996	18915.38	8582.99	10332.39	4811.27	46.56	4812.02	46.57
1997	17894.79	8249.58	9645.22	4567.57	47.36	4552.11	47.20
1998	16727.09	7733.69	8993.40	4291.81	47.72	4266.35	47.44
1999	15733.64	7276.76	8456.89	4028.79	47.64	4001.71	47.32
2000	14882.96	6885.78	7997.17	3808.00	47.62	3778.91	47.25
2001	13958.87	6499.78	7459.09	3577.36	47.96	3542.36	47.49
2002	13381.18	6249.13	7132.05	3421.37	47.97	3381.92	47.42
2003	12176.22	5863.28	6312.95	3112.62	49.31	3062.18	48.51
2004	11057.26	5445.57	5611.69	2817.49	50.21	2756.36	49.12
2005	9990.14	5124.79	4865.35	2533.25	52.07	2459.51	50.55

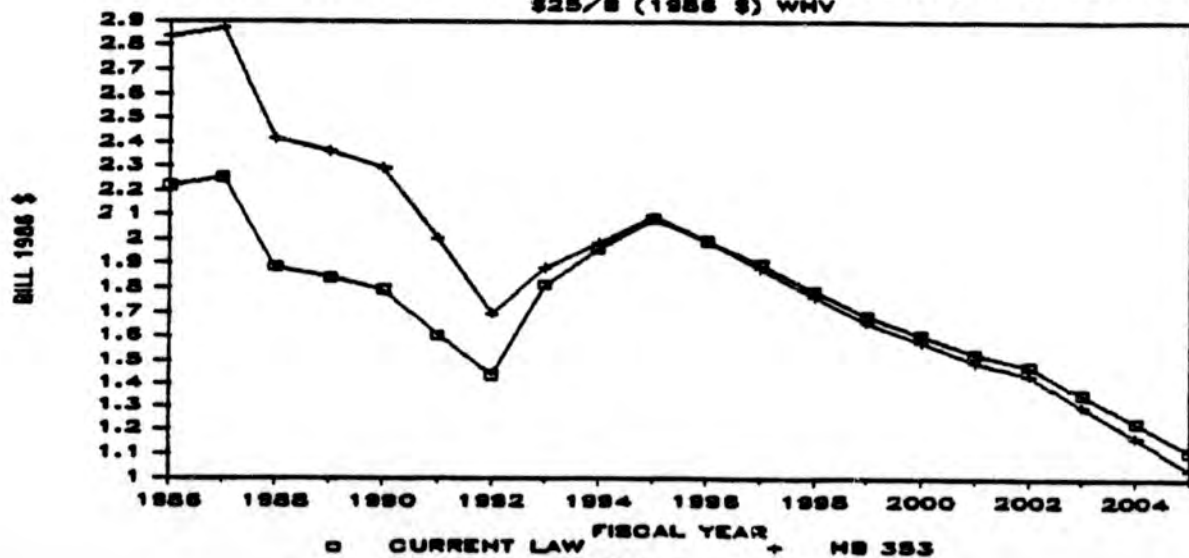
GRAPH II-25-1
INCOME TAX COMPARISON
\$25/B (1986 \$) WHV



GRAPH II-25-2
PRODUCTION TAX COMPARISON
\$25/B (1986 \$) WHV



GRAPH II-25-3
INCOME + PRDND TAX COMPARISON
\$25/B (1986 \$) WHV



SECTION II-20

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$20/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-20-1

ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1986 01) SENSITIVITY ANALYSIS 820/B H0V

FISCAL YEAR	PP00 VOL WT AVG GROSS WELLHEAD VALUE 8/8	TOTAL GROSS PROD VOL H08/Y	TOTAL GROSS REV H06/Y	ROYALTY SHARE H08/Y	PROD & CONS TAX H08/Y	PTY TAX H08/Y	OPER COSTS H06/Y	DEPREC EXPENSE H06/Y	AMORT EXPENSE H08/Y	UNCAP INTEREST & OVERHD EXPENSE ALLOWED H08/Y	ADMIN EXPENSE ALLOWED H08/Y	EXPLOR (UNSUCC) EXPENSE ALLOWED H08/Y	TOTAL DEDUCT H08/Y	TOTAL TAXABLE INCOME H06/Y	TOTAL TAX LIAB H08/Y	WINDFALL PROFITS TAX H08/Y	TOTAL DEDUCT W/MP H08/Y	TOTAL TAXABLE INCOME H06/Y	TOTAL TAX LIAB H08/Y	PROD CURRENT TAX H08/Y	PROD H0353 TAX H08/Y
1986	19.81650	651.00	12900.54	1590.24	1570.21	215.43	1137.47	970.80	6.41	105.00	240.00	320.00	6155.56	6744.98	634.03	550.80	6706.36	6194.18	582.25	1569.50	1569.50
1987	19.78819	641.00	13080.19	1600.32	1426.71	240.55	1157.10	1137.02	15.32	105.00	240.00	320.00	6242.02	6838.17	642.79	552.66	6794.68	6285.51	590.84	1578.49	1425.99
1988	19.60535	671.00	13155.19	1616.40	1061.22	269.46	1287.09	1278.51	37.40	105.00	240.00	320.00	6215.08	6940.11	652.37	525.02	6740.16	6415.03	603.01	1281.45	1060.48
1989	19.44170	689.00	13395.33	1657.33	1038.66	279.73	1352.21	1451.91	85.07	105.00	240.00	320.00	6529.91	6845.42	645.35	486.99	7016.70	6378.43	599.57	1242.36	1037.91
1990	19.34475	676.00	13077.05	1620.32	1015.00	278.86	1356.02	1509.52	108.93	105.00	240.00	320.00	6553.64	6523.41	613.20	444.73	6998.38	6078.67	571.40	1200.60	1014.26
1991	19.30961	619.00	11952.63	1483.39	878.39	270.94	1290.25	1813.86	108.85	105.00	240.00	320.00	6510.68	5441.97	511.54	378.73	6889.41	5063.24	475.94	1052.29	877.71
1992	19.27798	564.00	10872.78	1349.87	773.84	372.26	1225.23	2444.53	107.03	105.00	240.00	320.00	6937.76	3935.02	369.89	221.95	7159.71	3713.07	349.03	924.34	773.22
1993	19.34894	618.00	11957.09	1481.04	901.98	475.06	1905.97	3290.36	106.46	105.00	240.00	320.00	8825.86	3131.23	294.34	109.14	8935.00	3022.09	284.08	1095.66	901.30
1994	19.40641	622.00	12070.91	1490.44	927.64	482.79	1852.11	3585.26	104.39	105.00	240.00	320.00	9107.63	2963.28	278.55	4.22	9111.85	2959.06	278.15	1135.06	926.96
1995	19.37326	625.00	12108.29	1496.09	954.01	485.48	1887.45	3842.47	102.99	105.00	240.00	320.00	9433.50	2674.79	251.43	0.00	9433.50	2674.79	251.43	1167.34	953.33
1996	19.35035	592.00	11455.41	1407.99	888.29	464.68	1797.40	3745.22	94.81	105.00	240.00	320.00	9063.40	2392.01	226.85	0.00	9063.40	2392.01	224.85	1086.91	887.64
1997	19.32501	555.00	10724.27	1318.67	829.51	439.60	1690.32	3579.13	87.14	105.00	240.00	320.00	8608.16	2116.11	198.91	0.00	8608.16	2116.11	198.91	1014.98	828.90
1998	19.35709	512.00	9910.83	1217.65	769.33	408.52	1572.41	3260.77	78.29	105.00	240.00	320.00	7971.98	1938.85	182.25	0.00	7971.98	1938.85	182.25	941.36	768.78
1999	19.39801	475.00	9175.26	1126.15	710.60	378.04	1471.82	2963.50	68.00	105.00	240.00	320.00	7383.10	1792.16	168.46	0.00	7383.10	1792.16	168.46	869.49	710.08
2000	19.43680	439.00	8532.79	1046.08	665.92	347.56	1388.76	2708.24	58.35	105.00	240.00	320.00	6879.90	1652.89	155.37	0.00	6879.90	1652.89	155.37	814.82	665.44
2001	19.50224	402.00	7839.90	957.35	619.17	317.08	1291.03	2387.76	50.08	105.00	240.00	320.00	6287.49	1552.41	145.93	0.00	6287.49	1552.41	145.93	757.63	618.73
2002	19.51995	379.00	7398.06	903.37	594.14	288.10	1235.37	2231.54	45.66	105.00	240.00	320.00	5963.20	1434.86	134.88	0.00	5963.20	1434.86	134.88	727.01	593.73
2003	19.52671	343.00	6697.66	817.94	539.30	259.12	1186.69	2012.71	43.42	105.00	240.00	320.00	5524.17	1173.49	110.31	0.00	5524.17	1173.49	110.31	659.91	538.92
2004	19.53286	311.00	6074.72	741.82	490.90	230.14	1142.57	1818.82	38.61	105.00	240.00	320.00	5127.87	946.85	89.00	0.00	5127.87	946.85	89.00	600.69	490.56
2005	19.54722	277.00	5414.58	660.91	436.89	201.16	1109.32	1615.22	33.96	105.00	240.00	320.00	4722.46	692.12	65.06	0.00	4722.46	692.12	65.06	534.60	436.59

TABLE 11-20-2

COOK INLET-SEPARATE ACCT (H0333) INCOME TAX ESTS
(19-1986 \$)

SENSITIVITY ANALYSIS \$20/B HHV

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/B	OIL GROSS PRODN VOL HHB/Y	OIL GROSS REV HHB/Y	GAS GROSS WELLHEAD VALUE \$/HCF	GAS GROSS PRODN VOL BCF/Y	GAS GROSS REV HHB/Y	TOTAL GROSS REV HHB/Y	OIL ROYALTY SHARE HHB/Y	GAS ROYALTY SHARE HHB/Y	OIL PRODN & CONS TAX CURRENT HHB/Y	OIL PRODN & CONS TAX H0333 HHB/Y	GAS PRODN TAX HHB/Y	PTY TAX HHB/Y	OPER COSTS HHB/Y	OTHER DEDUCT HHB/Y	TOTAL TAXABLE INCOME HHB/Y	TOTAL TAX LIAB HHB/Y	WINDFALL PROFITS TAX HHB/Y	TOTAL TAXABLE INCOME W/HPT HHB/Y	TOTAL TAX LIAB W/HPT HHB/Y
1986	26.00	18.03	468.78	0.79	193.45	152.83	621.61	58.60	19.10	0.52	0.52	9.09	11.00	225.54	135.74	162.02	15.23	91.99	70.03	6.58
1987	26.00	12.67	329.42	0.93	226.30	210.46	539.80	41.18	26.31	0.36	0.33	12.15	11.68	241.65	140.28	66.30	6.23	64.65	1.65	0.15
1988	26.00	10.18	264.48	1.06	255.50	270.83	535.51	33.09	33.85	0.25	0.21	15.17	12.32	241.65	142.62	56.61	5.32	51.96	4.65	0.44
1989	26.00	8.87	230.62	1.14	259.15	295.43	526.05	28.83	36.93	0.19	0.16	16.54	11.94	241.65	142.62	47.38	4.45	45.28	2.11	0.20
1990	26.00	7.15	185.90	1.32	288.35	380.62	566.52	23.24	47.58	0.16	0.11	21.31	11.55	241.65	142.62	78.46	7.38	36.50	41.96	3.94
1991	26.00	6.21	161.46	1.65	310.25	511.91	673.37	20.18	63.99	0.01	0.01	26.88	11.17	241.65	142.62	166.88	15.69	30.07	136.81	12.86
1992	26.00	5.33	138.58	1.80	324.85	584.73	723.31	17.32	73.09	0.01	0.01	30.19	10.78	241.65	142.62	207.65	19.52	17.02	190.64	17.92
1993	26.00	4.53	117.78	1.93	332.15	641.05	758.83	14.72	80.13	.00	.00	33.09	10.40	241.65	142.62	236.21	22.20	6.13	230.07	21.63
1994	26.00	3.91	102.44	2.46	324.85	799.13	901.57	12.81	99.89	.00	.00	42.65	10.01	241.65	142.62	351.94	33.08	0.20	351.74	33.06
1995	26.00	3.07	79.82	3.07	328.50	1008.50	1088.31	9.98	126.06	.00	.00	54.71	9.63	225.54	142.62	519.77	48.86	0.00	519.77	48.86
1996	26.00	3.03	78.78	3.07	332.15	1019.70	1098.48	9.85	127.46	.00	.00	56.21	9.24	209.43	142.62	543.67	51.10	0.00	543.67	51.10
1997	26.00	2.96	76.96	3.07	339.45	1042.11	1119.07	9.62	130.26	.00	.00	57.45	8.86	209.43	142.62	560.83	52.72	0.00	560.83	52.72
1998	26.00	2.88	74.88	3.07	346.75	1064.52	1139.40	9.36	133.07	.00	.00	59.61	8.47	209.43	142.62	576.84	54.22	0.00	576.84	54.22
1999	26.00	2.81	73.06	3.07	343.10	1053.32	1126.38	9.13	131.66	.00	.00	58.99	8.09	209.43	142.62	566.45	53.25	0.00	566.45	53.25
2000	26.00	2.81	73.06	3.07	335.80	1030.91	1103.97	9.13	128.86	.00	.00	57.73	7.70	193.32	142.62	564.60	53.07	0.00	564.60	53.07
2001	26.00	2.77	72.02	3.07	321.20	986.08	1058.10	9.00	123.26	.00	.00	54.36	7.32	177.21	142.62	544.33	51.17	0.00	544.33	51.17
2002	26.00	2.74	71.24	3.07	324.85	997.29	1068.53	8.91	124.66	.00	.00	54.10	6.93	177.21	142.62	554.10	52.09	0.00	554.10	52.09
2003	26.00	1.86	48.36	3.07	317.55	974.88	1023.24	6.05	121.86	.00	.00	52.03	6.55	177.21	142.62	516.92	48.59	0.00	516.92	48.59
2004	26.00	1.83	47.58	3.07	310.25	952.47	1000.05	5.95	119.06	.00	.00	50.84	6.16	177.21	142.62	498.21	46.83	0.00	498.21	46.83
2005	26.00	1.75	45.39	3.07	306.60	941.26	986.76	5.69	117.66	.00	.00	50.24	5.78	177.21	142.62	487.56	45.83	0.00	487.56	45.83

TABLE 11-20-3

ALL PRODUCING FIELDS-SEPARATE ACCT (NR353) INCOME TAX ESTS
(8-1981 \$) SENSITIVITY ANALYSIS \$20/B MHV

FISCAL YEAR	NS				NS				CI				CI				NS+CI				NS+CI			
	TOTAL		NS		TOTAL		NS		TOTAL		NS		TOTAL		NS		TOTAL		NS		TOTAL		NS	
	GROSS		REV		DEDUCT		INCOME		LIAB		M/MP		GROSS		REV		DEDUCT		INCOME		LIAB		M/MP	
	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y	NR\$/Y
1986	12900.54	6155.56	6744.98	634.03	6706.36	6194.18	582.25	621.61	459.59	162.02	15.23	551.58	70.03	6.58	649.26	542.34	588.84	497.02						
1987	13080.19	6242.02	6838.17	642.79	6794.68	6285.51	590.84	539.88	473.58	66.30	6.23	538.23	1.65	0.15	649.02	649.08	590.99	590.45						
1988	13155.19	6215.08	6940.11	652.37	6740.16	6415.03	603.01	535.51	478.90	56.61	5.32	538.86	4.65	0.44	657.69	655.52	603.45	600.34						
1989	13395.33	6529.91	6865.42	645.35	7016.90	6378.43	599.57	526.05	478.67	47.38	4.45	523.95	2.11	0.20	649.80	651.78	599.77	600.69						
1990	13077.05	6553.64	6523.41	613.20	6998.38	6078.67	571.40	566.52	488.06	78.46	7.38	524.56	41.96	3.94	620.58	627.88	575.34	581.45						
1991	11952.65	6510.68	5441.97	511.54	6889.41	5063.24	475.94	673.37	506.49	166.88	15.69	536.57	136.81	12.86	527.23	550.57	488.80	510.44						
1992	10872.78	6937.76	3935.02	369.89	7159.71	3713.07	349.03	723.31	515.66	207.65	19.52	532.67	190.64	17.92	389.41	423.87	366.95	397.41						
1993	11957.09	8825.86	3131.23	294.34	8935.00	3022.09	284.08	758.83	522.62	236.21	22.20	528.76	230.07	21.63	316.54	334.76	305.70	321.01						
1994	12070.91	9107.63	2963.28	278.55	9111.85	2959.06	278.15	901.57	549.63	351.94	33.08	549.84	351.74	33.06	311.63	312.86	311.21	309.84						
1995	12108.29	9433.50	2674.79	251.43	9433.50	2674.79	251.43	1088.31	568.54	519.77	48.86	568.54	519.77	48.86	300.29	303.12	300.29	303.02						
1996	11455.41	9063.40	2392.01	224.85	9063.40	2392.01	224.85	1098.48	554.81	543.67	51.10	554.81	543.67	51.10	275.95	282.84	275.95	282.04						
1997	10724.27	8608.16	2116.11	198.91	8608.16	2116.11	198.91	1119.07	558.24	568.83	52.72	558.24	568.83	52.72	251.63	257.71	251.63	257.71						
1998	9910.83	7971.98	1938.85	182.25	7971.98	1938.85	182.25	1139.40	562.56	576.84	54.22	562.56	576.84	54.22	236.47	240.26	236.47	240.26						
1999	9175.26	7383.10	1792.16	168.46	7383.10	1792.16	168.46	1126.38	559.93	566.45	53.25	559.93	566.45	53.25	221.71	225.40	221.71	225.40						
2000	8532.79	6879.90	1652.89	155.37	6879.90	1652.89	155.37	1103.97	539.37	564.60	53.07	539.37	564.60	53.07	208.44	211.76	208.44	211.76						
2001	7839.90	6287.49	1552.41	145.93	6287.49	1552.41	145.93	1058.10	513.77	544.33	51.17	513.77	544.33	51.17	197.09	199.93	197.09	199.93						
2002	7398.04	5963.20	1434.86	134.88	5963.20	1434.86	134.88	1068.53	514.43	554.10	52.09	514.43	554.10	52.09	186.96	189.49	186.96	189.49						
2003	6697.66	5524.17	1173.49	110.31	5524.17	1173.49	110.31	1023.24	506.32	516.92	48.59	506.32	516.92	48.59	158.90	165.91	158.90	165.91						
2004	6074.72	5127.87	946.85	89.00	5127.87	946.85	89.00	1000.05	501.84	498.21	46.83	501.84	498.21	46.83	135.84	141.60	135.84	141.60						
2005	5414.58	4722.46	692.12	65.06	4722.46	692.12	65.06	986.76	499.20	487.56	45.83	499.20	487.56	45.83	110.89	117.13	110.89	117.13						

TABLE 11-20-4

TAPS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1986 81) SENSITIVITY ANALYSIS #20/B MW

FISCAL YEAR	TARIFF \$/B	PIPELINE THRUPT MMB/Y	TOTAL GROSS REV MMB/Y	OPER COSTS MMB/Y	AMORT & DEPREC EXPENSE MMB/Y	UNCAP INT EXPENSE MMB/Y	PTY TAX MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y
1986	4.77	651.00	3106.66	259.76	268.65	409.86	203.49	1141.76	1964.90	184.70
1987	4.53	661.00	2992.12	262.11	268.65	381.77	178.41	1090.94	1901.17	178.71
1988	3.95	671.00	2647.25	264.46	268.65	351.68	152.60	1037.39	1609.86	151.33
1989	3.30	689.00	2273.41	268.68	268.65	327.01	129.54	993.00	1279.53	120.28
1990	3.06	676.00	2071.34	265.63	268.65	302.34	110.06	946.68	1124.65	105.72
1991	2.90	619.00	1795.92	252.26	268.65	277.65	92.66	891.22	904.70	85.04
1992	2.72	564.00	1535.50	239.35	268.65	252.44	77.87	838.32	697.18	65.54
1993	2.27	618.00	1405.10	252.02	268.65	226.53	65.69	812.89	592.20	55.67
1994	2.04	622.00	1269.27	252.96	268.65	204.01	55.15	780.78	488.49	45.92
1995	1.87	625.00	1166.23	253.67	268.65	186.27	46.04	754.62	411.61	38.69
1996	1.72	592.00	1019.60	245.92	268.65	169.75	37.91	722.23	297.37	27.95
1997	1.57	555.00	871.99	237.24	268.65	153.12	31.24	690.26	181.73	17.08
1998	1.44	512.00	736.56	227.16	268.65	136.22	26.14	658.16	78.40	7.37
1999	1.42	473.00	671.67	202.16	268.65	120.90	22.46	614.17	57.50	5.41
2000	1.45	439.00	634.57	195.32	268.65	105.89	18.95	588.81	45.76	4.30
2001	1.47	402.00	590.30	187.88	268.65	91.99	15.48	564.00	26.30	2.47
2002	1.48	379.00	559.75	183.26	268.65	82.51	12.15	546.56	13.19	1.24
2003	1.50	343.00	513.30	176.02	268.65	76.23	8.86	529.75	-16.46	-1.55
2004	1.52	311.00	473.57	169.58	268.65	70.44	5.76	514.44	-40.87	-3.84
2005	1.56	277.00	432.81	162.74	268.65	63.48	2.81	497.68	-64.87	-6.10

SENSITIVITY ANALYSIS #20/B HW																	TOTAL		TOTAL	
FISCAL YEAR	NS		TAPS		NS+TAPS		NS+TAPS		CI		TOTAL		TOTAL		TOTAL		TOTAL			
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL		
	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE		
	INCOME	INCOME	INCOME	LIAB	W/MPT	W/MPT	W/MPT	LIAB	W/MPT	LIAB	W/MPT	LIAB	W/MPT	LIAB	W/MPT	LIAB	W/MPT	LIAB		
1986	6744.90	1944.90	8709.80	818.73	6196.18	8159.07	766.95	15.23	6.50	833.96	680.86	233.73	447.13	773.54	635.34	233.73	401.81			
1987	6838.17	1901.17	8739.35	821.50	6285.31	8186.69	769.35	6.23	0.15	827.73	829.29	237.18	592.11	769.70	770.66	237.18	533.48			
1988	6940.11	1609.86	8549.97	803.70	6415.83	8024.89	754.34	5.32	0.44	809.02	813.70	237.10	576.59	754.70	750.51	237.10	521.40			
1989	6845.42	1279.33	8144.95	765.63	6378.43	7657.96	719.85	4.45	0.20	770.08	779.81	237.84	541.97	720.05	728.73	237.84	490.88			
1990	6523.41	1124.65	7648.06	718.92	6078.67	7203.33	677.11	7.38	3.94	726.29	737.24	236.09	501.15	681.06	670.80	236.09	454.71			
1991	5441.97	904.70	6346.67	596.59	5063.24	5967.94	560.99	15.69	12.86	612.27	640.78	226.93	413.85	573.85	600.65	226.93	373.72			
1992	3935.02	697.18	4632.20	435.43	3713.07	4410.26	414.56	19.52	17.92	454.95	494.28	216.38	279.90	432.48	467.82	216.38	253.44			
1993	3131.23	592.20	3723.43	350.00	3022.09	3614.29	339.74	22.20	21.63	372.21	392.89	214.89	178.00	361.37	379.15	214.89	164.26			
1994	2963.28	488.49	3451.77	324.47	2959.06	3447.55	324.07	33.08	33.06	357.55	361.21	220.50	140.72	357.13	358.19	220.50	137.70			
1995	2674.79	411.61	3086.40	290.12	2674.79	3086.40	290.12	48.86	48.86	338.98	343.62	219.59	124.03	338.98	343.52	219.59	123.93			
1996	2392.01	297.37	2689.39	252.80	2392.01	2689.39	252.80	51.10	51.10	303.91	312.68	214.22	98.45	303.91	312.68	214.22	98.45			
1997	2116.11	181.73	2297.84	216.00	2116.11	2297.84	216.00	52.72	52.72	268.71	277.51	204.89	72.62	268.71	277.51	204.89	72.62			
1998	1938.85	76.40	2017.25	189.62	1938.85	2017.25	189.62	54.22	54.22	243.84	250.06	194.56	55.50	243.84	250.06	194.56	55.50			
1999	1792.16	57.50	1849.66	173.87	1792.16	1849.66	173.87	53.25	53.25	227.11	231.30	183.89	47.41	227.11	231.30	183.89	47.41			
2000	1652.89	45.76	1698.65	159.67	1652.89	1698.65	159.67	53.07	53.07	212.75	216.34	173.95	42.39	212.75	216.34	173.95	42.39			
2001	1552.41	26.30	1578.72	148.40	1552.41	1578.72	148.40	51.17	51.17	199.57	202.86</									

TABLE 11-20-6
CURRENT LAW-NDD1: 50 APPORTIONMENT (AS4320) INCOME TAX ESTS
(8-1986)

SENSITIVITY ANALYSIS 820/8 MM

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR				
FISCAL YEAR	TOTAL AK OIL & GAS PRODN MMB/Y EQUIV		C/G TOTAL AK OIL & GAS PRODN MMB/Y 1		NET PROFIT APPMT FACTOR	TOP 3 COMPANIES				FISCAL YEAR	TOTAL AK TAX COLLECT MMB/Y			
						MMB/Y	AK NET PROFIT MMB/Y	AK TAXABLE INCOME MMB/Y	AK TAX LIAB MMB/Y					
1986	696.67	0.0000	0.0000	0.2787	1986	8152.35	2272.06	213.57	237.30	1986	233.73			
1987	706.00	1.3396	1.0087	0.2783	1987	8152.35	2268.93	213.28	236.98	1987	237.18			
1988	717.68	1.6546	1.0108	0.2785	1988	8152.35	2270.39	213.42	237.13	1988	237.10			
1989	734.89	2.3982	1.0156	0.2800	1989	8152.35	2282.73	214.58	238.42	1989	237.84			
1990	724.34	-1.4354	0.9907	0.2746	1990	8152.35	2238.82	210.45	233.83	1990	236.09			
1991	669.53	-7.5671	0.9508	0.2585	1991	8164.03	2116.43	198.38	220.42	1991	226.93			
1992	615.74	-8.0346	0.9478	0.2426	1992	8237.37	1998.00	187.81	208.68	1992	214.38			
1993	669.98	8.8094	1.0573	0.2539	1993	8319.14	2112.04	198.53	220.59	1993	214.89			
1994	672.35	0.3533	1.0023	0.2519	1994	8373.66	2109.46	198.29	220.32	1994	220.50			
1995	675.00	0.3944	1.0026	0.2500	1995	8379.50	2095.18	196.95	218.83	1995	219.59			
1996	642.48	-4.8176	0.9687	0.2398	1996	8379.50	2009.27	188.87	209.86	1996	214.22			
1997	606.45	-5.6075	0.9636	0.2287	1997	8379.50	1916.68	180.17	200.19	1997	204.89			
1998	564.42	-6.9316	0.9549	0.2162	1998	8379.50	1812.02	170.33	189.26	1998	194.56			
1999	524.82	-7.8146	0.9544	0.2043	1999	8379.50	1712.10	160.94	178.82	1999	183.89			
2000	489.78	-6.6771	0.9566	0.1933	2000	8379.50	1621.42	152.41	169.35	2000	173.95			
2001	450.66	-7.9884	0.9481	0.1816	2001	8379.50	1521.86	143.05	158.95	2001	163.99			
2002	428.15	-4.9946	0.9675	0.1740	2002	8379.50	1457.72	137.03	152.25	2002	155.51			
2003	390.22	-8.8574	0.9424	0.1623	2003	8379.50	1364.04	127.05	142.05	2003	147.06			
2004	357.15	-8.4753	0.9449	0.1518	2004	8379.50	1264.28	119.59	132.88	2004	137.33			
2005	322.55	-9.6882	0.9370	0.1408	2005	8379.50	1180.24	110.94	123.27	2005	127.93			

TABLE 11-20-7
REVENUE COMPARISON
CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)
PRODUCTION TAX-15% RATE NOMINAL RATE (AS4355)

PROPOSED LAW (H0353)

INCOME TAX-SEPARATE ACCOUNTING
PRODUCTION TAX-12.25% RATE NOMINAL RATE
BEGINNING IN CY 1987

(1986-1994)	SENSITIVITY ANALYSIS #20/D HHV INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT LAW HHV/Y	DIFF H0353 LESS H0353 CURRENT HHV/Y	DIFF H0353 LESS H0353 CURRENT HHV/Y	CURRENT LAW HHV/Y	DIFF H0353 LESS H0353 CURRENT HHV/Y	DIFF H0353 LESS H0353 CURRENT HHV/Y	CURRENT LAW HHV/Y	DIFF H0353 LESS H0353 CURRENT HHV/Y	DIFF H0353 LESS H0353 CURRENT HHV/Y
1986	233.73	480.06	447.13	1579.09	1579.09	0.00	1812.82	2259.95	447.13
1987	237.18	829.29	592.11	1590.99	1438.46	-152.53	1828.17	2267.75	439.57
1988	237.10	813.70	576.59	1296.06	1075.05	-221.01	1533.96	1889.55	355.59
1989	237.04	779.81	541.97	1259.09	1054.60	-204.49	1496.93	1834.41	337.48
1990	236.09	737.24	501.15	1222.03	1035.67	-186.36	1458.12	1772.91	314.79
1991	226.93	640.78	413.85	1079.16	904.59	-174.57	1306.09	1545.36	239.27
1992	214.38	494.28	279.90	954.53	803.41	-151.12	1168.91	1297.69	128.78
1993	214.89	392.89	178.00	1128.75	934.39	-194.36	1343.65	1327.29	-16.36
1994	220.50	361.21	140.72	1177.71	969.62	-208.09	1298.21	1330.83	-32.62
1995	219.59	343.62	124.03	1222.05	1008.04	-214.01	1441.65	1351.66	-89.99
1996	214.22	312.68	98.45	1143.12	943.85	-199.27	1357.34	1256.53	-100.81
1997	204.89	277.51	72.62	1072.43	886.35	-186.08	1277.32	1163.86	-113.46
1998	194.54	250.06	55.50	1000.97	828.39	-172.58	1195.53	1078.45	-117.08
1999	183.89	231.30	47.41	928.47	769.07	-159.41	1112.36	1000.36	-112.00
2000	173.95	216.34	42.39	872.55	723.17	-149.38	1046.50	939.51	-106.99
2001	163.99	202.06	38.07	811.99	673.09	-138.90	975.99	875.95	-100.03
2002	155.51	191.04	35.53	781.12	647.83	-133.29	936.63	838.87	-97.75
2003	147.00	165.06	18.07	711.94	590.96	-120.98	858.94	756.02	-102.92
2004	137.33	138.33	1.00	651.52	541.40	-110.13	788.85	679.73	-109.12
2005	127.93	111.59	-16.34	584.84	486.83	-98.01	712.77	598.42	-114.35
SUM06-05	3981.52	8170.46	4188.94	21069.22	17894.64	-3174.57	25050.74	26065.10	1014.37

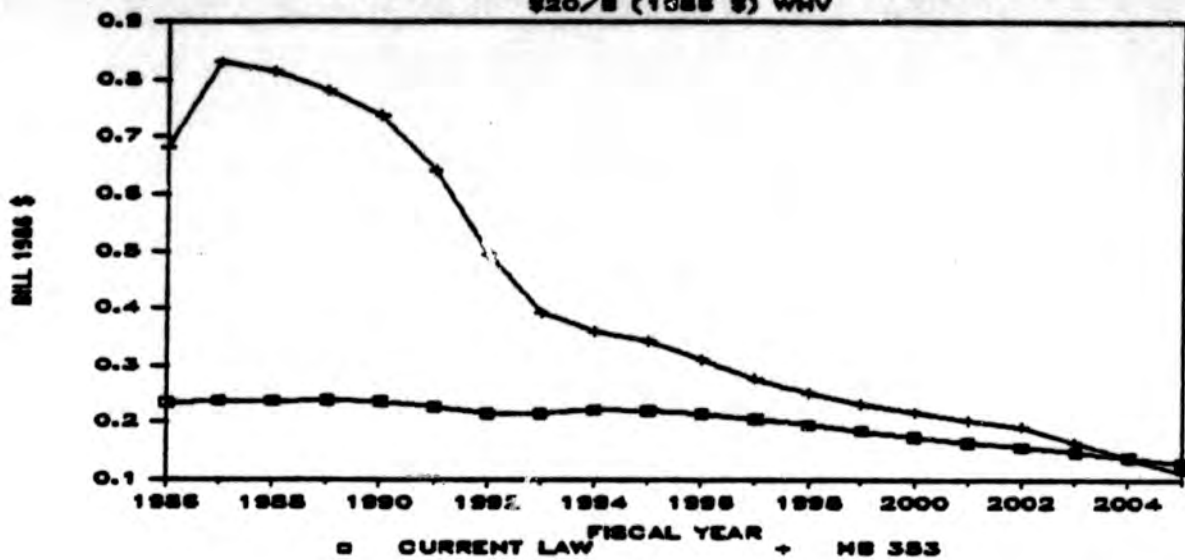
TABLE 11-20-B
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1986-1988) SENSITIVITY ANALYSIS \$20/B BWT

FISCAL YEAR	TOTAL			CURRENT LAW		H0353	
	PETRO PRODN GROSS INCOME MM/Y	PETRO PRODN NON TAX DEDUCTS MM/Y	PETRO PRODN NET INCOME MM/Y	STATE PETRO PRODN REVENUE MM/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN REVENUE MM/Y	REVENUE VS NET INCOME %
1986	13522.15	3140.96	10381.19	3707.92	35.72	4016.53	38.69
1987	13620.07	3356.37	10263.70	3740.95	36.53	4000.31	39.05
1988	13690.70	3652.27	10038.43	3499.83	34.86	3697.24	36.83
1989	13921.30	3938.46	9982.93	3512.45	35.18	3721.90	37.28
1990	13643.57	4023.74	9619.83	3440.42	35.76	3645.85	37.90
1991	12626.02	4262.23	8363.79	3156.45	37.74	3305.51	39.52
1992	11596.09	4826.06	6770.03	2992.86	44.21	3051.22	45.07
1993	12715.92	6352.06	6363.86	3405.60	53.54	3331.19	52.35
1994	12972.40	6591.03	6381.45	3494.83	54.77	3379.09	52.95
1995	13196.61	6866.07	6330.53	3569.50	56.39	3439.09	54.33
1996	12553.89	6654.49	5899.40	3377.22	57.25	3245.76	55.02
1997	11043.34	6373.64	5469.70	3183.74	58.21	3050.40	55.77
1998	11050.23	5928.53	5121.71	2973.17	58.05	2846.28	55.57
1999	10301.64	5520.36	4781.27	2765.96	57.85	2648.07	55.38
2000	9636.76	5156.20	4480.47	2586.32	57.72	2474.75	55.23
2001	8898.00	4713.71	4184.30	2390.45	57.13	2287.40	54.67
2002	8466.59	4497.42	3969.17	2269.02	57.17	2169.71	54.66
2003	7720.90	4227.65	3493.25	2070.83	59.28	1968.76	56.36
2004	7074.77	3984.83	3089.93	1892.32	61.24	1786.47	57.82
2005	6401.34	3743.33	2658.01	1704.27	64.12	1595.45	60.02

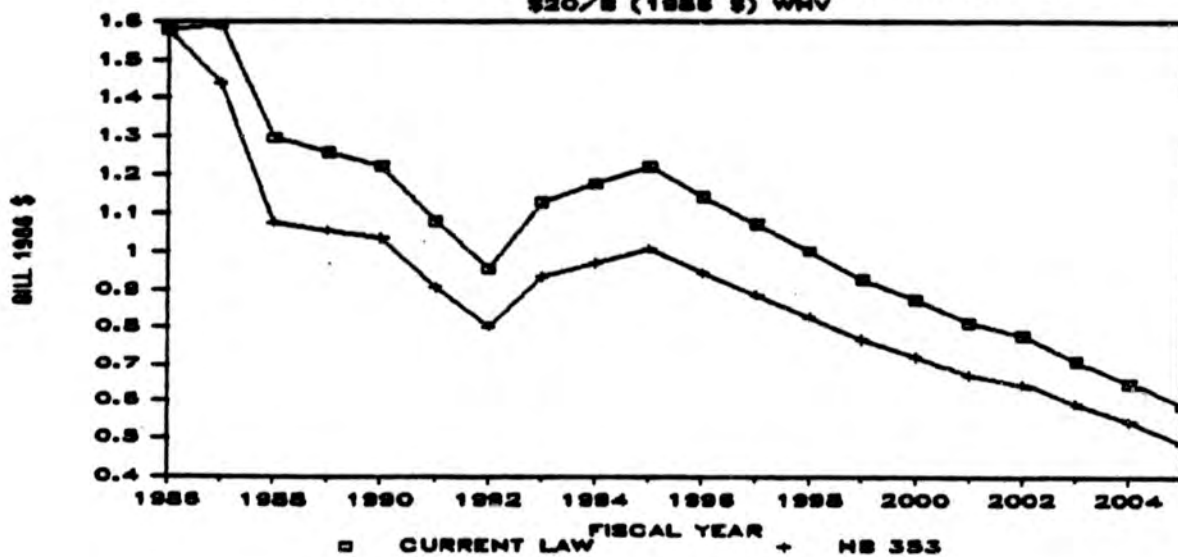
TABLE 11-20-9
 PERCENTAGE SHARE COMPARISON
 CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
 AS A PERCENTAGE OF
 PETROLEUM PRODUCTION & PIPELINE NET INCOME
 (1986-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS \$20/B HHV			CURRENT		H0353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME HHV/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS HHV/Y	TOTAL PETRO PRODN & PIPE NET INCOME HHV/Y	STATE PETRO PRODN & PIPE REVENUE HHV/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE HHV/Y	REVENUE VS NET INCOME %
1986	14628.01	4079.23	12549.50	3911.41	31.17	4358.54	34.73
1987	14612.18	4268.90	12343.29	3927.36	31.82	4366.93	35.38
1988	16337.95	4537.06	11800.89	3652.43	30.95	4008.01	33.96
1989	16194.79	4802.80	11392.00	3642.00	31.97	3979.48	34.93
1990	15714.91	4860.36	10854.55	3550.48	32.71	3865.27	35.61
1991	14421.94	5060.79	9361.15	3249.11	34.71	3488.38	37.26
1992	13131.59	5586.50	7545.09	3070.73	40.70	3199.51	42.41
1993	14121.02	7099.26	7021.76	3471.37	49.44	3455.01	49.20
1994	14241.75	7316.65	6925.10	3549.98	51.26	3482.60	50.29
1995	14362.04	7574.66	6788.18	3615.61	53.26	3525.63	51.94
1996	13573.50	7338.81	6234.68	3415.13	54.78	3314.31	53.16
1997	12715.33	7032.65	5682.68	3214.98	56.58	3101.52	54.58
1998	11786.80	6560.55	5226.24	2999.30	57.39	2882.22	55.15
1999	10973.31	6112.07	4861.24	2788.42	57.36	2676.42	55.06
2000	10271.33	5726.15	4545.18	2605.27	57.32	2498.27	54.97
2001	9488.31	5262.23	4226.08	2405.93	56.93	2305.89	54.56
2002	9026.34	5031.83	3994.51	2281.16	57.11	2183.41	54.66
2003	8234.20	4748.55	3485.65	2079.68	59.66	1976.77	56.71
2004	7548.33	4493.51	3054.83	1898.09	62.13	1788.97	58.56
2005	6834.13	4238.20	2595.93	1707.07	65.76	1592.73	61.35

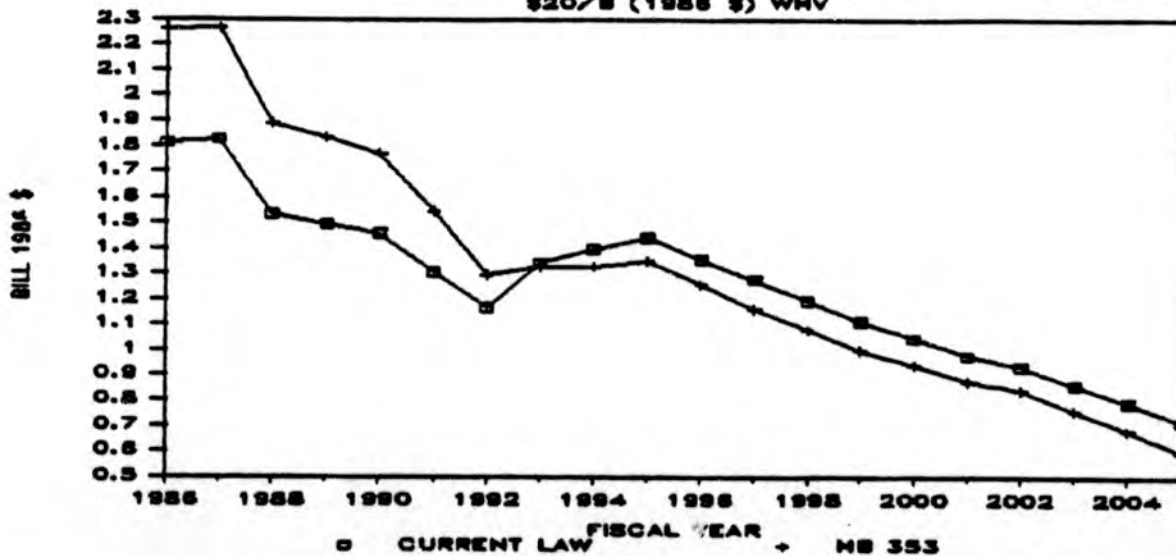
GRAPH II-20-1
INCOME TAX COMPARISON
\$20/B (1986 \$) WHV



GRAPH II-20-2
PRODUCTION TAX COMPARISON
\$20/B (1986 \$) WHV



GRAPH II-20-3
INCOME + PRDN TAX COMPARISON
\$20/B (1986 \$) WHV



SECTION II-15

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$15/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-15-1
ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (NB353) INCOME TAX ESTS
10-1986 81 SENSITIVITY ANALYSIS 813/8 MW

FISCAL YEAR	PROD VOL WT AVG GROSS WELLHEAD VALUE 8/8	TOTAL GROSS PROD VOL MMB/Y	TOTAL GROSS REV MMB/Y	ROYALTY SHARE MMB/Y	PROD & CONS TAX MMB/Y	PTY TAX MMB/Y	OPER COSTS MMB/Y	DEPREC EXPENSE MMB/Y	AMORT EXPENSE MMB/Y	UNCAP INTEREST & OVERHD EXPENSE ALLOWED MMB/Y	ADMIN EXPENSE ALLOWED MMB/Y	EXPLOR (UNSUCCS) EXPENSE ALLOWED MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y	TOTAL WINDFALL PROFITS TAX MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y	PROD TAX CURRENT MMB/Y	PROD TAX NB353 MMB/Y
1986	14.81650	651.00	9645.54	1182.24	1176.01	215.43	1137.47	1083.56	6.46	105.00	240.00	240.00	5386.38	4259.16	400.36	0.00	5386.38	4259.16	400.36	1175.39	1175.30
1987	14.78849	641.00	9775.19	1185.14	1068.17	240.52	1157.10	1264.96	15.73	105.00	240.00	240.00	5516.61	4258.50	400.31	0.00	5516.61	4258.50	400.31	1181.50	1067.45
1988	14.60535	671.00	9800.19	1193.93	792.37	269.41	1287.09	1414.61	39.72	105.00	240.00	240.00	5581.63	4218.56	396.55	0.00	5581.63	4218.56	396.55	957.02	791.64
1989	14.44170	689.00	9950.33	1221.17	774.03	279.47	1352.21	1612.34	97.86	105.00	240.00	240.00	5922.08	4028.25	378.66	0.00	5922.08	4028.25	378.66	926.28	773.20
1990	14.34475	676.00	9697.05	1192.28	754.44	278.22	1356.02	1675.79	127.51	105.00	240.00	240.00	5969.26	3727.79	350.41	0.00	5969.26	3727.79	350.41	893.12	753.70
1991	14.30961	619.00	8857.65	1090.98	653.33	269.84	1290.25	1883.33	127.43	105.00	240.00	240.00	5900.16	2957.49	278.00	0.00	5900.16	2957.49	278.00	783.20	652.66
1992	14.27798	564.00	8052.78	992.39	575.37	331.75	1225.23	2355.51	125.50	105.00	240.00	240.00	6190.75	1862.03	175.03	0.00	6190.75	1862.03	175.03	687.80	574.75
1993	14.31420	584.00	8359.49	1028.81	617.65	397.04	1644.62	2946.81	124.89	105.00	240.00	240.00	7344.81	1014.68	95.38	0.00	7344.81	1014.68	95.38	749.84	617.01
1994	14.35781	571.00	8198.31	1006.21	610.40	407.10	1607.94	3169.26	121.68	105.00	240.00	240.00	7507.59	690.72	64.93	0.00	7507.59	690.72	64.93	746.66	609.77
1995	14.30941	562.00	8041.89	988.15	610.33	410.45	1651.39	3390.39	120.24	105.00	240.00	240.00	7755.94	285.95	26.88	0.00	7755.94	285.95	26.88	746.59	609.71
1996	14.28147	525.00	7497.77	915.25	555.73	391.13	1562.97	3282.06	107.64	105.00	240.00	240.00	7399.78	97.99	9.21	0.00	7399.78	97.99	9.21	679.78	555.16
1997	14.25286	486.00	6926.89	845.64	509.18	368.43	1468.98	3104.27	95.91	105.00	240.00	240.00	6977.41	-50.52	-4.75	0.00	6977.41	-50.52	-4.75	622.84	508.65
1998	14.28544	443.00	6328.45	772.29	464.80	340.93	1362.19	2794.14	86.07	105.00	240.00	240.00	6405.41	-76.96	-7.23	0.00	6405.41	-76.96	-7.23	568.55	464.31
1999	14.33248	403.00	5775.99	703.61	420.59	313.43	1271.56	2477.50	73.41	105.00	240.00	240.00	5845.10	-69.11	-6.50	0.00	5845.10	-69.11	-6.50	514.47	420.15
2000	14.39989	365.00	5253.96	637.43	384.31	285.94	1169.17	2135.58	59.55	105.00	240.00	240.00	5256.97	-1.01	-0.10	0.00	5256.97	-1.01	-0.10	470.10	383.91
2001	14.43678	335.00	4836.32	586.08	357.52	260.11	1107.13	1933.18	53.26	105.00	240.00	240.00	4882.27	-45.95	-4.32	0.00	4882.27	-45.95	-4.32	437.34	357.16
2002	14.45346	312.00	4509.48	546.47	338.87	234.28	1058.24	1784.66	48.10	105.00	240.00	240.00	4595.62	-86.14	-8.10	0.00	4595.62	-86.14	-8.10	414.52	338.52
2003	14.47064	280.00	4051.78	491.83	304.93	208.45	1015.02	1591.28	45.51	105.00	240.00	240.00	4241.22	-189.44	-17.81	0.00	4241.22	-189.44	-17.81	373.01	304.63
2004	14.49584	250.00	3623.96	439.05	273.12	182.62	976.26	1405.26	34.33	105.00	240.00	240.00	3895.63	-271.67	-25.54	0.00	3895.63	-271.67	-25.54	334.09	272.84
2005	14.64976	209.00	3061.80	367.84	235.45	156.80	863.16	1120.52	13.50	105.00	240.00	240.00	3342.27	-280.47	-26.36	0.00	3342.27	-280.47	-26.36	288.03	235.23

TABLE II-15-2

COOK INLET-SEPARATE ACCT (H0353) INCOME TAX ESTS
(1-1986) SENSITIVITY ANALYSIS 015/0 HHV

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/B	OIL GROSS PRODN VOL MMB/Y	OIL GROSS REV MM\$/Y	GAS GROSS WELLHEAD VALUE \$/MCF	GAS GROSS PRODN VOL BCF/Y	GAS GROSS REV MM\$/Y	TOTAL GROSS REV MM\$/Y	OIL ROYALTY SHARE MM\$/Y	GAS ROYALTY SHARE MM\$/Y	OIL PRODN & CONS TAX CURRENT MM\$/Y	OIL PRODN & CONS TAX H0353 MM\$/Y	GAS PRODN TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	OTHER DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX MM\$/Y
1986	21.00	18.03	378.63	0.79	193.45	152.83	531.46	47.33	19.10	0.42	0.42	9.09	11.00	225.54	135.74	83.23	7.82	36.84	46.39	4.36
1987	21.00	12.67	266.07	0.93	226.30	210.46	476.53	33.26	26.31	0.30	0.27	12.15	11.68	241.65	140.28	10.93	1.03	25.89	-14.96	-1.41
1988	21.00	10.18	213.78	1.06	255.50	270.83	484.61	26.72	33.85	0.21	0.17	15.17	12.32	241.65	142.62	12.11	1.14	20.81	-8.70	-0.82
1989	21.00	8.87	186.27	1.14	259.15	295.43	481.70	23.28	36.93	0.16	0.13	16.54	11.94	241.65	142.62	8.60	0.81	18.13	-9.53	-0.90
1990	21.00	7.15	150.15	1.32	288.35	380.62	530.77	18.77	47.58	0.11	0.09	21.31	11.55	241.65	142.62	47.20	4.44	14.62	32.58	3.06
1991	21.00	6.21	130.41	1.65	310.25	511.91	642.32	16.30	63.99	0.01	0.01	26.88	11.17	241.65	142.62	139.71	13.13	12.04	127.67	12.00
1992	21.00	5.33	111.93	1.80	324.85	584.73	696.66	13.99	73.09	0.01	0.01	30.19	10.78	241.65	142.62	184.33	17.33	6.81	177.52	16.69
1993	21.00	4.53	95.13	1.93	332.15	641.05	736.18	11.89	80.13	.00	.00	33.89	10.40	241.65	142.62	216.39	20.34	2.46	213.93	20.11
1994	21.00	3.94	82.74	2.46	324.85	799.13	881.87	10.34	99.89	.00	.00	42.65	10.01	241.65	142.62	334.70	31.46	0.08	334.62	31.45
1995	21.00	3.07	64.47	3.07	328.50	1008.50	1072.97	8.06	126.06	.00	.00	54.71	9.63	225.54	142.62	506.34	47.60	0.00	506.34	47.60
1996	21.00	3.03	63.63	3.07	332.15	1019.70	1083.33	7.95	127.46	.00	.00	56.21	9.24	209.43	142.62	530.41	49.86	0.00	530.41	49.86
1997	21.00	2.96	62.16	3.07	339.45	1042.11	1104.27	7.77	130.26	.00	.00	57.45	8.86	209.43	142.62	547.88	51.50	0.00	547.88	51.50
1998	21.00	2.88	60.48	3.07	346.75	1064.52	1125.00	7.56	133.07	.00	.00	59.61	8.47	209.43	142.62	564.24	53.04	0.00	564.24	53.04
1999	21.00	2.81	59.01	3.07	343.10	1053.32	1112.33	7.38	131.66	.00	.00	58.99	8.09	209.43	142.62	554.16	52.09	0.00	554.16	52.09
2000	21.00	2.81	59.01	3.07	335.80	1030.91	1089.92	7.38	128.86	.00	.00	57.73	7.70	193.32	142.62	552.30	51.92	0.00	552.30	51.92
2001	21.00	2.77	58.17	3.07	321.20	986.08	1044.25	7.27	123.26	.00	.00	54.36	7.32	177.21	142.62	532.21	50.03	0.00	532.21	50.03
2002	21.00	2.74	57.54	3.07	324.85	997.29	1054.83	7.19	124.66	.00	.00	54.10	6.93	177.21	142.62	542.11	50.96	0.00	542.11	50.96
2003	21.00	1.86	39.06	3.07	317.55	974.88	1013.94	4.88	121.86	.00	.00	52.03	6.55	177.21	142.62	508.78	47.83	0.00	508.78	47.83
2004	21.00	1.83	38.43	3.07	310.25	952.47	990.90	4.80	119.06	.00	.00	50.84	6.16	177.21	142.62	490.21	46.08	0.00	490.21	46.08
05	21.00	1.75	36.75	3.07	306.60	941.26	978.01	4.59	117.66	.00	.00	50.24	5.78	177.21	142.62	479.91	45.11	0.00	479.91	45.11

TABLE 11-15-4
TAP-SEPARATE ACCT (H0353) INCOME TAX ESTS
SENSITIVITY ANALYSIS 8/15/80 MMV
(8-1986 8)

YEAR	FISCAL	TARIFF	THRUPUT	PEV	GROSS	OPER	DEPRECI	AMORT &	UNCAP	INT	EXPENSE	TAI	DEDUCT	TOTAL	TOTAL	TAX	LIAB
MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y	MMV/Y
1986	4.77	651.00	3103.86	259.76	268.65	409.86	200.69	1138.97	1964.89	184.70	178.71	1901.17	904.70	105.72	85.04	65.54	53.11
1987	4.52	661.00	2989.16	262.11	268.65	381.77	175.43	1087.96	1901.17	178.71	1901.17	904.70	105.72	85.04	65.54	53.11	53.11
1988	3.94	671.00	2644.08	264.46	268.65	351.68	149.43	1031.22	1609.86	151.33	120.28	1279.53	904.70	105.72	85.04	65.54	53.11
1989	3.29	689.00	2270.04	268.68	268.65	327.01	128.17	990.51	1279.53	120.28	105.72	904.70	105.72	85.04	65.54	53.11	53.11
1990	3.06	676.00	2067.75	265.63	268.65	302.34	106.48	943.10	1124.65	105.72	85.04	904.70	105.72	85.04	65.54	53.11	53.11
1991	2.90	619.00	1792.10	252.26	268.65	277.65	88.84	887.40	904.70	85.04	65.54	904.70	85.04	65.54	53.11	53.11	53.11
1992	2.72	564.00	1531.44	239.35	268.65	252.44	73.81	834.26	697.18	65.54	53.11	697.18	65.54	53.11	53.11	53.11	53.11
1993	2.34	584.00	1365.63	244.05	268.65	226.53	61.37	800.60	565.03	53.11	42.09	565.03	53.11	42.09	53.11	53.11	53.11
1994	2.12	571.00	1212.22	241.00	268.65	204.01	50.83	761.49	447.73	42.09	33.96	447.73	42.09	33.96	53.11	53.11	53.11
1995	1.95	562.00	1096.92	238.89	268.65	186.27	41.85	735.65	361.26	33.96	22.92	361.26	33.96	22.92	53.11	53.11	53.11
1996	1.80	525.00	946.39	230.21	268.65	169.75	33.96	702.57	243.83	22.92	11.90	243.83	22.92	11.90	53.11	53.11	53.11
1997	1.61	486.00	780.71	204.77	268.65	153.12	27.58	654.13	126.59	11.90	0.15	126.59	11.90	0.15	53.11	53.11	53.11
1998	1.46	443.00	647.05	196.13	268.65	136.22	22.80	623.79	23.26	2.19	0.15	23.26	2.19	0.15	53.11	53.11	53.11
1999	1.49	403.00	598.66	188.08	268.65	120.90	19.47	597.10	1.56	0.15	0.15	1.56	0.15	0.15	53.11	53.11	53.11
2000	1.53	365.00	557.93	180.44	268.65	105.89	16.33	571.31	-1.26	-1.26	-1.26	-1.26	-1.26	-1.26	53.11	53.11	53.11
2001	1.56	335.00	521.09	174.41	268.65	91.99	13.29	548.33	-2.56	-2.56	-2.56	-2.56	-2.56	-2.56	53.11	53.11	53.11
2002	1.57	312.00	490.94	169.78	268.65	82.51	10.35	531.30	-3.79	-3.79	-3.79	-3.79	-3.79	-3.79	53.11	53.11	53.11
2003	1.60	280.00	448.91	163.35	268.65	76.23	7.49	515.72	-6.28	-6.28	-6.28	-6.28	-6.28	-6.28	53.11	53.11	53.11
2004	1.65	250.00	411.60	157.32	268.65	70.44	4.82	501.22	-8.42	-8.42	-8.42	-8.42	-8.42	-8.42	53.11	53.11	53.11
2005	1.74	209.00	364.28	149.87	268.65	63.48	2.29	483.49	-11.21	-11.21	-11.21	-11.21	-11.21	-11.21	53.11	53.11	53.11

(1984, 6)

FISCAL YEAR	SENSITIVITY ANALYSIS \$15/B HWY														TOTAL				TOTAL					
	NS				NS+TAPS				NS+TAPS				CI				NOB							
	TOTAL		TAPS		NS+TAPS		TOTAL		TAPS		NS+TAPS		TOTAL		TAPS		NS+TAPS		TOTAL		TAPS		NS+TAPS	
	TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE		TAXABLE	
	INCOME		INCOME		INCOME		LIAB		W/MPT		W/MPT		W/MPT		LIAB		W/MPT		W/MPT		W/MPT		W/MPT	
	RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y		RHS/Y	
1986	4259.16	1964.89	6224.05	585.06	4259.16	6224.05	585.06	7.82	4.34	592.88	500.06	212.68	287.37	589.42	497.46	212.68	284.78							
1987	4258.58	1901.17	6159.75	579.02	4258.58	6159.75	579.02	1.03	0.00	580.04	583.25	196.57	384.68	579.02	581.62	196.57	385.05							
1988	4218.56	1609.86	5828.42	547.87	4218.56	5828.42	547.87	1.14	0.00	549.01	556.77	196.51	360.26	547.87	555.66	196.51	359.15							
1989	4028.25	1279.53	5307.78	498.93	4028.25	5307.78	498.93	0.81	0.00	499.74	512.06	197.12	314.94	498.93	511.17	197.12	314.05							
1990	3727.79	1124.65	4852.44	456.13	3727.79	4852.44	456.13	4.44	3.06	460.57	470.36	195.67	274.69	459.19	469.13	195.67	273.46							
1991	2957.49	904.70	3862.19	363.05	2957.49	3862.19	363.05	13.13	12.00	376.18	397.28	187.94	209.33	375.05	396.08	187.94	208.14							
1992	1862.03	697.18	2559.21	240.57	1862.03	2559.21	240.57	17.33	16.69	257.89	287.46	176.63	110.84	257.25	286.70	176.63	110.08							
1993	1014.68	565.03	1579.71	148.49	1014.68	1579.71	148.49	20.34	20.11	168.83	191.10	172.19	18.91	168.60	190.77	172.19	18.58							
1994	690.72	447.73	1138.46	107.01	690.72	1138.46	107.01	31.46	31.45	138.48	146.07	170.88	-24.82	138.47	146.00	170.88	-24.88							
1995	285.95	361.26	647.21	60.84	285.95	647.21	60.84	47.60	47.60	108.43	115.94	167.09	-51.15	108.43	115.94	167.09	-51.15							
1996	97.99	243.83	341.81	32.13	97.99	341.81	32.13	49.86	49.86	81.99	88.60	161.34	-72.74	81.99	88.60	161.34	-72.74							
1997	-50.52	126.59	76.06	7.15	-50.52	76.06	7.15	51.50	51.50	58.65	64.49	153.20	-88.71	58.65	64.49	153.20	-88.71							
1998	-76.96	23.26	-53.70	0.00	-76.96	-53.70	0.00	53.04	53.04	53.04	54.44	144.55	-90.11	53.04	54.44	144.55	-90.11							
1999	-69.11	1.54	-67.55	0.00	-69.11	-67.55	0.00	52.09	52.09	52.09	52.33	135.65	-83.33	52.09	52.33	135.65	-83.33							
2000	-1.01	-13.38	-14.39	0.00	-1.01	-14.39	0.00	51.92	51.92	51.92	51.96	126.97	-75.01	51.92	51.96	126.97	-75.01							
2001	-45.95	-27.25	-73.20	0.00	-45.95	-73.20	0.00	50.03	50.03	50.03	50.50	119.04	-68.54	50.03	50.50	119.04	-68.54							
2002	-86.14	-48.36	-126.49	0.00	-86.14	-126.49	0.00	50.96	50.96	50.96	50.73	112.65	-61.92	50.96	50.73	112.65	-61.92							
2003	-189.44	-66.81	-256.25	0.00	-189.44	-256.25	0.00	47.83	47.83	47.83	48.61	105.98	-57.37	47.83	48.61	105.98	-57.37							
2004	-271.67	-89.62	-361.30	0.00	-271.67	-361.30	0.00	46.08	46.08	46.08	46.52	98.48	-51.96	46.08	46.52	98.48	-51.96							
2005	-280.47	-119.22	-399.69	0.00	-280.47	-399.69	0.00	45.11	45.11	45.11	45.35	90.03	-44.68	45.11	45.35	90.03	-44.68							

TABLE 11-15-4
CURRENT LAW-MODIFIED APPORTIONMENT (AS4320) INCOME TAX ESTS
(6-1986)

SENSITIVITY ANALYSIS \$15/B HHV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
FISCAL YEAR	TOTAL AK OIL & GAS PROD HH/Y EQUIV	CHG TOTAL AK OIL & GAS PROD % %	APPMT FACTOR CHG FACTOR	NET PROFIT APPMT FACTOR	TOP 3 COMPANIES					FISCAL YEAR	TOTAL AK TAX COLLECT HH/Y
					CALENDAR YEAR	NV NET PROFIT HH/Y	AK TAXABLE INCOME HH/Y	AK TAX LIAB HH/Y	TOTAL AK TAX LIAB HH/Y		
1986	696.67	0.0000	0.0000	0.2787	1986	675.50	1003.04	177.01	196.67	1986	212.68
1987	706.00	1.3396	1.0087	0.2783	1987	6756.50	1000.44	176.76	196.40	1987	196.57
1988	717.68	1.6546	1.0100	0.2785	1988	6756.50	1001.66	176.80	196.53	1988	196.51
1989	734.89	2.3982	1.0156	0.2800	1989	6756.50	1091.00	177.84	197.60	1989	197.12
1990	724.34	-1.4354	0.9907	0.2746	1990	6756.50	1055.40	174.42	193.00	1990	195.67
1991	669.53	-7.5671	0.9500	0.2585	1991	6756.50	1746.50	164.19	182.42	1991	187.94
1992	615.74	-8.0346	0.9470	0.2426	1992	6756.50	1638.01	154.05	171.16	1992	176.63
1993	635.98	3.2876	1.0214	0.2453	1993	6756.50	1657.09	155.77	173.07	1993	172.19
1994	621.35	-2.3008	0.9850	0.2392	1994	6756.50	1615.99	151.90	168.78	1994	170.88
1995	612.00	-1.5046	0.9902	0.2345	1995	6756.50	1584.10	148.91	165.46	1995	167.09
1996	575.48	-5.9671	0.9612	0.2231	1996	6756.50	1507.51	141.71	157.45	1996	161.34
1997	537.45	-6.6079	0.9570	0.2114	1997	6756.50	1420.33	134.26	149.18	1997	153.20
1998	495.42	-7.8215	0.9492	0.1986	1998	6756.50	1342.16	126.16	140.18	1998	144.55
1999	454.82	-8.1934	0.9467	0.1862	1999	6756.50	1257.97	118.25	131.39	1999	135.65
2000	415.78	-8.5842	0.9442	0.1740	2000	6756.50	1175.90	110.53	122.82	2000	126.97
2001	383.66	-7.7266	0.9498	0.1636	2001	6756.50	1105.68	103.93	115.48	2001	119.04
2002	361.15	-5.8669	0.9619	0.1558	2002	6756.50	1052.88	98.97	109.97	2002	112.65
2003	327.22	-9.3931	0.9389	0.1449	2003	6756.50	978.71	92.00	102.22	2003	105.98
2004	296.15	-9.4959	0.9383	0.1346	2004	6756.50	909.12	85.46	94.95	2004	98.48
2005	254.55	-14.0474	0.9087	0.1210	2005	6756.50	817.85	76.88	85.42	2005	90.03

TABLE 11-15-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)

PRODUCTION TAX-15% MAX NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% MAX NOMINAL RATE

BEGINNING IN CY 1987

(1-1986)

SENSITIVITY ANALYSIS 815/B HW

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT MM/Y	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT MM/Y	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT MM/Y
1986	212.68	500.06	287.37	1184.79	1184.79	0.00	1397.48	1684.85	287.37
1987	196.57	503.25	306.68	1193.93	1079.86	-114.08	1390.51	1663.11	272.61
1988	196.51	556.77	360.26	972.38	806.96	-165.42	1168.89	1363.73	194.84
1989	197.12	512.06	314.94	942.97	789.94	-153.03	1140.09	1302.00	161.91
1990	195.67	470.36	274.69	914.53	775.10	-139.43	1110.20	1245.46	135.26
1991	187.94	397.28	209.33	810.07	679.53	-130.54	998.01	1076.81	78.79
1992	176.63	287.46	110.84	717.99	604.94	-113.05	894.62	892.40	-2.21
1993	172.19	191.10	18.91	782.93	650.11	-132.83	955.12	841.21	-113.92
1994	170.88	146.07	-24.82	789.32	652.43	-136.89	960.20	798.49	-161.71
1995	167.09	115.94	-51.15	801.30	664.43	-136.87	968.39	780.37	-188.02
1996	161.34	88.60	-72.74	735.99	611.37	-124.63	897.34	699.97	-197.37
1997	153.20	64.49	-88.71	680.29	566.10	-114.19	833.48	630.58	-202.90
1998	144.55	54.44	-90.11	628.16	523.93	-104.23	772.71	578.37	-194.34
1999	135.65	52.33	-83.33	573.46	479.14	-94.32	709.11	531.47	-177.65
2000	126.97	51.96	-75.01	527.83	441.64	-86.18	654.80	493.60	-161.20
2001	119.04	50.50	-68.54	491.69	411.52	-80.18	610.74	462.02	-148.72
2002	112.65	50.73	-61.92	468.62	392.63	-76.00	581.27	443.35	-137.92
2003	105.98	48.61	-57.37	425.05	356.66	-68.39	531.02	405.27	-125.75
2004	98.48	46.52	-51.96	384.93	323.68	-61.25	483.41	370.20	-113.21
2005	90.03	45.35	-44.68	338.27	285.46	-52.81	428.30	330.82	-97.48
SUM86-05	3121.17	4313.86	1192.69	14364.52	12280.21	-2084.31	17485.69	16594.08	-891.61

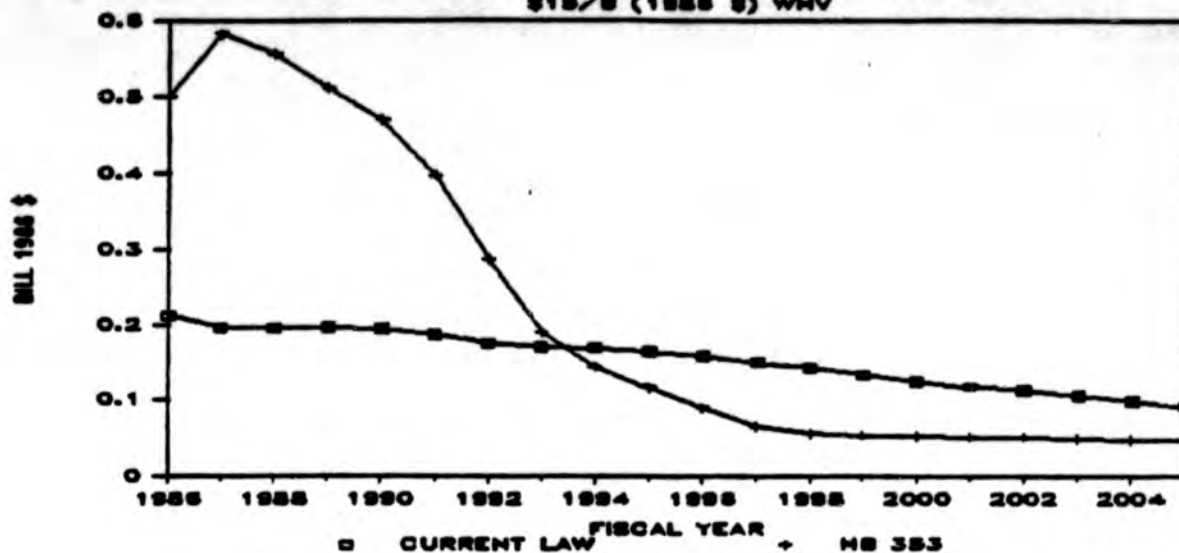
TABLE 11-13-B
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1986-1995) SENSITIVITY ANALYSIS 015/B HWV

FISCAL YEAR	TOTAL PETRO PRODN GROSS INCOME MM\$/Y	TOTAL PETRO PRODN NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN NET INCOME MM\$/Y	CURRENT LAW STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %	H0353 STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	10177.00	3173.97	7003.02	2873.31	41.03	3022.16	43.16
1987	10251.72	3404.72	6847.00	2888.15	42.18	2980.55	43.53
1988	10284.80	3710.18	6574.62	2705.87	41.16	2742.54	41.71
1989	10432.03	4031.69	6400.35	2713.64	42.40	2747.51	42.93
1990	10227.82	4128.59	6099.23	2659.34	43.60	2685.24	44.03
1991	9499.97	4270.28	5229.69	2450.97	46.87	2439.56	46.65
1992	8749.44	4675.51	4073.93	2317.25	56.88	2244.62	55.10
1993	9095.67	5685.58	3410.09	2484.04	72.84	2313.90	67.85
1994	9080.18	5868.14	3212.04	2494.39	77.66	2287.84	71.23
1995	9114.86	6115.18	2999.68	2511.36	83.72	2287.35	76.25
1996	8581.10	5889.72	2691.38	2348.95	87.28	2125.90	78.99
1997	8031.16	5606.21	2424.95	2194.98	90.52	1980.99	81.69
1998	7453.45	5179.44	2274.01	2035.51	89.51	1839.38	80.89
1999	6888.32	4759.51	2128.80	1873.73	88.02	1696.08	79.67
2000	6345.88	4285.24	2060.64	1722.51	83.59	1561.31	75.77
2001	5880.57	3998.39	1882.18	1595.14	84.75	1446.42	76.85
2002	5564.31	3795.83	1768.48	1501.15	84.88	1363.23	77.09
2003	5045.72	3556.64	1509.08	1364.10	90.39	1238.35	82.06
2004	4614.86	3320.68	1294.18	1235.38	95.46	1122.17	86.71
2005	4039.81	2902.02	1137.79	1081.20	95.03	983.71	86.46

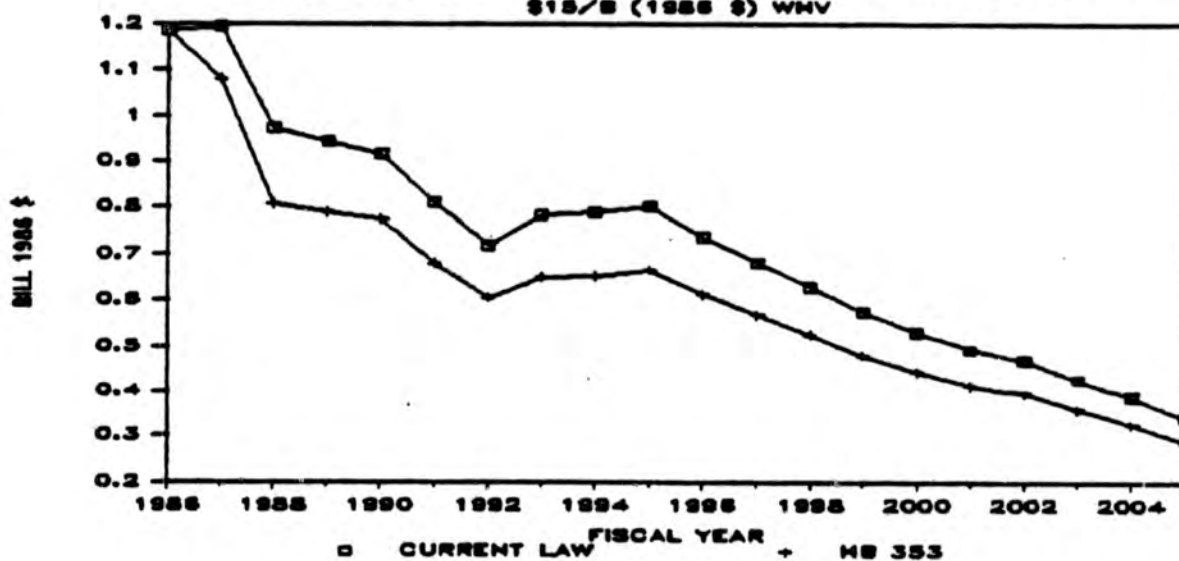
TABLE 11-15-9
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION & PIPELINE NET INCOME
(1-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS \$15/B HHV			CURRENT		H0353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME HHV/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS HHV/Y	TOTAL PETRO PRODN & PIPE NET INCOME HHV/Y	LAN STATE PETRO PRODN & PIPE REVENUE HHV/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE HHV/Y	REVENUE VS NET INCOME %
1986	13280.85	4112.25	9168.60	3074.00	33.53	3361.38	36.66
1987	13240.86	4317.25	8923.61	3063.58	34.33	3336.19	37.39
1988	12928.88	4594.97	8333.91	2855.30	34.26	3050.14	36.60
1989	12702.07	4896.03	7806.05	2839.81	36.38	3001.72	38.45
1990	12295.57	4965.21	7330.36	2765.82	37.73	2901.08	39.58
1991	11292.87	5068.84	6223.23	2539.82	40.81	2618.61	42.08
1992	10280.88	5435.96	4844.92	2391.06	49.35	2388.85	49.31
1993	10461.30	6424.81	4036.49	2545.41	63.06	2431.49	60.24
1994	10292.40	6581.80	3710.60	2545.22	68.59	2383.51	64.24
1995	10211.77	6808.98	3402.79	2553.21	75.03	2365.19	69.51
1996	9527.49	6558.33	2969.16	2382.91	80.26	2185.54	73.61
1997	8811.87	6232.75	2579.12	2222.56	86.18	2019.66	78.31
1998	8100.50	5780.44	2320.06	2058.31	88.72	1863.97	80.34
1999	7486.97	5337.15	2149.83	1893.20	88.06	1715.55	79.80
2000	6903.80	4840.22	2063.59	1738.84	84.26	1577.64	76.45
2001	6401.66	4533.44	1868.22	1608.43	86.09	1459.71	78.13
2002	6055.25	4316.77	1738.48	1511.50	86.94	1373.59	79.01
2003	5514.63	4064.86	1449.77	1371.59	94.61	1245.84	85.93
2004	5026.46	3817.08	1209.38	1240.19	102.55	1126.98	93.19
2005	4404.09	3383.22	1020.87	1083.49	106.13	986.01	96.58

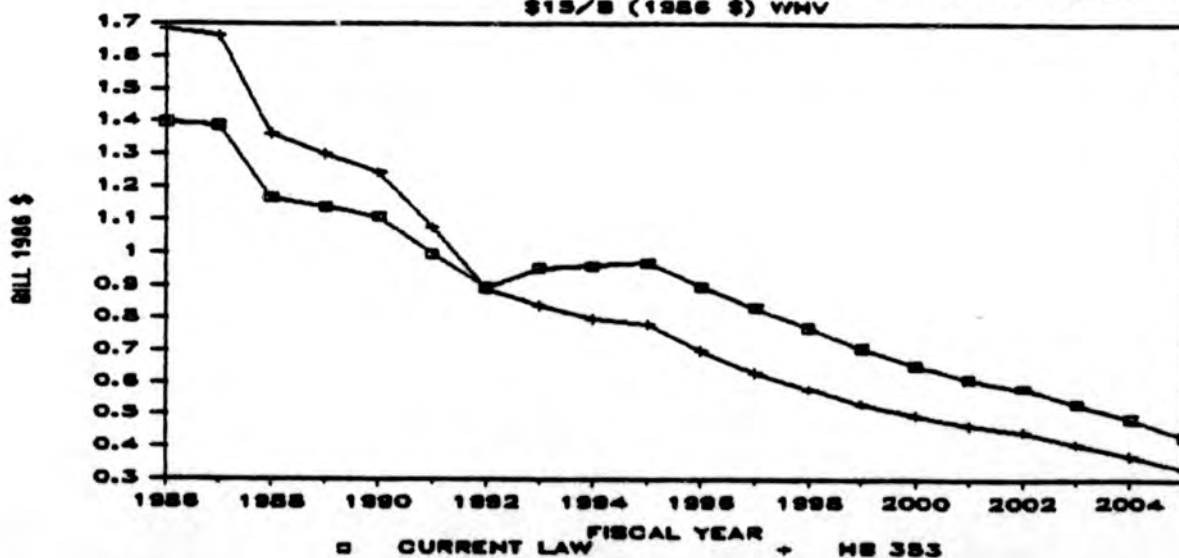
GRAPH II-15-1
INCOME TAX COMPARISON
\$15/B (1986 \$) WHV



GRAPH II-15-2
PRODUCTION TAX COMPARISON
\$15/B (1986 \$) WHV



GRAPH II-15-3
INCOME + PRDND TAX COMPARISON
\$15/B (1986 \$) WHV



SECTION II-13

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$13/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-13-1
ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (NB353) INCOME TAX ESTS
10-1986 #1 SENSITIVITY ANALYSIS #13/D NMV

FISCAL YEAR	PROB VOL WT AVG GROSS WELLHEAD VALUE \$/D	TOTAL GROSS PRODM VOL MMB/Y	TOTAL GROSS REV MM\$/Y	ROYALTY SHARE MM\$/Y	PRODM & COMS TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	DEPREC EXPENSE MM\$/Y	AMORT EXPENSE MM\$/Y	INTEREST & EXPENSE ALLOWED MM\$/Y	ADMIN & OVERHD EXPENSE ALLOWED MM\$/Y	EXPLOR (UNSUCCS) EXPENSE ALLOWED MM\$/Y	TOTAL DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAO MM\$/Y	TOTAL WINDFALL PROFITS TAX MM\$/Y	TOTAL DEDUCT W/MPT MM\$/Y	TOTAL TAXABLE INCOME W/MPT MM\$/Y	TOTAL TAX LIAO MM\$/Y	PRODM TAX CURRENT MM\$/Y	PRODM TAX NB353 MM\$/Y
1986	12.81650	651.00	8343.54	1019.04	1018.33	215.43	1137.47	1213.86	7.79	105.00	240.00	208.00	5164.92	3178.62	298.79	0.00	5164.92	3178.62	298.79	1017.62	1017.62
1987	12.78849	661.00	8453.19	1019.06	924.75	240.41	1157.10	1419.62	17.85	105.00	240.00	208.00	5331.80	3121.39	293.41	0.00	5331.80	3121.39	293.41	1022.70	924.03
1988	12.60535	671.00	8458.19	1024.94	684.83	266.28	1287.09	1617.50	48.64	105.00	240.00	208.00	5482.28	2975.91	279.71	0.00	5482.28	2975.91	279.71	827.25	684.10
1989	12.47417	678.00	8457.49	1032.34	661.53	272.90	1319.17	1809.49	79.06	105.00	240.00	208.00	5727.50	2729.99	256.62	0.00	5727.50	2729.99	256.62	793.22	660.79
1990	12.39983	657.00	8146.69	996.27	628.94	267.61	1309.86	1873.20	89.52	105.00	240.00	208.00	5718.39	2428.30	228.26	0.00	5718.39	2428.30	228.26	748.87	628.22
1991	12.36882	600.00	7421.29	909.22	542.03	258.30	1244.09	1971.04	89.43	105.00	240.00	208.00	5567.16	1854.13	174.29	0.00	5567.16	1854.13	174.29	654.30	541.37
1992	12.34206	545.00	6726.42	824.60	474.70	285.01	1179.07	2251.09	87.00	105.00	240.00	208.00	5654.48	1071.94	100.76	0.00	5654.48	1071.94	100.76	571.93	474.10
1993	12.34679	535.00	6605.53	809.64	470.36	316.10	1364.75	2601.65	86.19	105.00	240.00	208.00	6201.69	403.84	37.96	0.00	6201.69	403.84	37.96	575.23	469.77
1994	12.38093	506.00	6264.75	766.06	442.85	313.96	1339.57	2731.03	81.80	105.00	240.00	208.00	6228.27	36.48	3.43	0.00	6228.27	36.48	3.43	541.59	442.30
1995	12.42113	462.00	5738.56	701.28	405.71	303.44	1309.03	2613.14	70.95	105.00	240.00	208.00	5956.55	-217.99	-20.49	0.00	5956.55	-217.99	-20.49	496.17	405.20
1996	12.45662	411.00	5119.67	619.84	354.78	285.40	1221.36	2404.45	59.84	105.00	240.00	208.00	5498.67	-379.00	-35.63	0.00	5498.67	-379.00	-35.63	433.88	354.33
1997	12.48789	365.00	4558.08	551.13	315.01	266.46	1147.09	2156.09	50.04	105.00	240.00	208.00	5038.81	-480.73	-45.19	0.00	5038.81	-480.73	-45.19	385.24	314.61
1998	12.53242	327.00	4098.10	494.42	285.46	241.99	1052.25	1858.12	41.37	105.00	240.00	208.00	4526.51	-428.41	-40.27	0.00	4526.51	-428.41	-40.27	349.10	285.10
1999	12.55253	297.00	3728.10	449.51	260.49	218.00	988.42	1643.59	35.90	105.00	240.00	208.00	4148.91	-420.81	-39.56	0.00	4148.91	-420.81	-39.56	318.57	260.16
2000	12.58476	269.00	3385.30	407.79	237.95	194.11	932.86	1434.72	30.42	105.00	240.00	208.00	3790.86	-405.56	-38.12	0.00	3790.86	-405.56	-38.12	291.01	237.66
2001	12.70169	236.00	2997.60	360.42	219.99	170.22	798.67	1083.69	23.52	105.00	240.00	208.00	3209.51	-211.91	-19.92	0.00	3209.51	-211.91	-19.92	269.06	219.73
2002	12.69908	218.00	2768.40	333.02	205.80	152.82	769.24	1001.30	21.97	105.00	240.00	208.00	3037.14	-268.74	-25.26	0.00	3037.14	-268.74	-25.26	251.70	205.56
2003	12.70408	196.00	2490.00	299.63	185.25	135.42	742.19	901.10	20.44	105.00	240.00	208.00	2837.03	-347.03	-32.62	0.00	2837.03	-347.03	-32.62	226.57	185.03
2004	12.88937	163.00	2101.00	249.98	158.04	118.02	656.83	685.15	9.34	105.00	240.00	208.00	2430.36	-329.36	-30.96	0.00	2430.36	-329.36	-30.96	193.31	157.87
2005	12.89241	145.00	1869.40	222.44	140.23	102.75	640.28	609.93	8.56	105.00	240.00	208.00	2277.19	-407.79	-38.33	0.00	2277.19	-407.79	-38.33	171.51	140.07

TABLE 11-13-2

COOK INLET-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1986 8)

SENSITIVITY ANALYSIS 813/B MW

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/B	OIL GROSS PRODN VOL MMB/Y	OIL GROSS REV MM\$/Y	GAS GROSS WELLHEAD VALUE \$/MCF	GAS GROSS PRODN VOL BCF/Y	GAS GROSS REV MM\$/Y	TOTAL GROSS REV MM\$/Y	OIL ROYALTY SHARE MM\$/Y	GAS ROYALTY SHARE MM\$/Y	OIL PRODN & CONS TAX CURRENT MM\$/Y	OIL PRODN & CONS TAX H0353 MM\$/Y	GAS PRODN TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	OTHER DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL TAXABLE INCOME W/MP MM\$/Y	TOTAL TAX LIAB W/MP MM\$/Y
1986	19.00	18.03	312.57	0.79	193.45	152.83	495.40	42.82	19.10	0.38	0.38	9.09	11.00	225.54	135.74	51.72	4.86	14.78	36.94	3.47
1987	19.00	12.67	240.73	0.93	226.30	210.46	451.19	30.09	26.31	0.27	0.25	12.15	11.68	241.65	140.28	-11.22	-1.05	10.39	-21.61	-2.03
1988	19.00	10.18	193.42	1.06	255.50	270.83	464.25	24.18	33.85	0.19	0.16	15.17	12.32	241.65	142.62	-5.69	-0.54	8.35	-14.04	-1.32
1989	19.00	8.87	168.53	1.14	259.15	295.43	463.96	21.07	36.93	0.14	0.12	16.54	11.94	241.65	142.62	-6.91	-0.65	7.27	-14.18	-1.73
1990	19.00	7.15	135.85	1.32	288.35	380.62	516.47	16.98	47.58	0.10	0.08	21.31	11.55	241.65	142.62	34.70	3.26	5.86	28.83	2.71
1991	19.00	6.21	117.99	1.65	310.25	511.91	629.90	14.75	63.99	0.01	0.01	26.88	11.17	241.65	142.62	128.84	12.11	4.83	124.01	11.66
1992	19.00	5.33	101.27	1.80	324.85	584.73	686.00	12.66	73.09	0.01	0.01	30.19	10.78	241.65	142.62	175.01	16.45	2.73	172.27	16.19
1993	19.00	4.53	86.07	1.93	332.15	641.05	727.12	10.76	80.13	.00	.00	33.09	10.40	241.65	142.62	208.46	19.60	0.99	207.48	19.50
1994	19.00	3.94	74.86	2.46	324.85	799.13	873.99	9.36	99.89	.00	.00	42.65	10.01	241.65	142.62	327.80	30.81	0.63	327.77	30.81
1995	19.00	3.07	58.33	3.07	328.50	1008.50	1066.82	7.29	126.06	.00	.00	54.71	9.63	225.54	142.62	500.97	47.09	0.00	500.97	47.09
1996	19.00	3.03	57.57	3.07	332.15	1019.70	1077.27	7.20	127.46	.00	.00	56.21	9.24	209.43	142.62	525.11	49.36	0.00	525.11	49.36
1997	19.00	2.96	56.24	3.07	339.45	1042.11	1098.35	7.03	130.26	.00	.00	57.45	8.86	209.43	142.62	542.70	51.01	0.00	542.70	51.01
1998	19.00	2.88	54.72	3.07	346.75	1064.52	1119.24	6.84	133.07	.00	.00	59.61	8.47	209.43	142.62	559.20	52.56	0.00	559.20	52.56
1999	19.00	2.81	53.39	3.07	343.10	1053.32	1106.71	6.67	131.66	.00	.00	58.99	8.09	209.43	142.62	549.24	51.63	0.00	549.24	51.63
2000	19.00	2.81	53.39	3.07	335.80	1030.91	1084.30	6.67	128.86	.00	.00	57.73	7.70	193.32	142.62	547.39	51.45	0.00	547.39	51.45
2001	19.00	2.77	52.63	3.07	321.20	986.08	1038.71	6.58	123.26	.00	.00	54.36	7.32	177.21	142.62	527.36	49.57	0.00	527.36	49.57
2002	19.00	2.74	52.06	3.07	324.85	997.29	1049.35	6.51	124.66	.00	.00	54.10	6.93	177.21	142.62	537.31	50.51	0.00	537.31	50.51
2003	19.00	1.86	35.34	3.07	317.55	974.88	1010.22	4.42	121.86	.00	.00	52.03	6.55	177.21	142.62	505.53	47.52	0.00	505.53	47.52
2004	19.00	1.83	34.77	3.07	310.25	952.47	987.24	4.35	119.06	.00	.00	50.84	6.16	177.21	142.62	487.00	45.78	0.00	487.00	45.78
2005	19.00	1.75	33.25	3.07	306.60	941.26	974.51	4.16	117.66	.00	.00	50.24	5.78	177.21	142.62	476.85	44.82	0.00	476.85	44.82

TABLE 11-13-3

ALL PRODUCING FIELDS-SEPARATE ACCT (NO333) INCOME TAX ESTS

(1-1986-)

SENSITIVITY ANALYSIS 813/B HW

FISCAL YEAR	NS																		CI																		NS+CI		NS+CI	
	NS			NS			NS			NS			TOTAL			TOTAL			CI			CI			CI			CI			TOTAL			TOTAL			NS+CI		NS+CI	
	GROSS		TOTAL	NS		TOTAL	TOTAL		TAX	DEDUCT		TOTAL	TAXABLE		TAX	TOTAL		TAX	DEDUCT		TOTAL	TAXABLE		TAX	TOTAL		TAX	DEDUCT		TOTAL	TAXABLE		TAX	TOTAL		TOTAL				
	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y	NRG/Y				
1986	8343.54	5164.92	3178.62	298.79	5164.92	3178.62	298.79	195.40	443.60	51.72	4.06	458.46	36.94	3.47	303.65	283.13	302.26	282.09																						
1987	8453.19	5331.80	3121.39	293.41	5331.80	3121.39	293.41	451.19	462.41	-11.22	0.00	472.80	-21.61	0.00	293.41	295.97	293.41	295.62																						
1988	8458.19	5482.28	2975.91	279.74	5482.28	2975.91	279.74	464.25	469.94	-5.69	0.00	478.29	-14.04	0.00	279.74	283.15	279.74	283.15																						
1989	8457.49	5727.50	2729.99	256.62	5727.50	2729.99	256.62	463.96	470.87	-6.91	0.00	478.14	-14.18	0.00	256.62	262.40	256.62	262.40																						
1990	8146.69	5718.39	2428.30	228.26	5718.39	2428.30	228.26	516.47	481.77	34.70	3.26	487.64	28.83	2.71	231.52	237.80	230.97	237.38																						
1991	7421.29	5567.16	1854.13	174.29	5567.16	1854.13	174.29	629.90	501.06	128.84	12.11	505.89	124.01	11.66	186.40	197.68	185.94	197.20																						
1992	6726.42	5654.48	1071.94	100.76	5654.48	1071.94	100.76	686.00	510.99	175.01	16.45	513.73	172.27	16.19	117.21	134.51	116.96	134.20																						
1993	6605.53	6201.69	403.84	37.96	6201.69	403.84	37.96	727.12	518.66	208.46	19.60	519.64	207.48	19.50	57.56	72.47	57.46	72.34																						
1994	6264.75	6228.27	36.48	3.43	6228.27	36.48	3.43	873.99	546.19	327.80	30.81	546.22	327.77	30.81	34.24	40.07	34.24	40.05																						
1995	5738.56	5956.55	-217.99	0.00	5956.55	-217.99	0.00	1066.82	565.86	500.97	47.09	565.86	500.97	47.09	43.88	47.09	43.88	47.09																						
1996	5119.67	5498.67	-379.00	0.00	5498.67	-379.00	0.00	1077.27	552.16	525.11	49.36	552.16	525.11	49.36	48.79	49.36	48.79	49.36																						
1997	4558.08	5038.81	-480.73	0.00	5038.81	-480.73	0.00	1098.35	555.65	542.70	51.01	555.65	542.70	51.01	51.01	50.60	51.01	50.60																						
1998	4098.10	4526.51	-428.41	0.00	4526.51	-428.41	0.00	1119.24	560.04	559.20	52.56	560.04	559.20	52.56	52.56	52.18	52.56	52.18																						
1999	3728.10	4148.91	-420.81	0.00	4148.91	-420.81	0.00	1106.71	557.47	549.24	51.63	557.47	549.24	51.63	51.63	51.86	51.63	51.86																						
2000	3385.30	3790.86	-405.56	0.00	3790.86	-405.56	0.00	1084.30	536.91	547.39	51.45	536.91	547.39	51.45	51.45	51.50	51.45	51.50																						
2001	2997.60	3209.51	-211.91	0.00	3209.51	-211.91	0.00	1038.71	511.35	527.36	49.57	511.35	527.36	49.57	50.04	49.57	50.04	49.57																						
2002	2768.40	3037.14	-268.74	0.00	3037.14	-268.74	0.00	1049.35	512.03	537.31	50.51	512.03	537.31	50.51	50.51	50.27	50.51	50.27																						
2003	2490.00	2837.03	-347.03	0.00	2837.03	-347.03	0.00	1010.22	504.69	505.53	47.52	504.69	505.53	47.52	48.27	47.52	48.27	47.52																						
2004	2101.00	2430.36	-329.36	0.00	2430.36	-329.36	0.00	987.24	500.23	487.00	45.78	500.23	487.00	45.78	46.21	45.78	46.21	45.78																						
2005	1869.40	2277.19	-407.79	0.00	2277.19	-407.79	0.00	974.51	497.67	476.85	44.82	497.67	476.85	44.82	45.06	44.82	45.06	44.82																						

TABLE 11-13-4
TAPS-SEPARATE ACCT (HD353) INCOME TAX ESTS
(8-1986 \$) SENSITIVITY ANALYSIS \$13/B MHV

FISCAL YEAR	TARIFF \$/B	PIPELINE THRUPT MMB/Y	TOTAL GROSS REV MMB/Y	OPER COSTS MMB/Y	AMORT & DEPREC EXPENSE MMB/Y	UNCAP INT EXPENSE MMB/Y	PTY TAX MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y
1986	4.76	651.00	3099.42	259.76	268.65	409.86	196.24	1134.52	1964.91	184.70
1987	4.51	661.00	2984.40	262.11	268.65	381.77	170.70	1083.23	1901.17	178.71
1988	3.93	671.00	2639.04	264.46	268.65	351.68	144.39	1029.18	1609.86	151.33
1989	3.34	678.00	2262.10	266.10	268.65	327.01	120.81	982.57	1279.53	120.28
1990	3.11	657.00	2042.40	261.17	268.65	302.34	100.77	932.94	1109.47	104.29
1991	2.94	600.00	1766.55	247.80	268.65	277.65	82.93	877.03	889.52	83.61
1992	2.76	545.00	1505.66	234.90	268.65	252.44	67.68	823.66	682.00	64.11
1993	2.45	535.00	1308.59	232.55	268.65	226.53	54.99	782.72	525.87	49.43
1994	2.22	506.00	1121.68	208.80	268.65	204.01	44.44	725.90	395.78	37.20
1995	2.10	462.00	971.78	199.95	268.65	186.27	35.57	690.44	281.34	26.45
1996	1.97	411.00	808.90	189.69	268.65	169.75	28.09	656.18	152.72	14.36
1997	1.79	365.00	654.35	180.44	268.65	153.12	22.25	624.47	29.88	2.81
1998	1.61	327.00	526.32	172.80	268.65	136.22	18.11	595.78	-69.45	-6.53
1999	1.65	297.00	488.57	166.77	268.65	120.90	15.41	571.73	-83.16	-7.82
2000	1.70	269.00	458.44	161.14	268.65	105.89	12.86	548.54	-90.10	-8.47
2001	1.78	236.00	419.15	154.50	268.65	91.99	10.38	525.52	-106.37	-10.00
2002	1.81	218.00	394.62	150.88	268.65	82.51	8.06	510.10	-115.48	-10.86
2003	1.85	196.00	363.20	146.46	268.65	76.23	5.80	497.14	-133.94	-12.59
2004	1.98	163.00	323.46	139.82	268.65	70.44	3.70	482.61	-159.15	-14.96
2005	2.07	145.00	299.77	136.20	268.65	63.48	1.81	470.14	-170.37	-16.01

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SENSITIVITY ANALYSIS 613/D MHV																TOTAL				TOTAL				
FISCAL YEAR	NS		TAPS		NS+TAPS		TOTAL		C1		TOTAL		TOTAL		MOD		TOTAL		TOTAL		MOD		DIFF	
	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX	TOTAL	TAX		
	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y	INCOME	MM\$/Y		
	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y		
1986	3178.62	1964.91	5143.52	483.49	3178.62	5143.52	483.49	4.86	3.47	488.35	421.66	202.90	218.76	486.96	420.62	202.90	217.72							
1987	3121.39	1901.17	5022.57	472.12	3121.39	5022.57	472.12	0.00	0.00	472.12	476.18	177.69	298.49	472.12	475.83	177.69	298.14							
1988	2975.91	1609.86	4585.77	431.06	2975.91	4585.77	431.06	0.00	0.00	431.06	441.33	177.63	263.70	431.06	441.33	177.63	263.70							
1989	2729.99	1279.53	4009.52	376.89	2729.99	4009.52	376.89	0.00	0.00	376.89	390.44	177.28	213.16	376.89	390.44	177.28	213.16							
1990	2428.30	1109.47	3537.77	332.55	2428.30	3537.77	332.55	3.26	2.71	335.81	346.08	174.47	171.61	335.26	345.67	174.47	171.20							
1991	1854.13	889.52	2743.64	257.90	1854.13	2743.64	257.90	12.11	11.66	270.01	286.46	166.86	119.60	269.56	285.98	166.86	119.12							
1992	1071.94	682.00	1753.94	164.87	1071.94	1753.94	164.87	16.45	16.19	181.32	203.49	156.58	46.92	181.06	203.19	156.58	46.61							
1993	403.84	525.87	929.71	87.39	403.84	929.71	87.39	19.60	19.50	106.99	125.57	150.03	-24.46	106.89	125.44	150.03	-24.60							
1994	36.48	395.78	432.26	40.63	36.48	432.26	40.63	30.81	30.81	71.45	80.33	145.18	-84.85	71.44	80.31	145.18	-84.88							
1995	-217.99	281.34	63.35	5.95	-217.99	63.35	5.95	47.09	47.09	53.05	57.45	137.55	-79.90	53.05	57.45	137.55	-79.91							
1996	-379.00	152.72	-226.29	0.00	-379.00	-226.29	0.00	49.36	49.36	49.36	50.28	128.28	-78.00	49.36	50.28	128.28	-78.00							
1997	-480.73	29.88	-450.85	0.00	-480.73	-450.85	0.00	51.01	51.01	51.01	50.60	118.89	-68.29	51.01	50.60	118.89	-68.29							
1998	-428.41	-69.45	-497.86	0.00	-428.41	-497.86	0.00	52.56	52.56	52.56	52.18	110.57	-58.39	52.56	52.18	110.57	-58.39							
1999	-420.81	-83.16	-503.97	0.00	-420.81	-503.97	0.00	51.63	51.63	51.63	51.86	103.43	-51.57	51.63	51.86	103.43	-51.57							
2000	-405.56	-90.10	-495.66	0.00	-405.56	-495.66	0.00	51.45	51.45	51.45	51.50	96.94	-45.45	51.45	51.50	96.94	-45.45							
2001	-211.91	-106.37	-318.28	0.00	-211.91	-318.28	0.00	49.57	49.57	49.57	50.04	89.95	-39.91	49.57	50.04	89.95	-39.91							
2002	-268.74	-115.48	-384.23	0.00	-268.74	-384.23	0.00	50.51	50.51	50.51	50.27	84.08	-33.81	50.51	50.27	84.08	-33.81							
2003	-347.03	-135.94	-480.97	0.00	-347.03	-480.97	0.00	47.52	47.52	47.52	48.27	79.15	-30.88	47.52	48.27	79.15	-30.88							
2004	-329.36	-159.15	-488.52	0.00	-329.36	-488.52	0.00	45.78	45.78	45.78	46.21	72.51	-26.29	45.78	46.21	72.51	-26.29							
2005	-407.79	-170.37	-578.15	0.00	-407.79	-578.15	0.00	44.82	44.82	44.82	45.06	66.42	-21.36	44.82	45.06	66.42	-21.36							

TABLE 11-13-6
CURRENT LAW-MODIFIED APPORTIONMENT (AS4320) INCOME TAX ESTS
(6-1986)

SENSITIVITY ANALYSIS 013/B HHV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
					TOP 3 COMPANIES						
FISCAL YEAR	TOTAL AK OIL & GAS PROD/N HHV/Y EQUIV	CNG TOTAL OIL & GAS PROD/N HHV/Y Z	APPMT FACTOR CNG FACTOR	NET PROFIT APPMT FACTOR	CALENDAR YEAR	HHV NET PROFIT HHV/Y	AK TAXABLE INCOME HHV/Y	AK LIAB HHV/Y	TOTAL AK LIAB HHV/Y	FISCAL YEAR	TOTAL AK TAX COLLECT HHV/Y
1986	696.67	0.0000	0.0000	0.2787	1986	6107.50	1702.16	160.00	177.78	1986	202.90
1987	706.00	1.3396	1.0087	0.2783	1987	6107.50	1699.81	159.78	177.54	1987	177.69
1988	717.68	1.6546	1.0108	0.2783	1988	6107.50	1700.91	159.89	177.65	1988	177.63
1989	723.89	0.8635	1.0056	0.2773	1989	6107.50	1693.38	159.18	176.86	1989	177.28
1990	705.34	-2.5623	0.9833	0.2699	1990	6107.50	1648.52	154.96	172.18	1990	174.47
1991	650.53	-7.7709	0.9495	0.2537	1991	6107.50	1549.60	145.66	161.85	1991	166.86
1992	596.74	-8.2693	0.9462	0.2377	1992	6107.50	1451.65	136.45	151.62	1992	156.58
1993	586.98	-1.6351	0.9894	0.2328	1993	6107.50	1421.86	133.65	148.50	1993	150.03
1994	556.35	-5.2187	0.9661	0.2227	1994	6107.50	1359.89	127.83	142.03	1994	145.18
1995	512.00	-7.9714	0.9482	0.2090	1995	6107.50	1276.53	119.99	133.33	1995	137.55
1996	461.48	-9.8669	0.9359	0.1936	1996	6107.50	1182.72	111.18	123.53	1996	128.28
1997	416.45	-9.7571	0.9366	0.1796	1997	6107.50	1096.63	103.08	114.54	1997	118.89
1998	379.42	-8.8935	0.9422	0.1675	1998	6107.50	1022.90	96.15	106.84	1998	110.57
1999	348.82	-8.0628	0.9476	0.1571	1999	6107.50	959.60	90.20	100.27	1999	103.43
2000	319.78	-8.3259	0.9459	0.1471	2000	6107.50	898.59	84.47	93.85	2000	96.94
2001	284.66	-10.9843	0.9286	0.1353	2001	6107.50	826.09	77.65	86.28	2001	89.95
2002	267.15	-6.1508	0.9600	0.1286	2002	6107.50	785.13	73.80	82.00	2002	84.08
2003	247.22	-8.9549	0.9418	0.1199	2003	6107.50	732.04	68.81	76.46	2003	79.15
2004	209.15	-14.0088	0.9089	0.1079	2004	6107.50	658.73	61.92	68.80	2004	72.51
2005	190.55	-8.8938	0.9422	0.1006	2005	6107.50	614.44	57.76	64.17	2005	66.42

TABLE 11-13-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)

PRODUCTION TAX-15% NET NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% NET NOMINAL RATE

BEGINNING IN CY 1987

(6-1986)

SENSITIVITY ANALYSIS 813/D W/V

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT	DIFF HB353 LESS	CURRENT	CURRENT	DIFF HB353 LESS	CURRENT	CURRENT	DIFF HB353 LESS	CURRENT
	LAW MM/Y	HB353 MM/Y		LAW MM/Y	HB353 MM/Y		LAW MM/Y	HB353 MM/Y	
1986	202.90	421.66	218.76	1027.08	1027.08	0.00	1229.97	1448.73	218.76
1987	177.69	476.18	298.49	1035.11	936.42	-98.69	1212.80	1412.60	199.80
1988	177.63	441.33	263.70	842.60	699.41	-143.19	1020.23	1140.74	120.51
1989	177.28	390.44	213.16	809.89	677.45	-132.45	987.17	1067.88	80.71
1990	174.47	346.08	171.61	770.27	649.61	-120.66	944.75	995.69	50.95
1991	166.86	286.46	119.60	681.17	568.25	-112.93	848.03	854.71	6.68
1992	156.58	203.49	46.92	602.11	504.29	-97.82	758.69	707.78	-50.91
1993	150.03	125.57	-24.46	608.32	502.87	-105.46	758.36	628.44	-129.92
1994	145.18	80.33	-64.85	584.25	484.95	-99.29	729.43	565.29	-164.14
1995	137.55	57.65	-79.90	550.88	459.91	-90.96	688.43	517.56	-170.87
1996	128.28	50.28	-78.00	490.09	410.55	-79.54	618.37	460.83	-157.54
1997	118.89	50.60	-68.29	442.68	372.06	-70.63	561.58	422.66	-138.92
1998	110.57	52.18	-58.39	408.72	344.71	-64.00	519.29	396.89	-122.40
1999	103.43	51.86	-51.57	377.55	319.15	-58.40	480.98	371.01	-109.97
2000	96.94	51.50	-45.45	348.74	295.39	-53.35	445.69	346.89	-98.80
2001	89.95	50.04	-39.91	323.42	274.09	-49.33	413.37	324.13	-89.23
2002	84.08	50.27	-33.81	305.81	259.66	-46.15	389.89	309.93	-79.95
2003	79.15	48.27	-30.88	278.61	237.07	-41.54	357.75	285.33	-72.42
2004	72.51	46.21	-26.29	244.14	208.70	-35.44	316.65	254.92	-61.73
2005	66.42	45.06	-21.36	221.75	190.31	-31.44	288.17	235.37	-52.80
SUM86-05	2616.39	3325.47	709.08	10953.20	9421.92	-1531.28	13569.59	12747.39	-822.20

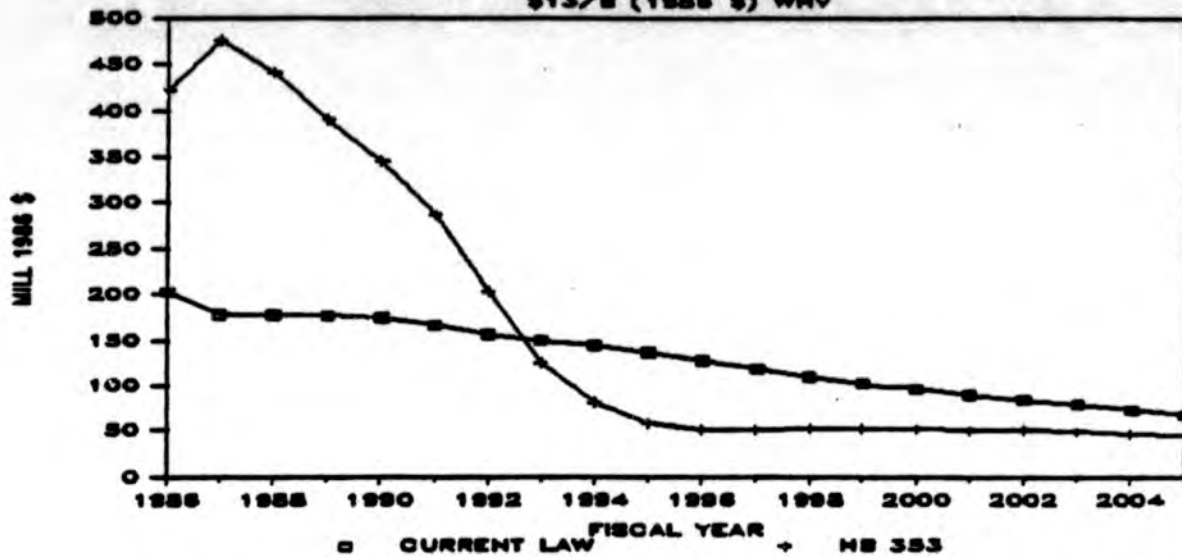
TABLE 11-13-8
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(8-19868) SENSITIVITY ANALYSIS #13/8 MHV

FISCAL YEAR	TOTAL			CURRENT		H8353	
	PETRO PRODN GROSS INCOME MM\$/Y	PETRO PRODN NON TAX DEDUCTS MM\$/Y	PETRO PRODN NET INCOME MM\$/Y	LAM STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	8838.94	3273.40	5565.54	2538.10	45.60	2618.34	47.05
1987	8904.38	3529.50	5374.88	2541.09	47.28	2560.63	47.64
1988	8922.44	3890.50	5031.94	2382.54	47.35	2344.08	46.60
1989	8921.45	4144.99	4776.46	2363.10	49.47	2315.78	48.48
1990	8663.16	4209.85	4453.31	2285.46	51.32	2228.11	50.03
1991	8051.19	4241.89	3809.31	2106.12	55.29	2024.02	53.13
1992	7412.42	4454.44	2957.98	1965.44	66.45	1845.54	62.39
1993	7332.65	4989.86	2342.79	1985.99	84.77	1802.96	76.96
1994	7138.74	5089.66	2049.08	1929.27	94.15	1724.86	84.18
1995	6805.39	4914.28	1891.10	1836.64	97.12	1652.01	87.36
1996	6196.94	4590.70	1606.24	1667.96	103.84	1508.93	93.94
1997	5656.43	4258.26	1398.17	1525.72	109.12	1386.80	99.19
1998	5217.34	3856.79	1360.55	1404.33	103.22	1281.94	94.22
1999	4834.81	3572.96	1261.84	1295.25	102.65	1185.28	93.93
2000	4469.60	3286.94	1182.65	1191.12	100.72	1092.32	92.36
2001	4036.31	2778.71	1257.60	1081.43	85.99	992.19	78.90
2002	3817.75	2665.34	1152.41	1014.07	88.00	934.11	81.06
2003	3500.22	2536.56	963.66	925.85	96.08	853.43	88.56
2004	3088.24	2224.15	864.09	814.39	94.25	752.66	87.10
2005	2843.91	2131.60	712.32	741.12	104.04	688.32	96.63

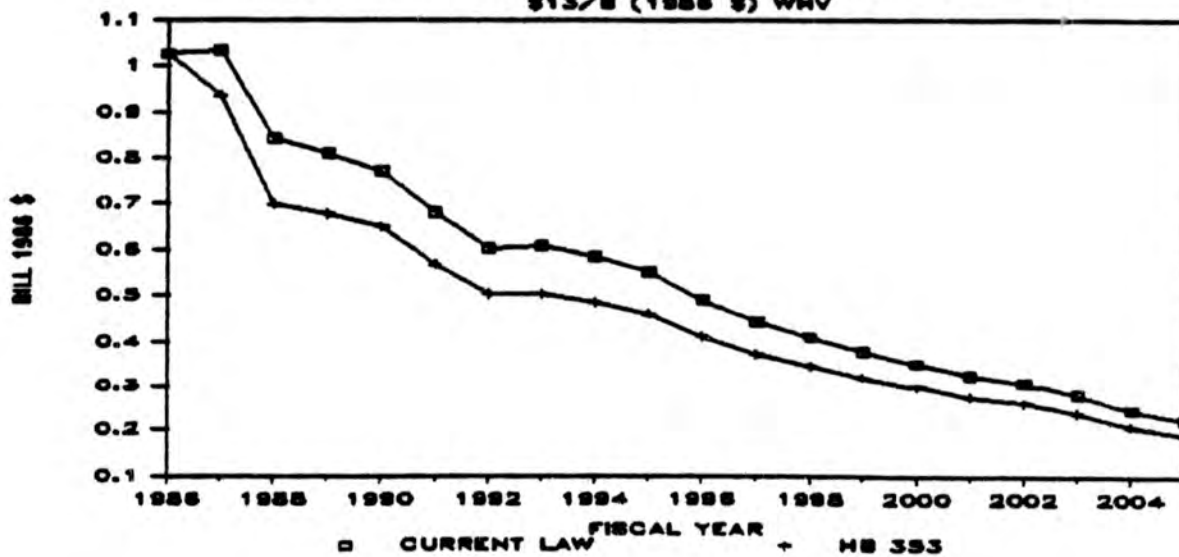
TABLE 11-13-9
 PERCENTAGE SHARE COMPARISON
 CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
 AS A PERCENTAGE OF
 PETROLEUM PRODUCTION & PIPELINE NET INCOME
 (1986-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS 813/D HHV			CURRENT		1983	
	TOTAL PETRO PROD & PIPE GROSS INCOME HHV/Y	TOTAL PETRO PROD & PIPE MON TAI NET REVENUE HHV/Y	TOTAL PETRO PROD & PIPE NET INCOME HHV/Y	LAN STATE PETRO PROD & PIPE REVENUE HHV/Y	REVENUE VS NET INCOME %	STATE PETRO PROD & PIPE REVENUE HHV/Y	REVENUE VS NET INCOME %
1986	11930.36	4211.67	7726.68	2734.34	35.39	2953.10	38.22
1987	11888.78	4442.03	7446.75	2711.79	36.42	2911.59	39.10
1988	11561.48	4775.29	6786.20	2526.94	37.24	2647.45	39.01
1989	11183.55	5006.75	6176.80	2483.92	40.21	2564.63	41.52
1990	10705.57	5042.01	5663.56	2386.23	42.13	2437.17	43.03
1991	9817.74	5035.99	4781.75	2189.05	45.78	2195.73	45.92
1992	8918.08	5210.42	3707.66	2033.11	54.84	1982.20	53.46
1993	8641.24	5717.59	2923.65	2040.98	69.81	1911.05	65.37
1994	8260.42	5771.12	2489.30	1973.71	79.29	1809.56	72.69
1995	7777.17	5569.15	2208.02	1872.22	84.79	1701.35	77.05
1996	7005.84	5218.79	1787.05	1696.05	94.91	1538.51	86.09
1997	6310.78	4860.48	1450.31	1547.98	106.73	1409.06	97.16
1998	5743.67	4434.46	1309.21	1423.44	108.65	1300.04	99.30
1999	5323.37	4129.28	1194.09	1310.66	109.76	1200.69	100.55
2000	4928.03	3822.62	1105.41	1203.98	108.92	1105.18	99.98
2001	4455.46	3293.85	1161.61	1091.80	93.99	1002.57	86.31
2002	4212.37	3167.38	1044.99	1022.13	97.81	942.17	90.16
2003	3863.42	3027.90	835.52	931.65	111.51	859.23	102.04
2004	3411.70	2703.06	708.64	818.10	115.45	756.36	106.73
2005	3143.68	2599.93	543.76	742.92	136.63	690.12	126.92

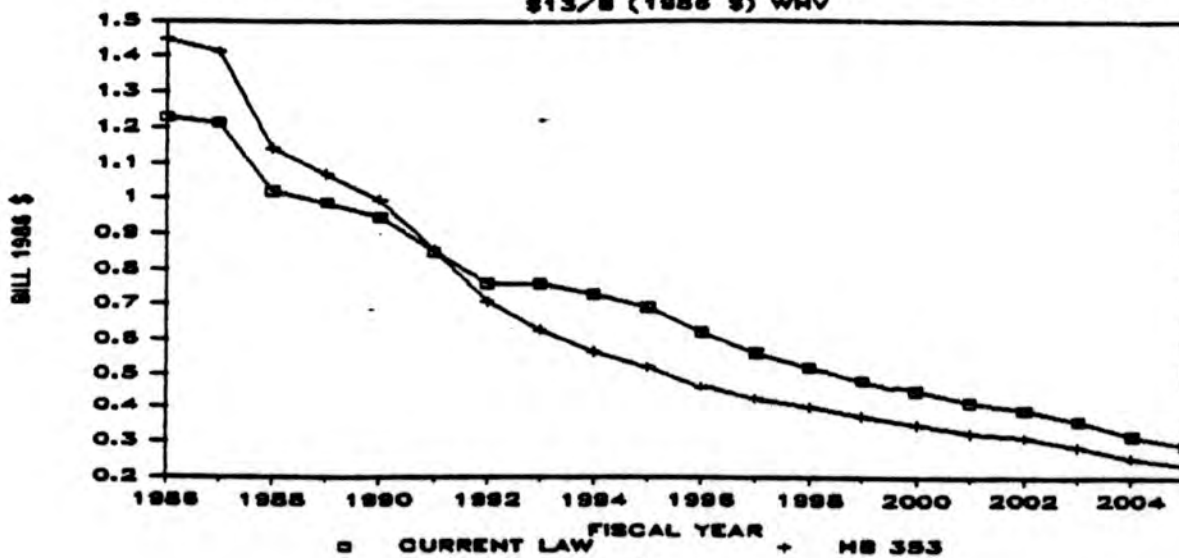
GRAPH II-13-1
INCOME TAX COMPARISON
\$13/B (1986 \$) WHV



GRAPH II-13-2
PRODUCTION TAX COMPARISON
\$13/B (1986 \$) WHV



GRAPH II-13-3
INCOME + PRODN TAX COMPARISON
\$13/B (1986 \$) WHV



SECTION II-11

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$11/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-11-1

ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(1986-8)

SENSITIVITY ANALYSIS \$11/B HHV

FISCAL YEAR	PROD VOL										UNCAP			ADMIN		EXPLOR		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL	
	WT AVG	TOTAL			PROD					INTEREST	OVERHD	EXPENSE	EXPENSE	EXPENSE	TOTAL	TOTAL	TOTAL	WINDFALL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	
	GROSS	GROSS	TOTAL		& CONS	PTY	OPER	DEPREC	AMORT	EXPENSE	EXPENSE	EXPENSE	EXPENSE	EXPENSE	DEDUCT	TAXABLE	TOTAL	PROFITS	DEDUCT	TAXABLE	TAX	TAX	TAX	TAX	TAX	TAX	
	WELLHEAD	PRODN	GROSS	ROYALTY	TAX	TAX	COSTS	EXPENSE	EXPENSE	EXPENSE	ALLOWED	ALLOWED	ALLOWED	ALLOWED	DEDUCT	INCOME	LIAO	TAX	N/MPT	N/MPT	N/MPT	N/MPT	N/MPT	N/MPT	N/MPT	N/MPT	N/MPT
VALUE		VOL	REV	SHARE																							
\$/B	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	HHB/Y	
1986	10.81650	651.00	7041.54	855.84	866.65	214.81	1137.47	1327.88	8.51	105.00	240.00	176.00	4926.16	2115.38	198.85	0.00	4926.16	2115.38	198.85	859.94	859.94						
1987	10.78849	661.00	7131.19	852.99	781.34	236.69	1157.10	1555.63	20.29	105.00	240.00	176.00	5125.04	2006.15	188.58	0.00	5125.04	2006.15	188.58	863.90	780.61						
1988	10.72840	637.00	6833.99	820.68	559.48	254.74	1172.17	1688.40	40.05	105.00	240.00	176.00	5056.52	1777.47	167.08	0.00	5056.52	1777.47	167.08	679.71	558.79						
1989	10.61411	637.00	6761.19	818.09	542.43	256.44	1191.09	1846.22	72.11	105.00	240.00	176.00	5247.38	1513.81	142.30	0.00	5247.38	1513.81	142.30	653.58	541.74						
1990	10.59168	602.00	6376.19	772.74	502.70	246.42	1155.46	1800.97	77.96	105.00	240.00	176.00	5077.25	1298.94	122.10	0.00	5077.25	1298.94	122.10	603.92	502.05						
1991	10.57760	545.00	5764.79	699.94	442.39	232.76	1089.69	1752.63	77.86	105.00	240.00	176.00	4816.26	948.53	89.16	0.00	4816.26	948.53	89.16	537.10	441.79						
1992	10.57127	490.00	5179.92	629.30	385.69	238.43	1024.67	1825.28	75.42	105.00	240.00	176.00	4699.79	480.13	45.13	0.00	4699.79	480.13	45.13	467.75	385.15						
1993	10.56500	462.00	4881.03	593.38	361.04	247.55	1095.20	1966.78	74.59	105.00	240.00	176.00	4859.55	21.48	2.02	0.00	4859.55	21.48	2.02	441.48	360.54						
1994	10.61152	421.00	4467.45	541.92	324.49	241.80	1058.86	1957.46	69.51	105.00	240.00	176.00	4715.04	-247.59	-23.27	0.00	4715.04	-247.59	-23.27	396.77	324.03						
1995	10.60094	383.00	4060.16	492.51	294.29	230.07	1037.32	1844.77	61.99	105.00	240.00	176.00	4481.96	-421.80	-39.65	0.00	4481.96	-421.80	-39.65	359.85	293.87						
1996	10.60079	340.00	3604.27	432.45	253.99	211.23	957.66	1631.93	53.63	105.00	240.00	176.00	4061.89	-457.62	-43.02	0.00	4061.89	-457.62	-43.02	310.55	253.61						
1997	10.60593	300.00	3181.78	381.32	219.56	192.39	890.39	1425.84	44.46	105.00	240.00	176.00	3674.98	-493.20	-46.36	0.00	3674.98	-493.20	-46.36	268.45	219.23						
1998	10.62537	268.00	2847.60	340.56	194.73	173.55	825.19	1259.39	37.29	105.00	240.00	176.00	3351.71	-504.11	-47.39	0.00	3351.71	-504.11	-47.39	238.08	194.43						
1999	10.62314	242.00	2570.80	307.37	173.70	155.39	784.75	1133.56	32.69	105.00	240.00	176.00	3108.46	-537.66	-50.54	0.00	3108.46	-537.66	-50.54	212.37	173.44						
2000	10.61154	208.00	2207.20	264.00	143.21	137.23	746.41	978.70	28.07	105.00	240.00	176.00	2818.63	-611.43	-57.47	0.00	2818.63	-611.43	-57.47	175.08	142.98						
2001	10.83607	183.00	1983.00	234.83	134.95	119.06	645.43	739.37	13.95	105.00	240.00	176.00	2407.78	-424.78	-39.93	0.00	2407.78	-424.78	-39.93	164.99	134.75						
2002	10.84727	165.00	1789.00	211.13	122.39	103.82	619.17	659.25	11.96	105.00	240.00	176.00	2248.72	-458.92	-43.14	0.00	2248.72	-458.92	-43.14	149.64	122.21						
2003	10.85000	136.00	1475.60	173.19	103.74	88.58	546.52	493.45	0.18	105.00	240.00	176.00	1926.65	-451.05	-42.40	0.00	1926.65	-451.05	-42.40	126.84	103.59						
2004	11.00000	107.00	1177.00	137.76	90.32	75.60	442.97	350.91	0.09	105.00	240.00	176.00	1618.65	-441.65	-41.52	0.00	1618.65	-441.65	-41.52	110.45	90.20						
2005	11.00000	95.00	1045.00	122.31	79.88	66.15	431.62	311.56	0.08	105.00	240.00	176.00	1532.60	-487.60	-45.83	0.00	1532.60	-487.60	-45.83	97.69	79.78						

TABLE 11-11-2

COOK INLET-SEPARATE ACCT (NB353) INCOME TAX ESTS

(8-1986 \$) SENSITIVITY ANALYSIS \$11/B HHV

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/B	OIL GROSS PRODN VOL MMB/Y	OIL GROSS REV MM\$/Y	GAS GROSS WELLHEAD VALUE \$/HCF	GAS GROSS PRODN VOL BCF/Y	GAS GROSS REV MM\$/Y	TOTAL GROSS REV MM\$/Y	OIL ROYALTY SHARE MM\$/Y	GAS ROYALTY SHARE MM\$/Y	OIL PRODN & CONS TAX CURRENT MM\$/Y	OIL PRODN & CONS TAX NB353 MM\$/Y	GAS PRODN TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	OTHER DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y
1986	17.00	18.03	306.51	0.79	193.45	152.83	459.34	38.31	19.10	0.35	0.35	9.09	11.00	225.54	135.74	20.20	1.90	0.00	20.20	1.90
1987	17.00	12.67	215.39	0.93	226.30	210.46	425.85	26.92	26.31	0.24	0.22	12.15	11.68	241.65	140.28	-33.37	-3.14	0.00	-33.37	-3.14
1988	17.00	10.18	173.06	1.06	255.50	270.83	443.89	21.63	33.85	0.17	0.14	15.17	12.32	241.65	142.62	-23.49	-2.21	0.00	-23.49	-2.21
1989	17.00	8.87	150.79	1.14	259.15	295.43	446.22	18.85	36.93	0.13	0.11	16.54	11.94	241.65	142.62	-22.42	-2.11	0.00	-22.42	-2.11
1990	17.00	7.15	121.55	1.32	288.35	380.62	502.17	15.19	47.58	0.09	0.07	21.31	11.55	241.65	142.62	22.19	2.09	0.00	22.19	2.09
1991	17.00	6.21	105.57	1.65	310.25	511.91	617.48	13.20	63.99	0.01	0.01	26.88	11.17	241.65	142.62	117.97	11.09	0.00	117.97	11.09
1992	17.00	5.33	90.61	1.80	324.85	584.73	675.34	11.33	73.09	0.01	0.01	30.19	10.78	241.65	142.62	165.68	15.57	0.00	165.68	15.57
1993	17.00	4.53	77.01	1.93	332.15	641.05	718.06	9.63	80.13	.00	.00	33.09	10.40	241.65	142.62	200.53	18.85	0.00	200.53	18.85
1994	17.00	3.94	66.98	2.46	324.85	799.13	866.11	8.37	99.89	.00	.00	42.65	10.01	241.65	142.62	320.91	30.17	0.00	320.91	30.17
1995	17.00	3.07	52.19	3.07	328.50	1008.50	1060.69	6.52	126.06	.00	.00	54.71	9.63	225.54	142.62	495.60	46.59	0.00	495.60	46.59
1996	17.00	3.03	51.51	3.07	332.15	1019.70	1071.21	6.44	127.46	.00	.00	56.21	9.24	209.43	142.62	519.80	48.86	0.00	519.80	48.86
1997	17.00	2.96	50.32	3.07	339.45	1042.11	1092.43	6.29	130.26	.00	.00	57.45	8.86	209.43	142.62	537.52	50.53	0.00	537.52	50.53
1998	17.00	2.88	48.96	3.07	346.75	1064.52	1113.48	6.12	133.07	.00	.00	59.61	8.47	209.43	142.62	554.16	52.09	0.00	554.16	52.09
1999	17.00	2.81	47.77	3.07	343.10	1053.32	1101.09	5.97	131.66	.00	.00	58.99	8.09	209.43	142.62	544.32	51.17	0.00	544.32	51.17
2000	17.00	2.81	47.77	3.07	335.80	1039.91	1078.68	5.97	128.86	.00	.00	57.73	7.70	193.32	142.62	542.47	50.99	0.00	542.47	50.99
2001	17.00	2.77	47.09	3.07	321.20	986.08	1033.17	5.89	123.26	.00	.00	54.36	7.32	177.21	142.62	522.52	49.12	0.00	522.52	49.12
2002	17.00	2.74	46.58	3.07	324.85	997.29	1043.87	5.82	124.66	.00	.00	54.10	6.93	177.21	142.62	532.52	50.06	0.00	532.52	50.06
2003	17.00	1.86	31.62	3.07	317.55	974.80	1006.50	3.95	121.86	.00	.00	52.83	6.55	177.21	142.62	502.27	47.21	0.00	502.27	47.21
2004	17.00	1.83	31.11	3.07	310.25	952.47	983.58	3.89	119.06	.00	.00	50.84	6.16	177.21	142.62	483.80	45.48	0.00	483.80	45.48
2005	17.00	1.75	29.75	3.07	306.60	941.26	971.01	3.72	117.66	.00	.00	50.24	5.78	177.21	142.62	473.78	44.54	0.00	473.78	44.54

TABLE 11-11-3

ALL PRODUCING FIELDS-SEPARATE ACCT (HB353) INCOME TAX ESTS
 (1-1986 01) SENSITIVITY ANALYSIS #11/D HHV

FISCAL YEAR	NS						NS						CI						NS+CI					
	TOTAL	NS	TOTAL	NS	TOTAL	TOTAL	TOTAL	TAX	CI	TOTAL	CI	TOTAL	TOTAL	TAX	CI	TOTAL	TOTAL	NS+CI	NS+CI	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
	GROSS REV MM/Y	DEDUCT MM/Y	TAXABLE INCOME MM/Y	TAX LIAB MM/Y	DEDUCT MM/Y	TAXABLE INCOME MM/Y	TAX LIAB MM/Y	GROSS REV MM/Y	DEDUCT MM/Y	TAXABLE INCOME MM/Y	TAX LIAB MM/Y	GROSS REV MM/Y	DEDUCT MM/Y	TAXABLE INCOME MM/Y	TAX LIAB MM/Y	GROSS REV MM/Y	DEDUCT MM/Y	TAXABLE INCOME MM/Y	TAX LIAB MM/Y	GROSS REV MM/Y	DEDUCT MM/Y	TAXABLE INCOME MM/Y	TAX LIAB MM/Y	GROSS REV MM/Y
1986	7041.54	4926.16	2115.38	198.85	4926.16	2115.38	198.85	459.34	439.13	20.20	1.90	439.13	20.20	1.90	200.74	205.95	200.74	205.95	200.74	205.95	200.74	205.95	200.74	205.95
1987	7131.19	5125.04	2006.15	188.58	5125.04	2006.15	188.58	425.85	459.22	-33.37	0.00	459.22	-33.37	0.00	188.58	191.62	188.58	191.62	188.58	191.62	188.58	191.62	188.58	191.62
1988	6823.99	5056.52	1777.47	167.08	5056.52	1777.47	167.08	443.89	467.38	-23.49	0.00	467.38	-23.49	0.00	167.08	172.46	167.08	172.46	167.08	172.46	167.08	172.46	167.08	172.46
1989	6761.19	5247.38	1513.81	142.30	5247.38	1513.81	142.30	446.22	468.64	-22.42	0.00	468.64	-22.42	0.00	142.30	148.49	142.30	148.49	142.30	148.49	142.30	148.49	142.30	148.49
1990	6376.19	5077.25	1298.94	122.10	5077.25	1298.94	122.10	502.17	479.98	22.19	2.09	479.98	22.19	2.09	124.19	128.71	124.19	128.71	124.19	128.71	124.19	128.71	124.19	128.71
1991	5764.79	4816.26	948.53	89.16	4816.26	948.53	89.16	617.48	499.51	117.97	11.09	499.51	117.97	11.09	100.25	106.23	100.25	106.23	100.25	106.23	100.25	106.23	100.25	106.23
1992	5179.92	4699.79	480.13	45.13	4699.79	480.13	45.13	675.34	509.66	165.68	15.57	509.66	165.68	15.57	60.71	70.59	60.71	70.59	60.71	70.59	60.71	70.59	60.71	70.59
1993	4881.03	4859.55	21.48	2.02	4859.55	21.48	2.02	718.06	517.53	200.53	18.85	517.53	200.53	18.85	20.87	30.83	20.87	30.83	20.87	30.83	20.87	30.83	20.87	30.83
1994	4467.45	4715.04	-247.59	0.00	4715.04	-247.59	0.00	866.11	545.20	320.91	30.17	545.20	320.91	30.17	30.17	27.84	30.17	27.84	30.17	27.84	30.17	27.84	30.17	27.84
1995	4060.16	4481.96	-421.80	0.00	4481.96	-421.80	0.00	1060.69	565.09	495.60	46.59	565.09	495.60	46.59	46.59	42.48	46.59	42.48	46.59	42.48	46.59	42.48	46.59	42.48
1996	3604.27	4061.89	-457.62	0.00	4061.89	-457.62	0.00	1071.21	551.41	519.80	48.86	551.41	519.80	48.86	48.86	48.29	48.86	48.29	48.86	48.29	48.86	48.29	48.86	48.29
1997	3181.78	3674.98	-493.20	0.00	3674.98	-493.20	0.00	1092.43	554.91	537.52	50.53	554.91	537.52	50.53	50.53	50.11	50.53	50.11	50.53	50.11	50.53	50.11	50.53	50.11
1998	2847.60	3351.71	-504.11	0.00	3351.71	-504.11	0.00	1113.48	559.32	554.16	52.09	559.32	554.16	52.09	52.09	51.70	52.09	51.70	52.09	51.70	52.09	51.70	52.09	51.70
1999	2570.80	3108.46	-537.66	0.00	3108.46	-537.66	0.00	1101.09	556.76	544.32	51.17	556.76	544.32	51.17	51.17	51.40	51.17	51.40	51.17	51.40	51.17	51.40	51.17	51.40
2000	2207.20	2818.63	-611.43	0.00	2818.63	-611.43	0.00	1078.68	536.21	542.47	50.99	536.21	542.47	50.99	50.99	51.04	50.99	51.04	50.99	51.04	50.99	51.04	50.99	51.04
2001	1983.00	2407.78	-424.78	0.00	2407.78	-424.78	0.00	1033.17	510.66	522.52	49.12	510.66	522.52	49.12	49.12	49.59	49.12	49.59	49.12	49.59	49.12	49.59	49.12	49.59
2002	1789.80	2248.72	-458.92	0.00	2248.72	-458.92	0.00	1043.87	511.35	532.52	50.06	511.35	532.52	50.06	50.06	49.82	50.06	49.82	50.06	49.82	50.06	49.82	50.06	49.82
2003	1475.60	1926.65	-451.05	0.00	1926.65	-451.05	0.00	1006.50	504.23	502.27	47.21	504.23	502.27	47.21	47.21	47.92	47.21	47.92	47.21	47.92	47.21	47.92	47.21	47.92
2004	1177.00	1618.65	-441.65	0.00	1618.65	-441.65	0.00	983.58	499.78	483.80	45.48	499.78	483.80	45.48	45.48	45.91	45.48	45.91	45.48	45.91	45.48	45.91	45.48	45.91
2005	1045.00	1532.60	-487.60	0.00	1532.60	-487.60	0.00	971.01	497.23	473.78	44.54	497.23	473.78	44.54	44.54	44.77	44.54	44.77	44.54	44.77	44.54	44.77	44.54	44.77

TABLE 11-11-4
TAPS-SEPARATE ACCT (HD353) INCOME TAX ESTS
(8-1986 8) SENSITIVITY ANALYSIS 811/8 MMV

FISCAL YEAR	TARIFF \$/B	PIPELINE THRUPT MMB/Y	TOTAL GROSS REV MM\$/Y	OPER COSTS MM\$/Y	AMORT & DEPREC EXPENSE MM\$/Y	UNCAP INT EXPENSE MM\$/Y	PTY TAX MM\$/Y	TOTAL DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y
1986	4.76	651.00	3095.55	259.76	268.65	409.86	192.38	1130.65	1964.90	184.70
1987	4.51	661.00	2980.29	262.11	268.65	381.77	166.59	1079.12	1901.17	178.71
1988	4.12	637.00	2626.69	256.48	268.65	351.68	140.02	1016.83	1609.86	151.53
1989	3.53	637.00	2247.83	256.48	268.65	327.01	116.16	968.30	1279.53	120.28
1990	3.29	602.00	1900.59	248.27	268.65	302.34	95.82	915.08	1065.51	100.16
1991	3.13	545.00	1704.86	234.90	268.65	277.65	78.10	859.30	845.56	79.48
1992	2.91	490.00	1427.69	205.58	268.65	252.44	62.98	789.65	638.04	59.98
1993	2.63	462.00	1213.10	199.95	268.65	226.53	50.44	745.57	467.53	43.95
1994	2.45	421.00	1032.40	191.70	268.65	204.01	40.19	704.55	327.85	30.82
1995	2.32	383.00	888.92	184.06	268.65	186.27	31.74	670.72	218.20	20.51
1996	2.16	340.00	734.43	175.41	268.65	169.75	24.65	638.46	95.97	9.02
1997	1.95	300.00	586.24	167.37	268.65	153.12	19.16	608.30	-22.07	-2.07
1998	1.73	268.00	464.54	160.93	268.65	136.22	15.34	581.14	-116.60	-10.96
1999	1.78	242.00	431.08	155.71	268.65	120.90	12.94	558.20	-127.11	-11.95
2000	1.90	208.00	395.24	148.87	268.65	105.89	10.68	534.09	-138.86	-13.05
2001	1.99	183.00	364.30	143.84	268.65	91.99	8.55	513.03	-148.72	-13.98
2002	2.06	165.00	340.08	140.22	268.65	82.51	6.54	497.92	-157.84	-14.84
2003	2.22	136.00	301.99	134.39	268.65	76.23	4.62	483.89	-181.89	-17.10
2004	2.49	107.00	266.66	128.56	268.65	70.44	2.92	470.57	-203.91	-19.17
2005	2.63	95.00	249.38	126.14	268.65	63.48	1.43	459.70	-210.33	-19.77

PRODUCTION, PIPELINE & EXPLORATION-SEPARATE ACCT (NO353) INCOME TAX ESTS
(8-1984-9) SENSITIVITY ANALYSIS 811/R HWY

SENSITIVITY ANALYSIS 811/8 HW																TOTAL				TOTAL			
FISCAL YEAR	NS		TAPS		NS+TAPS		NS+TAPS		C1		TOTAL		TOTAL		TOTAL		TOTAL		TOTAL				
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL			
	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAX	INCOME	TAX	INCOME	LIAB	TAX	LIAB	MB353	TAX	LIAB	MB353	TAX	LIAB	MB353	TAX	LIAB			
	INCOME	INCOME	INCOME	LIAB	M/MT	M/MT	M/MT	LIAB	M/MT	LIAB	COLLECT	COLLECT	AS4320	M/MT	M/MT	COLLECT	AS4320	M/MT	M/MT	COLLECT	AS4320		
	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y	NR6/Y		
1986	2115.38	1944.90	4080.28	383.55	2115.38	4080.28	383.55	1.90	1.90	385.45	344.48	193.11	151.37	385.45	344.48	193.11	151.37						
1987	2006.15	1901.17	3907.33	367.29	2006.15	3907.33	367.29	0.00	0.00	367.29	371.83	158.81	213.02	367.29	371.83	158.81	213.02						
1988	1777.47	1609.86	3387.33	318.41	1777.47	3387.33	318.41	0.00	0.00	318.41	330.63	156.21	174.42	318.41	330.63	156.21	174.42						
1989	1513.81	1279.53	2793.35	262.57	1513.81	2793.35	262.57	0.00	0.00	262.57	276.53	153.03	123.50	262.57	276.53	153.03	123.50						
1990	1298.94	1065.51	2364.45	222.26	1298.94	2364.45	222.26	2.09	2.09	224.34	233.90	149.03	84.88	224.34	233.90	149.03	84.88						
1991	948.53	845.56	1794.09	168.64	948.53	1794.09	168.64	11.09	11.09	179.73	190.89	141.18	49.78	179.73	190.89	141.18	49.78						
1992	480.13	638.04	1118.17	105.11	480.13	1118.17	105.11	15.57	15.57	120.68	135.44	131.84	3.61	120.68	135.44	131.84	3.61						
1993	21.48	447.53	469.00	45.97	21.48	469.00	45.97	18.85	18.85	44.82	78.78	124.52	-45.73	44.82	78.78	124.52	-45.73						
1994	-247.59	327.85	80.26	7.54	-247.59	80.26	7.54	30.17	30.17	37.71	44.49	117.88	-73.39	37.71	44.49	117.88	-73.39						
1995	-421.80	218.20	-203.59	0.00	-421.80	-203.59	0.00	46.59	46.59	46.59	44.37	110.47	-66.18	46.59	44.37	110.47	-66.18						
1996	-457.62	95.97	-361.64	0.00	-457.62	-361.64	0.00	48.86	48.86	48.86	48.29	102.98	-54.69	48.86	48.29	102.98	-54.69						
1997	-493.20	-22.07	-515.26	0.00	-493.20	-515.26	0.00	50.53	50.53	50.53	50.11	95.38	-65.27	50.53	50.11	95.38	-65.27						
1998	-504.11	-116.60	-620.71	0.00	-504.11	-620.71	0.00	52.09	52.09	52.09	51.70	88.65	-36.95	52.09	51.70	88.65	-36.95						
1999	-537.66	-127.11	-664.78	0.00	-537.66	-664.78	0.00	51.17	51.17	51.17	51.40	82.88	-31.48	51.17	51.40	82.88	-31.48						
2000	-611.43	-138.86	-750.28	0.00	-611.43	-750.28	0.00	50.99	50.99	50.99	51.04	76.65	-25.62	50.99	51.04	76.65	-25.62						
2001	-624.78	-148.72	-773.51	0.00	-624.78	-773.51	0.00	49.12	49.12	49.12	49.59	70.36	-20.77	49.12	49.59	70.36	-20.77						
2002	-458.92	-157.84	-616.76	0.00	-458.92	-616.76	0.00	50.86	50.86	50.86	49.82	65.57	-15.74	50.86	49.82	65.57	-15.74						
2003	-451.05	-181.89	-632.94	0.00	-451.05	-632.94	0.00	47.21	47.21	47.21	47.92	60.26	-12.34	47.21	47.92	60.26	-12.34						
2004	-441.65	-203.91	-645.56	0.00	-441.65	-645.56	0.00	45.48	45.48	45.48	45.91	53.68	-7.77	45.48	45.91	53.68	-7.77						
2005	-487.69	-210.33	-697.93	0.00	-487.69	-697.93	0.00	44.54	44.54	44.54	44.77	48.86	-4.08	44.54	44.77	48.86	-4.08						

[illegible]

TABLE 11-11-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)

PRODUCTION TAX-15% MAX NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% MAX NOMINAL RATE

BEGINNING IN CY 1987

(6-1986)

SENSITIVITY ANALYSIS 6/11/80 MMV

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT LAW MM\$/Y	HB353 MM\$/Y	DIFF HB353 LESS CURRENT MM\$/Y	CURRENT LAW MM\$/Y	HB353 MM\$/Y	DIFF HB353 LESS CURRENT MM\$/Y	CURRENT LAW MM\$/Y	HB353 MM\$/Y	DIFF HB353 LESS CURRENT MM\$/Y
1986	193.11	344.40	151.37	849.36	849.36	0.00	1062.47	1213.84	151.37
1987	150.81	371.83	213.02	876.29	792.98	-83.31	1035.10	1164.80	129.71
1988	156.21	330.63	174.42	695.03	574.00	-120.95	851.24	904.71	53.47
1989	153.03	276.53	123.50	670.24	550.38	-111.06	823.27	834.91	11.64
1990	149.03	233.90	84.88	625.32	523.43	-101.89	774.34	757.33	-17.02
1991	141.18	190.89	49.70	563.98	468.67	-95.31	705.16	659.55	-45.61
1992	131.84	135.44	3.61	497.94	415.34	-82.60	629.78	550.79	-78.99
1993	124.52	78.78	-45.73	474.57	393.63	-80.94	599.09	472.42	-126.67
1994	117.88	44.49	-73.39	439.43	366.69	-72.74	557.31	411.17	-146.13
1995	110.47	44.37	-66.10	414.56	348.59	-65.97	525.02	392.95	-132.07
1996	102.98	48.29	-54.69	366.76	309.83	-56.93	469.74	358.12	-111.62
1997	95.38	50.11	-45.27	325.89	276.68	-49.22	421.28	326.79	-94.49
1998	88.65	51.70	-36.95	297.70	254.05	-43.65	386.35	305.75	-80.60
1999	82.88	51.40	-31.48	271.36	232.42	-38.94	354.24	283.82	-70.42
2000	76.65	51.04	-25.62	232.81	200.71	-32.10	309.47	251.75	-57.72
2001	70.36	49.59	-20.77	219.35	189.10	-30.25	289.71	238.69	-51.02
2002	65.57	49.82	-15.74	203.74	176.31	-27.43	269.31	226.13	-43.18
2003	60.26	47.92	-12.34	178.88	155.62	-23.25	239.14	203.55	-35.59
2004	53.68	45.91	-7.77	161.29	141.04	-20.25	214.97	186.95	-28.02
2005	48.06	44.77	-4.08	147.93	130.02	-17.91	196.78	174.79	-21.99
SUM86-05	2181.33	2541.89	360.55	8532.42	7376.92	-1155.51	10713.75	9918.80	-794.95

TABLE 11-11-B

PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1986-1986)

SENSITIVITY ANALYSIS 011/B MHV

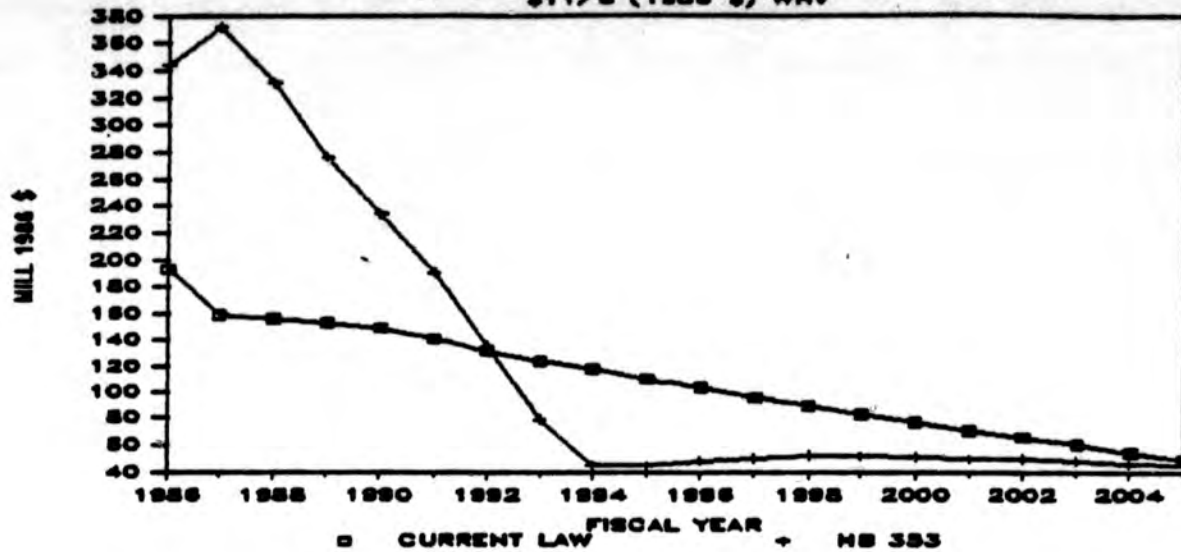
FISCAL YEAR	TOTAL PETRO PRODN GROSS INCOME MM\$/Y	TOTAL PETRO PRODN NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN NET INCOME MM\$/Y	CURRENT LAW STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %	HB353 STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %
	-----	-----	-----	-----	-----	-----	-----
1986	7500.80	3356.14	4144.73	2202.26	53.13	2215.11	53.44
1987	7557.04	3635.95	3921.09	2190.43	55.06	2139.93	54.57
1988	7277.80	3805.89	3471.99	1995.17	57.46	1890.47	54.45
1989	7207.41	4014.69	3192.72	1966.22	61.58	1849.82	57.94
1990	6878.36	3939.66	2938.70	1868.49	63.58	1746.29	59.42
1991	6382.27	3825.44	2556.83	1726.82	67.54	1596.56	62.44
1992	5855.26	3830.64	2024.62	1593.25	78.69	1449.40	71.59
1993	5599.09	4041.84	1557.25	1540.69	98.94	1366.06	87.72
1994	5333.56	3991.10	1342.46	1459.76	108.74	1296.98	96.61
1995	5120.85	3833.24	1287.61	1390.25	107.97	1256.29	97.57
1996	4675.48	3516.27	1159.21	1256.94	108.43	1145.32	98.80
1997	4274.21	3233.76	1040.45	1140.73	109.64	1046.24	100.56
1998	3961.08	2994.92	966.16	1048.41	108.51	967.81	100.17
1999	3671.89	2824.05	847.84	963.00	113.58	892.58	105.28
2000	3285.88	2610.13	675.75	853.46	126.30	795.74	117.76
2001	3016.17	2239.58	776.60	779.47	100.37	728.45	93.80
2002	2833.67	2131.21	702.46	721.85	102.76	678.68	96.61
2003	2482.10	1880.97	601.13	633.42	105.37	597.83	99.45
2004	2160.58	1634.80	525.78	557.56	106.05	529.54	100.72
2005	2016.01	1584.09	431.92	512.51	118.66	490.51	113.57

TABLE 11-11-9

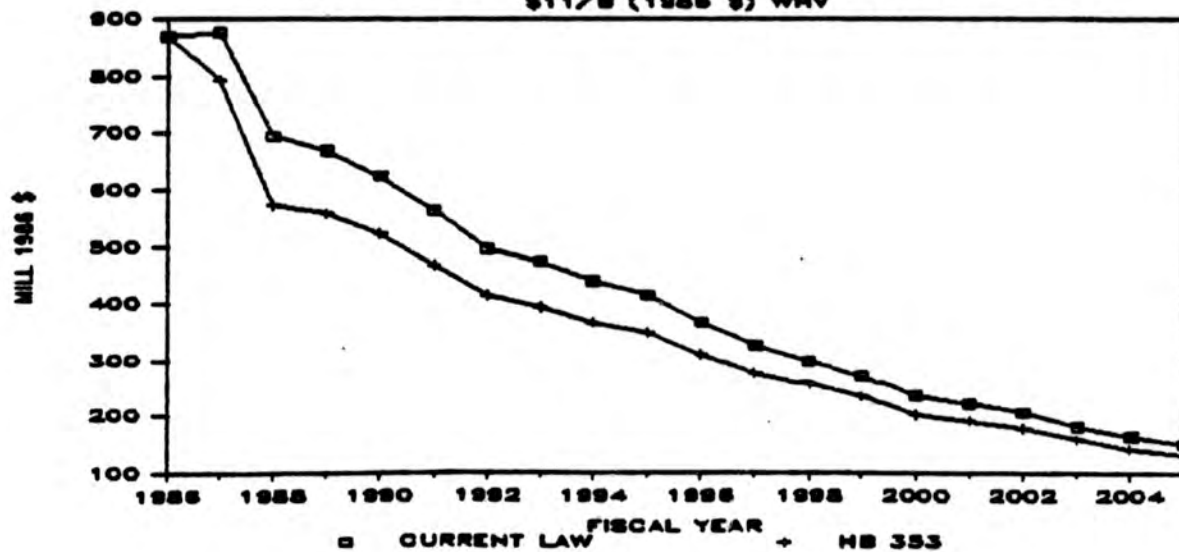
PERCENTAGE SHARE COMPARISON
 CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
 AS A PERCENTAGE OF
 PETROLEUM PRODUCTION & PIPELINE NET INCOME
 (1986-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS 811/8 NHV			CURRENT		HB353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME MM\$/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN & PIPE NET INCOME MM\$/Y	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	10596.43	4294.42	6302.01	2394.64	38.00	2546.01	40.40
1987	10537.33	4548.48	5988.85	2357.01	39.36	2486.72	41.52
1988	9904.57	4682.70	5221.87	2135.19	40.89	2188.66	41.91
1989	9455.24	4866.83	4588.41	2082.38	45.38	2094.02	45.64
1990	8858.95	4758.92	4100.04	1964.31	47.91	1947.30	47.49
1991	8087.13	4606.64	3480.49	1804.93	51.86	1759.32	50.55
1992	7282.95	4557.31	2725.64	1656.23	60.76	1577.24	57.87
1993	6812.19	4736.97	2075.22	1591.14	76.67	1464.46	70.57
1994	6365.97	4655.47	1710.50	1499.95	87.69	1357.71	79.15
1995	6009.77	4472.22	1537.55	1421.99	92.48	1267.91	83.09
1996	5409.91	4130.08	1279.83	1281.58	100.14	1169.96	91.42
1997	4860.45	3822.90	1037.55	1159.90	111.79	1065.41	102.68
1998	4425.62	3560.73	864.90	1063.75	122.99	983.15	113.67
1999	4102.97	3369.30	733.67	975.94	133.02	905.52	123.42
2000	3681.11	3133.54	547.58	864.14	157.81	806.43	147.27
2001	3380.48	2744.06	636.42	788.01	123.82	736.99	115.80
2002	3173.75	2622.59	551.16	720.39	132.16	685.21	124.32
2003	2784.09	2360.24	423.85	638.04	150.53	602.45	142.14
2004	2427.24	2102.45	324.79	560.48	172.57	532.46	163.94
2005	2265.39	2042.36	223.02	513.94	230.44	491.94	220.58

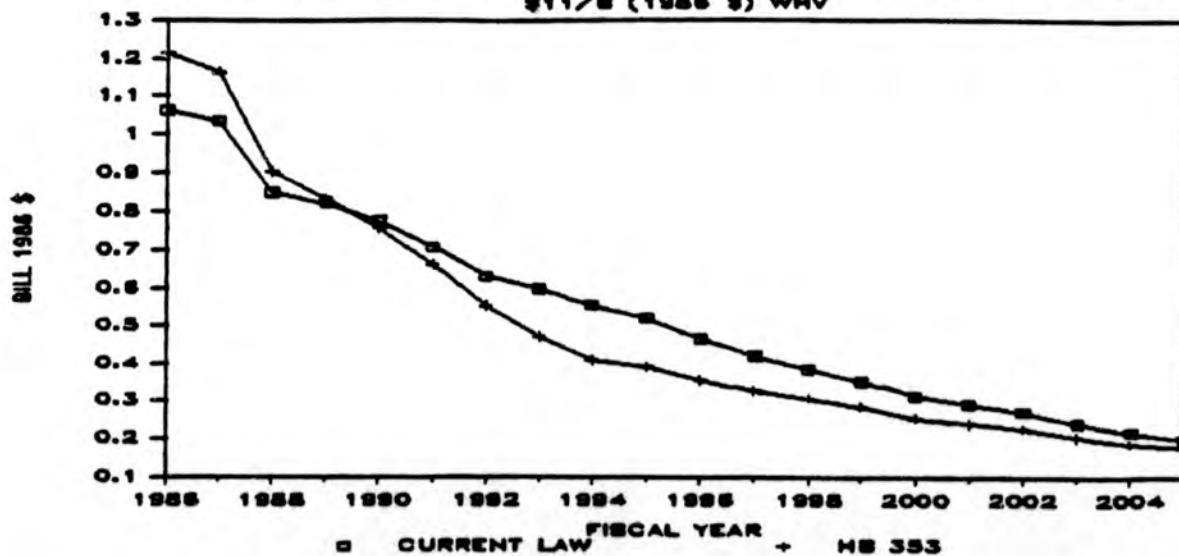
GRAPH II-11-1
INCOME TAX COMPARISON
\$11/B (1986 \$) WHV



GRAPH II-11-2
PRODUCTION TAX COMPARISON
\$11/B (1986 \$) WHV



GRAPH II-11-3
INCOME + PRODN TAX COMPARISON
\$11/B (1986 \$) WHV



SECTION II-9

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$9/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-9-1

ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (NO353) INCOME TAX ESTS
(1-1986-8)

SENSITIVITY ANALYSIS 89/8 MMV

FISCAL YEAR	PROD VOL MT AVG GROSS WELLHEAD VALUE \$/B	TOTAL GROSS PROD VOL MMB/Y	TOTAL GROSS REV MM\$/Y	ROYALTY SHARE MM\$/Y	PROD & COMS TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	DEPREC EXPENSE MM\$/Y	AMORT EXPENSE MM\$/Y	INTEREST & EXPENSE ALLOWED MM\$/Y	ADMIN & OVERHD EXPENSE ALLOWED MM\$/Y	EXPLOR (UNSUCCS) EXPENSE ALLOWED MM\$/Y	TOTAL DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL DEDUCT W/MPT MM\$/Y	TOTAL TAXABLE INCOME W/MPT MM\$/Y	TOTAL TAX LIAB W/MPT MM\$/Y	PROD TAX CURRENT MM\$/Y	PROD TAX NO353 MM\$/Y
1986	8.81650	651.00	5739.54	692.64	703.19	214.81	1137.47	1387.89	8.54	105.00	240.00	144.00	4633.54	1106.00	103.96	0.00	4633.54	1106.00	103.96	702.48	702.48
1987	8.78849	661.00	5809.19	686.91	638.31	236.58	1157.10	1623.47	20.33	105.00	240.00	144.00	4851.70	957.49	90.00	0.00	4851.70	957.49	90.00	705.50	637.59
1988	8.72840	637.00	5559.99	660.19	456.70	254.49	1172.17	1768.78	42.57	105.00	240.00	144.00	4843.91	716.08	67.31	0.00	4843.91	716.08	67.31	554.70	456.01
1989	8.61411	637.00	5487.19	656.62	442.42	255.81	1191.09	1956.32	80.49	105.00	240.00	144.00	5071.77	415.42	39.05	0.00	5071.77	415.42	39.05	532.99	441.73
1990	8.59168	602.00	5172.19	620.02	409.91	245.33	1155.46	1906.92	86.34	105.00	240.00	144.00	4912.97	259.22	24.37	0.00	4912.97	259.22	24.37	492.36	409.25
1991	8.57760	545.00	4674.79	561.47	360.31	231.18	1089.69	1809.82	86.24	105.00	240.00	144.00	4628.21	46.58	4.38	0.00	4628.21	46.58	4.38	437.41	360.21
1992	8.57127	490.00	4199.92	504.81	314.64	227.89	1024.67	1799.09	83.80	105.00	240.00	144.00	4443.90	-243.98	-22.93	0.00	4443.90	-243.98	-22.93	381.15	314.11
1993	8.55705	451.00	3859.23	464.47	284.20	228.49	1038.33	1808.93	82.95	105.00	240.00	144.00	4396.37	-537.14	-50.49	0.00	4396.37	-537.14	-50.49	346.20	283.71
1994	8.59914	405.00	3482.65	418.45	249.80	217.01	1005.74	1688.94	75.83	105.00	240.00	144.00	4144.77	-662.12	-62.24	0.00	4144.77	-662.12	-62.24	304.56	249.35
1995	8.61767	360.00	3102.36	372.09	219.99	200.44	930.72	1492.94	62.85	105.00	240.00	144.00	3768.03	-665.67	-62.57	0.00	3768.03	-665.67	-62.57	268.37	219.60
1996	8.64176	313.00	2704.87	319.55	184.43	183.86	860.98	1284.29	50.90	105.00	240.00	144.00	3373.02	-668.15	-62.81	0.00	3373.02	-668.15	-62.81	225.09	184.09
1997	8.66243	272.00	2356.18	277.72	155.86	167.29	801.85	1101.62	40.01	105.00	240.00	144.00	3033.35	-677.17	-63.65	0.00	3033.35	-677.17	-63.65	190.32	155.56
1998	8.81135	229.00	2017.80	235.38	134.18	150.72	696.45	898.15	20.89	105.00	240.00	144.00	2624.76	-686.96	-57.05	0.00	2624.76	-686.96	-57.05	163.99	133.93
1999	8.80683	205.00	1805.40	210.55	117.73	136.17	663.88	802.11	17.92	105.00	240.00	144.00	2437.36	-631.96	-59.40	0.00	2437.36	-631.96	-59.40	143.88	117.50
2000	8.80984	183.00	1612.20	187.91	103.08	121.63	633.20	709.04	14.95	105.00	240.00	144.00	2258.81	-646.61	-60.78	0.00	2258.81	-646.61	-60.78	125.98	102.88
2001	8.82439	144.00	1447.20	168.68	92.56	107.09	607.63	632.45	13.94	105.00	240.00	144.00	2111.34	-664.14	-62.43	0.00	2111.34	-664.14	-62.43	113.11	92.38
2002	8.83562	146.00	1290.00	150.28	82.34	92.55	582.67	556.53	11.95	105.00	240.00	144.00	1965.30	-675.30	-63.48	0.00	1965.30	-675.30	-63.48	100.63	82.18
2003	9.00000	102.00	918.00	105.83	66.16	78.00	423.15	303.10	0.09	105.00	240.00	144.00	1465.33	-547.33	-51.45	0.00	1465.33	-547.33	-51.45	80.88	66.05
2004	9.00000	91.00	819.00	94.41	58.77	69.34	411.44	270.41	0.08	105.00	240.00	144.00	1393.45	-574.45	-54.00	0.00	1393.45	-574.45	-54.00	71.84	58.67
2005	9.00000	81.00	729.00	84.64	52.13	60.67	400.90	240.70	0.07	105.00	240.00	144.00	1327.50	-598.50	-56.26	0.00	1327.50	-598.50	-56.26	63.72	52.04

TABLE 11-9-2

COOK INLET-SEPARATE ACCT (NO353) INCOME TAX ESTS
(1-1986-8) SENSITIVITY ANALYSIS 89/8 MMV

FISCAL YEAR	OIL		OIL		GAS		GAS		TOTAL		OIL		GAS		OIL		GAS		TOTAL		TOTAL		TOTAL		TOTAL	
	GROSS WELLHEAD VALUE \$/B	GROSS PRODN MMB/Y	GROSS WELLHEAD REV MM\$/Y	GROSS WELLHEAD \$/MCF	GROSS PRODN MMB/Y	GROSS WELLHEAD REV MM\$/Y	GROSS PRODN MMB/Y	GROSS WELLHEAD REV MM\$/Y	GROSS PRODN MMB/Y	GROSS WELLHEAD REV MM\$/Y	ROYALTY SHARE MM\$/Y	ROYALTY SHARE MM\$/Y	PRODN & CONS TAX CURRENT MM\$/Y	PRODN & CONS TAX MM353 MM\$/Y	GAS PRODN TAX MM\$/Y	PTV TAX MM\$/Y	OPER COSTS MM\$/Y	OTHER DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	TOTAL TAX LIAB MM\$/Y		
1986	15.00	18.03	270.45	0.79	193.45	152.83	423.28	33.81	19.10	0.31	0.31	9.09	11.00	225.54	135.74	-11.31	-1.06	0.00	-11.31	-1.06	0.00	-11.31	-1.06	0.00	-11.31	-1.06
1987	15.00	12.67	190.05	0.93	226.30	210.46	400.51	23.76	26.31	0.22	0.20	12.15	11.68	241.65	140.28	-55.52	-5.22	0.00	-55.52	-5.22	0.00	-55.52	-5.22	0.00	-55.52	-5.22
1988	15.00	10.18	152.70	1.06	255.50	270.83	423.53	19.09	33.85	0.15	0.13	15.17	12.32	241.65	142.62	-41.29	-3.88	0.00	-41.29	-3.88	0.00	-41.29	-3.88	0.00	-41.29	-3.88
1989	15.00	8.87	133.05	1.14	259.15	295.43	428.48	16.63	36.93	0.11	0.10	16.54	11.94	241.65	142.62	-37.93	-3.57	0.00	-37.93	-3.57	0.00	-37.93	-3.57	0.00	-37.93	-3.57
1990	15.00	7.15	107.25	1.32	288.35	380.62	487.87	13.41	47.58	0.08	0.07	21.31	11.55	241.65	142.62	9.69	0.91	0.00	9.69	0.91	0.00	9.69	0.91	0.00	9.69	0.91
1991	15.00	6.21	93.15	1.65	310.25	511.91	605.06	11.64	63.99	0.01	0.01	26.88	11.17	241.65	142.62	107.11	10.07	0.00	107.11	10.07	0.00	107.11	10.07	0.00	107.11	10.07
1992	15.00	5.33	79.95	1.80	324.85	584.73	664.68	9.99	73.09	0.01	0.01	30.19	10.77	241.65	142.62	156.35	14.70	0.00	156.35	14.70	0.00	156.35	14.70	0.00	156.35	14.70
1993	15.00	4.53	67.95	1.93	332.15	641.05	709.00	8.49	80.13	.00	.00	33.09	10.40	241.65	142.62	192.61	18.10	0.00	192.61	18.10	0.00	192.61	18.10	0.00	192.61	18.10
1994	15.00	3.94	59.10	2.46	324.85	799.13	858.23	7.39	99.89	.00	.00	42.65	10.01	241.65	142.62	314.01	29.52	0.00	314.01	29.52	0.00	314.01	29.52	0.00	314.01	29.52
1995	15.00	3.07	46.05	3.07	328.50	1008.50	1054.54	5.76	126.06	.00	.00	54.71	9.43	225.54	142.62	490.22	46.08	0.00	490.22	46.08	0.00	490.22	46.08	0.00	490.22	46.08
1996	15.00	3.03	45.45	3.07	332.15	1019.70	1065.15	5.68	127.46	.00	.00	56.21	9.24	209.43	142.62	514.50	48.36	0.00	514.50	48.36	0.00	514.50	48.36	0.00	514.50	48.36
1997	15.00	2.96	44.40	3.07	339.45	1042.11	1086.51	5.55	130.26	.00	.00	57.45	8.86	209.43	142.62	532.34	50.04	0.00	532.34	50.04	0.00	532.34	50.04	0.00	532.34	50.04
1998	15.00	2.88	43.20	3.07	346.75	1064.52	1107.72	5.40	133.07	.00	.00	59.61	8.47	209.43	142.62	549.12	51.62	0.00	549.12	51.62	0.00	549.12	51.62	0.00	549.12	51.62
1999	15.00	2.81	42.15	3.07	343.10	1053.32	1095.47	5.27	131.66	.00	.00	58.99	8.09	209.43	142.62	539.40	50.70	0.00	539.40	50.70	0.00	539.40	50.70	0.00	539.40	50.70
2000	15.00	2.81	42.15	3.07	335.80	1030.91	1073.06	5.27	128.86	.00	.00	57.73	7.70	193.32	142.62	537.95	50.53	0.00	537.95	50.53	0.00	537.95	50.53	0.00	537.95	50.53
2001	15.00	2.77	41.55	3.07	321.20	986.08	1027.63	5.19	123.26	.00	.00	54.36	7.32	177.21	142.62	517.67	48.66	0.00	517.67	48.66	0.00	517.67	48.66	0.00	517.67	48.66
2002	15.00	2.74	41.10	3.07	324.85	997.29	1038.39	5.14	124.66	.00	.00	54.10	6.93	177.21	142.62	527.72	49.61	0.00	527.72	49.61	0.00	527.72	49.61	0.00	527.72	49.61
2003	15.00	1.86	27.90	3.07	317.55	974.88	1002.78	3.49	121.86	.00	.00	52.03	6.55	177.21	142.62	499.02	46.91	0.00	499.02	46.91	0.00	499.02	46.91	0.00	499.02	46.91
2004	15.00	1.83	27.45	3.07	310.25	952.47	979.92	3.43	119.06	.00	.00	50.84	6.16	177.21	142.62	480.60	45.18	0.00	480.60	45.18	0.00	480.60	45.18	0.00	480.60	45.18
2005	15.00	1.75	26.25	3.07	306.60	941.26	967.51	3.28	117.66	.00	.00	50.24	5.78	177.21	142.62	470.72	44.25	0.00	470.72	44.25	0.00	470.72	44.25	0.00	470.72	44.25

[illegible]

TABLE 11-9-4

TAPS-SEPARATE ACCT (HDS53) INCOME TAX ESTS
(8-1986 \$) SENSITIVITY ANALYSIS \$/B HHV

FISCAL	TARIFF	PIPELINE	TOTAL	OPER	AMORT &	UNCAP	PTY	TOTAL	TOTAL	TOTAL
YEAR	\$/B	THRUPT	GROSS	COSTS	DEPREC	INT	TAX	DEDUCT	TAXABLE	TAX
		HHV/Y	REV	HHV/Y	HHV/Y	HHV/Y	HHV/Y	HHV/Y	HHV/Y	HHV/Y
1986	4.75	651.00	3094.46	259.76	268.65	409.86	191.32	1129.59	1964.87	184.70
1987	4.51	661.00	2979.16	262.11	268.65	381.77	165.46	1077.99	1901.17	178.71
1988	4.12	637.00	2625.49	256.40	268.65	351.68	138.82	1015.63	1609.86	151.33
1989	3.53	637.00	2246.55	256.40	268.65	327.01	114.88	967.02	1279.53	120.28
1990	3.29	602.00	1979.23	248.27	268.65	302.34	94.46	913.72	1065.51	100.16
1991	3.13	545.00	1703.41	234.90	268.65	277.65	76.65	857.05	845.56	79.48
1992	2.91	490.00	1426.15	205.58	268.65	252.44	61.44	788.11	638.04	59.98
1993	2.66	451.00	1200.46	197.74	268.65	226.53	48.80	741.72	458.74	43.12
1994	2.51	405.00	1014.74	188.49	268.65	204.01	38.53	699.68	315.06	29.62
1995	2.40	360.00	864.28	179.44	268.65	186.27	30.10	664.46	199.82	18.78
1996	2.26	313.00	705.87	169.98	268.65	169.75	23.09	631.48	74.39	6.99
1997	2.05	272.00	556.79	161.74	268.65	153.12	17.73	601.24	-44.44	-4.18
1998	1.85	229.00	424.23	153.09	268.65	136.22	14.04	572.00	-147.77	-13.89
1999	1.92	205.00	393.00	148.27	268.65	120.90	11.87	549.69	-156.68	-14.73
2000	2.02	183.00	369.39	143.84	268.65	105.89	9.84	528.23	-158.84	-14.93
2001	2.10	164.00	344.61	140.82	268.65	91.99	7.86	508.52	-163.91	-15.41
2002	2.20	146.00	320.49	136.40	268.65	82.51	5.96	493.52	-173.02	-16.26
2003	2.42	102.00	267.52	127.55	268.65	76.23	4.15	476.58	-209.06	-19.65
2004	2.75	91.00	250.43	125.34	268.65	70.44	2.70	467.13	-216.70	-20.37
2005	2.90	81.00	235.27	123.33	268.65	63.48	1.32	456.78	-221.52	-20.82

TABLE 11-9-5
PRODUCTION, PIPELINE & EXPLORATION-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1996-8) SENSITIVITY ANALYSIS 89/8 UNV

[illegible]

TABLE 11-9-6
CURRENT LAW-MODIFIED APPOINTMENT (AS4320) INCOME TAX ESTS
(8-1986)

SENSITIVITY ANALYSIS 89/8 MW

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
FISCAL YEAR	TOP 3 COMPANIES				CALENDAR YEAR	TOTAL				FISCAL YEAR	TOTAL AK TAX COLLECT MM/Y
	TOTAL AK OIL & GAS PRODN MM/Y EQUIV	CHG TOTAL AK OIL & GAS PRODN %	APPNT FACTOR CNG FACTOR	NET PROFIT APPNT FACTOR		MW NET PROFIT MM/Y	AK TAXABLE INCOME MM/Y	AK TAX LIAB MM/Y	AK TAX LIAB MM/Y		
1986	496.67	0.0000	0.0000	0.2787	1986	4809.50	1340.41	126.00	140.00	1986	183.32
1987	706.00	1.3396	1.0087	0.2783	1987	4809.50	1338.56	125.82	139.81	1987	139.93
1988	683.68	-3.1613	0.9795	0.2699	1988	4809.50	1297.94	122.01	135.56	1988	137.64
1989	682.89	-0.1153	0.9993	0.2670	1989	4809.50	1284.00	120.70	134.11	1989	134.84
1990	650.34	-4.7663	0.9690	0.2561	1990	4809.50	1231.70	115.79	128.65	1990	131.31
1991	595.53	-8.4281	0.9452	0.2397	1991	4809.50	1152.66	108.35	120.39	1991	124.40
1992	541.74	-9.0330	0.9413	0.2233	1992	4809.50	1074.13	100.97	112.19	1992	116.16
1993	502.98	-7.1542	0.9535	0.2100	1993	4809.50	1013.94	95.31	105.90	1993	108.95
1994	455.35	-9.4701	0.9384	0.1959	1994	4809.50	942.01	88.55	98.39	1994	102.03
1995	410.00	-9.9591	0.9353	0.1814	1995	4809.50	872.22	81.99	91.10	1995	94.63
1996	363.48	-11.3460	0.9263	0.1663	1996	4809.50	799.81	75.18	83.54	1996	87.20
1997	323.45	-11.0122	0.9284	0.1529	1997	4809.50	735.14	69.10	76.78	1997	80.05
1998	281.42	-12.9964	0.9155	0.1385	1998	4809.50	666.31	62.63	69.59	1998	73.07
1999	256.82	-8.7385	0.9432	0.1294	1999	4809.50	622.17	58.48	64.98	1999	67.22
2000	233.78	-8.9722	0.9417	0.1206	2000	4809.50	580.03	54.52	60.58	2000	62.72
2001	212.66	-9.0365	0.9413	0.1124	2001	4809.50	540.50	50.81	56.45	2001	58.45
2002	195.15	-8.2333	0.9465	0.1053	2002	4809.50	506.46	47.61	52.90	2002	54.62
2003	149.22	-23.5324	0.8470	0.0883	2003	4809.50	424.70	39.92	44.36	2003	48.48
2004	137.15	-8.0904	0.9474	0.0828	2004	4809.50	398.34	37.44	41.60	2004	42.94
2005	126.55	-7.7297	0.9498	0.0779	2005	4809.50	374.55	35.21	39.12	2005	40.33

TABLE 11-9-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPOINTMENT (AS4320)

PRODUCTION TAX-15% NAY NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% NAY NOMINAL RATE

BEGINNING IN CY 1987

(10-1986)

SENSITIVITY ANALYSIS 89/8 MMV

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT LAW MMV/Y	HB353 MMV/Y	DIFF HB353 LESS CURRENT MMV/Y	CURRENT LAW MMV/Y	HB353 MMV/Y	DIFF HB353 LESS CURRENT MMV/Y	CURRENT LAW MMV/Y	HB353 MMV/Y	DIFF HB353 LESS CURRENT MMV/Y
1986	183.32	271.89	88.57	711.86	711.86	0.00	895.18	983.75	88.57
1987	139.93	273.70	133.76	717.06	649.93	-67.13	857.78	923.63	65.85
1988	137.64	231.16	93.52	570.00	471.29	-98.72	707.64	702.45	-5.19
1989	134.84	174.15	39.32	549.64	458.36	-91.28	684.47	632.51	-51.96
1990	131.31	133.91	2.60	513.75	430.63	-83.12	645.06	564.53	-80.52
1991	124.40	101.81	-22.59	464.29	387.09	-77.20	588.68	488.89	-99.79
1992	116.16	62.29	-53.86	411.34	344.30	-67.04	527.50	406.58	-120.92
1993	108.95	26.51	-82.44	379.30	316.80	-62.49	488.25	343.32	-144.93
1994	102.03	26.66	-75.36	347.22	292.01	-55.21	449.25	318.67	-130.57
1995	94.63	41.94	-52.69	323.08	274.31	-48.77	417.71	316.25	-101.46
1996	87.20	47.79	-39.41	281.30	240.30	-41.00	368.50	288.09	-80.41
1997	80.05	49.62	-30.43	247.77	213.01	-34.76	327.82	262.63	-65.19
1998	73.07	51.22	-21.85	223.60	193.54	-30.06	296.68	244.76	-51.91
1999	67.22	50.93	-16.29	202.86	176.49	-26.36	270.08	227.42	-42.66
2000	62.72	50.57	-12.14	183.71	160.61	-23.10	246.43	211.19	-35.24
2001	58.45	49.13	-9.33	167.47	146.73	-20.74	225.93	195.86	-30.06
2002	54.62	49.37	-5.25	154.73	136.28	-18.45	209.35	185.65	-23.70
2003	48.48	47.58	-0.90	132.91	118.08	-14.83	181.39	165.66	-15.73
2004	42.94	45.61	2.67	122.68	109.51	-13.17	165.62	155.12	-10.50
2005	40.33	44.48	4.15	113.96	102.28	-11.68	154.29	146.76	-7.53
SUM86-05	1888.28	1830.33	-57.95	6819.33	5933.40	-885.93	8707.60	7763.73	-943.87

TABLE 11-9-B
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(19-1986) SENSITIVITY ANALYSIS 89/8 NHV

FISCAL YEAR	TOTAL			CURRENT LAW		H8333	
	PETRO PRODN GROSS INCOME NHV/Y	PETRO PRODN NON TAX DEDUCTS NHV/Y	PETRO PRODN NET INCOME NHV/Y	STATE PETRO PRODN REVENUE NHV/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN REVENUE NHV/Y	REVENUE VS NET INCOME %
1986	6162.82	3384.18	2778.63	1867.26	67.20	1817.31	65.40
1987	6209.70	3671.83	2537.87	1843.76	72.65	1729.39	68.14
1988	5983.52	3856.79	2126.73	1688.29	79.38	1524.93	71.70
1989	5915.67	4101.18	1814.49	1663.12	91.66	1483.11	81.74
1990	5660.06	4021.98	1638.08	1583.60	96.67	1397.89	85.34
1991	5279.85	3839.02	1420.83	1468.74	103.37	1284.30	90.39
1992	4864.60	3780.83	1083.77	1354.61	124.99	1186.04	109.44
1993	4568.23	3803.49	764.74	1280.73	167.47	1126.53	147.31
1994	4340.88	3643.78	697.10	1202.45	172.49	1071.87	153.76
1995	4156.91	3343.68	813.23	1132.08	139.21	1030.62	126.73
1996	3770.02	3037.23	732.79	1014.65	138.46	934.24	127.49
1997	3442.69	2784.54	658.16	917.80	139.45	852.61	129.55
1998	3125.52	2456.54	668.98	829.96	124.06	778.04	116.30
1999	2900.87	2324.96	575.90	762.06	132.32	719.39	124.92
2000	2685.26	2182.13	503.13	698.01	138.73	662.77	131.73
2001	2474.83	2062.85	411.99	637.65	154.77	607.58	147.48
2002	2328.39	1959.97	368.42	589.07	159.89	565.37	153.46
2003	1920.78	1535.17	385.61	497.23	128.95	481.50	124.87
2004	1798.92	1490.76	308.16	458.12	148.67	447.62	145.26
2005	1696.51	1450.50	246.02	425.81	173.08	418.28	170.02

TABLE 11-9-9

PERCENTAGE SHARE COMPARISON

CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES

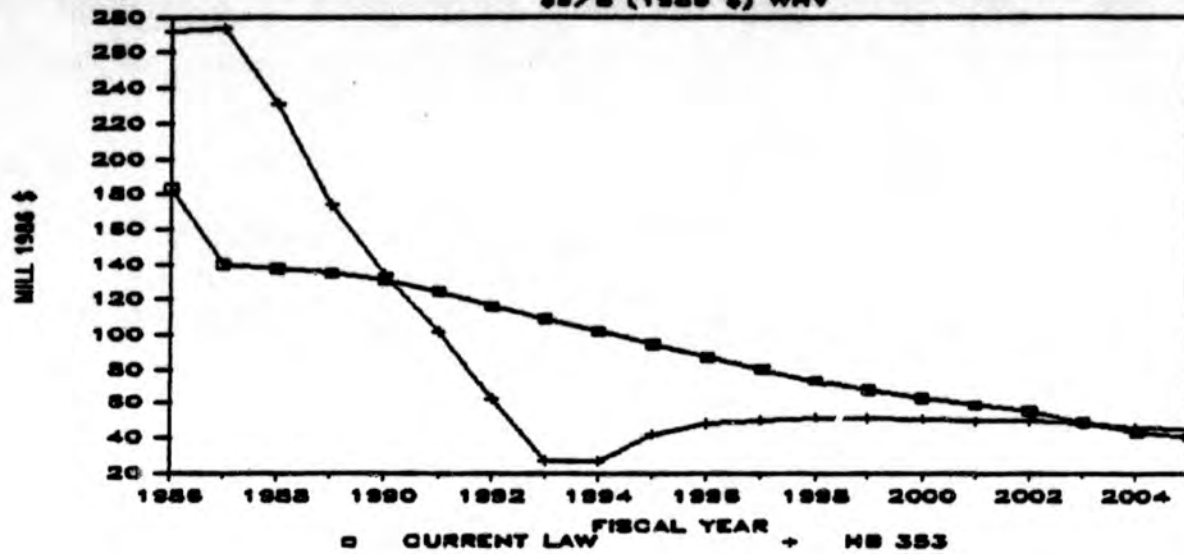
AS A PERCENTAGE OF

PETROLEUM PRODUCTION & PIPELINE NET INCOME

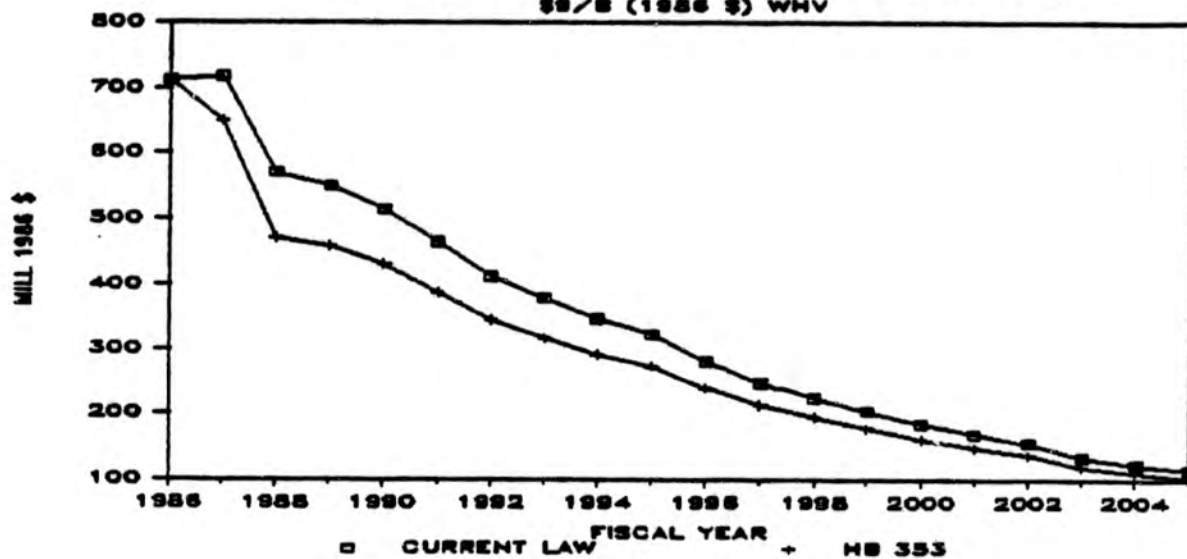
(1986-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS 89/8 UNV			CURRENT		H0353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME MM\$/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN & PIPE NET INCOME MM\$/Y	LAN STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	9257.28	4322.46	4934.82	2058.58	41.72	2147.15	43.51
1987	9188.86	4584.36	4604.50	2009.21	43.64	2075.06	45.07
1988	8609.01	4733.60	3875.40	1827.11	47.15	1821.92	47.01
1989	8162.22	4953.32	3208.90	1777.99	55.41	1726.03	53.79
1990	7639.29	4841.24	2798.05	1678.06	59.97	1597.54	57.09
1991	6983.26	4640.22	2343.05	1545.40	65.96	1445.61	61.70
1992	6290.75	4507.50	1783.26	1416.05	79.41	1295.13	72.63
1993	5768.69	4496.40	1272.28	1329.53	104.50	1184.60	93.11
1994	5355.62	4304.93	1050.70	1240.98	118.11	1110.40	105.68
1995	5021.19	3978.03	1043.15	1162.18	111.41	1060.72	101.68
1996	4475.89	3645.61	830.28	1037.74	124.99	957.33	115.30
1997	3999.49	3368.05	631.44	935.53	148.14	870.34	137.83
1998	3549.75	3014.51	535.24	844.00	157.68	792.08	147.99
1999	3293.87	2862.78	431.09	773.93	179.53	731.27	169.63
2000	3054.65	2700.51	354.14	707.85	199.88	672.61	189.93
2001	2819.44	2563.51	255.94	645.50	252.21	615.44	240.47
2002	2648.88	2447.53	201.35	595.02	295.52	571.32	283.75
2003	2188.30	2007.60	180.70	501.38	277.47	485.65	268.77
2004	2049.35	1955.19	94.16	460.82	489.39	450.32	478.24
2005	1931.78	1905.95	25.82	427.13	1654.03	419.60	1624.88

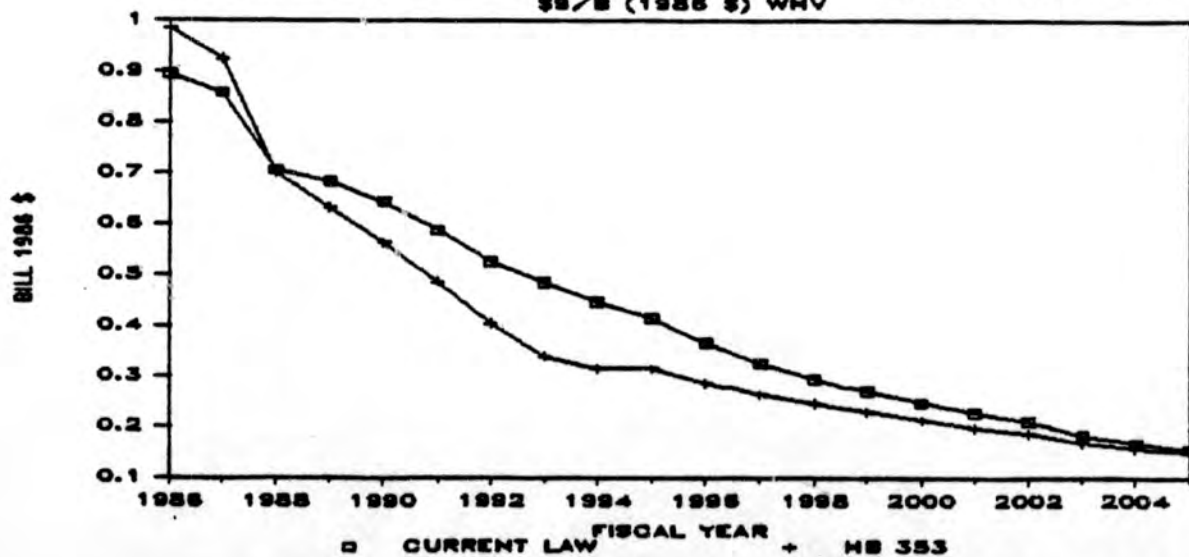
GRAPH II-9-1
INCOME TAX COMPARISON
\$B/B (1986 \$) WHV



GRAPH II-9-2
PRODUCTION TAX COMPARISON
\$B/B (1986 \$) WHV



GRAPH II-9-3
INCOME + PRODN TAX COMPARISON
\$B/B (1986 \$) WHV



SECTION II-7

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$7/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-7-1
ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(4-1986 8)

FISCAL YEAR	WELLHEAD VALUE	GROSS PRODM	GROSS REVENUE	TOTAL GROSS PRODM	TOTAL GROSS REVENUE	ROYALTY & SHARE	PRODM TAX	PTV TAX	OPER COSTS	DEPRECIATION	AMORT EXPENSE	INTEREST & OVERHEAD		EXPENSE ALLOWED	EXPENSE ALLOWED	TOTAL DEDUCTIBLE		TOTAL INCOME	TOTAL LIAB	TOTAL WINDFALL		TOTAL DEDUCTIBLE	TOTAL INCOME	TOTAL TAX		TOTAL LIAB	TOTAL INCOME	TOTAL TAX		TOTAL LIAB	TOTAL INCOME	PRODM TAX	PRODM INCOME
		8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8	8/8
1986	6.81450	451.00	4437.54	529.44	549.84	214.23	1137.47	1525.30	9.07	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987	6.78849	441.00	4487.19	520.84	499.71	228.84	1157.10	1783.61	22.07	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1988	6.77283	426.00	4239.79	492.04	354.78	237.28	1124.13	1890.51	34.47	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1989	6.74298	408.00	4057.79	472.81	334.50	233.13	1100.41	1944.41	44.87	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	6.74830	545.00	3812.79	444.96	311.42	220.04	1044.78	1889.31	53.42	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1991	6.75077	508.00	3429.39	400.44	272.68	203.24	999.01	1770.09	53.51	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1992	6.74494	453.00	3044.52	357.97	234.04	194.82	933.99	1705.27	51.06	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1993	6.74331	411.00	2780.83	325.03	209.93	185.60	931.06	1623.05	50.21	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1994	6.77249	349.00	2499.05	292.13	182.85	167.10	874.02	1443.13	48.58	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	6.74475	326.00	2205.96	257.58	159.05	148.59	815.32	1291.35	38.70	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	6.77198	283.00	1916.47	219.32	132.19	130.09	759.44	1112.23	29.93	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	6.77472	246.00	1644.58	190.38	111.21	111.58	711.75	940.45	22.31	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	6.80000	216.00	1468.80	167.28	95.91	93.08	640.99	830.29	16.17	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	6.79375	192.00	1304.40	148.45	83.25	75.25	631.02	738.10	12.74	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	6.79529	170.00	1155.20	131.31	72.11	57.42	602.85	649.10	9.32	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	7.00000	127.00	899.00	100.43	59.47	39.40	477.35	418.47	8.03	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	7.00000	113.00	791.00	89.43	53.34	25.97	400.43	349.88	5.76	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	7.00000	97.00	679.00	74.39	47.82	12.34	412.46	308.30	0.10	105.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 11-7-2
COOK INLET-SEPARATE ACCT (HB353) INCOME TAX ESTS
(8-1986 8) SENSITIVITY ANALYSIS 07/8 MHV

FISCAL YEAR	OIL GROSS MELLHEAD VALUE \$/B	OIL GROSS PRODN VOL MM/Y	OIL GROSS REV MM/Y	GAS GROSS MELLHEAD VALUE \$/BCF	GAS GROSS PRODN VOL DCF/Y	GAS GROSS REV MM/Y	TOTAL GROSS REV MM/Y	OIL ROYALTY SHARE MM/Y	GAS ROYALTY SHARE MM/Y	OIL PRODN & CONS TAX CURRENT MM/Y	OIL PRODN & CONS TAX HB353 MM/Y	GAS PRODN TAX MM/Y	PTV TAX MM/Y	OPER COSTS MM/Y	OTHER DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX LIAB MM/Y	WINDFALL PROFITS TAX MM/Y	TOTAL TAXABLE INCOME M/MPT MM/Y	TOTAL TAX LIAB M/MPT MM/Y
1986	13.00	18.03	214.39	0.79	193.45	152.83	387.22	29.30	19.10	0.27	0.27	9.09	11.00	225.54	135.74	-42.83	-4.03	0.00	-42.83	-4.03
1987	13.00	12.67	164.71	0.93	226.30	210.46	375.17	20.59	26.31	0.19	0.17	12.15	11.60	241.65	140.28	-77.66	-7.30	0.00	-77.66	-7.30
1988	13.00	10.18	132.34	1.06	255.50	270.83	403.17	16.54	33.85	0.13	0.11	15.17	12.32	241.65	142.62	-59.09	-5.55	0.00	-59.09	-5.55
1989	13.00	8.87	115.31	1.14	259.15	295.43	410.74	14.41	36.93	0.10	0.08	16.54	11.94	241.65	142.62	-53.44	-5.02	0.00	-53.44	-5.02
1990	13.00	7.15	92.95	1.32	288.35	380.62	473.57	11.62	47.58	0.07	0.06	21.31	11.55	241.65	142.62	-2.82	-0.26	0.00	-2.82	-0.26
1991	13.00	6.21	80.73	1.65	310.25	511.91	592.64	10.09	63.99	0.01	0.01	26.88	11.17	241.65	142.62	96.24	9.05	0.00	96.24	9.05
1992	13.00	5.33	69.29	1.80	324.85	584.73	654.02	8.66	73.09	0.01	0.01	30.19	10.78	241.65	142.62	147.02	13.82	0.00	147.02	13.82
1993	13.00	4.53	58.89	1.93	332.13	641.05	699.94	7.36	80.13	.00	.00	33.09	10.40	241.65	142.62	184.68	17.36	0.00	184.68	17.36
1994	13.00	3.94	51.22	2.46	324.85	799.13	850.35	6.40	99.89	.00	.00	42.65	10.01	241.65	142.62	307.12	28.87	0.00	307.12	28.87
1995	13.00	3.07	39.91	3.07	328.50	1008.50	1048.41	4.99	126.06	.00	.00	54.71	9.63	225.54	142.62	484.85	45.58	0.00	484.85	45.58
1996	13.00	3.03	39.39	3.07	332.15	1019.70	1059.09	4.92	127.46	.00	.00	56.21	9.24	209.43	142.62	509.20	47.86	0.00	509.20	47.86
1997	13.00	2.96	38.48	3.07	339.45	1042.11	1080.59	4.81	130.26	.00	.00	57.45	8.86	209.43	142.62	527.16	49.55	0.00	527.16	49.55
1998	13.00	2.88	37.44	3.07	346.75	1064.52	1101.96	4.68	133.07	.00	.00	59.61	8.47	209.43	142.62	544.08	51.14	0.00	544.08	51.14
1999	13.00	2.81	36.53	3.07	343.10	1053.32	1089.85	4.57	131.66	.00	.00	58.99	8.09	209.43	142.62	534.49	50.24	0.00	534.49	50.24
2000	13.00	2.81	36.53	3.07	335.80	1030.91	1067.44	4.57	128.86	.00	.00	57.73	7.70	193.32	142.62	532.63	50.07	0.00	532.63	50.07
2001	13.00	2.77	36.01	3.07	321.20	986.08	1022.09	4.50	123.26	.00	.00	54.36	7.32	177.21	142.62	512.82	48.21	0.00	512.82	48.21
2002	13.00	2.74	35.42	3.07	324.85	997.29	1032.91	4.45	124.66	.00	.00	54.10	6.93	177.21	142.62	522.93	49.16	0.00	522.93	49.16
2003	13.00	2.94	24.18	3.07	317.55	974.88	999.06	3.02	121.86	.00	.00	52.03	6.55	177.21	142.62	495.76	46.60	0.00	495.76	46.60
2004	13.00	1.83	23.79	3.07	310.25	952.47	976.26	2.97	119.06	.00	.00	50.84	6.16	177.21	142.62	477.40	44.88	0.00	477.40	44.88
2005	13.00	1.75	22.75	3.07	306.60	941.26	964.01	2.84	117.66	.00	.00	50.24	5.78	177.21	142.62	467.66	43.96	0.00	467.66	43.96

TABLE 11-7-3

ALL PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(19-1986 01) SENSITIVITY ANALYSIS 87/8 MMV

FISCAL YEAR	NS			NS			NS			NS			CI			CI			NS+CI			NS+CI		
	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL
	GROSS REV MM\$/Y	DEDUCT MM\$/Y	TAXABLE INCOME MM\$/Y	TAX LIAO MM\$/Y	DEDUCT MM\$/Y	TAXABLE INCOME MM\$/Y	TAX LIAO MM\$/Y	DEDUCT MM\$/Y	TAXABLE INCOME MM\$/Y	TAX LIAO MM\$/Y	DEDUCT MM\$/Y	TAXABLE INCOME MM\$/Y	TAX LIAO MM\$/Y	DEDUCT MM\$/Y	TAXABLE INCOME MM\$/Y	TAX LIAO MM\$/Y	DEDUCT MM\$/Y	TAXABLE INCOME MM\$/Y	TAX LIAO MM\$/Y	COLLECT MM\$/Y	W/MPT MM\$/Y	W/MPT MM\$/Y	W/MPT MM\$/Y	W/MPT MM\$/Y
1986	4437.54	4310.36	127.18	11.95	4310.36	127.18	11.95	387.22	430.04	-42.83	0.00	430.04	-42.83	0.00	11.95	44.36	11.95	44.36						
1987	4487.19	4557.17	-69.98	0.00	4557.17	-69.98	0.00	375.17	452.83	-77.66	0.00	452.83	-77.66	0.00	0.00	2.99	0.00	2.99						
1988	4239.79	4481.22	-241.43	0.00	4481.22	-241.43	0.00	403.17	462.26	-59.09	0.00	462.26	-59.09	0.00	0.00	0.00	0.00	0.00						
1989	4057.79	4479.13	-421.34	0.00	4479.13	-421.34	0.00	410.74	464.18	-53.44	0.00	464.18	-53.44	0.00	0.00	0.00	0.00	0.00						
1990	3812.79	4329.13	-516.34	0.00	4329.13	-516.34	0.00	473.57	476.39	-2.82	0.00	476.39	-2.82	0.00	0.00	0.00	0.00	0.00						
1991	3429.39	4044.19	-614.80	0.00	4044.19	-614.80	0.00	592.64	496.40	96.24	9.05	496.40	96.24	9.05	9.05	6.78	9.05	6.78						
1992	3064.52	3824.17	-759.65	0.00	3824.17	-759.65	0.00	654.02	507.00	147.02	13.82	507.00	147.02	13.82	13.82	12.63	13.82	12.63						
1993	2780.83	3669.89	-889.06	0.00	3669.89	-889.06	0.00	699.94	515.26	184.68	17.36	515.26	184.68	17.36	17.36	16.47	17.36	16.47						
1994	2499.05	3372.82	-873.77	0.00	3372.82	-873.77	0.00	850.35	543.23	307.12	28.87	543.23	307.12	28.87	28.87	25.99	28.87	25.99						
1995	2205.96	3055.58	-849.62	0.00	3055.58	-849.62	0.00	1048.41	563.55	484.85	45.58	563.55	484.85	45.58	45.58	41.40	45.58	41.40						
1996	1916.47	2728.19	-811.72	0.00	2728.19	-811.72	0.00	1059.09	549.89	509.20	47.86	549.89	509.20	47.86	47.86	47.29	47.86	47.29						
1997	1666.58	2452.88	-786.30	0.00	2452.88	-786.30	0.00	1080.59	553.43	527.16	49.55	553.43	527.16	49.55	49.55	49.13	49.55	49.13						
1998	1468.80	2208.72	-739.92	0.00	2208.72	-739.92	0.00	1101.96	557.88	544.08	51.14	557.88	544.08	51.14	51.14	50.75	51.14	50.75						
1999	1304.40	2033.81	-729.41	0.00	2033.81	-729.41	0.00	1089.85	555.36	534.49	50.24	555.36	534.49	50.24	50.24	50.47	50.24	50.47						
2000	1155.20	1867.11	-711.91	0.00	1867.11	-711.91	0.00	1067.44	534.80	532.63	50.07	534.80	532.63	50.07	50.07	50.11	50.07	50.11						
2001	889.00	1448.75	-559.75	0.00	1448.75	-559.75	0.00	1022.89	509.27	512.82	48.21	509.27	512.82	48.21	48.21	48.67	48.21	48.67						
2002	791.00	1350.02	-559.02	0.00	1350.02	-559.02	0.00	1032.91	509.98	522.93	49.16	509.98	522.93	49.16	49.16	48.92	49.16	48.92						
2003	679.00	1202.60	-523.60	0.00	1202.60	-523.60	0.00	999.06	503.30	495.76	46.60	503.30	495.76	46.60	46.60	47.24	46.60	47.24						
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	976.26	498.86	477.40	44.88	498.86	477.40	44.88	44.88	45.31	44.88	45.31						
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	964.81	496.35	467.66	43.96	496.35	467.66	43.96	43.96	44.19	43.96	44.19						

TABLE 11-7-4
TAP5-SEPARATE ACCT (H0353) INCOME TAX ESTS
SENSITIVITY ANALYSIS 07/8 NMV
(0-1986 0)

FISCAL YEAR	TARIFF	PIPELINE	GMSS	REV	COSTS	DEPREC	AMORT &	EXPENSE	INT	TAX	REDUCT	TOTAL	TOTAL	TAX	TOTAL
1986	4.75	651.00	3091.90	259.76	268.65	409.86	188.73	1127.01	1964.89	184.70	178.71	151.23	120.20	97.38	76.70
1987	4.50	661.00	2976.41	262.11	268.65	381.77	162.71	1035.24	1901.17	178.71	151.23	120.20	97.38	76.70	57.20
1988	3.72	600.00	2234.76	239.39	268.65	337.01	111.77	955.23	1279.53	103.94	815.99	608.47	426.77	288.29	172.85
1989	3.43	565.00	1937.67	209.20	268.65	307.34	91.15	901.73	1035.94	81.99	608.53	566.79	167.07	169.23	15.70
1990	3.24	506.00	1644.92	198.14	268.65	272.65	73.43	828.93	1264.77	60.47	50.42	65.22	158.16	159.40	18.74
1991	3.06	453.00	1386.01	189.69	268.65	252.44	58.31	730.64	1484.71	42.67	37.30	48.93	137.00	140.21	20.03
1992	2.82	411.00	1157.41	189.69	268.65	226.53	45.77	730.64	1730.64	35.63	30.39	37.37	115.09	119.37	21.57
1993	2.64	369.00	975.83	181.25	268.65	204.01	35.63	689.53	2084.77	27.30	22.85	28.93	95.37	100.21	23.07
1994	2.46	326.00	827.47	172.60	268.65	186.27	27.30	654.82	2362.74	20.39	17.27	22.85	82.37	87.12	24.57
1995	2.38	283.00	673.16	161.95	268.65	169.75	20.39	622.74	2650.42	15.09	12.66	16.32	70.37	75.07	25.07
1996	2.15	246.00	528.15	150.31	268.65	153.12	15.09	593.37	2953.32	11.44	9.22	11.44	56.79	61.42	26.00
1997	1.89	216.00	408.63	149.48	268.65	136.22	11.44	566.79	3244.42	9.22	7.12	9.22	54.42	59.23	26.51
1998	1.97	192.00	377.34	149.48	268.65	120.90	9.22	544.42	3522.89	7.12	5.07	7.12	48.29	52.48	26.83
1999	1.99	170.00	353.66	141.23	268.65	105.89	7.12	522.89	3819.48	5.07	3.29	5.07	48.29	52.48	27.03
2000	2.08	127.00	304.81	137.58	268.65	91.99	5.07	498.29	4184.71	3.29	1.57	3.29	48.29	52.48	27.33
2001	2.40	113.00	284.81	126.35	268.65	82.51	3.29	484.71	4484.71	1.57	0.00	1.57	48.29	52.48	27.63
2002	2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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SENSITIVITY ANALYSIS 07/0 MHV																TOTAL				TOTAL					
FISCAL YEAR	NS		TAPS		NS+TAPS		NS+TAPS		C1		TOTAL		TOTAL		HOD		TOTAL		TOTAL		HOD		DIFF		
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL		
	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE	TAXABLE		
	INCOME	INCOME	INCOME	LIAB	M/PT	M/PT	M/PT	LIAB	M/PT	M/PT	LIAB	M/PT	LIAB	COLLECT	COLLECT	AS4320	M/PT	M/PT	COLLECT	AS4320	M/PT	M/PT	COLLECT	AS4320	
1986	127.18	1964.89	2092.06	196.65	127.18	2092.06	196.65	0.00	0.00	196.65	202.88	173.53	29.35	196.65	202.88	173.53	29.35	196.65	202.88	173.53	29.35	196.65	202.88	173.53	29.35
1987	-69.98	1901.17	1831.20	172.13	-69.98	1831.20	172.13	0.00	0.00	172.13	178.26	121.04	57.22	172.13	178.26	121.04	57.22	172.13	178.26	121.04	57.22	172.13	178.26	121.04	57.22
1988	-241.43	1609.86	1368.43	128.63	-241.43	1368.43	128.63	0.00	0.00	128.63	139.51	118.43	21.07	128.63	139.51	118.43	21.07	128.63	139.51	118.43	21.07	128.63	139.51	118.43	21.07
1989	-421.39	1279.53	858.19	80.67	-421.39	858.19	80.67	0.00	0.00	80.67	92.66	113.94	-21.28	80.67	92.66	113.94	-21.28	80.67	92.66	113.94	-21.28	80.67	92.66	113.94	-21.28
1990	-516.34	1035.94	519.60	48.84	-516.34	519.60	48.84	0.00	0.00	48.84	56.80	109.48	-52.69	48.84	56.80	109.48	-52.69	48.84	56.80	109.48	-52.69	48.84	56.80	109.48	-52.69
1991	-614.80	815.99	201.19	18.91	-614.80	201.19	18.91	9.05	9.05	27.96	33.18	103.45	-70.27	27.96	33.18	103.45	-70.27	27.96	33.18	103.45	-70.27	27.96	33.18	103.45	-70.27
1992	-759.65	608.47	-151.18	0.00	-759.65	-151.18	0.00	13.82	13.82	13.82	17.35	96.23	-78.88	13.82	17.35	96.23	-78.88	13.82	17.35	96.23	-78.88	13.82	17.35	96.23	-78.88
1993	-889.06	426.77	-462.29	0.00	-889.06	-462.29	0.00	17.36	17.36	17.36	16.47	89.73	-73.25	17.36	16.47	89.73	-73.25	17.36	16.47	89.73	-73.25	17.36	16.47	89.73	-73.25
1994	-873.77	286.29	-587.47	0.00	-873.77	-587.47	0.00	28.87	28.87	28.87	25.99	83.72	-57.73	28.87	25.99	83.72	-57.73	28.87	25.99	83.72	-57.73	28.87	25.99	83.72	-57.73
1995	-849.62	172.65	-676.97	0.00	-849.62	-676.97	0.00	45.58	45.58	45.58	41.40	77.56	-36.16	45.58	41.40	77.56	-36.16	45.58	41.40	77.56	-36.16	45.58	41.40	77.56	-36.16
1996	-811.72	50.42	-761.31	0.00	-811.72	-761.31	0.00	47.86	47.86	47.86	47.29	71.38	-24.09	47.86	47.29	71.38	-24.09	47.86	47.29	71.38	-24.09	47.86	47.29	71.38	-24.09
1997	-786.30	-65.22	-851.52	0.00	-786.30	-851.52	0.00	49.55	49.55	49.55	49.13	65.59	-16.46	49.55	49.13	65.59	-16.46	49.55	49.13	65.59	-16.46	49.55	49.13	65.59	-16.46
1998	-739.92	-158.16	-898.08	0.00	-739.92	-898.08	0.00	51.14	51.14	51.14	50.75	60.59	-9.85	51.14	50.75	60.59	-9.85	51.14	50.75	60.59	-9.85	51.14	50.75	60.59	-9.85
1999	-729.41	-167.07	-896.49	0.00	-729.41	-896.49	0.00	50.24	50.24	50.24	50.47	56.30	-5.83	50.24	50.47	56.30	-5.83	50.24	50.47	56.30	-5.83	50.24	50.47	56.30	-5.83
2000	-711.91	-189.23	-901.14	0.00	-711.91	-901.14	0.00	50.07	50.07	50.07	50.11	52.36	-2.25	50.07	50.11	52.36	-2.25	50.07	50.11	52.36	-2.25	50.07	50.11	52.36	-2.25
2001	-559.75	-193.48	-753.23	0.00	-559.75	-753.23	0.00	48.21	48.21	48.21	48.67	46.80	1.87	48.21	48.67	46.80	1.87	48.21	48.67	46.80	1.87	48.21	48.67	46.80	1.87
2002	-559.02	-199.40	-758.42	0.00	-559.02	-758.42	0.00	49.16	49.16	49.16	48.92	42.02	6.90	49.16	48.92	42.02	6.90	49.16	48.92	42.02	6.90	49.16	48.92	42.02	6.90
2003	-523.60	-213.06	-736.66	0.00	-523.60	-736.66	0.00	46.60	46.60	46.60	47.24	39.07	8.17	46.60	47.24	39.07	8.17	46.60	47.24	39.07	8.17	46.60	47.24	39.07	8.17
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.88	44.88	44.88	45.31	23.56	21.75	44.88	45.31	23.56	21.75	44.88	45.31	23.56	21.75	44.88	45.31	23.56	21.75
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.96	43.96	43.96	44.19	10.48	33.71	43.96	44.19	10.48	33.71	43.96	44.19	10.48	33.71	43.96	44.19	10.48	33.71

TABLE 11-7-4

CURRENT LAW-MODIFIED APPORTIONMENT (AS4320) INCOME TAX ESTS
(8-1986)

SENSITIVITY ANALYSIS 57/B NHV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR				
FISCAL YEAR	TOTAL		CHG		CALENDAR YEAR	TOP 3 COMPANIES				FISCAL YEAR	TOTAL AK TAX COLLECT NHV/Y			
	NHV/Y EQUIV	OIL & GAS PRODN	TOTAL AK OIL & GAS PRODN	APPMT FACOR CHG FACOR		NHV/Y PROFIT	AK TAXABLE INCOME NHV/Y	AK TAX LTD NHV/Y	TOTAL AK TAX LTD NHV/Y					
1986	696.67	0.0000	0.0000	0.2787	1986	4160.50	1159.53	109.00	121.11	1986	173.53			
1987	706.00	1.3396	1.0087	0.2783	1987	4160.50	1157.93	108.85	120.94	1987	121.04			
1988	672.68	-4.7194	0.9693	0.2671	1988	4160.50	1111.19	104.45	116.06	1988	118.43			
1989	645.89	-3.9824	0.9741	0.2576	1989	4160.50	1071.60	100.73	111.92	1989	113.94			
1990	613.34	-5.0393	0.9672	0.2466	1990	4160.50	1026.13	96.46	107.17	1990	109.48			
1991	558.53	-8.9365	0.9419	0.2300	1991	4160.50	956.86	89.95	99.94	1991	103.45			
1992	504.74	-9.6314	0.9374	0.2134	1992	4160.50	887.99	83.47	92.75	1992	96.23			
1993	462.98	-8.2730	0.9462	0.1999	1993	4160.50	831.84	78.19	86.88	1993	89.73			
1994	419.35	-9.4244	0.9387	0.1858	1994	4160.50	773.07	72.67	80.74	1994	83.72			
1995	376.00	-10.3372	0.9328	0.1716	1995	4160.50	713.92	67.11	74.56	1995	77.56			
1996	333.48	-11.3082	0.9265	0.1574	1996	4160.50	654.83	61.55	68.39	1996	71.38			
1997	297.45	-10.8034	0.9298	0.1449	1997	4160.50	602.75	56.66	62.95	1997	65.59			
1998	268.42	-9.7619	0.9365	0.1343	1998	4160.50	558.86	52.53	58.37	1998	60.59			
1999	243.82	-9.1617	0.9404	0.1251	1999	4160.50	520.33	48.91	54.35	1999	56.30			
2000	220.78	-9.4506	0.9386	0.1162	2000	4160.50	483.48	45.45	50.50	2000	52.36			
2001	175.66	-20.4391	0.8671	0.0998	2001	4160.50	415.05	39.02	43.35	2001	46.80			
2002	162.15	-7.6994	0.9500	0.0938	2002	4160.50	390.36	36.69	40.77	2002	42.02			
2003	144.22	-11.0535	0.9282	0.0862	2003	4160.50	358.69	33.72	37.46	2003	39.07			
2004	46.15	-88.0002	0.2860	0.0244	2004	4160.50	101.56	9.55	10.61	2004	23.56			
2005	45.55	-1.3032	0.9863	0.0238	2005	4160.50	99.17	9.32	10.36	2005	10.48			

TABLE 11-7-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)

PRODUCTION TAX-15% NET NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% NET NOMINAL RATE

BEGINNING IN CY 1987

(1-1986)

SENSITIVITY ANALYSIS 87/8 HW

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT	CURRENT LAW MM/Y	HB353 MM/Y	DIFF HB353 LESS CURRENT
			MM/Y			MM/Y			MM/Y
1986	173.53	202.00	29.35	550.40	550.40	0.00	732.02	761.37	29.35
1987	121.04	170.26	57.22	560.32	511.30	-49.01	681.36	689.57	8.20
1988	118.43	139.51	21.07	444.00	371.36	-72.72	562.52	510.87	-51.65
1989	113.94	92.66	-21.28	419.44	352.46	-66.98	533.30	445.12	-88.26
1990	109.48	56.80	-52.69	392.86	332.17	-60.69	502.34	388.97	-113.37
1991	103.45	33.18	-70.27	355.61	299.00	-56.61	459.06	332.10	-126.96
1992	96.23	17.35	-78.88	315.28	265.73	-49.54	411.51	283.09	-128.42
1993	89.73	16.47	-73.25	286.61	242.57	-44.03	376.33	259.05	-117.28
1994	83.72	25.99	-57.73	263.73	225.10	-38.63	347.45	251.10	-96.35
1995	77.56	41.40	-36.16	246.74	213.40	-33.34	324.30	254.00	-69.50
1996	71.38	47.29	-24.09	216.10	188.09	-28.01	287.48	235.38	-52.10
1997	65.59	49.13	-16.46	191.96	168.39	-23.57	257.55	217.52	-40.04
1998	60.59	50.75	-9.85	175.71	155.29	-20.42	236.31	206.04	-30.27
1999	56.30	50.47	-5.83	159.67	142.03	-17.64	215.96	192.49	-23.47
2000	52.36	50.11	-2.25	144.95	129.65	-15.30	197.32	179.76	-17.55
2001	46.80	48.67	1.87	127.01	113.69	-13.32	173.81	162.36	-11.45
2002	42.02	48.92	6.90	119.29	107.34	-11.95	161.31	156.26	-5.06
2003	39.07	47.24	8.17	110.46	99.75	-10.71	149.52	146.99	-2.54
2004	23.56	45.31	21.75	50.84	50.84	0.00	74.39	96.14	21.75
2005	10.48	44.19	33.71	50.24	50.24	0.00	60.72	94.43	33.71
SUM86-05	1555.27	1286.59	-268.68	5189.38	4576.88	-612.49	6744.64	5863.47	-881.17

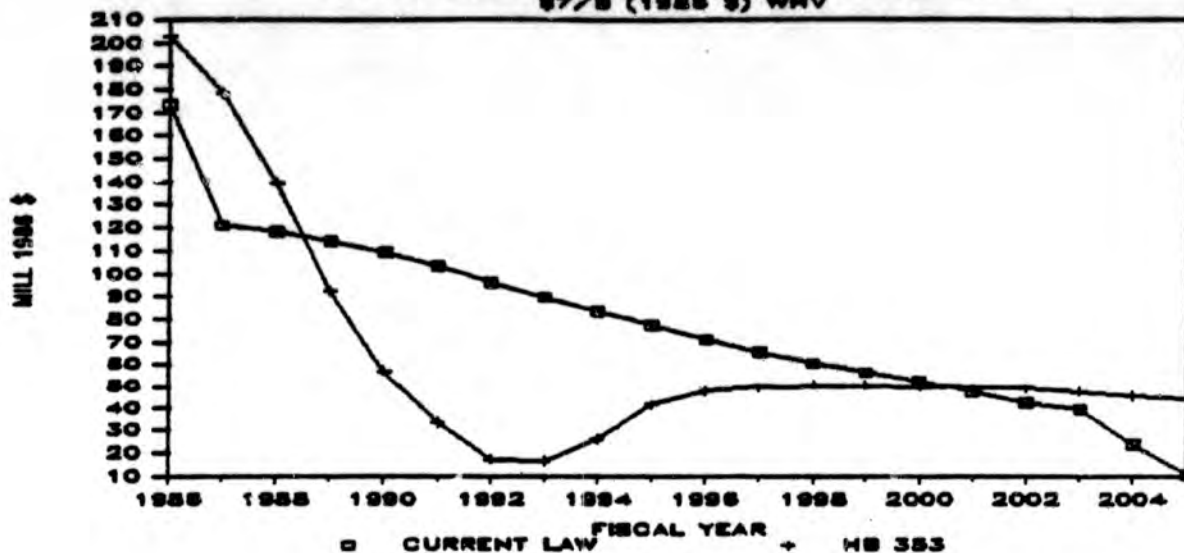
TABLE 11-7-8
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1986-1994) SENSITIVITY ANALYSIS 67/8 MHV

FISCAL YEAR	TOTAL PETRO PRODN GROSS INCOME MM/Y	TOTAL PETRO PRODN NON TAX DEDUCTS MM/Y	TOTAL PETRO PRODN NET INCOME MM/Y	CURRENT LAN STATE PETRO PRODN REVENUE MM/Y	REVENUE VS NET INCOME %	H0353 STATE PETRO PRODN REVENUE MM/Y	REVENUE VS NET INCOME %
1986	4824.76	3378.12	1446.64	1535.82	106.16	1426.64	98.62
1987	4862.36	3689.70	1172.66	1490.36	127.09	1323.29	112.85
1988	4642.96	3778.38	864.58	1356.26	156.87	1165.11	134.76
1989	4448.53	3820.96	647.57	1303.27	201.26	1122.35	173.32
1990	4286.36	3736.97	549.39	1238.71	225.47	1068.54	194.50
1991	4022.03	3551.88	470.15	1148.77	244.34	995.50	211.74
1992	3718.54	3419.60	298.94	1057.34	353.69	924.19	309.15
1993	3480.77	3333.60	147.17	985.31	669.50	868.03	589.81
1994	3349.40	3115.00	234.40	923.39	393.94	827.04	352.84
1995	3254.37	2858.52	395.84	871.52	220.17	802.01	282.61
1996	2975.56	2598.65	376.91	778.83	206.64	726.73	192.81
1997	2747.17	2391.76	355.41	703.72	198.00	663.68	186.74
1998	2570.76	2204.50	366.26	643.11	175.59	612.84	167.32
1999	2394.25	2078.91	315.33	584.20	185.26	560.73	177.82
2000	2272.64	1942.21	280.43	527.37	188.06	509.82	181.80
2001	1911.09	1568.89	342.20	449.26	131.28	437.80	127.94
2002	1823.91	1501.10	322.81	412.87	127.90	407.82	126.33
2003	1678.06	1385.89	292.17	369.79	126.56	367.25	125.70
2004	976.26	319.83	656.43	202.59	30.86	224.34	34.18
2005	964.01	319.83	644.18	187.00	29.03	220.71	34.26

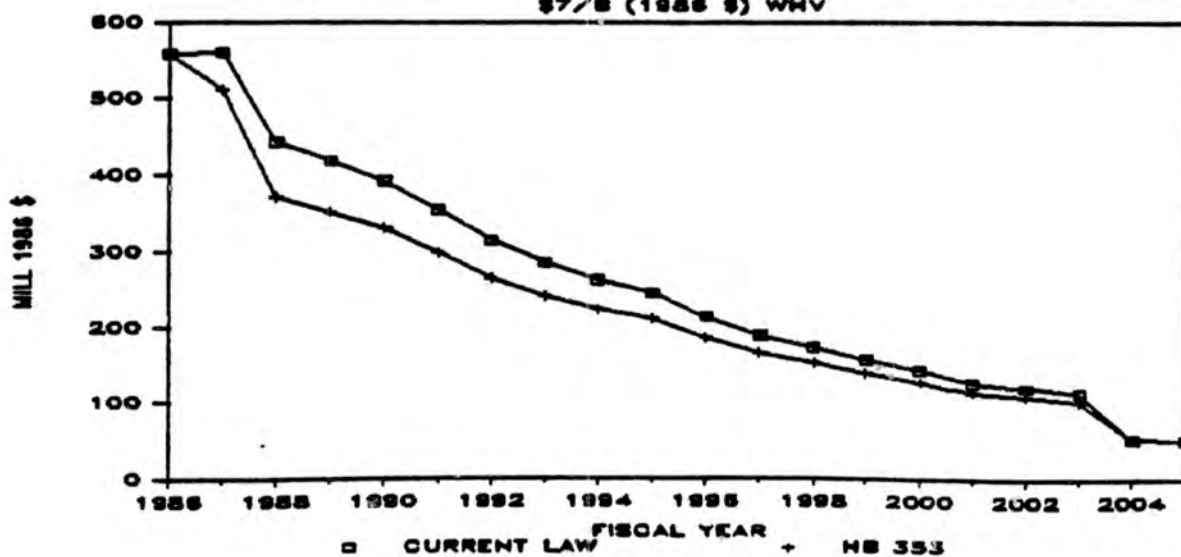
TABLE 11-7-9
 PERCENTAGE SHARE COMPARISON
 CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
 AS A PERCENTAGE OF
 PETROLEUM PRODUCTION & PIPELINE NET INCOME
 (1986-2005)

FISCAL YEAR	SENSITIVITY ANALYSIS 87/8 WHV			CURRENT		HB353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME MM\$/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN & PIPE NET INCOME MM\$/Y	LAW STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	7916.65	4316.39	3600.26	1724.55	47.90	1753.90	48.72
1987	7838.77	4602.23	3236.54	1653.07	51.08	1661.27	51.33
1988	7262.94	4652.61	2610.34	1492.16	57.16	1440.51	55.18
1989	6703.29	4664.42	2038.87	1415.04	69.40	1326.78	65.97
1990	6224.03	4547.55	1676.48	1329.86	79.32	1216.49	72.56
1991	5666.95	4307.38	1359.57	1222.20	89.90	1095.32	80.56
1992	5104.55	4138.82	965.73	1115.65	115.52	987.23	102.23
1993	4638.18	4018.47	619.71	1031.08	166.38	913.80	147.46
1994	4325.23	3768.91	556.31	959.02	172.39	862.67	155.07
1995	4081.84	3486.04	595.80	898.82	150.86	829.32	139.19
1996	3648.72	3201.00	447.72	799.22	178.51	747.11	166.87
1997	3275.32	2970.04	305.28	718.81	235.46	678.77	222.34
1998	2979.39	2759.85	219.54	654.56	298.15	624.29	284.36
1999	2771.59	2614.11	157.48	593.42	376.83	569.94	361.92
2000	2576.30	2457.98	118.32	534.49	451.72	516.94	436.88
2001	2215.90	2062.11	153.79	454.32	295.42	442.87	287.97
2002	2108.72	1982.03	126.69	416.16	328.47	411.10	324.48
2003	1938.00	1857.31	80.69	371.36	460.25	368.83	457.11
2004	976.26	319.83	656.43	202.59	30.86	224.34	34.18
2005	964.01	319.83	644.18	187.00	29.03	220.71	34.26

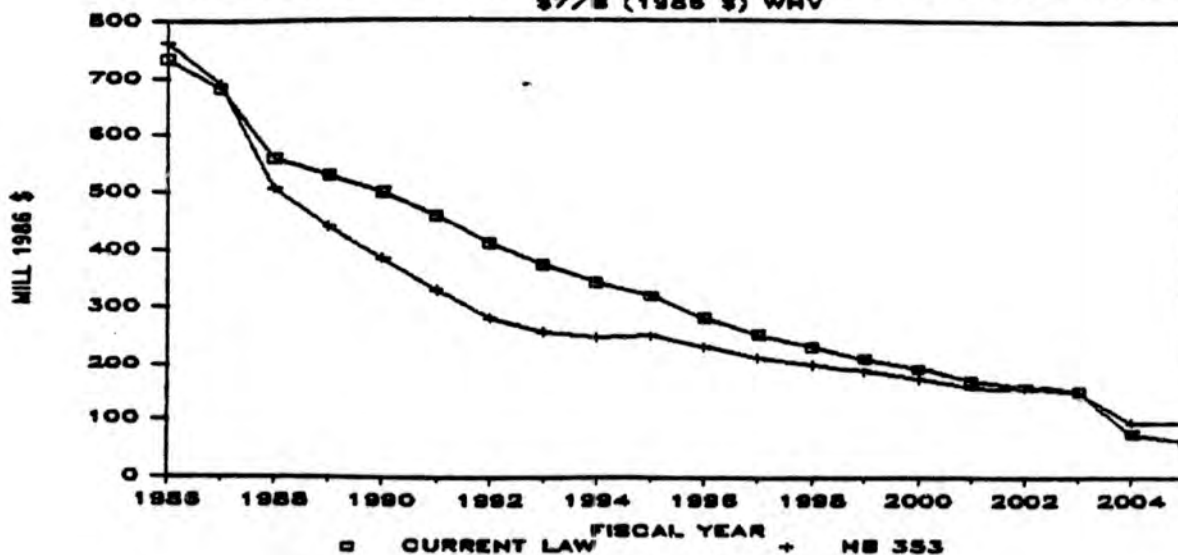
GRAPH II-7-1
INCOME TAX COMPARISON
\$7/B (1986 \$) WHV



GRAPH II-7-2
PRODUCTION TAX COMPARISON
\$7/B (1986 \$) WHV



GRAPH II-7-3
INCOME + PRDN TAX COMPARISON
\$7/B (1986 \$) WHV



SECTION II-5

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$5/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-5-1
ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (NOB533) INCOME TAX ESTS
(19-1990 #) SENSITIVITY ANALYSIS 85/90 MW

[illegible]

TABLE 11-5-2

COOK INLET-SEPARATE ACCT (H0353) INCOME TAX ESTS
10-1986 01 SENSITIVITY ANALYSIS 05/0 MW

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/B	OIL GROSS PROD VOL MM/Y	OIL GROSS REV MM/Y	GAS GROSS WELLHEAD VALUE \$/MCF	GAS GROSS PROD VOL BCF/Y	GAS GROSS REV MM/Y	TOTAL GROSS REV MM/Y	OIL ROYALTY SHARE MM/Y	GAS ROYALTY SHARE MM/Y	OIL PROD & CONS TAX CURRENT MM/Y	OIL PROD & CONS TAX H0353 MM/Y	GAS PROD TAX MM/Y	PTY TAX MM/Y	OPER COSTS MM/Y	OTHER DEDUCT MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX LIAB MM/Y	WINDFALL PROFITS TAX MM/Y	TOTAL TAXABLE INCOME MM/Y	TOTAL TAX LIAB MM/Y
1986	11.00	10.03	198.33	0.79	193.45	152.03	351.16	24.79	19.10	0.23	0.23	9.09	11.00	225.54	135.74	-74.34	-6.99	0.00	-74.34	-6.99
1987	11.00	12.67	139.37	0.93	226.30	210.46	349.83	17.42	26.31	0.16	0.15	12.15	11.68	241.65	140.28	-99.81	-9.38	0.00	-99.81	-9.38
1988	11.00	10.10	111.90	1.06	255.50	270.03	302.01	14.00	33.05	0.11	0.10	15.17	12.32	241.65	142.62	-76.89	-7.23	0.00	-76.89	-7.23
1989	11.00	8.07	97.57	1.14	259.15	295.43	393.00	12.20	36.93	0.09	0.07	16.54	11.94	241.65	142.62	-68.95	-6.48	0.00	-68.95	-6.48
1990	11.00	7.15	78.65	1.32	289.35	380.62	459.27	9.03	47.50	0.06	0.05	21.31	11.55	241.65	142.62	-15.32	-1.44	0.00	-15.32	-1.44
1991	11.00	6.21	68.31	1.65	310.25	511.91	500.22	8.54	63.99	0.01	0.01	26.88	11.17	241.65	142.62	85.37	8.03	0.00	85.37	8.03
1992	11.00	5.33	58.63	1.80	324.85	584.73	643.36	7.33	73.09	0.01	0.01	30.19	10.78	241.65	142.62	137.70	12.94	0.00	137.70	12.94
1993	11.00	4.53	49.03	1.93	332.15	641.05	690.88	6.23	80.13	.00	.00	33.09	10.40	241.65	142.62	176.75	16.61	0.00	176.75	16.61
1994	11.00	3.94	43.34	2.46	324.85	799.13	842.47	5.42	99.89	.00	.00	42.65	10.01	241.65	142.62	300.22	28.22	0.00	300.22	28.22
1995	11.00	3.07	33.77	3.07	328.50	1008.50	1042.27	4.22	126.06	.00	.00	54.71	9.63	225.54	142.62	479.48	45.07	0.00	479.48	45.07
1996	11.00	3.03	33.33	3.07	332.15	1019.70	1053.03	4.17	127.46	.00	.00	56.21	9.24	209.43	142.62	503.90	47.37	0.00	503.90	47.37
1997	11.00	2.96	32.56	3.07	339.45	1042.11	1074.67	4.07	130.26	.00	.00	57.45	8.86	209.43	142.62	521.98	49.07	0.00	521.98	49.07
1998	11.00	2.88	31.68	3.07	346.75	1064.52	1096.20	3.96	133.07	.00	.00	59.61	8.47	209.43	142.62	539.04	50.67	0.00	539.04	50.67
1999	11.00	2.81	30.91	3.07	343.10	1053.32	1084.23	3.86	131.66	.00	.00	58.99	8.09	209.43	142.62	529.57	49.78	0.00	529.57	49.78
2000	11.00	2.81	30.91	3.07	335.80	1030.91	1061.82	3.86	128.86	.00	.00	57.73	7.70	193.32	142.62	527.72	49.61	0.00	527.72	49.61
2001	11.00	2.77	30.17	3.07	321.20	986.08	1016.55	3.81	123.26	.00	.00	54.36	7.32	177.21	142.62	507.97	47.75	0.00	507.97	47.75
2002	11.00	2.74	30.14	3.07	324.85	997.29	1027.43	3.77	124.66	.00	.00	54.10	6.93	177.21	142.62	518.13	48.70	0.00	518.13	48.70
2003	11.00	1.86	20.46	3.07	317.55	974.88	995.34	2.56	121.86	.00	.00	52.03	6.55	177.21	142.62	492.51	46.30	0.00	492.51	46.30
2004	11.00	1.83	20.13	3.07	310.25	952.47	972.60	2.52	119.06	.00	.00	50.84	6.16	177.21	142.62	474.19	44.57	0.00	474.19	44.57
2005	11.00	1.75	19.25	3.07	306.60	941.26	960.51	2.41	117.66	.00	.00	50.24	5.78	177.21	142.62	464.60	43.67	0.00	464.60	43.67

TABLE 11-5-3

ALL PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(1-1986 8)

SENSITIVITY ANALYSIS 05/0 HNV

FISCAL YEAR	NS			NS			NS			CI			CI			NS+CI			NS+CI		
	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	CI	TOTAL	CI	TOTAL	TOTAL	NS+CI	NS+CI	TOTAL	TOTAL			
	GROSS	DEDUCT	TAXABLE	TAX	DEDUCT	INCOME	LIAB	W/MPT	INCOME	LIAB	GROSS	DEDUCT	TAXABLE	TAX	LIAB	W/MPT	TAX	LIAB			
	REV										REV						COLLECT				
	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y	MM\$/Y			
1986	3120.54	4174.69	-1054.15	0.00	4174.69	-1054.15	0.00	351.16	425.50	-74.34	0.00	425.50	-74.34	0.00	0.00	55.39	0.00	55.39			
1987	3110.19	4418.64	-1308.45	0.00	4418.64	-1308.45	0.00	349.83	449.64	-99.81	0.00	449.64	-99.81	0.00	0.00	0.00	0.00	0.00			
1988	2877.79	4286.92	-1409.13	0.00	4286.92	-1409.13	0.00	382.81	459.70	-76.89	0.00	459.70	-76.89	0.00	0.00	0.00	0.00	0.00			
1989	2692.79	4183.42	-1490.63	0.00	4183.42	-1490.63	0.00	393.00	461.95	-68.95	0.00	461.95	-68.95	0.00	0.00	0.00	0.00	0.00			
1990	2487.79	3973.25	-1485.46	0.00	3973.25	-1485.46	0.00	459.27	474.59	-15.32	0.00	474.59	-15.32	0.00	0.00	0.00	0.00	0.00			
1991	2218.39	3633.18	-1414.79	0.00	3633.18	-1414.79	0.00	580.22	494.85	85.37	8.03	494.85	85.37	8.03	8.03	6.02	8.03	6.02			
1992	1963.52	3314.64	-1351.12	0.00	3314.64	-1351.12	0.00	643.36	505.66	137.70	12.94	505.66	137.70	12.94	12.94	11.71	12.94	11.71			
1993	1737.43	3037.02	-1299.59	0.00	3037.02	-1299.59	0.00	690.88	514.13	176.75	16.61	514.13	176.75	16.61	16.61	15.70	16.61	15.70			
1994	1525.85	2734.69	-1208.84	0.00	2734.69	-1208.84	0.00	842.47	542.25	300.22	28.22	542.25	300.22	28.22	28.22	25.32	28.22	25.32			
1995	1349.96	2489.22	-1139.26	0.00	2489.22	-1139.26	0.00	1042.27	562.79	479.48	45.07	562.79	479.48	45.07	45.07	40.86	45.07	40.86			
1996	1181.47	2240.17	-1058.70	0.00	2240.17	-1058.70	0.00	1053.03	549.13	503.90	47.37	549.13	503.90	47.37	47.37	46.79	47.37	46.79			
1997	1035.58	2029.62	-994.04	0.00	2029.62	-994.04	0.00	1074.67	552.69	521.98	49.07	552.69	521.98	49.07	49.07	48.64	49.07	48.64			
1998	917.80	1831.16	-913.36	0.00	1831.16	-913.36	0.00	1096.20	557.16	539.04	50.67	557.16	539.04	50.67	50.67	50.27	50.67	50.27			
1999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1084.23	554.66	529.57	49.78	554.66	529.57	49.78	49.78	50.00	49.78	50.00			
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1061.82	534.10	527.72	49.61	534.10	527.72	49.61	49.61	49.65	49.61	49.65			
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1016.55	508.58	507.97	47.75	508.58	507.97	47.75	47.75	48.21	47.75	48.21			
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1027.43	509.29	518.13	48.70	509.29	518.13	48.70	48.70	48.47	48.70	48.47			
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	995.34	502.83	492.51	46.30	502.83	492.51	46.30	46.30	46.90	46.30	46.90			
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	972.60	498.40	474.19	44.57	498.40	474.19	44.57	44.57	45.00	44.57	45.00			
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	960.51	495.92	464.60	43.67	495.92	464.60	43.67	43.67	43.90	43.67	43.90			

TABLE 11-5-4
TAPS-SEPARAT
(8-1986 9)

[illegible]

TABLE 11-5-3

PRODUCTION, PIPELINE & EXPLORATION-SEPARATE ACCT (HB353) INCOME TAX ESTS (6-1986-0)														SENSITIVITY ANALYSIS 45/0 UNV				TOTAL				TOTAL				TOTAL			
NS		TAPS		NS+TAPS		NS+TAPS		TOTAL		CI		CI		TOTAL		MOD		TOTAL		TOTAL		TOTAL		MOD		DIFF			
TOTAL		TOTAL		TOTAL		TOTAL		TAXABLE		TAXABLE		TAXABLE		TAX		APPN		TAX		TAX		APPN		H/MP					
TAXABLE		TAXABLE		TAXABLE		TAX		INCOME		INCOME		LIAB		LIAB		LESS		LIAB		COLLECT		COLLECT		LESS					
INCOME		INCOME		INCOME		LIAB		H/MP		H/MP		H/MP		H/MP		AS4320		H/MP		H/MP		H/MP		AS4320					
FISCAL	YEAR	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y	NS/0/Y				
1986	-1054.15	1964.92	910.76	85.61	-1054.15	910.76	85.61	0.00	0.00	85.61	119.60	163.74	-44.14	85.61	119.60	163.74	-44.14	85.61	119.60	163.74	-44.14	85.61	119.60	163.74	-44.14				
1987	-1308.45	1901.17	592.73	55.72	-1308.45	592.73	55.72	0.00	0.00	55.72	63.19	101.77	-38.58	55.72	63.19	101.77	-38.58	55.72	63.19	101.77	-38.58	55.72	63.19	101.77	-38.58				
1988	-1409.13	1609.86	200.73	18.87	-1409.13	200.73	18.87	0.00	0.00	18.87	28.08	98.66	-70.58	18.87	28.08	98.66	-70.58	18.87	28.08	98.66	-70.58	18.87	28.08	98.66	-70.58				
1989	-1490.63	1279.53	-211.09	0.00	-1490.63	-211.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	93.81	-89.09	0.00	4.72	93.81	-89.09	0.00	4.72	93.81	-89.09	0.00	4.72	93.81	-89.09	
1990	-1485.46	1004.77	-480.69	0.00	-1485.46	-480.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.22	-89.22	0.00	0.00	89.22	-89.22	0.00	0.00	89.22	-89.22	0.00	0.00	89.22	-89.22	0.00	0.00
1991	-1414.79	784.82	-629.97	0.00	-1414.79	-629.97	0.00	8.03	8.03	8.03	6.02	83.77	-77.75	8.03	6.02	83.77	-77.75	8.03	6.02	83.77	-77.75	8.03	6.02	83.77	-77.75	8.03	6.02	83.77	-77.75
1992	-1351.12	577.30	-773.82	0.00	-1351.12	-773.82	0.00	12.94	12.94	12.94	11.71	77.57	-65.86	12.94	11.71	77.57	-65.86	12.94	11.71	77.57	-65.86	12.94	11.71	77.57	-65.86	12.94	11.71	77.57	-65.86
1993	-1299.59	390.80	-908.78	0.00	-1299.59	-908.78	0.00	16.61	16.61	16.61	15.70	71.65	-55.95	16.61	15.70	71.65	-55.95	16.61	15.70	71.65	-55.95	16.61	15.70	71.65	-55.95	16.61	15.70	71.65	-55.95
1994	-1208.84	247.93	-960.91	0.00	-1208.84	-960.91	0.00	28.22	28.22	28.22	25.32	66.00	-40.68	28.22	25.32	66.00	-40.68	28.22	25.32	66.00	-40.68	28.22	25.32	66.00	-40.68	28.22	25.32	66.00	-40.68
1995	-1139.26	139.08	-1000.18	0.00	-1139.26	-1000.18	0.00	45.07	45.07	45.07	40.86	60.83	-19.97	45.07	40.86	60.83	-19.97	45.07	40.86	60.83	-19.97	45.07	40.86	60.83	-19.97	45.07	40.86	60.83	-19.97
1996	-1058.70	22.45	-1036.26	0.00	-1058.70	-1036.26	0.00	47.37	47.37	47.37	46.79	56.17	-9.38	47.37	46.79	56.17	-9.38	47.37	46.79	56.17	-9.38	47.37	46.79	56.17	-9.38	47.37	46.79	56.17	-9.38
1997	-994.04	88.40	-1082.44	0.00	-994.04	-1082.44	0.00	49.07	49.07	49.07	48.64	51.87	-3.23	49.07	48.64	51.87	-3.23	49.07	48.64	51.87	-3.23	49.07	48.64	51.87	-3.23	49.07	48.64	51.87	-3.23
1998	-913.36	-178.14	-1091.51	0.00	-913.36	-1091.51	0.00	50.67	50.67	50.67	50.27	48.12	2.15	50.67	50.27	48.12	2.15	50.67	50.27	48.12	2.15	50.67	50.27	48.12	2.15	50.67	50.27	48.12	2.15
1999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.78	49.78	49.78	50.00	26.51	23.49	49.78	50.00	26.51	23.49	49.78	50.00	26.51	23.49	49.78	50.00	26.51	23.49	49.78	50.00	26.51	23.49
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.61	49.61	49.61	49.65	7.85	41.80	49.61	49.65	7.85	41.80	49.61	49.65	7.85	41.80	49.61	49.65	7.85	41.80	49.61	49.65	7.85	41.80
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.75	47.75	47.75	48.21	7.52	40.70	47.75	48.21	7.52	40.70	47.75	48.21	7.52	40.70	47.75	48.21	7.52	40.70	47.75	48.21	7.52	40.70
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.70	48.70	48.70	48.47	7.32	41.15	48.70	48.47	7.32	41.15	48.70	48.47	7.32	41.15	48.70	48.47	7.32	41.15	48.70	48.47	7.32	41.15
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.30	46.30	46.30	46.90	7.13	39.77	46.30	46.90	7.13	39.77	46.30	46.90	7.13	39.77	46.30	46.90	7.13	39.77	46.30	46.90	7.13	39.77
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.57	44.57	44.57	43.00	6.83	38.18	44.57	43.00	6.83	38.18	44.57	43.00	6.83	38.18	44.57	43.00	6.83	38.18	44.57	43.00	6.83	38.18
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.67	43.67	43.67	43.90	6.63	37.26	43.67	43.90	6.63	37.26	43.67	43.90	6.63	37.26	43.67	43.90	6.63	37.26	43.67	43.90	6.63	37.26

TABLE 11-5-6
CURRENT LAW-MODIFIED APPORTIONMENT (AS4320) INCOME TAX ESTS
(8-19864)

SENSITIVITY ANALYSIS 45/D MMV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
					TOP 3 COMPANIES						
FISCAL YEAR	TOTAL AK OIL & GAS PROD MMB/Y	CHG TOTAL AK OIL & GAS PROD MMB/Y	APPMT FACTOR CHG FACTOR	NET PROFIT APPMT FACTOR	CALENDAR YEAR	MM NET PROFIT MMB/Y	AK TAXABLE INCOME MMB/Y	AK TAX LIAB MMB/Y	TOTAL TAX LIAB MMB/Y	FISCAL YEAR	TOTAL AK TAX COLLECT MMB/Y
	EQUIV	%									
1986	693.67	0.0000	0.0000	0.2787	1986	3511.50	978.66	91.99	102.22	1986	163.73
1987	695.00	0.1921	1.0012	0.2763	1987	3511.50	970.00	91.19	101.32	1987	101.77
1988	650.68	-6.3768	0.9586	0.2622	1988	3511.50	920.57	86.53	96.15	1988	98.66
1989	612.89	-3.8076	0.9623	0.2497	1989	3511.50	876.96	82.43	91.59	1989	93.81
1990	574.34	-6.2896	0.9591	0.2371	1990	3511.50	832.70	78.27	86.97	1990	89.22
1991	519.53	-9.5433	0.9380	0.2202	1991	3511.50	773.23	72.68	80.76	1991	83.77
1992	465.74	-10.3544	0.9327	0.2033	1992	3511.50	713.98	67.11	74.57	1992	77.57
1993	417.98	-10.2541	0.9333	0.1879	1993	3511.50	659.73	62.01	68.91	1993	71.65
1994	371.35	-11.1567	0.9275	0.1725	1994	3511.50	605.77	56.94	63.27	1994	66.00
1995	334.00	-10.0576	0.9346	0.1596	1995	3511.50	560.50	52.69	58.54	1995	60.83
1996	298.48	-10.6343	0.9309	0.1471	1996	3511.50	516.54	48.56	53.95	1996	56.17
1997	268.45	-10.0600	0.9346	0.1361	1997	3511.50	477.94	44.93	49.92	1997	51.87
1998	243.42	-9.3265	0.9394	0.1266	1998	3511.50	444.48	41.78	46.42	1998	48.12
1999	51.82	-78.7096	0.1735	0.0217	1999	3511.50	76.37	7.18	7.98	1999	26.51
2000	50.78	-2.0123	0.9789	0.0211	2000	3511.50	74.01	6.96	7.73	2000	7.85
2001	48.66	-4.1860	0.9560	0.0199	2001	3511.50	70.05	6.58	7.32	2001	7.52
2002	49.15	1.0100	1.0106	0.0200	2002	3511.50	70.08	6.59	7.32	2002	7.32
2003	47.22	-3.9124	0.9589	0.0189	2003	3511.50	66.53	6.25	6.95	2003	7.13
2004	46.15	-2.2718	0.9761	0.0183	2004	3511.50	64.29	6.04	6.72	2004	6.83
2005	45.55	-1.3032	0.9843	0.0179	2005	3511.50	62.78	5.90	6.56	2005	6.63

TABLE 11-5-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)
 PRODUCTION TAX-15% MAX NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING
 PRODUCTION TAX-12.25% MAX NOMINAL RATE
 BEGINNING IN CY 1987

(1986)	SENSITIVITY ANALYSIS 05/8 MMV INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT	DIFF HB353 LESS CURRENT		CURRENT	DIFF HB353 LESS CURRENT		CURRENT	DIFF HB353 LESS CURRENT	
FISCAL YEAR	LAW MM/Y	HB353 MM/Y	MM/Y	LAW MM/Y	HB353 MM/Y	MM/Y	LAW MM/Y	HB353 MM/Y	MM/Y
1986	163.74	119.60	-44.14	434.04	434.04	0.00	597.79	553.65	-44.14
1987	101.77	63.19	-38.58	432.16	432.15	-0.01	533.94	495.34	-38.59
1988	98.66	28.08	-70.58	339.13	339.11	-0.02	437.79	367.19	-70.60
1989	93.81	4.72	-89.09	316.72	316.70	-0.01	410.53	321.42	-89.10
1990	89.22	0.00	-89.22	295.40	295.39	-0.01	384.62	295.39	-89.23
1991	83.77	6.02	-77.75	264.66	264.66	0.00	348.43	270.68	-77.75
1992	77.57	11.71	-65.86	234.21	234.21	0.00	311.78	245.93	-65.86
1993	71.65	15.70	-55.95	209.24	209.24	0.00	280.89	224.94	-55.95
1994	66.00	25.32	-40.68	192.06	192.06	0.00	258.06	217.38	-40.68
1995	60.83	40.86	-19.97	185.19	185.19	0.00	246.02	226.05	-19.97
1996	56.17	46.79	-9.38	165.30	165.30	0.00	221.47	212.09	-9.38
1997	51.87	48.64	-3.23	150.17	150.17	0.00	202.04	198.81	-3.23
1998	48.12	50.27	2.15	139.99	139.99	0.00	188.11	190.26	2.15
1999	26.51	50.00	23.49	58.99	58.99	0.00	85.50	108.99	23.49
2000	7.85	49.65	41.80	57.73	57.73	0.00	65.58	107.38	41.80
2001	7.52	48.21	40.70	54.36	54.36	0.00	61.87	102.57	40.70
2002	7.32	48.47	41.15	54.10	54.10	0.00	61.42	102.57	41.15
2003	7.13	46.90	39.77	52.03	52.03	0.00	59.16	98.93	39.77
2004	6.83	45.00	38.18	50.84	50.84	0.00	57.67	95.84	38.18
2005	6.63	43.90	37.26	50.24	50.24	0.00	56.87	94.14	37.26
SUM86-05	1132.98	793.03	-339.95	3736.57	3736.51	-0.06	4849.55	4529.54	-340.00

TABLE 11-5-B
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1986-1986)

SENSITIVITY ANALYSIS 65/B UNV

FISCAL YEAR	TOTAL PETRO PRODN GROSS INCOME MM\$/Y	TOTAL PETRO PRODN NON TAX REDUCTS MM\$/Y	TOTAL PETRO PRODN NET INCOME MM\$/Y	CURRENT LAM STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %	NO353 STATE PETRO PRODN REVENUE MM\$/Y	REVENUE VS NET INCOME %
	-----	-----	-----	-----	-----	-----	-----
1986	3471.70	3534.90	-63.29	1220.95	NA	1120.60	NA
1987	3460.02	3817.11	-357.09	1152.96	NA	1051.17	NA
1988	3260.60	3813.52	-552.92	1031.79	NA	933.11	NA
1989	3085.79	3763.01	-678.02	975.30	NA	881.56	NA
1990	2947.06	3619.45	-672.39	917.62	NA	828.40	NA
1991	2798.61	3366.36	-567.75	845.44	NA	767.69	NA
1992	2696.00	3128.90	-522.10	768.09	NA	703.03	NA
1993	2420.31	2923.51	-495.20	699.20	NA	643.33	NA
1994	2368.32	2693.01	-324.69	649.93	NA	609.25	NA
1995	2392.23	2491.35	-99.13	621.49	NA	601.51	NA
1996	2234.50	2291.02	-57.31	553.67	NA	544.20	NA
1997	2110.25	2134.77	-24.52	499.42	NA	496.19	NA
1998	2014.00	1982.09	31.12	453.56	1457.60	455.71	1464.52
1999	1084.23	352.05	732.10	229.12	31.29	252.61	34.50
2000	1061.02	335.94	725.00	206.01	20.30	247.01	34.14
2001	1016.55	319.03	696.72	196.27	20.17	236.96	34.01
2002	1027.43	319.03	707.60	196.70	27.01	237.93	33.63
2003	995.34	319.03	675.51	190.13	20.15	229.90	34.03
2004	972.60	319.03	652.77	185.40	20.40	223.50	34.25
2005	960.51	319.03	640.60	182.72	20.52	219.98	34.34

TABLE II-5-9

PERCENTAGE SHARE COMPARISON

CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES

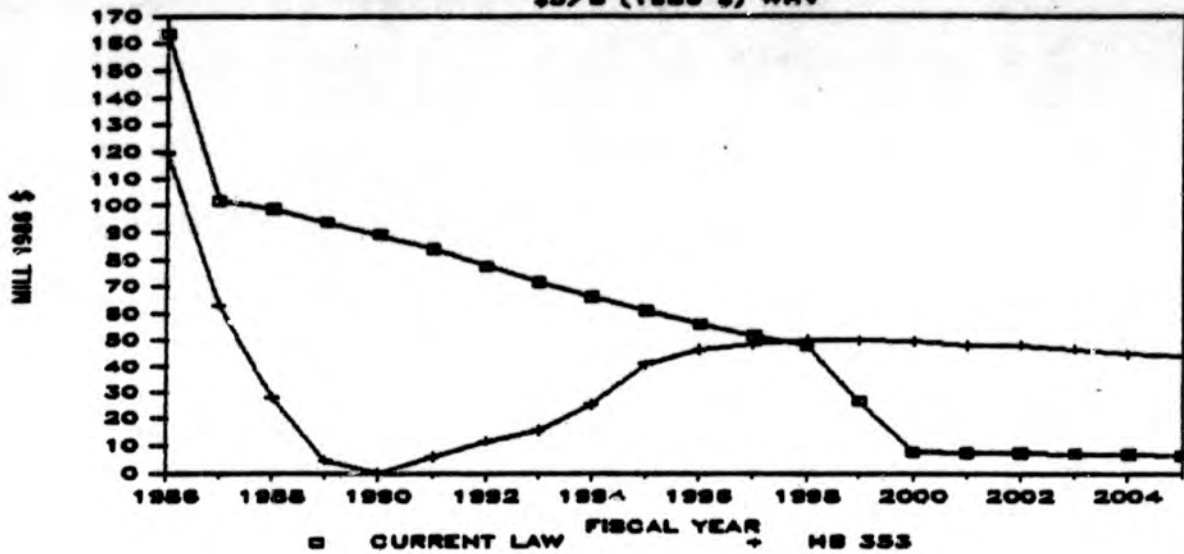
AS A PERCENTAGE OF

PETROLEUM PRODUCTION & PIPELINE NET INCOME

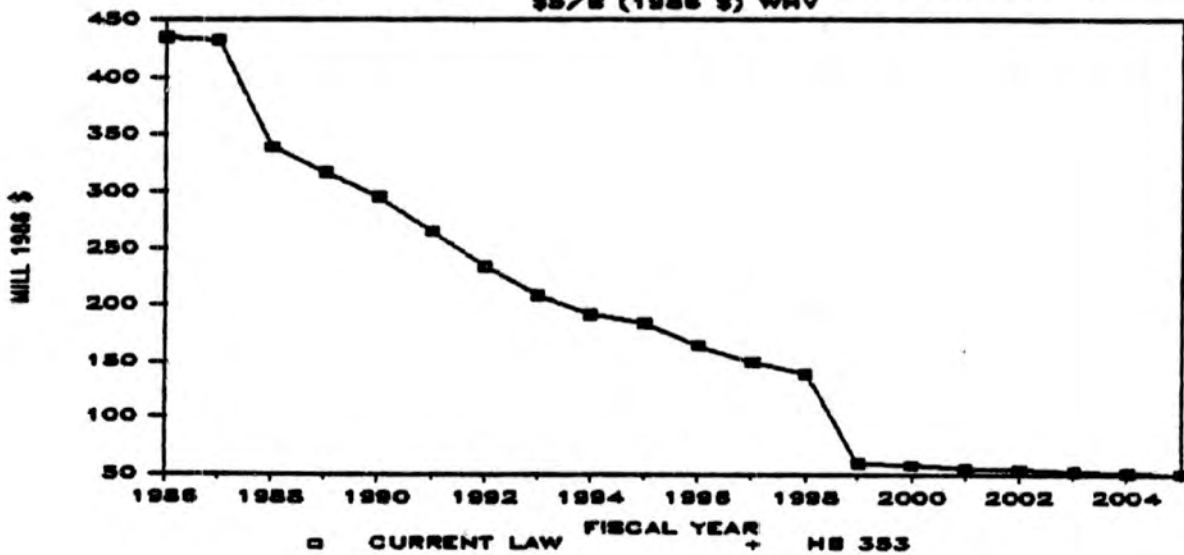
(B=1984)

FISCAL YEAR	SENSITIVITY ANALYSIS 85/8 UNV			CURRENT		H833	
	TOTAL PETRO PRODN & PIPE GROSS INCOME MM\$/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN & PIPE NET INCOME MM\$/Y	LAN STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	4557.18	4472.55	2084.63	1411.95	67.73	1367.81	65.61
1987	4427.75	4727.04	1700.70	1309.57	77.00	1270.97	74.73
1988	5068.93	4682.58	1186.35	1161.19	97.88	1090.59	91.93
1989	5305.90	4599.53	706.37	1080.24	152.93	991.13	140.31
1990	4837.06	4420.88	416.19	1001.42	240.62	912.20	219.18
1991	4397.02	4114.02	283.60	911.37	322.04	833.62	294.54
1992	3946.21	3840.37	105.84	819.53	774.31	753.67	712.09
1993	3532.84	3599.75	-66.47	737.21	NA	681.25	NA
1994	3288.15	3337.27	-49.12	677.57	NA	636.89	NA
1995	3164.57	3110.43	54.15	640.68	1083.18	620.71	1049.41
1996	2844.34	2887.13	-42.77	565.76	NA	556.38	NA
1997	2600.85	2707.22	-106.36	505.97	NA	502.74	NA
1998	2388.77	2533.21	-144.43	456.15	NA	458.30	NA
1999	1084.23	352.05	732.18	229.12	31.29	252.61	34.50
2000	1061.82	335.94	725.88	206.01	28.38	247.81	34.14
2001	1016.55	319.83	696.72	196.27	28.17	236.96	34.01
2002	1027.43	319.83	707.60	196.78	27.81	237.93	33.63
2003	995.34	319.83	675.51	190.13	28.15	229.90	34.03
2004	972.60	319.83	652.77	185.40	28.40	223.58	34.25
2005	960.51	319.83	640.68	182.72	28.52	219.98	34.34

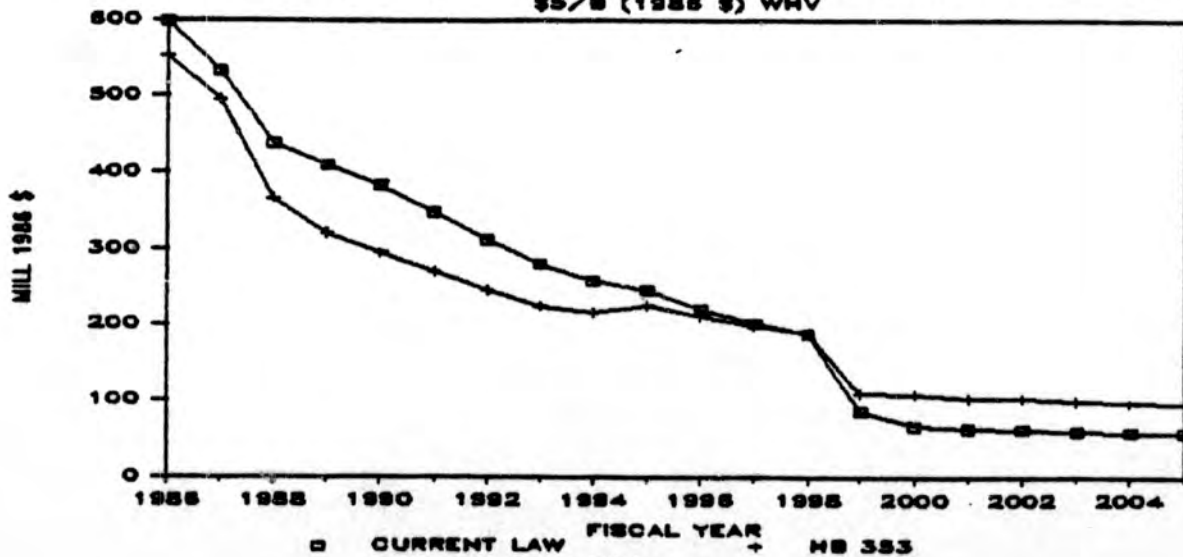
GRAPH II-5-1
INCOME TAX COMPARISON
\$B/B (1986 \$) WHV



GRAPH II-5-2
PRODUCTION TAX COMPARISON
\$B/B (1986 \$) WHV



GRAPH II-5-3
INCOME + PRDND TAX COMPARISON
\$B/B (1986 \$) WHV



SECTION II-3

REVENUE PROJECTION COMPARISON

**HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005**

ASSUMING \$3/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

TABLE 11-3-1

ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (HB353) INCOME TAX ESTS

(1-1986 \$) SENSITIVITY ANALYSIS \$3/B MMV

FISCAL YEAR	PROD VOL MT AVG GROSS WELLHEAD VALUE \$/B	TOTAL GROSS PROD VOL MMB/Y	TOTAL GROSS REV MM\$/Y	ROYALTY SHARE MM\$/Y	PROD & CONS TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	DEPRECIATION EXPENSE MM\$/Y	AMORT EXPENSE MM\$/Y	UNCAP INTEREST & EXPENSE ALLOWED MM\$/Y	ADMIN & OVERHD EXPENSE ALLOWED MM\$/Y	EXPLOR (UNSUCCESS) EXPENSE ALLOWED MM\$/Y	TOTAL DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	PROD TAX CURRENT MM\$/Y	PROD TAX HB353 MM\$/Y
1986	2.84254	642.00	1825.20	202.02	417.64	306.40	1081.30	1695.11	1.08	105.00	240.00	0.00	3948.56	-2123.36	-199.60	0.00	3948.56	-2123.36	-199.60	416.94	416.94
1987	2.83474	639.00	1811.40	184.76	411.47	209.58	1079.15	1908.90	1.09	105.00	240.00	0.00	4139.94	-2328.54	-218.88	0.00	4139.94	-2328.54	-218.88	410.77	410.77
1988	2.81788	593.00	1671.00	170.36	310.64	205.69	1029.57	1944.47	1.05	105.00	240.00	0.00	4006.78	-2335.78	-219.56	0.00	4006.78	-2335.78	-219.56	310.00	310.00
1989	2.80576	556.00	1560.00	158.98	287.02	196.31	989.24	1925.18	1.00	105.00	240.00	0.00	3902.74	-2342.74	-220.22	0.00	3902.74	-2342.74	-220.22	286.41	286.41
1990	2.79029	515.00	1437.00	146.38	261.12	179.53	944.55	1818.89	0.96	105.00	240.00	0.00	3696.44	-2259.44	-212.39	0.00	3696.44	-2259.44	-212.39	260.56	260.56
1991	2.79825	458.00	1281.40	130.58	226.50	159.58	878.78	1612.29	0.84	105.00	240.00	0.00	3353.57	-2071.97	-194.77	0.00	3353.57	-2071.97	-194.77	226.00	226.00
1992	2.79901	406.00	1136.40	115.79	195.27	139.64	819.58	1420.79	0.74	105.00	240.00	0.00	3044.81	-1908.41	-179.39	0.00	3044.81	-1908.41	-179.39	194.82	194.82
1993	2.80112	356.00	997.20	101.61	166.59	119.69	762.56	1251.74	0.65	105.00	240.00	0.00	2747.84	-1750.64	-164.56	0.00	2747.84	-1750.64	-164.56	166.20	166.20
1994	2.79615	312.00	872.40	88.88	141.08	99.74	712.92	1099.20	0.57	105.00	240.00	0.00	2487.48	-1615.08	-151.82	0.00	2487.48	-1615.08	-151.82	140.74	140.74
1995	2.79055	275.00	767.40	78.17	121.96	79.79	671.19	971.15	0.51	105.00	240.00	0.00	2267.78	-1500.38	-141.04	0.00	2267.78	-1500.38	-141.04	121.66	121.66
1996	2.79500	240.00	670.80	64.39	102.50	59.84	631.08	846.00	0.44	105.00	240.00	0.00	2049.25	-1378.45	-129.57	0.00	2049.25	-1378.45	-129.57	102.23	102.23
1997	2.79429	210.00	586.80	56.33	86.99	39.90	596.98	740.47	0.39	105.00	240.00	0.00	1866.05	-1279.25	-120.25	0.00	1866.05	-1279.25	-120.25	86.76	86.76
1998	2.80000	186.00	520.80	49.99	75.40	19.95	569.42	654.30	0.34	105.00	240.00	0.00	1714.40	-1193.60	-112.20	0.00	1714.40	-1193.60	-112.20	75.20	75.20
1999	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 11-3-2

COOK INLET-SEPARATE ACCT (H0333) INCOME TAX ESTS
(10-1986 \$)

SENSITIVITY ANALYSIS 03/0 H/V

FISCAL YEAR	OIL GROSS WELLHEAD VALUE \$/B	OIL GROSS PRODN VOL MMB/Y	OIL GROSS REV MM\$/Y	GAS GROSS WELLHEAD VALUE \$/MCF	GAS GROSS PRODN VOL BCF/Y	GAS GROSS REV MM\$/Y	TOTAL GROSS REV MM\$/Y	OIL ROYALTY SHARE MM\$/Y	GAS ROYALTY SHARE MM\$/Y	OIL PRODN & CONS TAX CURRENT MM\$/Y	OIL PRODN & CONS TAX H0333 MM\$/Y	GAS PRODN TAX MM\$/Y	PTY TAX MM\$/Y	OPER COSTS MM\$/Y	OTHER DEDUCT MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y	WINDFALL PROFITS TAX MM\$/Y	TOTAL TAXABLE INCOME MM\$/Y	TOTAL TAX LIAB MM\$/Y
1986	9.00	18.03	162.27	0.79	193.45	152.83	315.10	20.28	19.10	0.19	0.19	9.09	11.00	225.54	135.74	-105.85	-9.95	0.00	-105.85	-9.95
1987	9.00	12.67	114.03	0.93	226.30	210.46	324.49	14.25	26.31	0.14	0.12	12.15	11.60	241.65	140.20	-121.96	-11.46	0.00	-121.96	-11.46
1988	9.00	10.18	91.62	1.06	255.50	270.83	362.45	11.45	33.85	0.10	0.08	15.17	12.32	241.65	142.62	-94.69	-8.90	0.00	-94.69	-8.90
1989	9.00	8.87	79.83	1.14	259.15	295.43	375.26	9.98	36.93	0.07	0.06	16.54	11.94	241.65	142.62	-84.46	-7.94	0.00	-84.46	-7.94
1990	9.00	7.15	64.35	1.32	288.35	380.62	444.97	8.04	47.58	0.05	0.04	21.31	11.55	241.65	142.62	-27.83	-2.62	0.00	-27.83	-2.62
1991	9.00	6.21	55.89	1.65	310.25	511.91	567.80	6.99	63.99	0.01	0.01	26.88	11.17	241.65	142.62	74.50	7.00	0.00	74.50	7.00
1992	9.00	5.33	47.97	1.80	324.85	584.73	632.70	6.00	73.09	0.01	0.01	30.19	10.78	241.65	142.62	128.37	12.07	0.00	128.37	12.07
1993	9.00	4.53	40.77	1.93	332.15	641.05	681.82	5.10	80.13	.00	.00	33.09	10.40	241.65	142.62	168.82	15.87	0.00	168.82	15.87
1994	9.00	3.94	35.46	2.46	324.85	799.13	834.59	4.43	99.89	.00	.00	42.65	10.01	241.65	142.62	293.33	27.57	0.00	293.33	27.57
1995	9.00	3.07	27.63	3.07	328.50	1008.50	1036.13	3.45	126.06	.00	.00	54.71	9.63	225.54	142.62	474.11	44.57	0.00	474.11	44.57
1996	9.00	3.03	27.27	3.07	332.15	1019.70	1046.97	3.41	127.46	.00	.00	56.21	9.24	209.43	142.62	498.59	46.87	0.00	498.59	46.87
1997	9.00	2.96	26.64	3.07	339.45	1042.11	1068.75	3.33	130.26	.00	.00	57.45	8.86	209.43	142.62	516.80	48.58	0.00	516.80	48.58
1998	9.00	2.88	25.92	3.07	346.75	1064.52	1090.44	3.24	133.07	.00	.00	59.61	8.47	209.43	142.62	534.00	50.20	0.00	534.00	50.20
1999	9.00	2.81	25.29	3.07	343.10	1053.32	1078.61	3.16	131.66	.00	.00	58.99	8.09	209.43	142.62	524.65	49.32	0.00	524.65	49.32
2000	9.00	2.81	25.29	3.07	335.80	1030.91	1056.20	3.16	128.86	.00	.00	57.73	7.70	193.32	142.62	522.80	49.14	0.00	522.80	49.14
2001	9.00	2.77	24.93	3.07	321.20	986.08	1011.01	3.12	123.26	.00	.00	54.36	7.32	177.21	142.62	503.13	47.29	0.00	503.13	47.29
2002	9.00	2.74	24.66	3.07	324.85	997.29	1021.95	3.08	124.66	.00	.00	54.10	6.93	177.21	142.62	513.34	48.25	0.00	513.34	48.25
2003	9.00	1.86	16.74	3.07	317.55	974.88	991.62	2.09	121.86	.00	.00	52.83	6.55	177.21	142.62	489.25	45.99	0.00	489.25	45.99
2004	9.00	1.83	16.47	3.07	310.25	952.47	968.94	2.06	119.06	.00	.00	50.84	6.16	177.21	142.62	470.99	44.27	0.00	470.99	44.27
2005	9.00	1.75	15.75	3.07	306.60	941.26	957.01	1.97	117.66	.00	.00	50.24	5.78	177.21	142.62	461.53	43.38	0.00	461.53	43.38

TABLE 11-3-3
ALL PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(1-1986-6) SENSITIVITY ANALYSIS 03/0 MW

[illegible]

TABLE 11-3-4
 TIPS-SEPARATE MCCT (H353) INCOME TAX ESTS
 (8-1986 \$)

SENSITIVITY ANALYSIS 83/8 MW

FISCAL YEAR	PIPELINE THRUPT MB/D	TOTAL GROSS REV MB/Y	OPER COSTS MB/Y	AMORT & DEPREC EXPENSE MB/Y		UNCAP INT MB/Y	PTV TAX MB/Y	TOTAL DEDUCT MB/Y	TOTAL TAXABLE INCOME MB/Y	TOTAL TAX LIAB MB/Y
1986	4.80	442.00	3083.65	257.65	268.65	409.86	182.62	1118.79	1944.87	184.70
1987	4.44	439.00	2964.75	256.95	268.65	381.77	156.21	1063.58	1901.17	178.71
1988	4.39	593.00	2605.32	246.16	268.65	351.48	128.98	995.46	1609.86	151.33
1989	3.99	556.00	2217.08	237.48	268.65	327.01	104.41	937.54	1279.53	120.28
1990	3.65	515.00	1878.15	227.86	268.65	302.34	83.32	882.17	995.98	93.62
1991	3.47	458.00	1586.98	199.14	268.65	277.65	65.50	810.95	776.03	72.95
1992	3.28	406.00	1330.96	188.69	268.65	252.44	50.28	760.06	570.91	53.67
1993	3.07	356.00	1094.23	178.63	268.65	226.53	37.40	711.42	382.81	35.98
1994	2.92	312.00	910.56	169.78	268.65	204.91	27.38	649.83	240.74	22.63
1995	2.79	275.00	768.14	162.34	268.65	186.27	18.99	636.25	131.89	12.40
1996	2.59	240.00	621.71	155.30	268.65	169.75	11.95	605.66	16.05	1.51
1997	2.30	210.00	483.51	149.27	268.65	153.12	4.46	577.51	-93.99	-8.84
1998	1.99	186.00	349.73	144.44	268.65	136.22	2.55	551.87	-182.14	-17.12
1999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 11-3-5
PRODUCTION, PIPELINE & EXPLORATION-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1986 8)

FISCAL YEAR	SENSITIVITY ANALYSIS 83/8 NHV																TOTAL			
	NS				NS+TAPS				NS+TAPS				CI				TOTAL			
	TOTAL				TOTAL				TOTAL				TOTAL				TOTAL			
	TAXABLE INCOME NHV/Y	TAXABLE INCOME NHV/Y	TAXABLE INCOME NHV/Y	TAXABLE INCOME NHV/Y	TAX LIAB NHV/Y	TAXABLE INCOME NHV/Y	TAXABLE INCOME NHV/Y	TAX LIAB NHV/Y	TAX LIAB NHV/Y	TAXABLE INCOME NHV/Y	TAXABLE INCOME NHV/Y	TAX LIAB NHV/Y	TAX LIAB NHV/Y	TAXABLE INCOME NHV/Y	TAXABLE INCOME NHV/Y	TAX LIAB NHV/Y	TAX LIAB NHV/Y	TAX LIAB NHV/Y	TAX LIAB NHV/Y	TAX LIAB NHV/Y
1986	-2123.36	1964.87	-158.49	0.00	-2123.36	-158.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55.39	153.96	-98.56	0.00
1987	-2328.54	1901.17	-427.36	0.00	-2328.54	-427.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.76	82.76	0.00	0.00
1988	-2335.78	1609.86	-725.92	0.00	-2335.78	-725.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.02	-80.02	0.00	0.00
1989	-2342.74	1279.53	-1063.21	0.00	-2342.74	-1063.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.03	-76.03	0.00	0.00
1990	-2259.44	995.98	-1263.46	0.00	-2259.44	-1263.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.26	-72.26	0.00	0.00
1991	-2071.97	776.03	-1295.95	0.00	-2071.97	-1295.95	0.00	7.00	7.00	7.00	5.25	67.78	-62.52	7.00	5.25	67.78	-62.52	7.00	5.25	67.78
1992	-1908.41	570.91	-1337.50	0.00	-1908.41	-1337.50	0.00	12.07	12.07	12.07	10.80	62.80	-52.00	12.07	10.80	62.80	-52.00	12.07	10.80	62.80
1993	-1750.64	382.01	-1367.83	0.00	-1750.64	-1367.83	0.00	15.87	15.87	15.87	14.92	57.96	-43.04	15.87	14.92	57.96	-43.04	15.87	14.92	57.96
1994	-1615.08	240.74	-1374.34	0.00	-1615.08	-1374.34	0.00	27.57	27.57	27.57	24.65	53.26	-28.62	27.57	24.65	53.26	-28.62	27.57	24.65	53.26
1995	-1500.38	131.89	-1368.49	0.00	-1500.38	-1368.49	0.00	44.57	44.57	44.57	40.32	49.05	-8.73	44.57	40.32	49.05	-8.73	44.57	40.32	49.05
1996	-1378.45	16.05	-1362.40	0.00	-1378.45	-1362.40	0.00	46.87	46.87	46.87	46.29	45.25	1.04	46.87	46.29	45.25	1.04	46.87	46.29	45.25
1997	-1279.25	-93.99	-1373.24	0.00	-1279.25	-1373.24	0.00	48.58	48.58	48.58	48.15	41.80	6.35	48.58	48.15	41.80	6.35	48.58	48.15	41.80
1998	-1193.60	-182.14	-1375.74	0.00	-1193.60	-1375.74	0.00	50.20	50.20	50.20	49.79	38.85	10.94	50.20	49.79	38.85	10.94	50.20	49.79	38.85
1999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.32	49.32	49.32	49.54	21.54	28.00	49.32	49.54	21.54	28.00	49.32	49.54	21.54
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.14	49.14	49.14	49.19	6.52	42.67	49.14	49.19	6.52	42.67	49.14	49.19	6.52
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.29	47.29	47.29	47.76	6.24	41.51	47.29	47.76	6.24	41.51	47.29	47.76	6.24
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.25	48.25	48.25	48.01	6.08	41.93	48.25	48.01	6.08	41.93	48.25	48.01	6.08
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.99	45.99	45.99	46.56	5.92	40.63	45.99	46.56	5.92	40.63	45.99	46.56	5.92
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.27	44.27	44.27	44.70	5.67	39.03	44.27	44.70	5.67	39.03	44.27	44.70	5.67
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.38	43.38	43.38	43.61	5.51	38.09	43.38	43.61	5.51	38.09	43.38	43.61	5.51

TABLE 11-3-6
CURRENT LAW-MODIFIED APPORTIONMENT (AS4320) INCOME TAX ESTS
(8-1986)

SENSITIVITY ANALYSIS 83/8 UNV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
					TOP 3 COMPANIES						
FISCAL YEAR	TOTAL AK OIL & GAS PROD MM/Y EQUIV	CHG TOTAL AK OIL & GAS PROD MM/Y I	APPMT FACTOR CHG FACTOR	NET PROFIT APPMT FACTOR	CALENDAR YEAR	MM NET PROFIT MM/Y	AK TAXABLE INCOME MM/Y	AK TAX LIAB MM/Y	TOTAL AK TAX LIAB MM/Y	FISCAL YEAR	TOTAL AK TAX COLLECT MM/Y
1986	687.67	0.0000	0.0000	0.2787	1986	2862.50	797.78	74.99	83.32	1986	153.96
1987	684.00	-0.5333	0.9965	0.2750	1987	2862.50	787.06	73.98	82.20	1987	82.76
1988	639.68	-6.4793	0.9579	0.2607	1988	2862.50	746.38	70.16	77.95	1988	80.02
1989	601.89	-5.9074	0.9616	0.2482	1989	2862.50	710.54	66.79	74.21	1989	76.03
1990	563.34	-6.4046	0.9584	0.2355	1990	2862.50	674.15	63.37	70.41	1990	72.26
1991	508.53	-9.7297	0.9368	0.2184	1991	2862.50	625.20	58.77	65.30	1991	67.78
1992	457.74	-9.9884	0.9351	0.2022	1992	2862.50	578.76	54.40	60.45	1992	62.80
1993	407.98	-10.8702	0.9293	0.1860	1993	2862.50	532.49	50.05	55.62	1993	57.96
1994	362.35	-11.1851	0.9273	0.1708	1994	2862.50	488.84	45.95	51.06	1994	53.26
1995	325.00	-10.3074	0.9330	0.1577	1995	2862.50	451.53	42.44	47.16	1995	49.05
1996	290.48	-10.6211	0.9310	0.1454	1996	2862.50	416.15	39.12	43.46	1996	45.25
1997	261.45	-9.9928	0.9350	0.1346	1997	2862.50	385.23	36.21	40.24	1997	41.80
1998	238.42	-8.8112	0.9427	0.1256	1998	2862.50	359.53	33.80	37.53	1998	38.85
1999	51.82	-78.2631	0.1782	0.0222	1999	2862.50	63.44	5.96	6.63	1999	21.54
2000	50.78	-2.0123	0.9789	0.0215	2000	2862.50	61.88	5.78	6.42	2000	6.52
2001	48.66	-4.1860	0.9560	0.0203	2001	2862.50	58.19	5.47	6.08	2001	6.24
2002	49.15	1.0100	1.0104	0.0203	2002	2862.50	58.22	5.47	6.08	2002	6.08
2003	47.22	-3.9124	0.9589	0.0193	2003	2862.50	55.27	5.20	5.77	2003	5.92
2004	46.15	-2.2718	0.9761	0.0187	2004	2862.50	53.41	5.02	5.58	2004	5.67
2005	45.55	-1.3032	0.9863	0.0182	2005	2862.50	52.15	4.90	5.45	2005	5.51

TABLE 11-3-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)

PRODUCTION TAX-15% MAX NOMINAL RATE (AS4353)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% MAX NOMINAL RATE

BEGINNING IN CY 1987

(1-1986)

SENSITIVITY ANALYSIS 43/8 MHV

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT	DIFF HB353 LESS	CURRENT	CURRENT	DIFF HB353 LESS	CURRENT	CURRENT	DIFF HB353 LESS	CURRENT
	LAW MM/Y	HB353 MM/Y	MM/Y	LAW MM/Y	HB353 MM/Y	MM/Y	LAW MM/Y	HB353 MM/Y	MM/Y
1986	153.96	53.39	-98.56	426.21	426.21	0.00	580.16	481.60	-98.56
1987	82.76	0.00	-82.76	423.04	423.03	-0.01	505.80	423.03	-82.77
1988	80.02	0.00	-80.02	325.25	325.23	-0.02	405.27	325.23	-80.03
1989	76.03	0.00	-76.03	303.02	303.00	-0.01	379.05	303.00	-76.04
1990	72.26	0.00	-72.26	281.92	281.91	-0.01	354.17	281.91	-72.27
1991	67.78	5.25	-62.52	252.87	252.87	0.00	326.45	258.12	-62.52
1992	62.80	10.80	-52.00	225.01	225.01	0.00	287.81	235.81	-52.00
1993	57.96	14.92	-43.04	199.29	199.29	0.00	257.25	214.21	-43.04
1994	53.26	24.65	-28.62	183.39	183.39	0.00	236.66	208.04	-28.62
1995	49.05	40.32	-8.73	176.37	176.37	0.00	225.42	216.69	-8.73
1996	45.25	46.29	1.04	158.44	158.44	0.00	203.70	204.74	1.04
1997	41.80	48.15	6.35	144.21	144.21	0.00	186.01	192.36	6.35
1998	38.85	49.79	10.94	134.81	134.81	0.00	173.67	184.61	10.94
1999	21.54	49.54	28.00	58.99	58.99	0.00	86.52	108.52	28.00
2000	6.52	49.19	42.67	57.73	57.73	0.00	64.25	106.92	42.67
2001	6.24	47.76	41.51	54.36	54.36	0.00	60.50	102.11	41.51
2002	6.08	48.01	41.93	54.10	54.10	0.00	60.18	102.12	41.93
2003	5.92	46.56	40.63	52.03	52.03	0.00	57.96	98.59	40.63
2004	5.67	44.70	39.03	50.84	50.84	0.00	56.51	95.54	39.03
2005	5.51	43.61	38.09	50.24	50.24	0.00	55.75	93.85	38.09
SUM86-05	939.27	624.92	-314.34	3612.12	3612.07	-0.05	4551.38	4236.99	-314.39

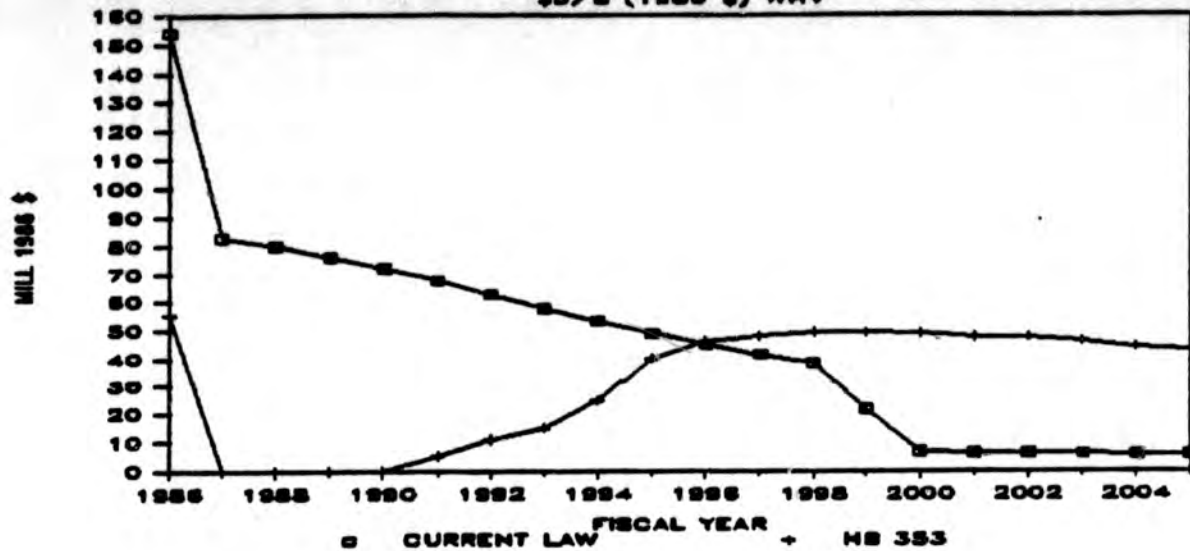
TABLE 11-3-B
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS 83/8 MHV			CURRENT		H8353	
	TOTAL PETRO PRODN GROSS INCOME MM\$/Y	TOTAL PETRO PRODN NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN NET INCOME MM\$/Y	STATE PETRO PRODN REVENUE MM\$/Y	VS NET INCOME %	STATE PETRO PRODN REVENUE MM\$/Y	VS NET INCOME %
1986	2140.30	3483.77	-1343.47	1039.70	NA	941.13	NA
1987	2135.89	3716.06	-1580.18	953.09	NA	870.32	NA
1988	2033.45	3704.36	-1670.91	839.60	NA	759.56	NA
1989	1935.26	3644.69	-1709.43	793.81	NA	717.77	NA
1990	1881.97	3493.67	-1611.70	747.83	NA	675.56	NA
1991	1849.40	3221.18	-1371.78	693.47	NA	630.94	NA
1992	1769.10	2978.38	-1209.28	633.55	NA	581.55	NA
1993	1679.02	2744.22	-1065.20	574.57	NA	531.53	NA
1994	1706.99	2542.04	-835.05	539.96	NA	511.34	NA
1995	1803.53	2356.01	-552.49	522.83	NA	514.10	NA
1996	1717.77	2174.57	-456.80	468.31	NA	469.34	NA
1997	1655.55	2034.89	-379.34	424.92	NA	431.27	NA
1998	1611.24	1921.11	-309.87	388.58	NA	399.52	NA
1999	1078.61	352.05	726.56	223.44	30.75	251.44	34.61
2000	1056.20	335.94	720.26	203.98	28.32	246.64	34.24
2001	1011.01	319.83	691.18	194.30	28.11	235.81	34.12
2002	1021.95	319.83	702.12	194.86	27.75	236.79	33.73
2003	991.62	319.83	671.79	188.46	28.05	229.09	34.10
2004	968.94	319.83	649.11	183.79	28.31	222.82	34.33
2005	957.01	319.83	637.18	181.16	28.43	219.25	34.41

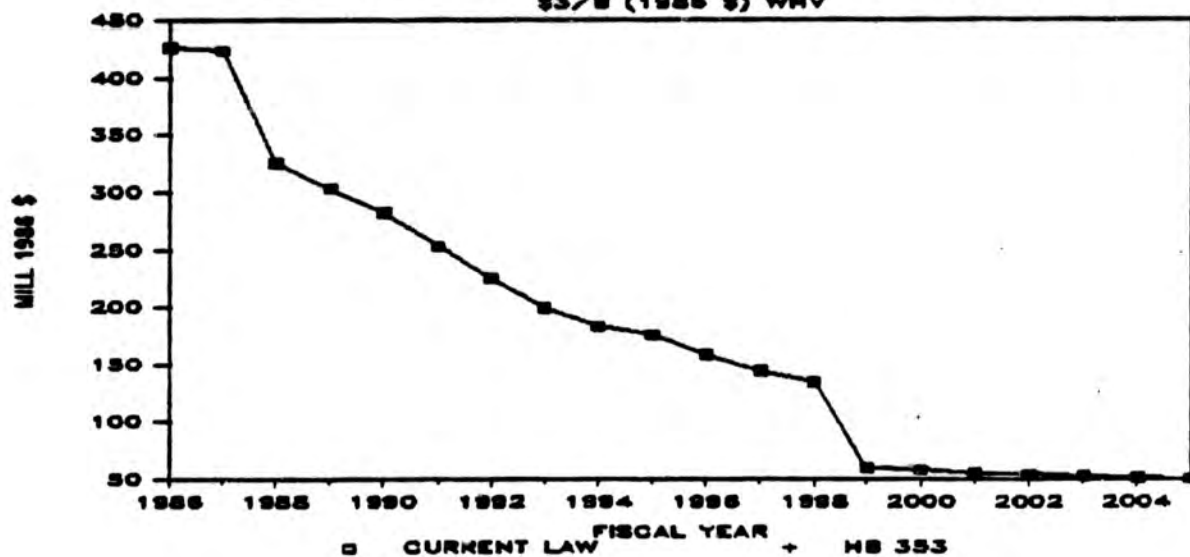
TABLE 11-3-9
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION & PIPELINE NET INCOME
(19=1986)

FISCAL YEAR	SENSITIVITY ANALYSIS 83/8 NHV			CURRENT		H853	
	TOTAL PETRO PRODN & PIPE GROSS INCOME NHV/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS NHV/Y	TOTAL PETRO PRODN & PIPE NET INCOME NHV/Y	LAW STATE PETRO PRODN & PIPE REVENUE NHV/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE NHV/Y	REVENUE VS NET INCOME %
1986	5223.95	4419.93	804.02	1222.32	152.03	1123.76	139.77
1987	5100.64	4623.43	477.21	1109.30	232.46	1026.53	215.11
1988	4638.77	4570.85	67.93	968.58	1425.89	888.54	1308.06
1989	4152.34	4477.83	-325.49	898.22	NA	822.17	NA
1990	3760.12	4292.52	-532.40	831.15	NA	758.88	NA
1991	3436.38	3966.63	-530.25	758.97	NA	696.45	NA
1992	3100.06	3688.16	-588.10	683.83	NA	631.83	NA
1993	2773.25	3418.03	-644.79	612.18	NA	569.14	NA
1994	2617.56	3184.49	-566.93	567.34	NA	538.73	NA
1995	2571.67	2973.28	-401.61	541.82	NA	533.09	NA
1996	2339.48	2768.28	-428.80	480.26	NA	481.30	NA
1997	2139.06	2605.93	-466.86	431.38	NA	437.73	NA
1998	1980.97	2470.43	-489.45	391.14	NA	402.08	NA
1999	1878.61	352.05	726.56	223.44	30.75	251.44	34.61
2000	1856.20	335.94	720.26	203.98	28.32	246.64	34.24
2001	1811.01	319.83	691.18	194.30	28.11	235.81	34.12
2002	1821.95	319.83	702.12	194.86	27.75	236.79	33.73
2003	991.62	319.83	671.79	188.46	28.05	229.09	34.10
2004	968.94	319.83	649.11	183.79	28.31	222.82	34.33
2005	957.01	319.83	637.18	181.16	28.43	219.25	34.41

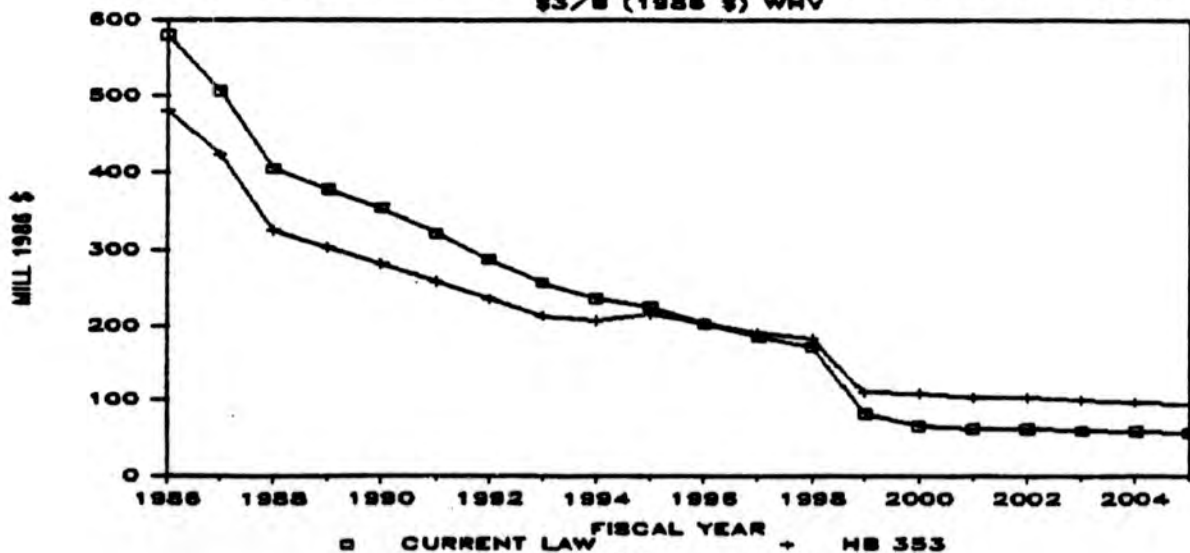
GRAPH II-3-1
INCOME TAX COMPARISON
\$3/B (1986 \$) WHV



GRAPH II-3-2
PRODUCTION TAX COMPARISON
\$3/B (1986 \$) WHV



GRAPH II-3-3
INCOME + PRODN TAX COMPARISON
\$3/B (1986 \$) WHV



SECTION II-1

REVENUE PROJECTION COMPARISON

HB 353 vs CURRENT LAW
FOR FISCAL YEARS 1986-2005

ASSUMING \$1/BARREL (1986 \$) WELLHEAD VALUE

SUMMARY TABLES AND GRAPHS

ALL NORTH SLOPE PRODUCING FIELDS-SEPARATE ACCT (M0353) INCOME TAX ESTS
(6-1986 01) SENSITIVITY ANALYSIS 01/0 MWV

PRODUCTION ANALYSIS - 1986-1999																									
FISCAL YEAR	PROD VOL		TOTAL GROSS PROD VOL	TOTAL GROSS REV	ROYALTY SHARE	PROD & CONS TAX	PTY TAX	OPER COSTS	DEPREC EXPENSE	AMORT EXPENSE	UNCAP		ADMIN		EXPLOR		TOTAL DEDUCT	TOTAL TAXABLE INCOME	TOTAL LIAB	WINDFALL PROFITS TAX	TOTAL DEDUCT M/MPY	TOTAL TAXABLE INCOME M/MPY	TOTAL LIAB M/MPY	PROD TAX CURRENT	PROD TAX HB35
	WT AVG	GROSS									INTEREST	OVERHD	EXPENSE	EXPENSE	EXPENSE										
	WELLHEAD	PROD									EXPENSE	EXPENSE	EXPENSE	EXPENSE	EXPENSE										
	VALUE	REV									ALLOWED	ALLOWED	ALLOWED	ALLOWED	ALLOWED										
8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	8/8/8	
1986	0.86916	642.00	558.00	43.62	264.81	206.40	1081.30	1695.11	1.08	105.00	240.00	0.00	3637.33	-3079.33	-289.46	0.00	3637.33	-3079.33	-289.46	264.11	264.11				
1987	0.86228	639.00	551.00	27.21	251.90	209.58	1079.15	1908.90	1.09	105.00	240.00	0.00	3822.82	-3271.82	-307.55	0.00	3822.82	-3271.82	-307.55	251.20	251.20				
1988	0.84823	593.00	503.00	24.36	218.14	205.69	1029.57	1944.47	1.05	105.00	240.00	0.00	3768.28	-3265.28	-306.94	0.00	3768.28	-3265.28	-306.94	217.49	217.49				
1989	0.83813	556.00	466.00	22.23	197.50	196.31	989.24	1925.18	1.00	105.00	240.00	0.00	3676.47	-3210.47	-301.78	0.00	3676.47	-3210.47	-301.78	196.89	196.89				
1990	0.82524	515.00	425.00	19.88	175.19	179.53	944.55	1818.89	0.96	105.00	240.00	0.00	3484.00	-3059.00	-287.55	0.00	3484.00	-3059.00	-287.55	174.62	174.62				
1991	0.81888	458.00	381.00	18.01	150.37	159.58	878.78	1612.29	0.84	105.00	240.00	0.00	3164.87	-2783.87	-261.68	0.00	3164.87	-2783.87	-261.68	149.87	149.87				
1992	0.83251	406.00	338.00	15.99	127.90	139.64	819.58	1428.79	0.74	105.00	240.00	0.00	2877.64	-2539.64	-238.73	0.00	2877.64	-2539.64	-238.73	127.46	127.46				
1993	0.83427	356.00	297.00	14.09	106.18	119.69	762.56	1251.74	0.65	105.00	240.00	0.00	2599.91	-2302.91	-216.47	0.00	2599.91	-2302.91	-216.47	105.79	105.79				
1994	0.83013	312.00	259.00	12.21	87.89	99.74	712.92	1099.28	0.57	105.00	240.00	0.00	2357.61	-2098.61	-197.27	0.00	2357.61	-2098.61	-197.27	87.54	87.54				
1995	0.82545	275.00	227.00	10.62	73.32	79.79	671.19	971.15	0.51	105.00	240.00	0.00	2151.59	-1924.59	-180.91	0.00	2151.59	-1924.59	-180.91	73.02	73.02				
1996	0.82917	240.00	199.00	5.41	60.50	59.84	631.08	846.00	0.44	105.00	240.00	0.00	1948.28	-1749.28	-164.43	0.00	1948.28	-1749.28	-164.43	60.23	60.23				
1997	0.82857	210.00	174.00	4.73	49.43	39.90	596.98	740.47	0.39	105.00	240.00	0.00	1776.89	-1602.89	-150.67	0.00	1776.89	-1602.89	-150.67	49.20	49.20				
1998	0.83333	186.00	155.00	4.26	41.89	19.95	569.42	654.30	0.34	105.00	240.00	0.00	1635.17	-1480.17	-139.14	0.00	1635.17	-1480.17	-139.14	41.69	41.69				
1999	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2001	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2002	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2003	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2004	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2005	0.00000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

COOK INLET-SEPARATE ACCT (H0353) INCOME TAX ESTS
(8-1986 8) SENSITIVITY ANALYSIS 01/8 UNV

FISCAL YEAR	OIL		OIL		GAS		GAS		OIL		GAS		OIL		OIL		GAS		GAS		TOTAL		TOTAL		TOTAL		TOTAL	
	GROSS WELLHEAD VALUE	GROSS PROD VOL	OIL GROSS REV	GROSS WELLHEAD VALUE	GROSS PROD VOL	GAS GROSS REV	TOTAL GROSS REV	OIL ROYALTY SHARE	GAS ROYALTY SHARE	PROD & CONS TAX CURRENT	PROD & CONS TAX NO253	GAS PROD TAX	PTV TAX	OPER COSTS	OTHER DEDUCT	TOTAL TAXABLE INCOME	TOTAL TAX LIAB	WINDFALL PROFITS TAX	TOTAL TAXABLE INCOME	TOTAL TAX LIAB	TOTAL WINDFALL PROFITS TAX	TOTAL TAXABLE INCOME	TOTAL TAX LIAB	TOTAL WINDFALL PROFITS TAX	TOTAL TAXABLE INCOME	TOTAL TAX LIAB		
	\$/B	MBO/Y	MBO/Y	\$/MCF	BCF/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y	MBO/Y
1986	7.00	18.03	126.21	0.79	193.45	152.83	279.04	15.78	19.10	0.15	0.15	9.09	11.00	225.54	135.74	-137.37	-12.91	0.00	-137.37	-12.91	0.00	-137.37	-12.91	0.00	-137.37	-12.91	0.00	
1987	7.00	12.67	88.49	0.93	226.30	210.46	299.15	11.09	26.31	0.11	0.10	12.15	11.68	241.63	140.28	-144.11	-13.55	0.00	-144.11	-13.55	0.00	-144.11	-13.55	0.00	-144.11	-13.55	0.00	
1988	7.00	10.18	71.26	1.06	255.50	270.83	342.09	8.91	33.85	0.08	0.06	15.17	12.32	241.65	142.62	-112.49	-10.57	0.00	-112.49	-10.57	0.00	-112.49	-10.57	0.00	-112.49	-10.57	0.00	
1989	7.00	8.87	62.09	1.14	259.15	295.43	357.52	7.76	36.93	0.04	0.05	16.54	11.94	241.65	142.62	-99.97	-9.40	0.00	-99.97	-9.40	0.00	-99.97	-9.40	0.00	-99.97	-9.40	0.00	
1990	7.00	7.15	50.05	1.32	288.35	380.62	430.67	6.26	47.58	0.04	0.03	21.31	11.55	241.65	142.62	-40.33	-3.79	0.00	-40.33	-3.79	0.00	-40.33	-3.79	0.00	-40.33	-3.79	0.00	
1991	7.00	6.21	43.47	1.65	310.25	511.91	555.38	5.43	63.99	0.01	0.01	26.88	11.17	241.65	142.62	63.64	5.98	0.00	63.64	5.98	0.00	63.64	5.98	0.00	63.64	5.98	0.00	
1992	7.00	5.33	37.31	1.80	324.85	584.73	622.04	4.66	73.09	0.01	0.01	30.19	10.78	241.65	142.62	119.04	11.19	0.00	119.04	11.19	0.00	119.04	11.19	0.00	119.04	11.19	0.00	
1993	7.00	4.53	31.71	1.93	332.15	641.05	672.76	3.96	80.13	.00	.00	33.09	10.40	241.65	142.62	160.90	15.12	0.00	160.90	15.12	0.00	160.90	15.12	0.00	160.90	15.12	0.00	
1994	7.00	3.94	27.58	2.46	324.85	799.13	826.71	3.45	99.89	.00	.00	42.65	10.01	241.65	142.62	286.43	26.92	0.00	286.43	26.92	0.00	286.43	26.92	0.00	286.43	26.92	0.00	
1995	7.00	3.07	21.49	3.07	328.50	1008.50	1029.99	2.69	126.06	.00	.00	54.71	9.63	225.54	142.62	468.73	44.04	0.00	468.73	44.04	0.00	468.73	44.04	0.00	468.73	44.04	0.00	
1996	7.00	3.03	21.21	3.07	332.15	1019.70	1040.91	2.65	127.46	.00	.00	56.21	9.24	209.43	142.62	493.29	46.37	0.00	493.29	46.37	0.00	493.29	46.37	0.00	493.29	46.37	0.00	
1997	7.00	2.96	20.72	3.07	339.45	1042.11	1062.83	2.59	130.26	.00	.00	57.45	8.86	209.43	142.62	511.62	48.09	0.00	511.62	48.09	0.00	511.62	48.09	0.00	511.62	48.09	0.00	
1998	7.00	2.88	20.16	3.07	346.75	1064.52	1084.68	2.52	133.07	.00	.00	59.61	8.47	209.43	142.62	528.96	49.72	0.00	528.96	49.72	0.00	528.96	49.72	0.00	528.96	49.72	0.00	
1999	7.00	2.81	19.67	3.07	343.10	1053.32	1072.99	2.46	131.66	.00	.00	58.99	8.09	209.43	142.62	519.73	48.86	0.00	519.73	48.86	0.00	519.73	48.86	0.00	519.73	48.86	0.00	
2000	7.00	2.81	19.67	3.07	335.80	1030.91	1050.58	2.46	128.86	.00	.00	57.73	7.70	193.32	142.62	517.88	48.68	0.00	517.88	48.68	0.00	517.88	48.68	0.00	517.88	48.68	0.00	
2001	7.00	2.77	19.39	3.07	321.20	986.08	1005.47	2.42	123.26	.00	.00	54.36	7.32	177.21	142.62	498.28	46.84	0.00	498.28	46.84	0.00	498.28	46.84	0.00	498.28	46.84	0.00	
2002	7.00	2.74	19.18	3.07	324.85	997.29	1016.47	2.40	124.66	.00	.00	54.10	6.93	177.21	142.62	508.54	47.80	0.00	508.54	47.80	0.00	508.54	47.80	0.00	508.54	47.80	0.00	
2003	7.00	1.86	13.02	3.07	317.55	974.88	987.90	1.63	121.86	.00	.00	52.03	6.55	177.21	142.62	486.00	45.68	0.00	486.00	45.68	0.00	486.00	45.68	0.00	486.00	45.68	0.00	
2004	7.00	1.83	12.81	3.07	310.25	952.47	965.28	1.60	119.06	.00	.00	50.84	6.16	177.21	142.62	467.79	43.97	0.00	467.79	43.97	0.00	467.79	43.97	0.00	467.79	43.97	0.00	
2005	7.00	1.75	12.25	3.07	306.60	941.26	953.51	1.53	117.66	.00	.00	50.24	5.78	177.21	142.62	458.47	43.10	0.00	458.47	43.10	0.00	458.47	43.10	0.00	458.47	43.10	0.00	

TABLE 11-1-3

ALL PRODUCING FIELDS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(6-1986 6) SENSITIVITY ANALYSIS 61/8 MHV

FISCAL YEAR	NS			NS			NS			CI			CI			NS+CI			NS+CI		
	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	TOTAL	TOTAL	NS	
	GROSS	DEDUCT	TAXABLE	TAX	DEDUCT	INCOME	TAX	DEDUCT	INCOME	GROSS	DEDUCT	TAXABLE	TAX	DEDUCT	INCOME	TAX	TOTAL	TOTAL	TAX	COLLECT	
	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	HH/Y	
1986	558.00	3637.33	-3079.33	0.00	3637.33	-3079.33	0.00	279.04	416.40	-137.37	0.00	416.40	-137.37	0.00	0.00	55.39	0.00	55.39	0.00	55.39	
1987	551.00	3822.82	-3271.82	0.00	3822.82	-3271.82	0.00	299.15	443.26	-144.11	0.00	443.26	-144.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1988	503.00	3768.28	-3265.28	0.00	3768.28	-3265.28	0.00	342.09	454.58	-112.49	0.00	454.58	-112.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1989	466.00	3676.47	-3210.47	0.00	3676.47	-3210.47	0.00	357.52	457.49	-99.97	0.00	457.49	-99.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1990	425.00	3484.00	-3059.00	0.00	3484.00	-3059.00	0.00	430.67	471.00	-40.33	0.00	471.00	-40.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1991	381.00	3164.87	-2783.87	0.00	3164.87	-2783.87	0.00	555.38	491.75	63.64	5.98	491.75	63.64	5.98	5.98	4.49	5.98	4.49	5.98	4.49	
1992	338.00	2877.64	-2539.64	0.00	2877.64	-2539.64	0.00	622.04	503.00	119.04	11.19	503.00	119.04	11.19	11.19	9.89	11.19	9.89	11.19	9.89	
1993	297.00	2599.91	-2302.91	0.00	2599.91	-2302.91	0.00	672.76	511.86	160.90	15.12	511.86	160.90	15.12	15.12	14.14	15.12	14.14	15.12	14.14	
1994	259.00	2357.61	-2098.61	0.00	2357.61	-2098.61	0.00	826.71	540.28	286.43	26.92	540.28	286.43	26.92	26.92	23.97	26.92	23.97	26.92	23.97	
1995	227.00	2151.59	-1924.59	0.00	2151.59	-1924.59	0.00	1029.99	561.25	468.73	44.06	561.25	468.73	44.06	44.06	39.78	44.06	39.78	44.06	39.78	
1996	199.00	1948.28	-1749.28	0.00	1948.28	-1749.28	0.00	1040.91	547.62	493.29	46.37	547.62	493.29	46.37	46.37	45.79	46.37	45.79	46.37	45.79	
1997	174.00	1776.89	-1602.89	0.00	1776.89	-1602.89	0.00	1062.83	551.21	511.62	48.09	551.21	511.62	49.09	48.09	47.66	48.09	47.66	48.09	47.66	
1998	155.00	1635.17	-1480.17	0.00	1635.17	-1480.17	0.00	1084.68	555.72	528.96	49.72	555.72	528.96	49.72	49.72	49.31	49.72	49.31	49.72	49.31	
1999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1072.99	553.20	519.73	48.86	553.25	519.73	48.86	48.86	49.07	48.86	49.07	48.86	49.07	
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1050.58	532.70	517.88	48.68	532.70	517.88	48.68	48.68	48.72	48.68	48.72	48.68	48.72	
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1005.47	507.20	498.28	46.84	507.20	498.28	46.84	46.84	47.30	46.84	47.30	46.84	47.30	
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1016.47	507.92	508.54	47.80	507.92	508.54	47.80	47.80	47.56	47.80	47.56	47.80	47.56	
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	987.90	501.90	486.00	45.68	501.90	486.00	45.68	45.68	46.21	45.68	46.21	45.68	46.21	
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	965.28	497.49	467.79	43.97	497.49	467.79	43.97	43.97	44.40	43.97	44.40	43.97	44.40	
20**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	953.51	495.04	458.47	43.10	495.04	458.47	43.10	43.10	43.32	43.10	43.32	43.10	43.32	

TABLE II-1-4
TAPS-SEPARATE ACCT (H0353) INCOME TAX ESTS
(1-1986 0) SENSITIVITY ANALYSIS 01/0 MW

FISCAL YEAR	TARIFF \$/B	PIPELINE THRUPT MMB/Y	TOTAL GROSS REV MMB/Y	OPER COSTS MMB/Y	AMORT & DEPREC EXPENSE MMB/Y	UNCAP INT EXPENSE MMB/Y	PTY TAX MMB/Y	TOTAL DEDUCT MMB/Y	TOTAL TAXABLE INCOME MMB/Y	TOTAL TAX LIAB MMB/Y
1986	4.00	642.00	3083.65	257.65	268.65	409.86	182.62	1118.79	1964.86	184.76
1987	4.64	639.00	2964.75	256.95	268.65	381.77	156.21	1063.58	1901.17	178.71
1988	4.39	593.00	2605.32	246.16	268.65	351.68	128.98	995.46	1609.86	151.33
1989	3.99	556.00	2217.08	237.48	268.65	327.01	104.41	937.54	1279.53	120.28
1990	3.65	515.00	1878.15	227.86	268.65	302.34	83.32	882.17	995.98	93.62
1991	3.47	458.00	1586.98	199.14	268.65	277.65	65.50	810.95	776.03	72.95
1992	3.28	406.00	1330.96	188.69	268.65	252.44	50.28	760.06	570.91	53.67
1993	3.07	356.00	1094.23	178.63	268.65	226.53	37.60	711.42	382.81	35.98
1994	2.92	312.00	910.56	169.78	268.65	204.01	27.38	669.83	240.74	22.63
1995	2.79	275.00	768.14	162.34	268.65	186.27	18.99	636.25	131.89	12.40
1996	2.59	240.00	621.71	155.30	268.65	169.75	11.95	605.66	16.05	1.51
1997	2.30	210.00	483.51	149.27	268.65	153.12	6.46	577.51	-93.99	-8.84
1998	1.99	186.00	369.73	144.44	268.65	136.22	2.55	551.87	-182.14	-17.12
1999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PRODUCTION, PIPELINE & EXPLORATION-SEPARATE ACCT (H0353) INCOME TAX ESTS
(10-1986 0) SENSITIVITY ANALYSIS 01/8 WHV

[illegible]

TABLE 11-1-6

CURRENT LAW-MODIFIED AFFORTIONMENT (AS4320) INCOME TAX ESTS
(6-1986)

SENSITIVITY ANALYSIS 61/D NHV

FISCAL YEAR					CALENDAR YEAR					FISCAL YEAR	
					TOP 3 COMPANIES						
FISCAL YEAR	TOTAL AK OIL & GAS PROD NHV/Y	CHG TOTAL AK OIL & GAS PROD NHV/Y	APPMT FACTOR CHG FACTOR	NET PROFIT APPMT FACTOR	CALENDAR YEAR	WM NET PROFIT NHV/Y	AK TAXABLE INCOME NHV/Y	AK TAX LIAB NHV/Y	TOTAL AK TAX LIAB NHV/Y	FISCAL YEAR	TOTAL AK TAX COLLECT NHV/Y
	EQUIV	%									
1986	687.67	0.0000	0.0000	0.2787	1986	2213.50	616.90	57.99	64.43	1986	144.17
1987	684.00	-0.5333	0.9965	0.2750	1987	2213.50	608.62	57.21	63.57	1987	64.00
1988	639.68	-6.4793	0.9579	0.2607	1988	2213.50	577.15	54.25	60.28	1988	61.88
1989	601.89	-5.9074	0.9616	0.2482	1989	2213.50	549.44	51.65	57.39	1989	58.79
1990	563.34	-6.4046	0.9584	0.2355	1990	2213.50	521.30	49.00	54.45	1990	55.88
1991	508.53	-9.7297	0.9368	0.2184	1991	2213.50	483.45	45.44	50.49	1991	52.41
1992	457.74	-9.9884	0.9351	0.2022	1992	2213.50	447.54	42.07	46.74	1992	48.56
1993	407.98	-10.8702	0.9293	0.1860	1993	2213.50	411.76	38.71	43.01	1993	44.82
1994	362.35	-11.1851	0.9273	0.1708	1994	2213.50	378.01	35.53	39.48	1994	41.19
1995	325.00	-10.3074	0.9330	0.1577	1995	2213.50	349.15	32.82	36.47	1995	37.93
1996	290.48	-10.6211	0.9310	0.1454	1996	2213.50	321.80	30.25	33.61	1996	34.99
1997	261.45	-9.9928	0.9350	0.1346	1997	2213.50	297.89	28.00	31.11	1997	32.32
1998	238.42	-8.8112	0.9427	0.1256	1998	2213.50	278.02	26.13	29.04	1998	30.04
1999	51.82	-78.2631	0.1782	0.0222	1999	2213.50	49.04	4.61	5.12	1999	16.65
2000	50.78	-2.0123	0.9789	0.0215	2000	2213.50	47.54	4.47	4.97	2000	5.04
2001	48.66	-4.1860	0.9560	0.0203	2001	2213.50	45.00	4.23	4.70	2001	4.83
2002	49.15	1.0100	1.0106	0.0203	2002	2213.50	45.02	4.23	4.70	2002	4.70
2003	47.22	-3.9124	0.9589	0.0193	2003	2213.50	42.74	4.02	4.46	2003	4.58
2004	46.15	-2.2718	0.9761	0.0187	2004	2213.50	41.30	3.88	4.31	2004	4.39
2005	45.55	-1.3032	0.9863	0.0182	2005	2213.50	40.33	3.79	4.21	2005	4.26

TABLE 11-1-7

REVENUE COMPARISON

CURRENT LAW

INCOME TAX-MODIFIED APPORTIONMENT (AS4320)

PRODUCTION TAX-15% MAX NOMINAL RATE (AS4355)

PROPOSED LAW (HB353)

INCOME TAX-SEPARATE ACCOUNTING

PRODUCTION TAX-12.25% MAX NOMINAL RATE

BEGINNING IN CY 1987

(19-1986)

SENSITIVITY ANALYSIS 81/8 NHV

INCOME TAX COLLECTIONS

PRODUCTION TAX LIABILITY

INCOME TAX COLLECTIONS +

PRODUCTION TAX LIABILITY

FISCAL YEAR	INCOME TAX COLLECTIONS			PRODUCTION TAX LIABILITY			INCOME TAX COLLECTIONS + PRODUCTION TAX LIABILITY		
	CURRENT		DIFF HB353 LESS	CURRENT		DIFF HB353 LESS	CURRENT		DIFF HB353 LESS
	LAW NHV/Y	HB353 NHV/Y	CURRENT NHV/Y	LAW NHV/Y	HB353 NHV/Y	CURRENT NHV/Y	LAW NHV/Y	HB353 NHV/Y	CURRENT NHV/Y
1986	144.17	55.39	-88.78	273.34	273.34	0.00	417.50	328.73	-88.78
1987	64.00	0.00	-64.00	263.45	263.44	-0.01	327.45	263.44	-64.01
1988	61.00	0.00	-61.00	232.72	232.71	-0.01	294.60	232.71	-61.89
1989	58.79	0.00	-58.79	213.49	213.48	-0.01	272.28	213.48	-58.80
1990	55.00	0.00	-55.00	195.97	195.97	-0.01	251.05	195.97	-55.08
1991	52.41	4.49	-47.92	176.74	176.74	0.00	229.15	181.23	-47.92
1992	48.56	9.89	-38.67	157.64	157.64	0.00	206.20	167.53	-38.67
1993	44.82	14.14	-30.68	138.88	138.88	0.00	183.70	153.02	-30.68
1994	41.19	23.97	-17.21	130.20	130.20	0.00	171.39	154.17	-17.21
1995	37.93	39.78	1.85	127.73	127.73	0.00	165.66	167.51	1.85
1996	34.99	45.79	10.80	116.45	116.45	0.00	151.44	162.24	10.80
1997	32.32	47.66	15.34	106.65	106.65	0.00	138.97	154.31	15.34
1998	30.04	49.31	19.27	101.30	101.30	0.00	131.35	150.62	19.27
1999	16.65	49.07	32.42	58.99	58.99	0.00	75.64	108.06	32.42
2000	5.04	48.72	43.68	57.73	57.73	0.00	62.77	106.46	43.68
2001	4.83	47.30	42.47	54.36	54.36	0.00	59.19	101.66	42.47
2002	4.70	47.56	42.86	54.10	54.10	0.00	58.00	101.66	42.86
2003	4.58	46.21	41.63	52.03	52.03	0.00	56.61	98.25	41.63
2004	4.39	44.40	40.01	50.84	50.84	0.00	55.22	95.24	40.01
2005	4.26	43.32	39.05	50.24	50.24	0.00	54.50	93.56	39.05
SUM86-05	751.43	617.01	-134.42	2612.86	2612.82	-0.04	3364.29	3229.84	-134.45

TABLE 11-1-8
PERCENTAGE SHARE COMPARISON
CALCULATION OF STATE PETROLEUM PRODUCTION REVENUES
AS A PERCENTAGE OF
PETROLEUM PRODUCTION NET INCOME
(1986-1988)

FISCAL YEAR	TOTAL	PETRO PRODN	PRODN	GROSS NON TAX	INCOME DEDUCTS	INCOME	MM\$/Y
1986	837.04	3403.77	-2646.73	714.13	NA	625.36	NA
1987	850.15	3716.06	-2865.92	614.02	NA	550.01	NA
1988	845.09	3704.56	-2859.27	580.39	NA	510.50	NA
1989	823.52	3644.69	-2821.17	540.07	NA	489.27	NA
1990	835.67	3493.67	-2658.00	517.21	NA	461.33	NA
1991	936.30	3221.10	-2284.80	487.04	NA	439.92	NA
1992	960.04	2970.30	-2010.34	450.01	NA	412.10	NA
1993	969.76	2744.22	-1774.46	412.36	NA	381.69	NA
1994	1085.71	2542.04	-1456.33	397.03	NA	379.01	NA
1995	1256.99	2356.01	-1099.03	396.76	NA	396.61	NA
1996	1230.91	2174.57	-934.66	356.32	NA	367.11	NA
1997	1236.03	2034.09	-798.06	325.54	NA	340.00	NA
1998	1239.60	1921.11	-681.43	299.02	NA	319.09	NA
1999	1072.99	352.05	720.94	217.06	30.22	250.27	34.72
2000	1050.50	335.94	714.64	201.00	20.24	245.40	34.35
2001	1005.47	319.03	685.64	192.19	20.03	234.66	34.23
2002	1016.47	319.03	696.64	192.00	27.94	235.66	33.03
2003	907.90	319.03	668.07	186.65	27.94	220.79	34.17
2004	965.20	319.03	645.45	182.05	20.20	222.06	34.10
2005	953.51	319.03	633.60	179.47	20.32	218.53	34.49

CURRENT

LAH

STATE

VS

PRODN

NET

REVENUE

INCOME

MM\$/Y

2

STATE

VS

PRODN

NET

REVENUE

INCOME

MM\$/Y

2

STATE

VS

PRODN

NET

REVENUE

INCOME

MM\$/Y

2

STATE

VS

PRODN

NET

REVENUE

INCOME

MM\$/Y

2

TABLE 11-1-9

PERCENTAGE SHARE COMPARISON

CALCULATION OF STATE PETROLEUM PRODUCTION & PIPELINE REVENUES

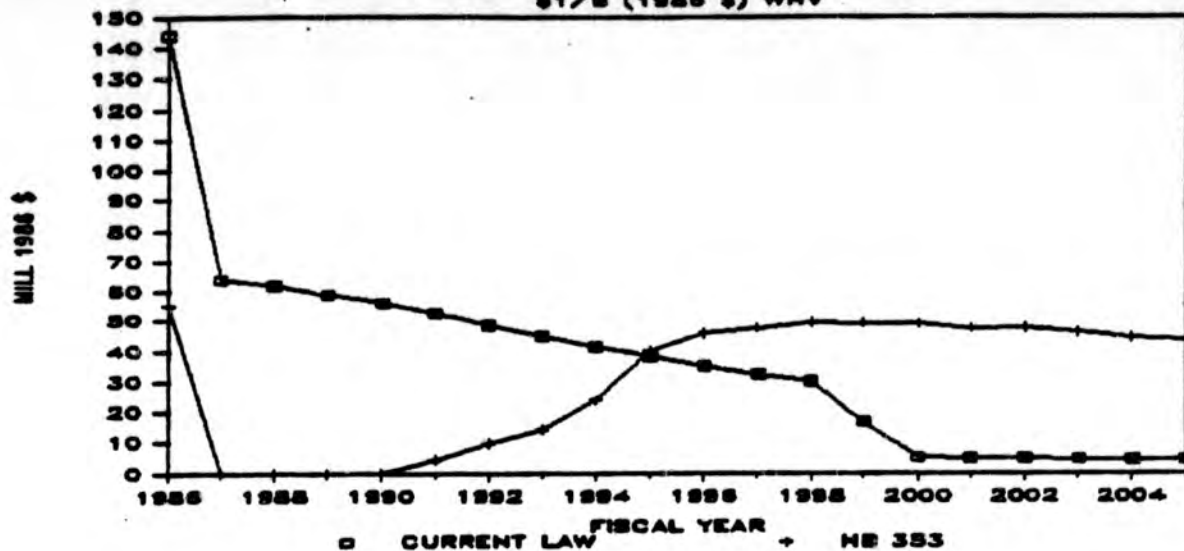
AS A PERCENTAGE OF

PETROLEUM PRODUCTION & PIPELINE NET INCOME:

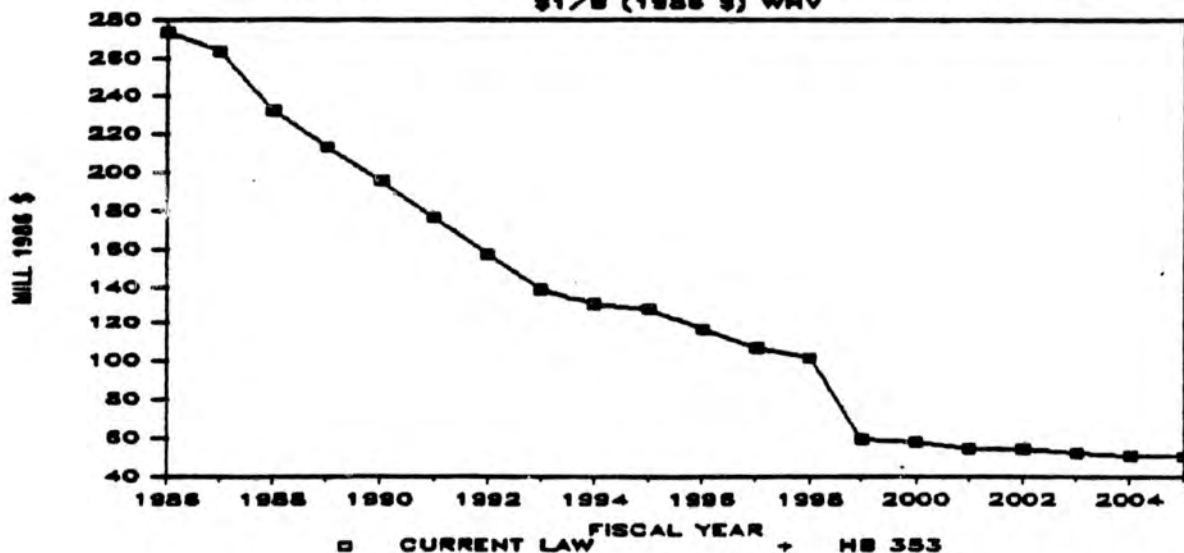
(6-1986)

FISCAL YEAR	SENSITIVITY ANALYSIS \$1/0 MMV			CURRENT		H0353	
	TOTAL PETRO PRODN & PIPE GROSS INCOME MM\$/Y	TOTAL PETRO PRODN & PIPE NON TAX DEDUCTS MM\$/Y	TOTAL PETRO PRODN & PIPE NET INCOME MM\$/Y	LAN STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %	STATE PETRO PRODN & PIPE REVENUE MM\$/Y	REVENUE VS NET INCOME %
1986	3920.69	4419.93	-499.24	896.76	NA	807.98	NA
1987	3814.90	4623.43	-808.53	778.23	NA	704.22	NA
1988	3450.41	4570.85	-1120.43	709.37	NA	647.48	NA
1989	3040.60	4477.83	-1437.23	652.48	NA	593.68	NA
1990	2733.82	4292.52	-1558.70	600.53	NA	544.65	NA
1991	2523.36	3966.63	-1443.27	553.35	NA	505.42	NA
1992	2291.00	3688.16	-1397.16	501.09	NA	462.42	NA
1993	2043.99	3418.03	-1354.03	449.97	NA	419.29	NA
1994	1996.28	3184.49	-1188.21	424.41	NA	407.20	NA
1995	2025.13	2973.28	-948.15	413.75	NA	415.60	NA
1996	1861.62	2768.28	-906.66	368.27	NA	379.07	NA
1997	1720.34	2605.93	-885.58	332.01	NA	347.34	NA
1998	1609.41	2470.43	-861.01	302.37	NA	321.65	NA
1999	1672.99	352.05	720.94	217.86	30.22	250.27	34.72
2000	1050.58	335.94	714.64	201.80	28.24	245.48	34.35
2001	1005.47	319.83	685.64	192.19	28.03	234.66	34.23
2002	1016.47	319.83	696.64	192.80	27.68	235.66	33.83
2003	987.90	319.83	668.07	186.65	27.94	228.29	34.17
2004	965.28	319.83	645.45	182.05	28.20	222.06	34.40
2005	953.51	319.83	633.68	179.47	28.32	218.53	34.49

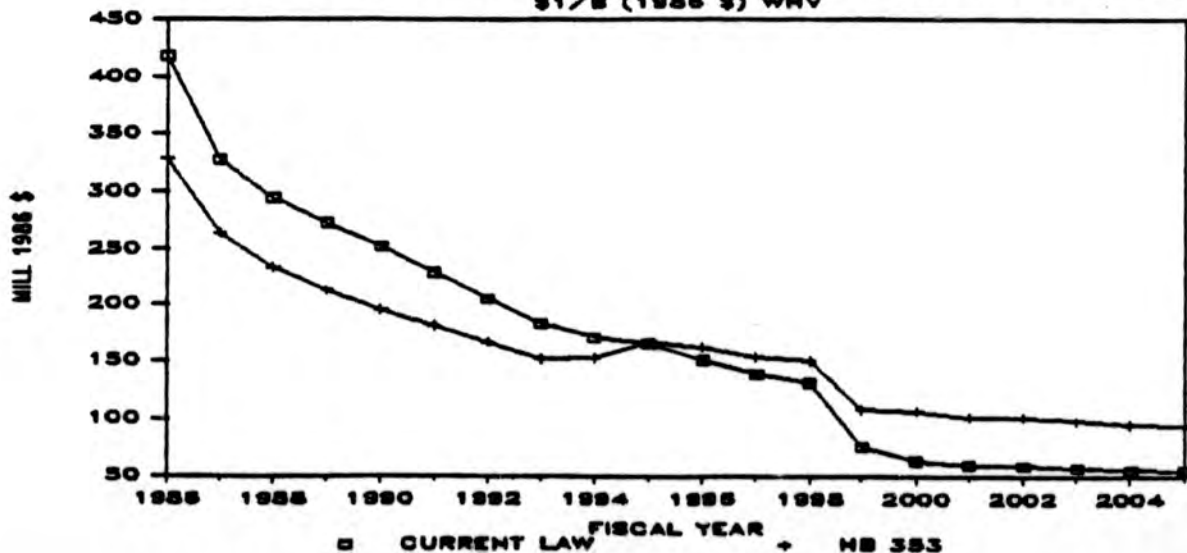
GRAPH II-1-1
INCOME TAX COMPARISON
\$1/B (1986 \$) WHV



GRAPH II-1-2
PRODUCTION TAX COMPARISON
\$1/B (1986 \$) WHV



GRAPH II-1-3
INCOME + PRODN TAX COMPARISON
\$1/B (1986 \$) WHV



SECTION III

SENSITIVITY ANALYSIS RESULTS

**PETROLEUM CORPORATE INCOME TAX & PETROLEUM PRODUCTION TAX
HB 353 vs CURRENT LAW**

FOR WELLHEAD VALUES (1986 \$) \$25 - \$1 PER BARREL

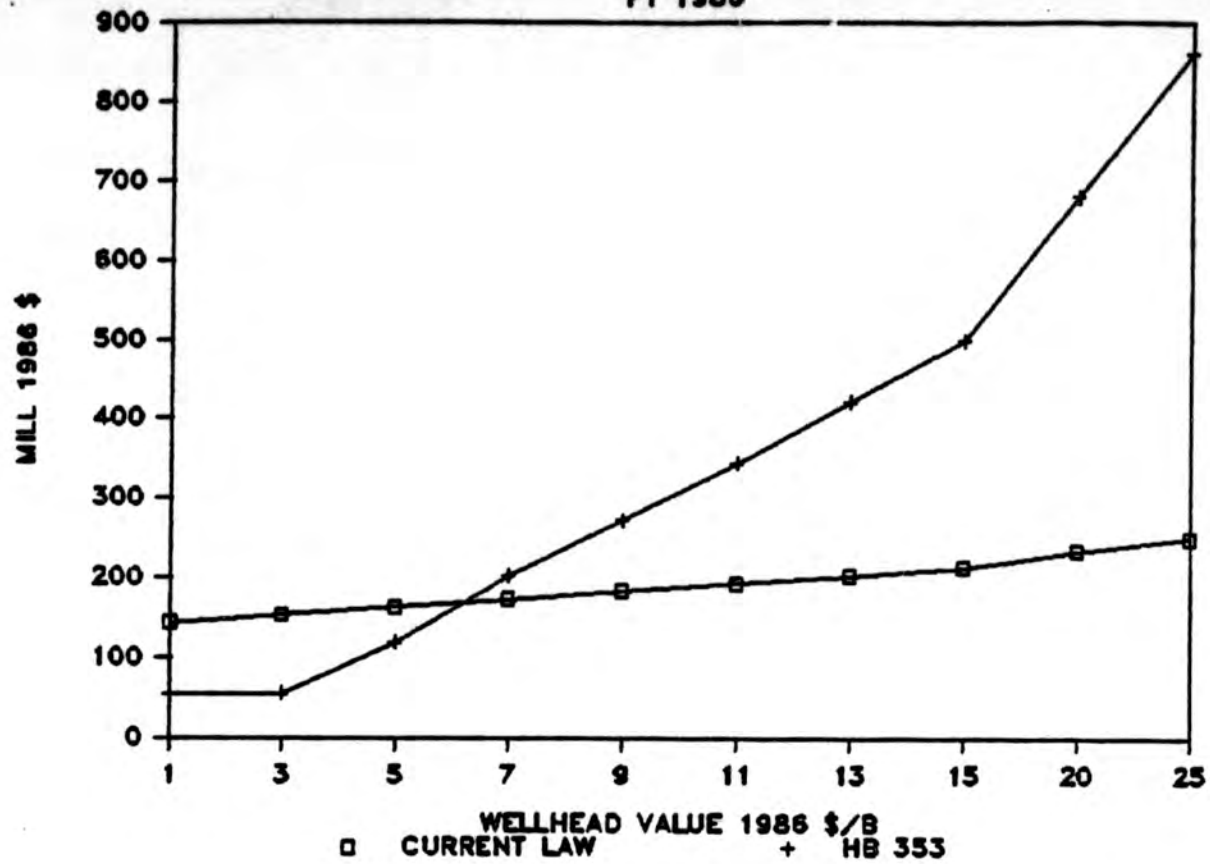
FOR SELECTED YEARS AND CUMULATIVE FISCAL YEARS 1986-2005

SUMMARY GRAPHS

GRAPH III-86-1

INCOME TAX COMPARISON

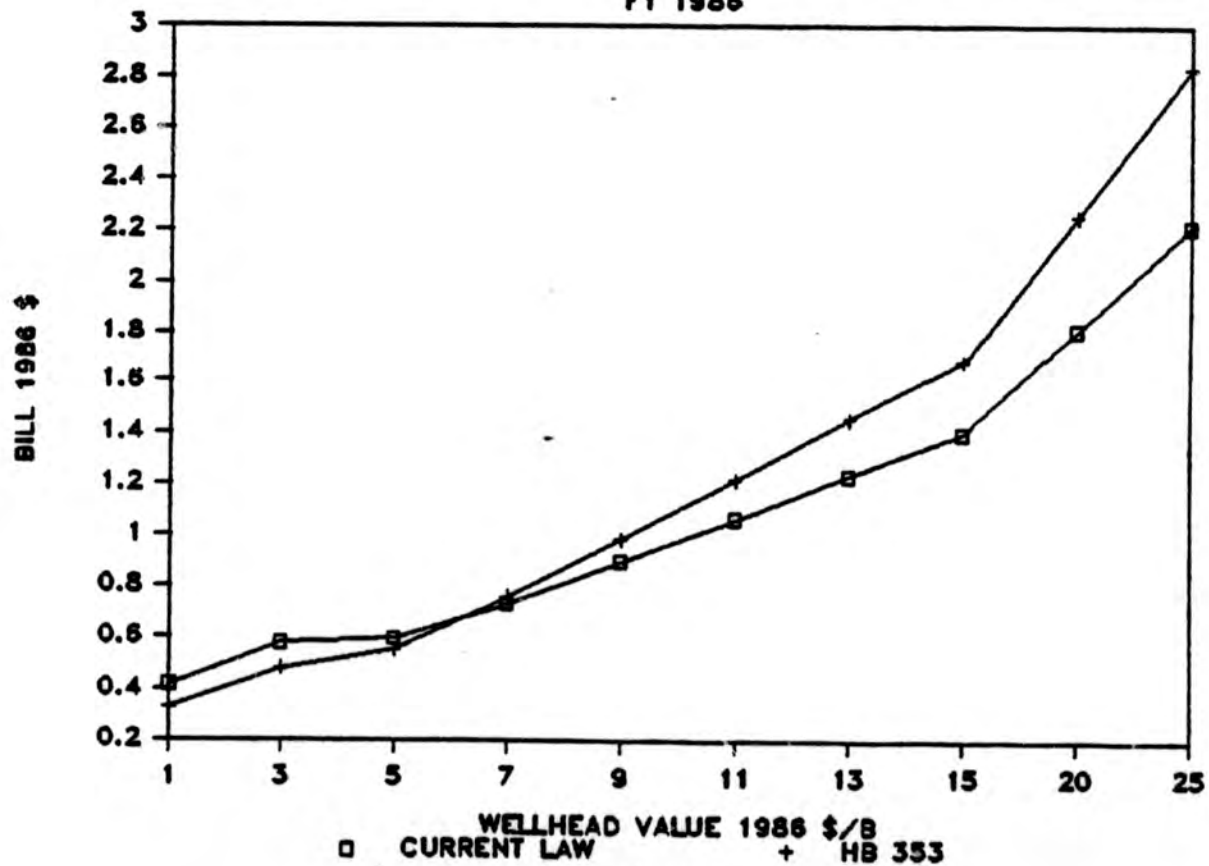
FY 1986



GRAPH III-86-2

INCOME + PRODN TAX COMPARISON

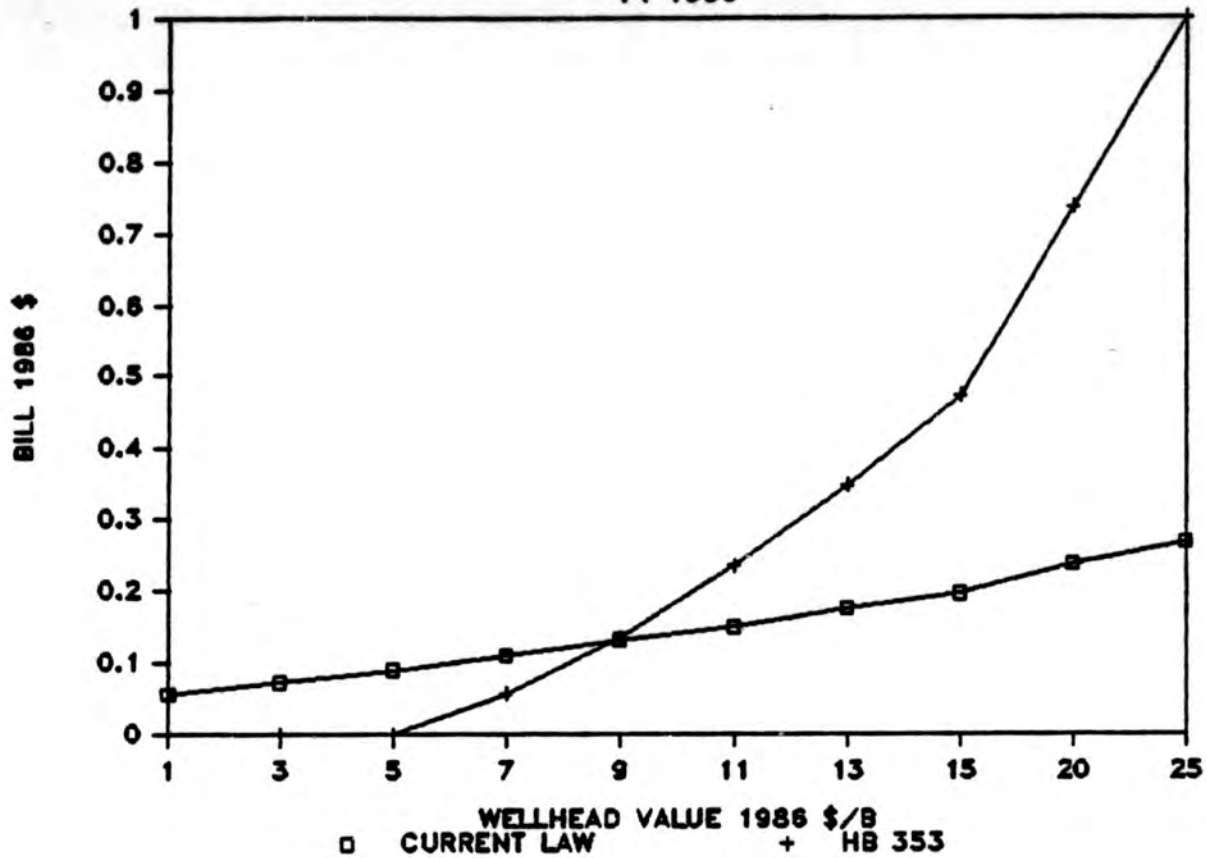
FY 1986



GRAPH III-90-1

INCOME TAX COMPARISON

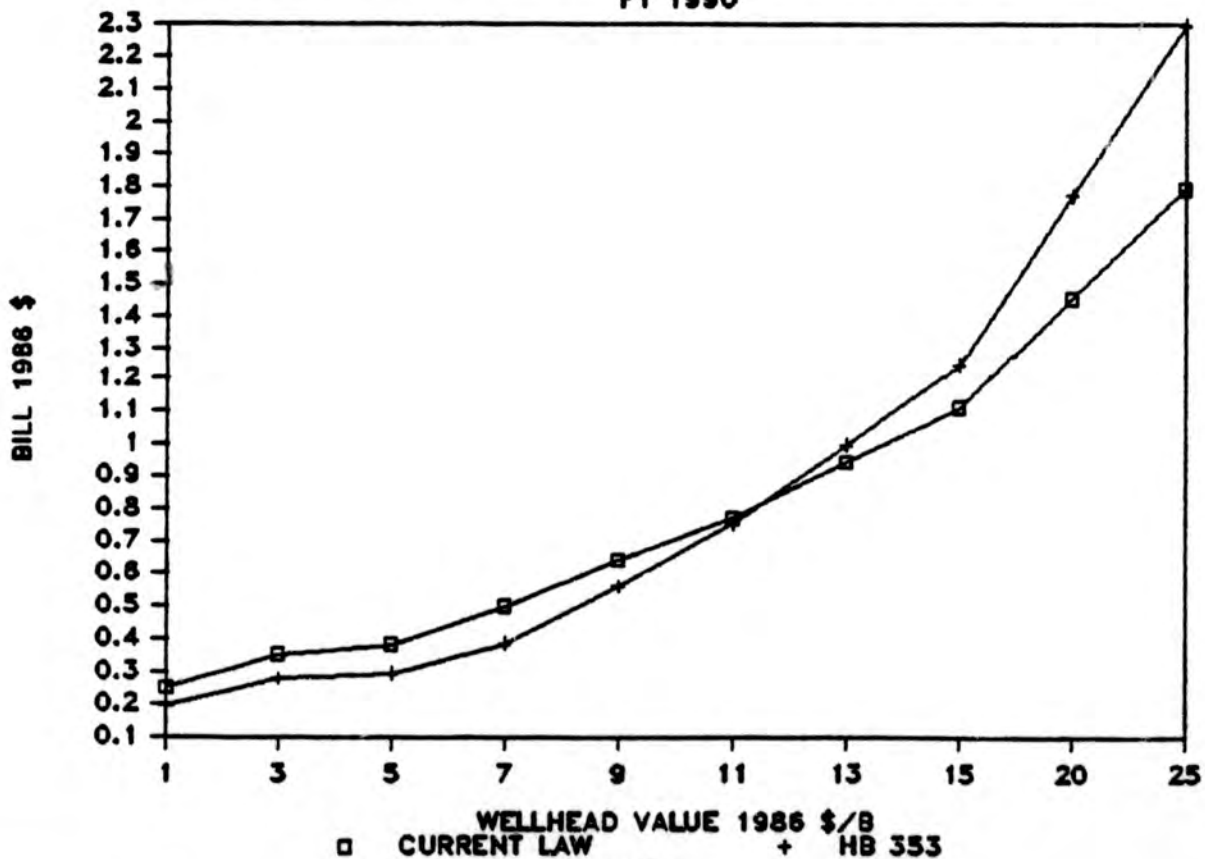
FY 1990



GRAPH III-90-2

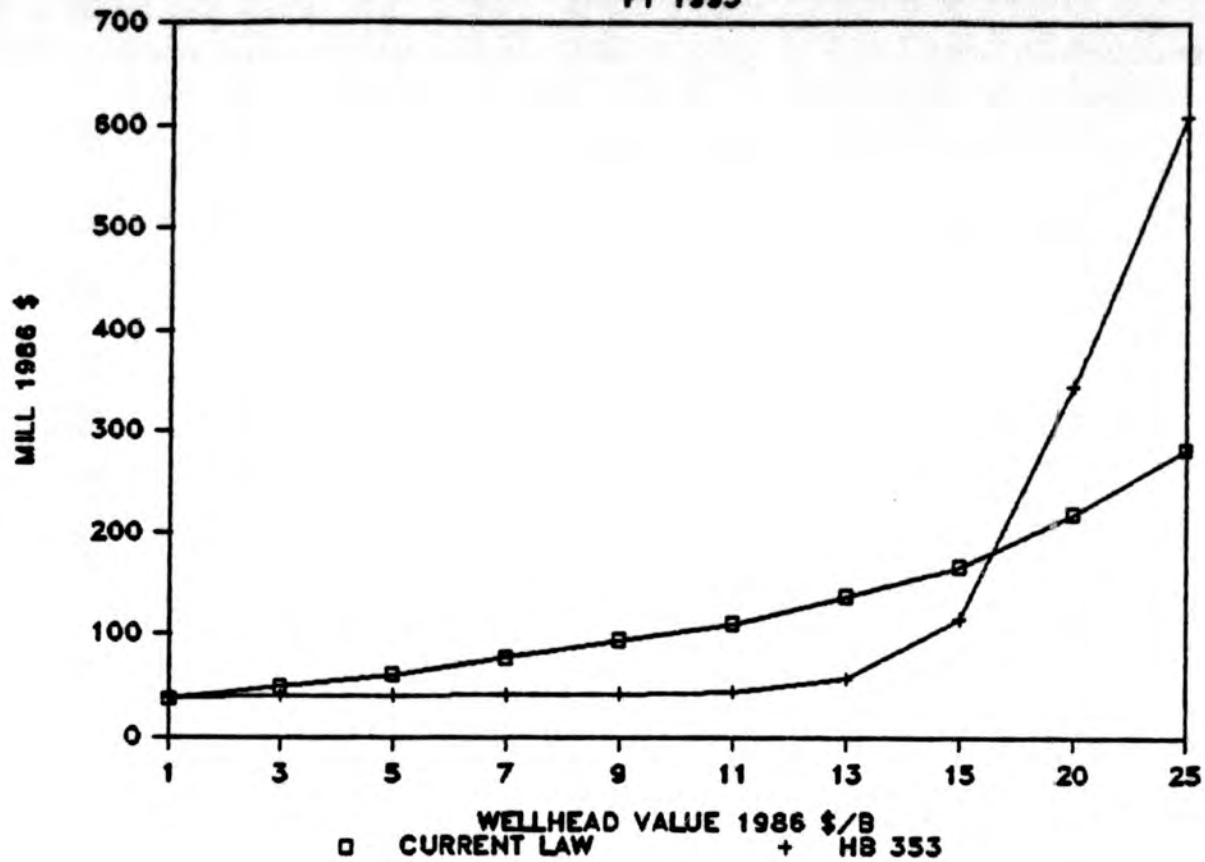
INCOME + PRODN TAX COMPARISON

FY 1990



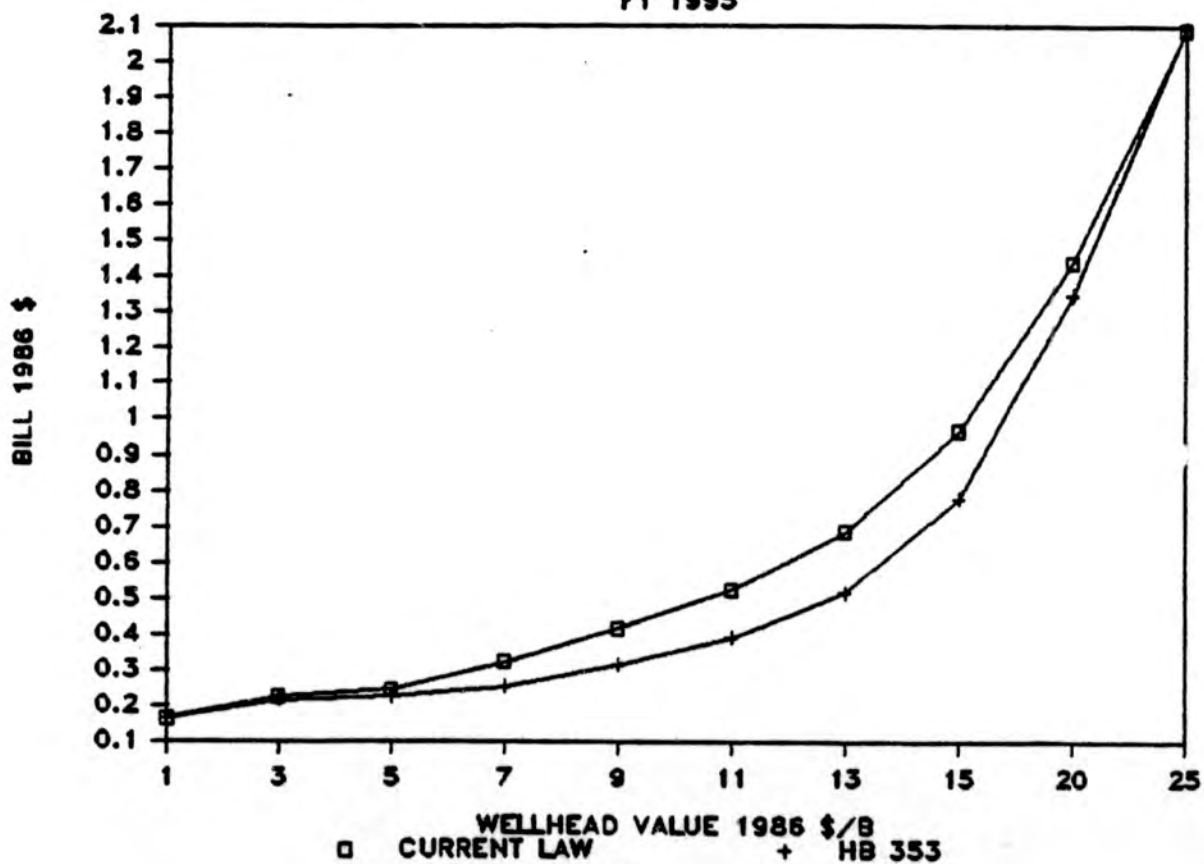
GRAPH III-95-1

INCOME TAX COMPARISON FY 1995



GRAPH III-95-2

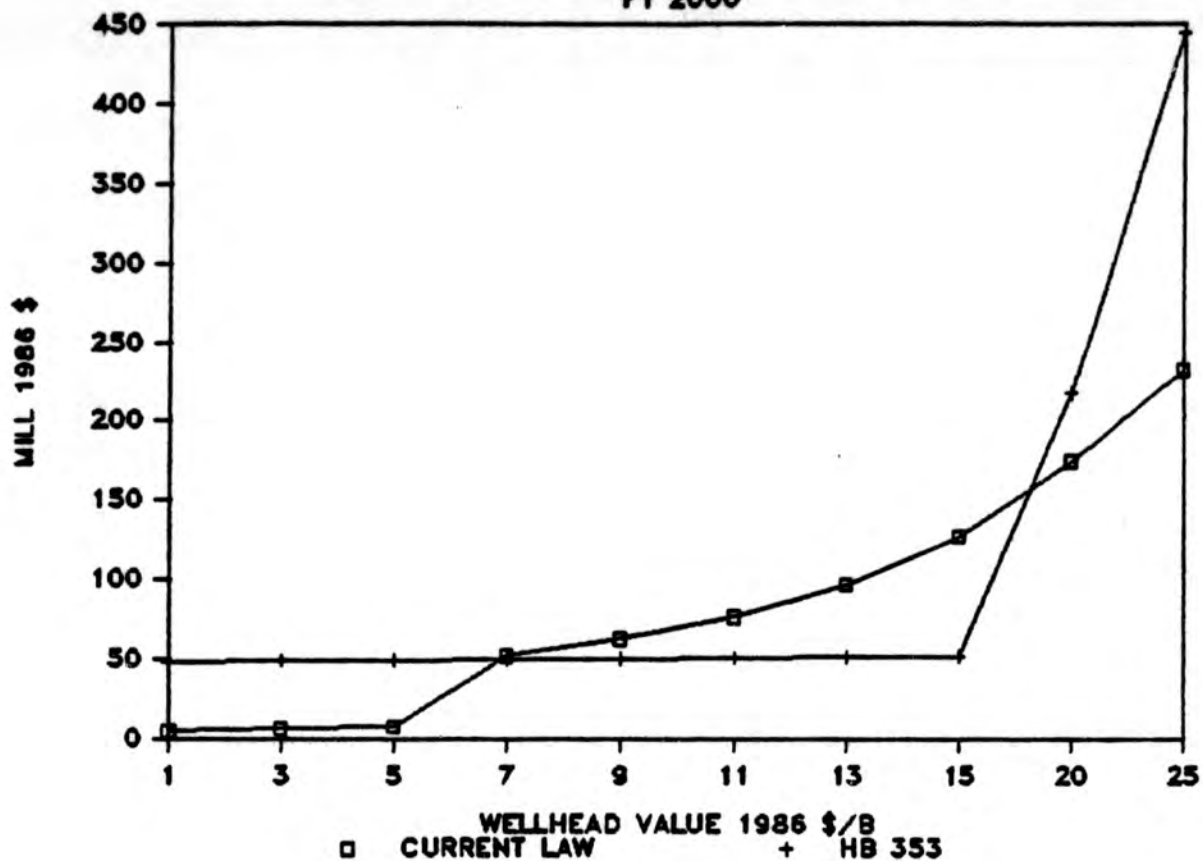
INCOME + PRODN TAX COMPARISON FY 1995



GRAPH III-00-1

INCOME TAX COMPARISON

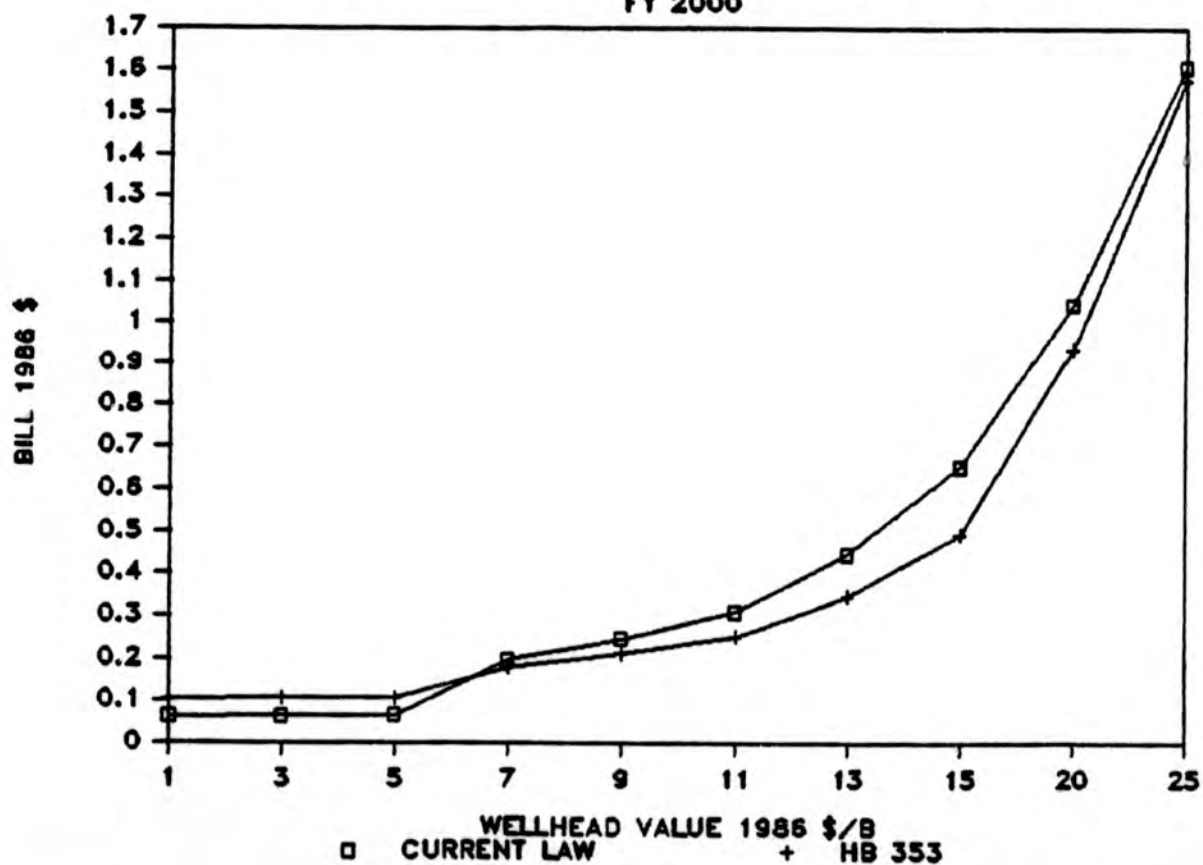
FY 2000



GRAPH III-00-2

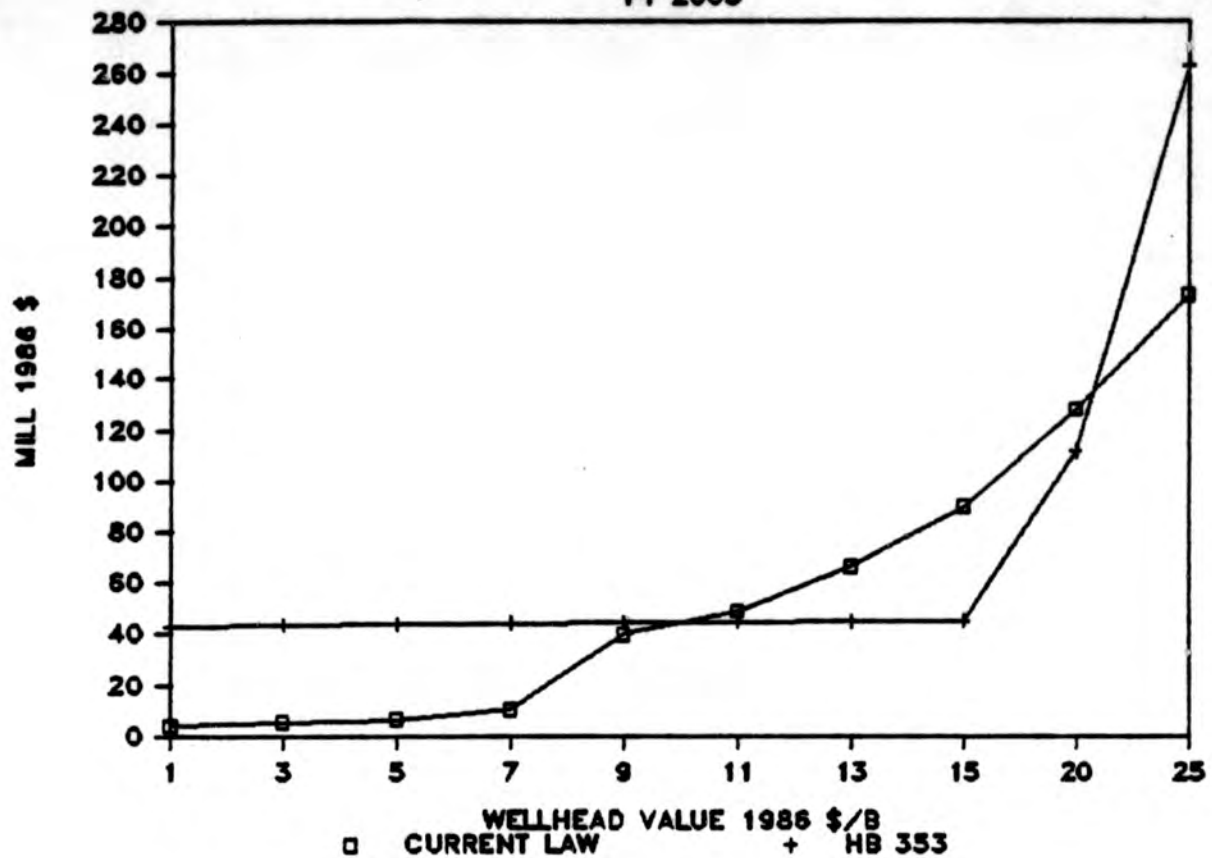
INCOME + PRODN TAX COMPARISON

FY 2000



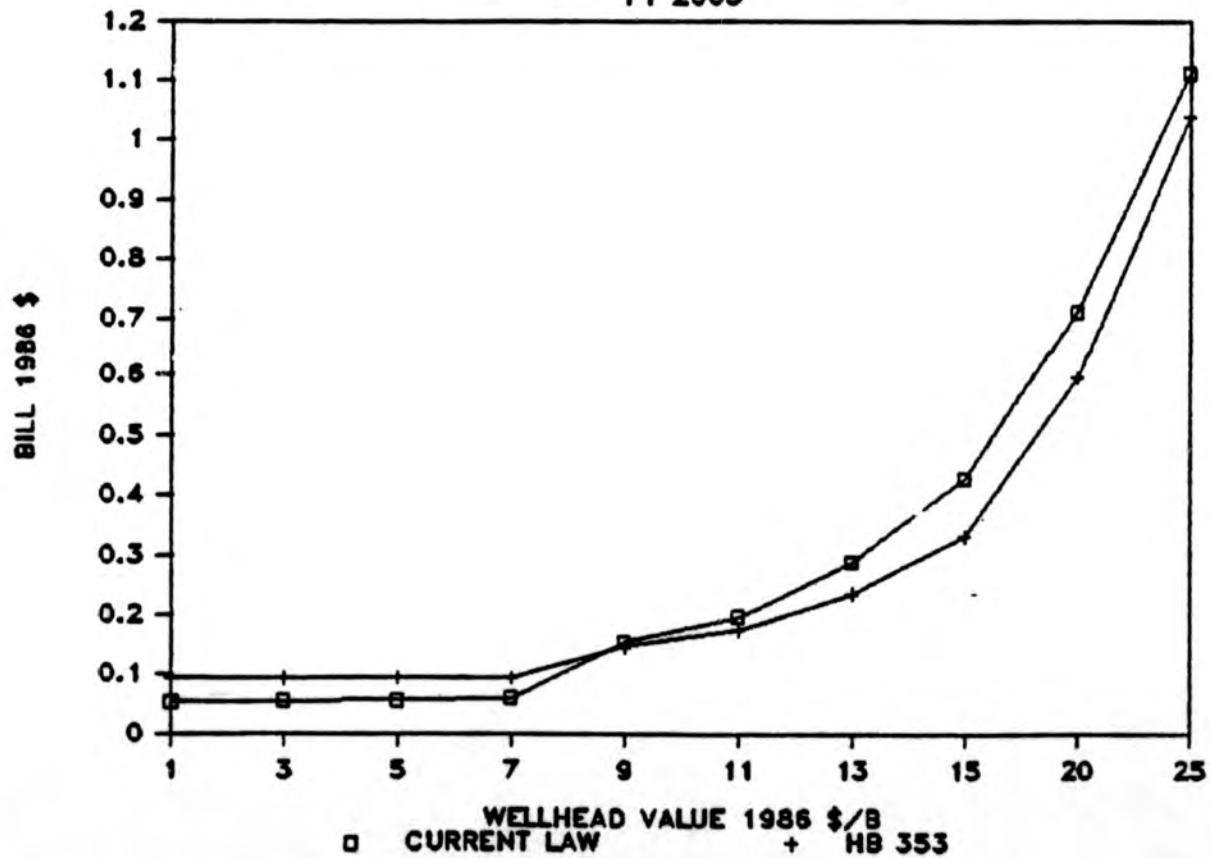
GRAPH III-05-1

INCOME TAX COMPARISON FY 2005



GRAPH III-05-2

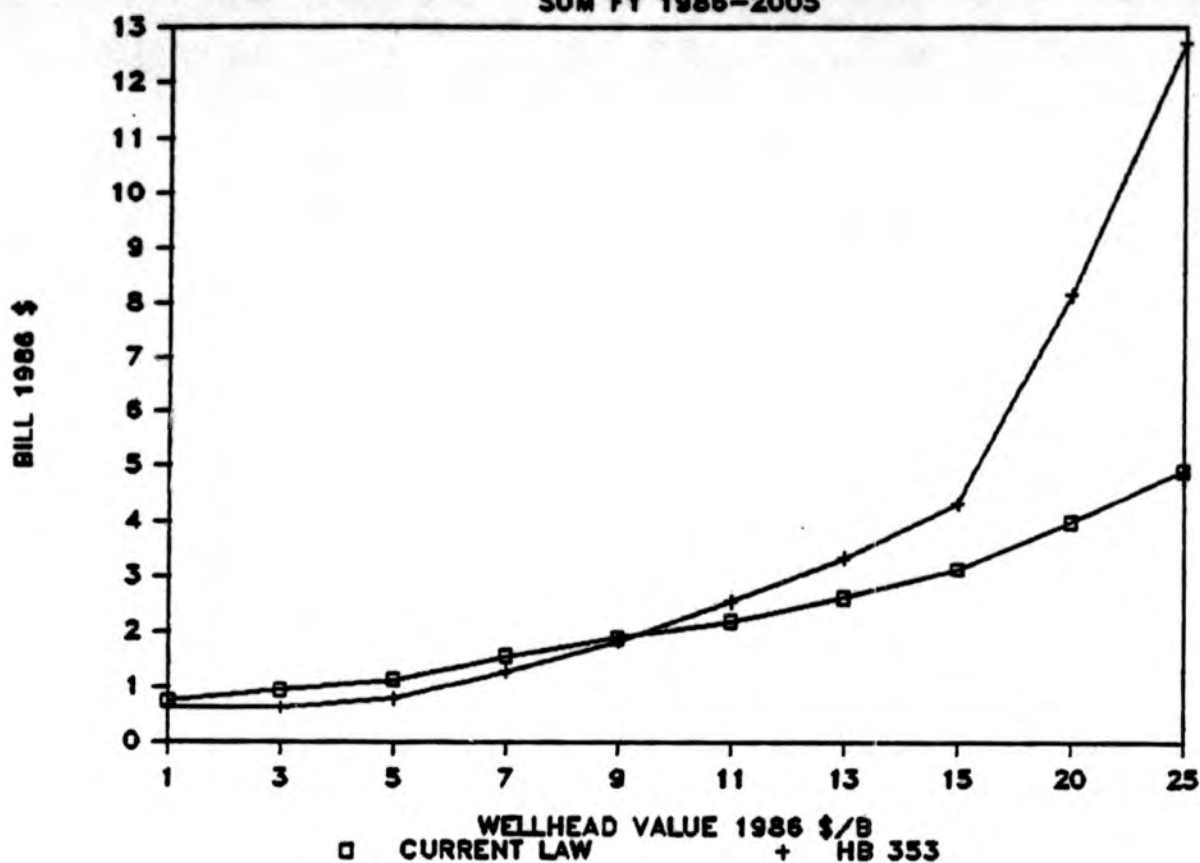
INCOME + PRODN TAX COMPARISON FY 2005



GRAPH III-8605-1

INCOME TAX COMPARISON

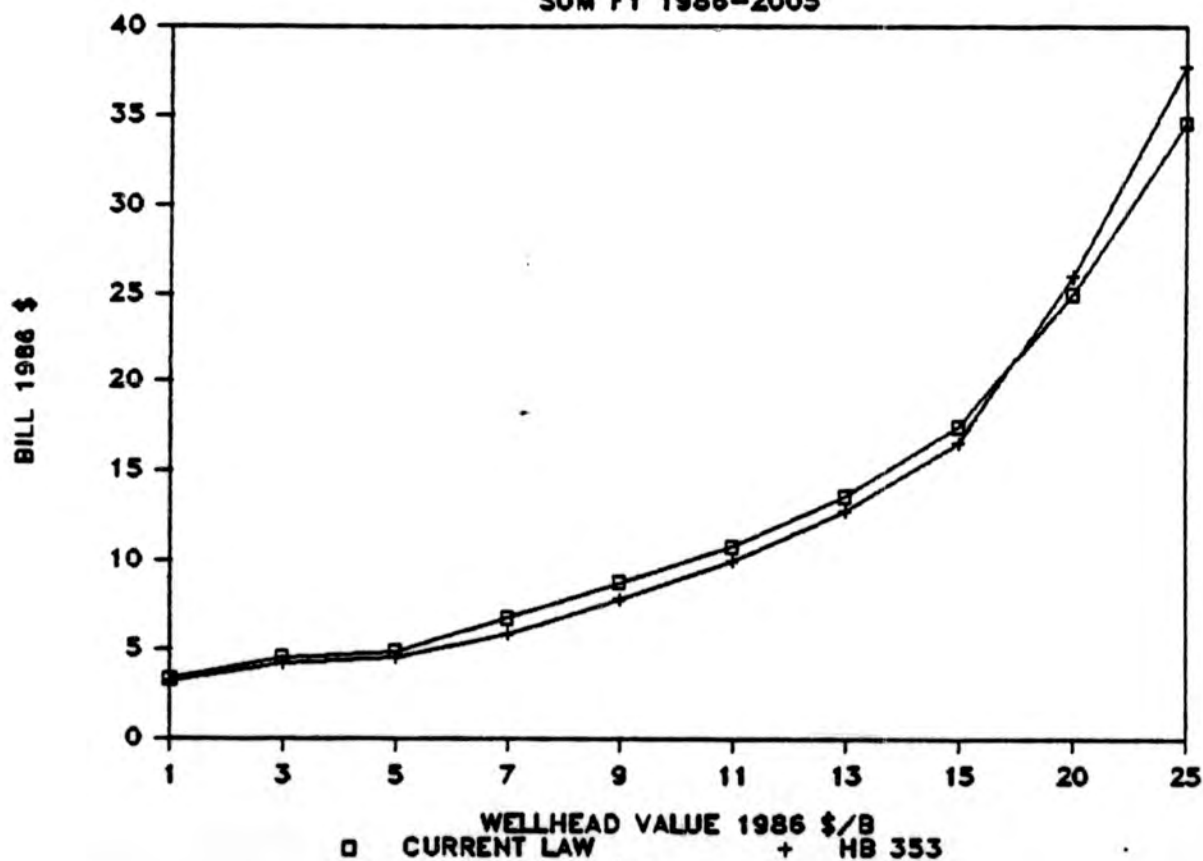
SUM FY 1986-2005



GRAPH III-8605-2

INCOME + PRODN TAX COMPARISON

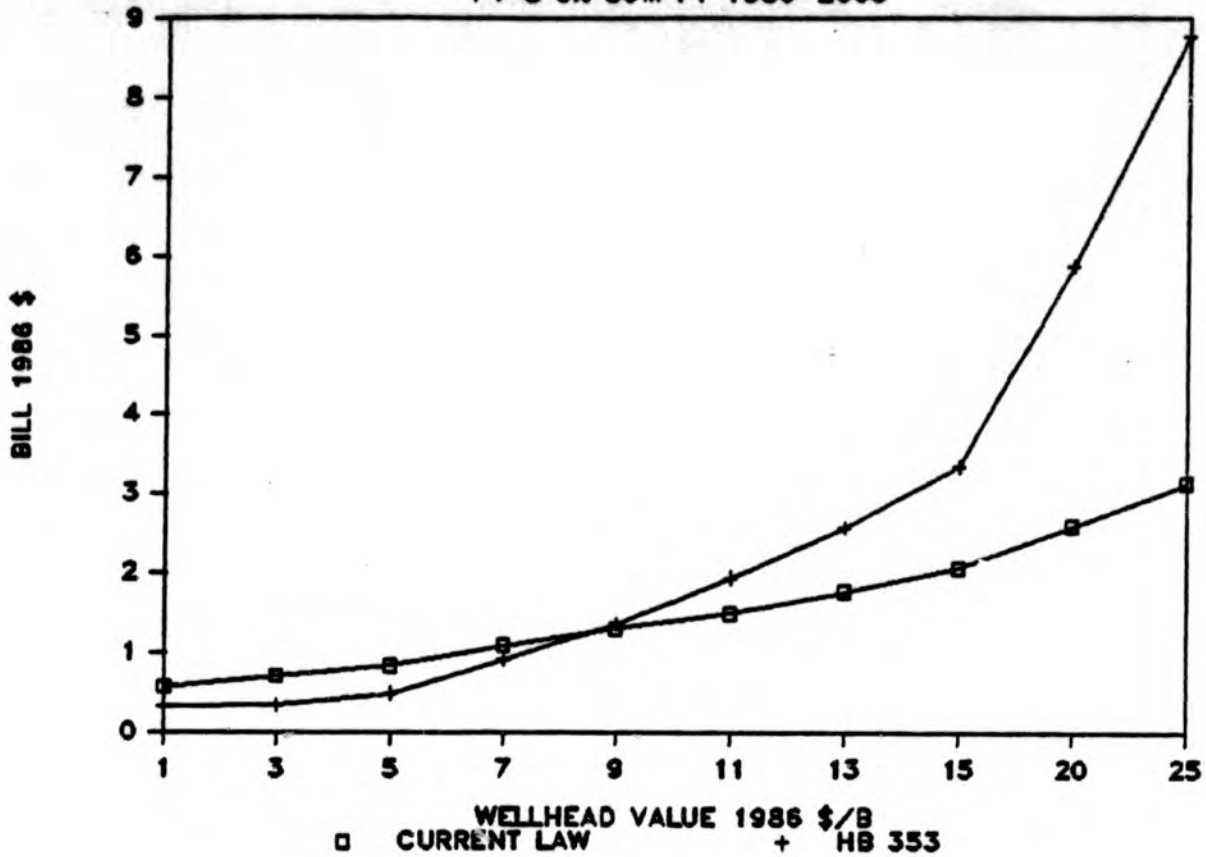
SUM FY 1986-2005



GRAPH III-8605-PV85-1

INCOME TAX COMPARISON

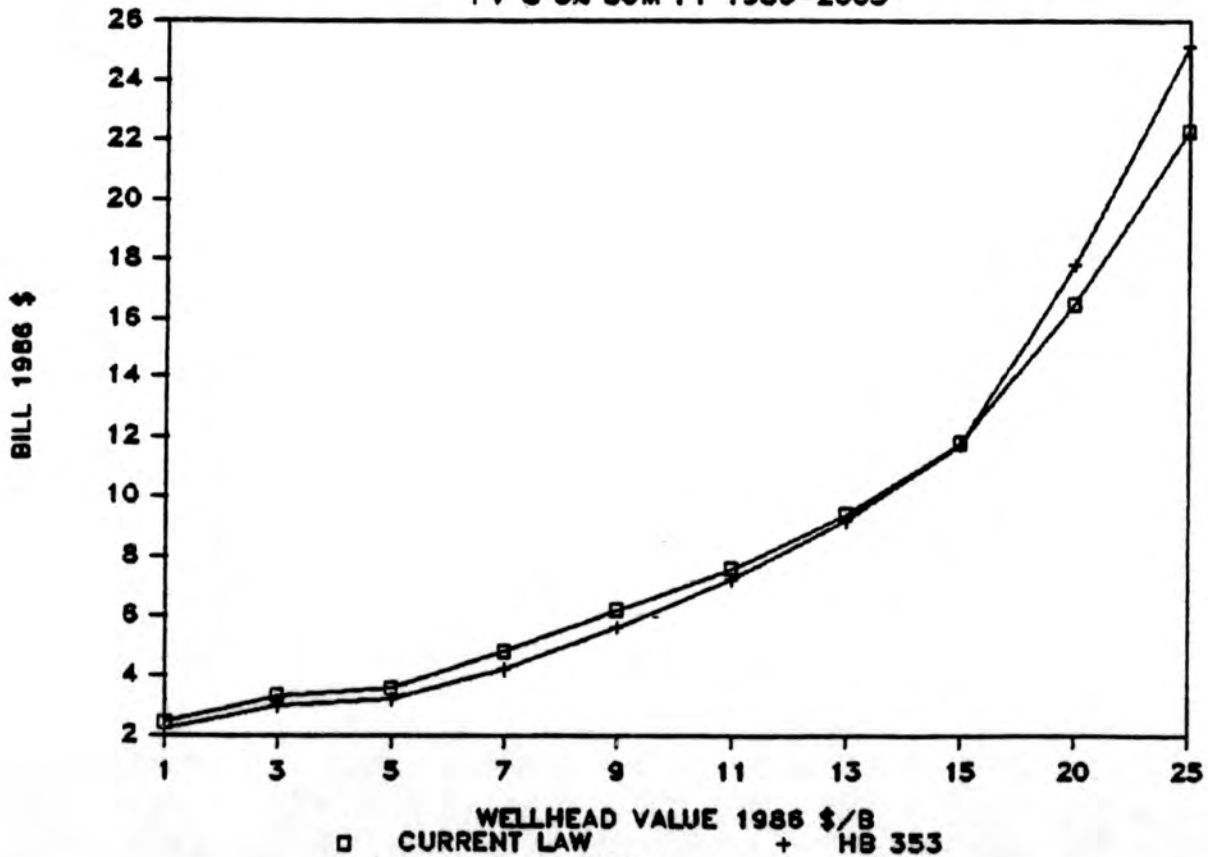
PV @ 5% SUM FY 1986-2005



GRAPH III-8605-PV85-2

INCOME + PRODN TAX COMPARISON

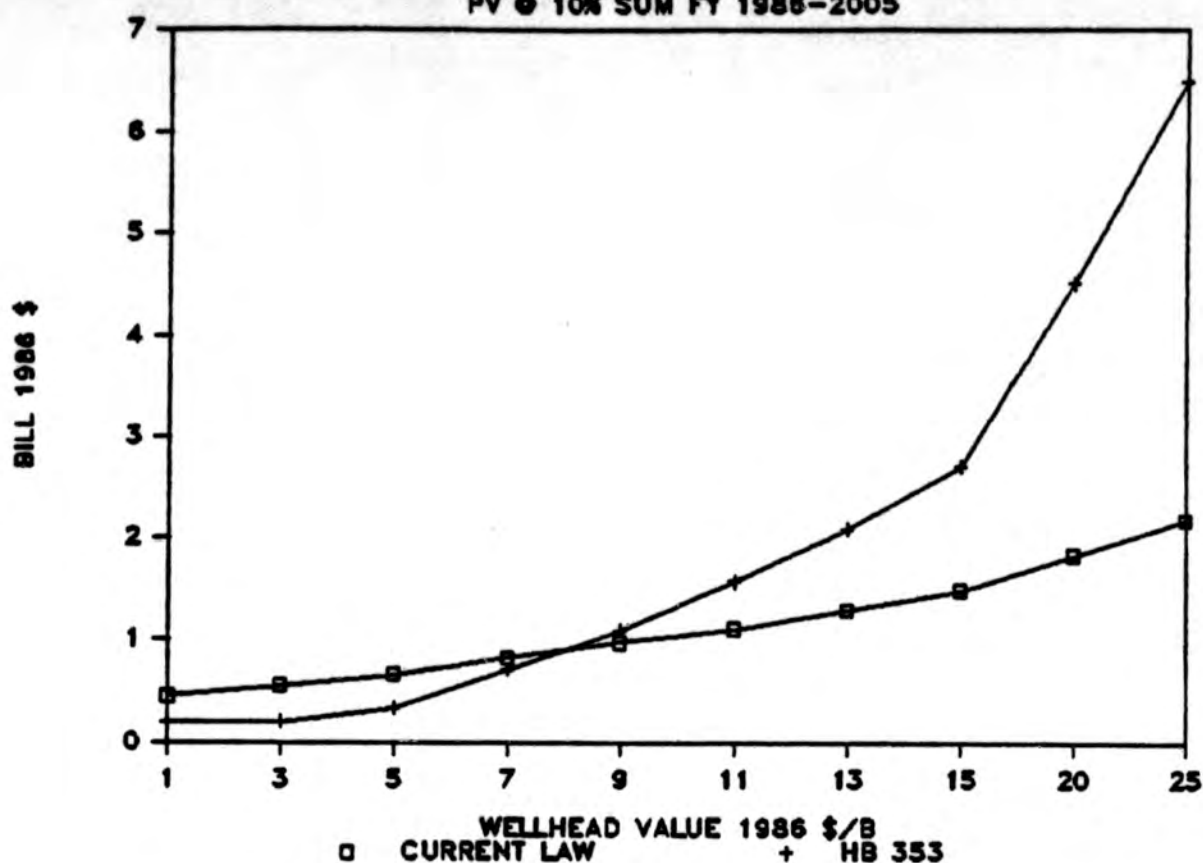
PV @ 5% SUM FY 1986-2005



GRAPH III-8605-PV810-1

INCOME TAX COMPARISON

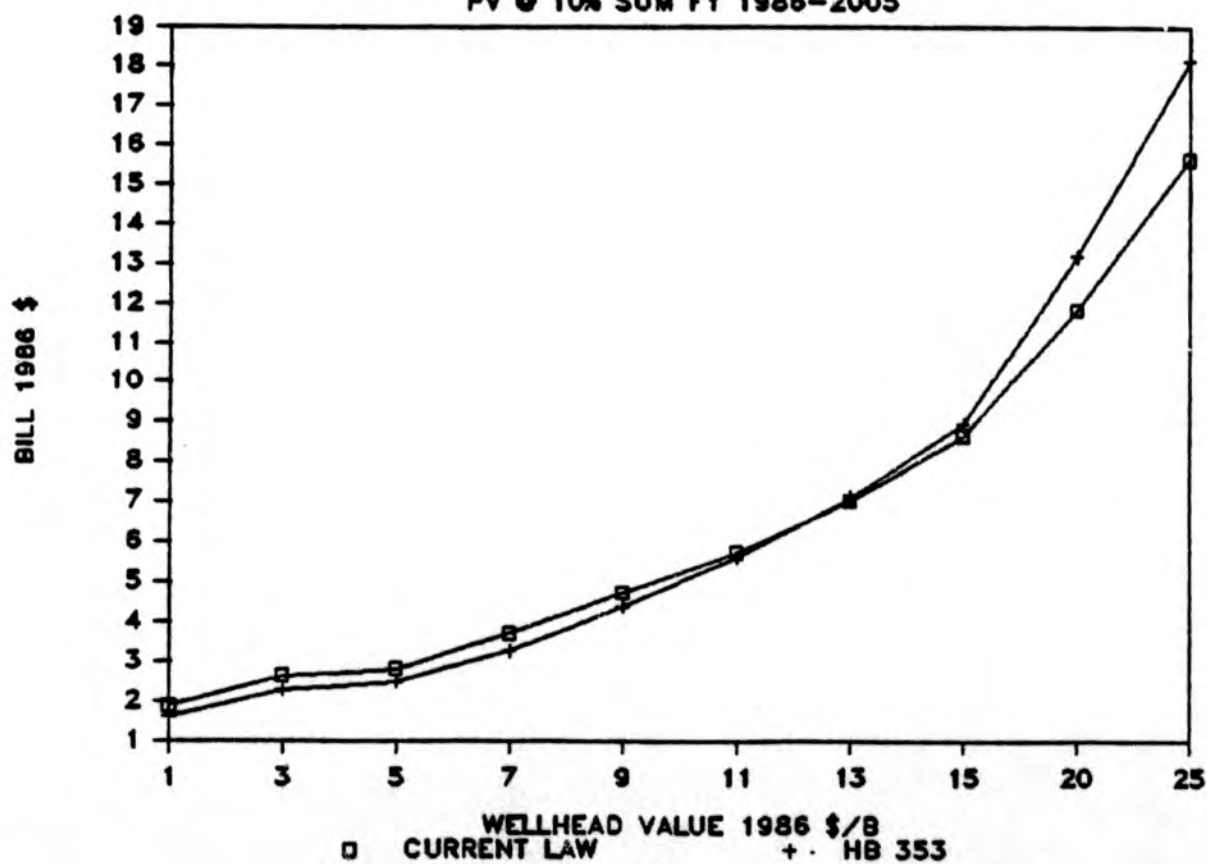
PV @ 10% SUM FY 1986-2005



GRAPH III-8605-PV810-2

INCOME + PRODN TAX COMPARISON

PV @ 10% SUM FY 1986-2005



C.

Methodology

The methodology and assumptions used in this analysis are summarized in this part of the report.

As discussed above the purpose of this study is to determine the sensitivity of revenue collections under HB 353 and current law to alternative crude oil price levels. The purpose is not to project the most likely revenue collections which would result from enactment of HB 353 based on a set of assumptions about future levels of crude oil production and WHV's in Alaska which presently seem reasonable. Therefore, a deterministic sensitivity type of analysis was used in this study. In the analysis, various Sadlerochit crude oil WHV scenarios were specified as given starting points for the analysis and the oil production volumes and revenue values associated with each WHV senario were projected. This type of analysis is in direct contrast to the probabilistic simulation type of analysis which is used to produce the Department of Revenue's quarterly forecasts of state petroleum revenues. In the simulation type analysis probability distributions for oil prices, production, etc., are specified and sampled at random to determine a range of revenue estimates which can then be assigned various probabilities of occurrence. The results of this study which uses the sensitivity type analysis are not directly comparable to the quarterly Petroleum Production Revenue forecasts which use the simulation type of analysis.

In this study all dollar values are in terms of constant 1986 dollars. The time frame for the analysis is from FY 1986 through FY 2005. The Alaska North Slope (Sadlerochit-TAPS Pump Station NO. 1) 1986 dollar WHV scenarios which were examined are 25, 20, 15, 13, 11, 9, 7, 5, 3 and 1 dollars per barrel. Thus, there are ten different oil price scenarios presented in this study. It is assumed in each scenario that the real 1986 dollar WHV remains constant for the entire period from FY 1986 through FY 2005. The analysis includes all currently producing Alaska oil and gas fields and most prospective North Slope oil fields. Specifically included are the Cook Inlet oil and gas fields and the Sadlerochit, Kuparuk, Milne Point, Endicott, Lisburne, West Sak and other onshore North Slope oil fields. The Seal Island and other offshore oil fields on the North Slope were excluded as they are not expected to have significant commercial production prior to FY 2005. Also note that no commercial North Slope gas production was assumed to occur within the time frame of this analysis. In addition the TAPS crude oil pipeline was also included in the analysis.

Petroleum Corporate Income Tax HB 353 - Separate Accounting

In this analysis projections of Petroleum Corporate Income Tax collections under HB 353 were done on a disaggregated basis, that is separately for each field and for the TAPS pipeline. Using the Field Feasibility Analysis submodel of the Petroleum Production Revenue Forecasting Simulation model, each North Slope field was evaluated under each different WHV scenario for both HB 353 and current law. The results

of this evaluation indicated that for a given WHV scenario there would be no significant feasibility impacts on the fields as a result of the tax law changes proposed under HB 353. It was therefore assumed that production for each field would be the same under HB 353 as under current law for a given WHV scenario.

The feasibility analysis was based on a real after tax discounted cash flow rate of return (DCF ROR) methodology. Assumptions for each field as to WHV, reserve estimates, primary and enhanced recovery production rates, development costs and operating costs, effective tax rates and desired rates of return were made. The model then tests the resulting after tax DCF ROR against a specified hurdle rate to determine the level of development which is feasible. A detailed description of the Field Feasibility submodel can be found in the appendix to the June, 1985 quarterly Petroleum Production Revenue Forecast.

This feasibility model was used to project an oil production volume profile from FY 1986 through FY 2005 for each North Slope field corresponding with each WHV scenario. It should be noted that all the WHV scenarios are stated in terms of Sadlerochit-TAPS Pump Station No. 1 values. The WHVs for North Slope fields other than Sadlerochit differ from the WHV stated in the scenario by a fixed amount equal to the estimated transportation cost to get oil from the field to TAPS. In the analysis the potential start up year for any given prospective field was assumed to be the first year commercial production could begin from a technical engineering standpoint, given when the field was leased and the estimated time required for exploration and development. The feasibility

test was structured such that the field either would be feasible and begin commercial production at some minimum level or it would fail the feasibility test and never go into commercial production given the specific WHV scenario assumed. This was because the analysis assumes no change in real WHV over time, so if a field is not feasible at the earliest opportunity for development it will never become feasible. However, if a field was feasible the level of development, which was projected to occur through investment in enhanced recovery techniques, did increase with higher WHV scenarios. Thus, production volume profiles, economically recoverable reserves estimates, and productive life estimates for a given field do increase with higher WHV scenarios.

The WHV and associated production volume profile for each North Slope oil field were used to calculate gross oil production revenue on a separate accounting basis under HB 353.

North Slope field specific allowable separate accounting deductions were then calculated for each field for each WHV and production volume scenario. The deductions from gross oil production income were projected as follows:

Oil Royalties:

Oil royalties were projected for each field based on the State's royalty share of the field's oil production which was determined at the time the field was leased. Both in-value and in-kind royalties were projected where applicable. In-value royalties

for each field were projected based on the field's WHV less any gathering and cleaning charges, the field's oil production volume associated with the particular WHV scenario, and the specific state royalty share for the field. In-kind royalties were projected based on the terms of the in-kind royalty contracts currently in effect. Sadlerochit is the only field for which there are currently in-kind royalty contracts. The "in-kind" royalty WHV is generally tied to the in-value royalty WHV plus some specified per barrel premium.

Oil Conservation Taxes:

Oil conservation taxes were projected for each field based on a flat one-eighth of a cent per barrel multiplied by the production volume for the field for the specific WHV scenario.

Oil Production Taxes:

Oil production taxes were projected under both current law and the provisions of HB 353 for each field for each WHV scenario. The economic limit factor (ELF) and cents per barrel floor provisions are the same under both laws. The nominal oil production tax rate provisions do differ. Under current law, the rate for Sadlerochit is 15 percent and the rate for other North Slope fields is 12.25 percent for the first five years of production and 15 percent thereafter. Under HB 353, the rate would be changed to 12.25 percent beginning in CY 1987 for all

fields. The production tax projected under the provisions of HB 353 for a field was used as a deduction for calculating the corporate income tax under HB 353 for the field. The production tax projected under current law was used for comparison purposes only. The average number of producing wells was specified for each field for each year. The number of producing wells in a field was assumed to remain unchanged for all WHV and production volume scenarios. Higher production volume scenarios would require enhanced recovery techniques which could involve additional injection wells but would not require a significant number of additional production wells. Thus, the average per well production used in the ELF calculation changed with the various production volume scenarios. Average production volume per well, estimated direct operating costs per barrel and WHV per barrel were used to calculate production at the economic limit (PEL) which was in turn used to calculate the ELF for each field for each WHV scenario. The ELF for a field was set equal to one if the calculated ELF was greater than .7 and the field was in the first ten years of commercial production, otherwise the actual calculated ELF was used. The WHV for the field was then multiplied by the nominal production tax rate. If this product was below the 80¢ per barrel floor, the production tax was calculated by taking the product of the 80¢ per barrel floor, the ELF, and net, after royalty, production volume. If the WHV times the nominal rate was above the floor then the production tax was calculated as the product of net production volume, WHV, nominal tax rate and ELF. It should be noted that under either current law or HB 353, both the nominal rate and the floor are subject to modification by the ELF.

Operating Costs:

Field specific operating costs deducted are direct operating costs only and include no general administration and overhead or interest costs. They do, however, include the costs of gathering, treating, processing, storage, dehydration, cleaning, conditioning, labor, fuel, insurance, repairs, maintenance, well work overs and field engineering. Operating cost functions for each field were derived based on the functions used in the petroleum revenue feasibility analysis model. The operating cost projections include both a primary and enhanced component. The production volume scenarios for each field were separated into a primary production volume stream and an enhanced recovered production volume stream. It should be noted that under some WHV scenarios for each field there would be no enhanced recovery production volumes. These would be scenarios where enhanced recovery investments would not be economically feasible. Primary operating costs were projected as a function of primary production volume with a fixed and variable cost component. Enhanced recovery operating costs for each year of enhanced production were projected as a function of primary production operating costs for that year and estimated total primary and enhanced production volumes over the life of the field for the specific WHV scenario assumed. Total operating costs for each field were projected as the sum of primary and enhanced operating costs each year.

Development Costs - Depreciation and Property Taxes:

Development or capital cost functions for each field were also derived based on the functions used in the petroleum revenue feasibility analysis model. Again, primary and enhanced recovery development costs for each field were projected separately. The development costs projected by these functions include both tangible and intangible development costs. Primary development cost projections were made and input directly for the relevant years. Total enhanced recovery development costs were projected as a function of estimated total primary development costs and estimated total primary and total enhanced production volumes over the life of the field. Enhanced recovery development costs were assumed to occur in the two years prior to the first year in which enhanced recovery was deemed technically feasible. Total enhanced recovery development costs were divided equally between those two years for each field. Again, it should be noted that under some WHV scenarios no enhanced recovery would be feasible. Total development costs were projected as the sum of primary and enhanced development costs for each year.

Depreciation expense for each field was projected based on total development costs, which included tangible and intangible, primary, and enhanced costs. The depreciation method used, as specified in HB 353, was the units of production method. Under this method undepreciated average cumulative development costs

for each year are multiplied by a units of production (UPD) factor, which is production volume during the year divided by estimated remaining reserves at the beginning of the year, to derive the depreciation expense deduction for the year. Development costs, production volumes and reserve estimates all vary with alternative WHV scenarios for each field.

Petroleum property taxes are levied at the rate of 2 percent of the assessed value of tangible petroleum production property. Estimates of tangible production property for each field were derived as a specified proportion of projected total development costs. Tangible production property was assumed to be assessed using a trended original cost (TOC) method of valuation taking account of the economic life of the field. Economic lives for each field were assumed to vary with alternative WHV, production volume, reserves, and development cost scenarios.

Aquisition Costs-Amortization:

Aquisition cost estimates for each field were made which included lease bonus payments, successful exploration expenses and property taxes paid before the start of commercial production. Unamortized total aquisition costs were amortized on a units of production basis in the same way development costs were depreciated for each field. Amortization expense varies for each field with alternative WHV scenarios as reserve estimates and production volumes change.

Federal Crude Oil Windfall Profits Tax:

Federal Crude Oil Windfall Profits Tax (WPT) was projected for Sadlerochit, the only North Slope field which is subject to the tax. WPT is not an allowable deduction under the provisions of HB 353. However, it was an allowable deduction under the old separate accounting corporate income tax law, AS 43.21. WPT was thus projected for comparison purposes only. The WPT calculation was based on the difference between WHV and adjusted base price modified by a production tax adjustment. In this analysis the adjusted base price was assumed to remain constant in 1986 dollars over the entire period from FY 1986 to FY 2005. This was necessary in order to be consistent with the constant 1986 dollar WHV assumptions of the various scenarios. It should be noted that the only WHV scenarios for which Sadlerochit would have WPT liability are \$25 and \$20 per barrel. In all the other WHV scenarios the WHV will be below the adjusted base price. The WPT was calculated by multiplying the net windfall per barrel by the non-royalty production volume and then by the WPT rate. The WPT rate is 70 percent through 1990 and then phases out over a four year period such that by 1995 the tax rate is zero.

There are three additional categories of corporate income tax deductions which are allowed under HB 353. These deductions were projected on an aggregate basis for the entire North Slope,

1.e. all corporations operating on the North Slope and not on a field by field basis. These non-field specific deductions were projected as follows:

Uncapitalized Interest and General Administration and Overhead:

Uncapitalized interest and general administration and overhead expenses were projected based on historical data for North Slope fields collected from AS 43.21 tax returns through CY 1981 and adjusted for estimated real and inflationary changes to FY 1986. The projections for these two deductions were assumed to remain constant throughout the time frame of the analysis as long as there was North Slope Oil production volume for all WHV scenarios.

Unsuccessful Exploration Expense:

Unsuccessful exploration and abandonment expenses are allowed as a deduction under HB 353. North Slope exploration expenses were projected as a function of WHV with a fixed and variable component. However, at WHV's of \$7/barrel and below exploration expense was assumed to be zero. Under each scenario the exploration expenses thus derived were assumed to remain constant throughout the entire period from FY 1986 to FY 2005 in constant FY 86 dollars. The function used to project exploration expenses was derived from historical data collected from AS 43.21 returns and other confidential company information.

compiled by the petroleum research section. The full amount of the projected exploration expense was assumed to be deducted in the year of abandonment. For those corporations without sufficient production income, exploration expense deductions would have to be carried forward into the future years. Also, under HB 353 corporations with exploration expenses but no production income would fall under separate accounting, a provision different from the old AS 43.21 law. This could result in additional total exploration expenses being reported on HB 353 separate accounting corporate income tax returns. However, these corporations would be carrying losses forward until they had production income to expense their losses against and thus, this difference would not materially impact tax collections within the time frame of this analysis.

The next step in projecting the petroleum corporate income tax under HB 353 was to aggregate all of the North Slope field specific income and deductions and the non-field specific deductions. This allowed calculation of an aggregated income tax estimate for all North Slope producing fields combined. This was done for each year under each different WHV scenario. Total North Slope gross oil production revenue less total North Slope oil production deductions both including and excluding Sadlerochit WPT were calculated to derive total North Slope taxable income estimates. Taxable income estimates were then multiplied by the 9.4 percent tax rate to derive estimates of total North Slope oil production tax liability.

The projections of Petroleum Corporate Income Tax liability under HB 353 were then done separately for the Cook Inlet fields. Cook Inlet oil production and gas production volume projections were assumed to be fixed and not to vary with alternative North Slope WHV scenarios. The 1986 dollar WHV for Cook Inlet oil WHV was assumed to be \$6 per barrel higher than the North Slope-Sadlerochit WHV in each scenario. The gas WHV in Cook Inlet was projected based on current contracts in constant 1986 dollars and did not change under alternative WHV scenarios. The oil production volume profile is based on the decline curve of existing Cook Inlet oil fields. The gas production volume profile is based on future estimates of demand for Cook Inlet Gas and estimated gas reserves. Since future demand growth will be related to population and income growth which will in turn be related to state government revenue and spending, it may have been more realistic to modify Cook Inlet gas production volume projections with alternative WHV assumptions. However, the problems of modeling that relationship outweigh the significance of the revenue change which would result in this analysis.

Cook Inlet oil production and gas production volumes were multiplied by oil and gas WHV's and summed to derive Cook Inlet gross oil and gas production revenues under HB 353 for each WHV scenario for each year. Allowable deductions from total gross production revenue which were projected are as follows:

Oil and Gas Royalties:

Royalties on both oil and gas production were projected as 12.5 percent of oil and gas gross production revenues for each year under each scenario.

Oil Conservation Tax:

Oil conservation taxes were projected as one-eighth of a cent per barrel on each barrel of oil produced.

Oil Production Taxes:

Oil production taxes were projected under both current law and the provisions of HB 353 for each scenario. The difference between the two is that under current law the nominal production tax rate is 15 percent and under HB 353 the rate would be changed to 12.25 percent beginning CY 1987. The oil ELF for Cook Inlet was estimated for each year and used to modify the nominal rates under both laws. The oil ELF was assumed not to change under alternative WHV scenarios. This is because per well production volumes are so low in Cook Inlet that the ELF factor would not change significantly with alternative WHV assumptions. Only net after royalty oil production was subject to production tax. Oil production taxes for Cook Inlet also have an 80 cents per barrel floor provision. However, in none

of the scenarios analyzed did the WHV result in the application of the floor.

Gas Production Taxes:

Gas production taxes would not be changed under the provisions of HB 353. The nominal gas production tax rate would remain at 10 percent as under the current law. The gas ELF for Cook Inlet was estimated for each year and did not differ with alternative WHV scenarios as gas production volumes did not change with the various scenarios. Again, only net after royalty gas production was subject to production tax. Gas production taxes provide for a 6.4 cents per thousand cubic feet (MCF) floor. However, in no year was the gas price scenario used low enough to trigger this floor provision. Since neither gas production volumes nor WHV were changed for alternative scenarios, gas production taxes did not change either.

Property Taxes:

Petroleum property taxes are levied at the rate of 2 percent of the assessed value of tangible petroleum production property. Since only one production volume scenario was used for both Cook Inlet oil and gas, the same property tax projection was used in all WHV scenarios. This projection came from the Department of Revenue petroleum property assessors section and was based on a trended original cost (TOC) approach.

Operating Costs:

Direct operating costs were projected based on the estimated number of production platforms which would be operating in Cook Inlet. Again, since production volume scenarios did not change neither did operating cost projections for alternative WHV scenarios.

Other Deductions:

The other deductions category projected for Cook Inlet includes depreciation, general administration and overhead and uncapitalized interest. Uncapitalized interest and general administration and overhead were projected based on historical data for Cook Inlet fields collected from AS 43.21 tax returns through CY 1981 and adjusted for estimated real and inflationary changes to FY 1986. These items were projected to remain constant throughout the time frame of the analysis. Depreciation was projected on a straight line basis accounting for estimated field life and changes to field capital investment. A single depreciation projection was used for all scenarios.

Federal Crude Oil Windfall Profits Tax:

Cook Inlet oil is subject to the WPT. Even though the WPT is

not an allowable deduction under the provisions of HB 353, it was projected for comparison purposes. The methodology used to project Cook Inlet oil WPT was identical to that which was used to project Sadlerochit oil WPT except that the adjusted base price was slightly different for the two fields. Since oil WHV is assumed to be \$6 per barrel higher in Cook Inlet than in Sadlerochit, the WHV scenarios for which Cook Inlet would have WPT liability are \$25, \$20, \$15, and \$13 per barrel.

After all allowable HB 353 deductions were projected for Cook Inlet, the next step in projecting HB 353 corporate income tax liability was to aggregate the deductions and subtract them from gross oil and gas production revenues. This was done for all scenarios both including and excluding the WPT from total deductions to produce estimates of Cook Inlet taxable income. Taxable income estimates for all scenarios were multiplied by the 9.4 tax rate to derive estimates of total Cook Inlet separate accounting income tax liability.

The petroleum corporate income tax under HB 353's separate accounting provisions would be levied against petroleum pipeline transportation income as well as petroleum production income. It was therefore necessary to project the tax liability for the TAPS oil pipeline as well as the various producing fields previously discussed. Subsequent to the previous October 31, 1985 analysis, the State and the TAPS owner corporations have negotiated a settlement on TAPS tariffs. The provisions of this

settlement will be referred to as the TAPS Settlement Methodology (TSM). Under TSM, the TAPS gross revenue requirement (GRR) is defined in a manner such that it is dependent on TAPS thruput volume in conjunction with certain fixed costs and specified allowable after tax rates of return. The TAPS GRR is then divided by thruput to determine the allowable TAPS per barrel tariff. In this analysis the provisions of TSM have been modeled. Again, the analysis was done entirely in terms of constant 1986 dollars.

TAPS thruput for each WHV scenario was assumed to be the sum of oil production volumes for all North Slope fields for each year. The TAPS GRR and tariff were then determined using that thruput volume in conjunction with TSM. It should be noted that in this analysis there was no inter-connection assumed between the TAPS tariff and North Slope WHV. Crude oil WHV is generally determined by netting back to the wellhead from the refinery by deducting transportation costs, including pipeline tariffs. However, in this analysis North Slope WHV was specified as the starting point for each scenario.

Thus for a given WHV scenario the associated North Slope production volume and TAPS thruput and tariff were determined. Also, in this analysis no minimum TAPS thruput volume was assumed. There does exist a minimum TAPS thruput volume below which from a technical engineering standpoint TAPS cannot operate. Estimates of the exact magnitude of this minimum

volume, however, vary. In this analysis there were WHV scenarios in which TAPS shuts down prior to FY 2005 because all North Slope fields ceased production.

TAPS gross petroleum pipeline transportation revenue under HB 353 was assumed to equal the TSM GRR for each WHV scenario for each year. Allowable deductions from gross pipeline transportation revenues were projected as follows:

Operating Costs:

Operating costs including general administration and overhead costs were projected based on TSM with both a fixed and a variable component. Operating costs vary with the WHV scenario assumed due to the variable cost component and different thruputs associated with each scenario.

Amortization and Depreciation Expense:

Amortization and depreciation expenses were projected on a straight line basis as specified in HB 353 and not on the accelerated basis allowed under TSM. The straight line depreciation was not assumed to vary between scenarios and was based on useful life estimates provided by the Department of Revenue's petroleum property assessor's section.

Uncapitalized Interest:

The uncapitalized interest expense deduction for TAPS was

projected based on the actual TAPS debt service schedule of the owner corporations and did not vary between scenarios. TSM assumes no debt in setting TAPS GRR. However, in reality the owner corporations did use some debt financing and the interest on that debt is an allowable deduction under HB 353.

Property Taxes:

As with the producing fields, petroleum property taxes are levied at the rate of 2 percent of assessed value of tangible pipeline transportation property. Unlike production property, transportation property is assessed on an economic value (EV) basis as opposed to a TOC basis. Under EV the discounted present value of projected future after tax net cash flow is used to assess the taxable value of the property. Due to the fact that property taxes are one of the costs allowed under TSM in determining TAPS GRR and that GRR is used in the EV method to determine TAPS property taxes, these two elements of the analysis were determined simultaneously in the model. Therefore, for each WHV and resulting TAPS thruput scenario there is a different TAPS GRR and property tax projection.

TAPS pipeline transportation corporate tax liability under HB 353 was projected by subtracting the sum of all allowable deductions from gross revenue and multiplying by the 9.4 percent tax rate for each year under each scenario.

Once separate estimates of HB 353 petroleum corporate income tax liability were made for the North Slope fields, the Cook Inlet fields and the TAPS pipeline, the next step was to combine all the elements to derive projections of total income tax liability and collections. This was done assuming two different combinations. The first was for all producing fields and shows what the HB 353 separate accounting tax would be for production activities only, within the State. The second included TAPS with the producing fields and shows the complete impact of HB 353.

In the case of combining all producing fields, tax liability was determined separately for the North Slope and Cook Inlet. The two tax liabilities were added together to determine total tax liability. This method was used as opposed to summing gross revenue for the two areas and subtracting the sum of total deductions for the two areas to arrive at a total tax liability. Most of the production from the two areas is controlled by different corporations. Therefore the deductions of corporations operating in one area cannot be applied to the revenue of corporations operating in the other area to determine a total tax liability. It was also assumed that when the taxable income for either area was less than or equal to zero, i.e. deductions were greater than or equal to revenues, that the tax liability for the area would be zero, i.e. no negative tax liability was possible. Also no provisions were assumed for carrying losses forward. For the North Slope, once taxable income turned negative in a given scenario, it never turned positive and therefore there would be no impact of carrying losses forward. This is due to the constant real WHV assumption and the fact that in all WHV scenarios production declined over the period. This was also the

situation with TAPS in this analysis. For Cook Inlet there were scenarios where taxable income was negative and then turned positive in subsequent years due to the increasing gas production volumes assumed over the period. However, the impact of carrying Cook Inlet losses forward would not be significant for the overall analysis and there is also uncertainty as to whether the corporations with losses in earlier years would be the same ones with income in later years.

In the case where TAPS was combined with the producing fields, taxable income was determined for the TAPS and the North Slope fields jointly and then a joint tax liability was determined. The corporations which control most of the North Slope production are the same corporations which own the majority of TAPS. Thus, it was appropriate to combine revenues and deductions for those two components of the total HB 353 tax liability. Taxable income and tax liability were projected separately for Cook Inlet. Then the projected tax liability for the North Slope fields and TAPS combined was added to the projected Cook Inlet fields' tax liability to determine projected total HB 353 petroleum corporate income tax liability. In this case, all the other assumptions about non-negative tax liability and loss carry forwards were the same as in the case of producing fields only.

The final step in this analysis of HB 353 corporate income taxes was to adjust the projected tax liability in the two cases to a tax collection basis. Liability was determined on a fiscal year basis. Tax collections in a given fiscal year were assumed to be equal to three quarters of the tax liability for that fiscal year plus one quarter of

the tax liability for the previous fiscal year. This method accounts for the timing of estimated payments and tax return filing. It should then be noted that part of FY 1986 projected collections come from FY 1985 liability where the actual existing tax was assumed to be in effect. This explains why there are some scenarios where FY 1986 tax liability is zero and FY 1986 tax collections are positive.

Petroleum Corporate Income Tax - Current Law - Modified Apportionment

Projections of petroleum corporate income tax collections under the current law were done on a disaggregated basis, by corporation, rather than by field and pipeline as the HB 353 projections were done. This is because under apportionment the worldwide petroleum business income of each corporation is apportioned to Alaska based on factors specific to that corporation. Thus, for example, even though two corporations may have identical production, revenues and costs in Alaska, they may not have the same taxable income under apportionment if their worldwide operations and hence apportionment factors are different.

Three taxpayers, Atlantic Richfield, Exxon and Standard Oil - British Petroleum, account for approximately 90 percent of the total tax collected under the current petroleum corporate income tax law. The current apportionment tax has been in effect since the beginning of 1982. Corporations have filed returns for three years, CY 1982, CY 1983, and CY 1984 under this tax structure. Based on data from these returns, estimates were made of worldwide net profits and Alaska apportionment

factors for the "Big Three" corporations for tax year 1986. An analysis was then performed to estimate the impact on the corporations' worldwide net profits of alternative world crude oil prices. The world crude prices selected corresponded to each of the North Slope oil 1986 dollar WHVs assumed as starting points for each scenario in this study. The difference between the North Slope value and the world market value was estimated based on weighted average transportation costs for North Slope oil in various markets and marketing differentials between various types of crude oil. Since a constant 1986 dollar North Slope WHV was assumed for projection purposes in each scenario, a constant 1986 dollar world oil price was also assumed to prevail over the FY 1986 to FY 2005 time period for each scenario. The estimated difference in worldwide net profits also includes the impact of the WPT on U.S. domestic upstream earnings of these corporations in the higher price scenarios through WPT phaseout in 1995. No real change in the size of the corporations was assumed to occur over the period. This is a neutral assumption which implies a no-growth scenario for these corporations.

The extraction factor, Alaska net oil and gas production divided by worldwide net oil and gas production, is the most significant factor for these corporations in determining their average Alaska apportionment factors. The weighted average Alaska apportionment factor for the "Big Three" was therefore projected based on the change in total Alaska oil and gas production over the period in each WHV scenario. Again, this assumption is consistent with constant worldwide production for these corporations over the period. The assumption of constant worldwide production for these corporations implies that, over time, they will

replace declining production from their known Alaskan reserves barrel for barrel with incremental production from areas outside of Alaska. Reserve replacement success, and the elasticity of that success relative to price will vary widely among the various corporations, and for a given corporation, over time. There are also very significant elements of chance involved. Thus, rather than attempt to estimate the price elasticity of reserves and production replacement for these corporations, the price neutral assumption of constant worldwide production in all the various scenarios was adopted. However, based on economic theory, it would be expected that there would be less of an incentive to replace declining Alaskan production in the lower price scenarios and more of an incentive in the higher price scenarios. If a corporation's Alaskan production is replaced on less than a barrel for barrel basis over time, the corporation's Alaska apportionment factor would decline less than in proportion to the decline in its Alaskan production. If, on the other hand, a corporation's Alaskan production is replaced on more than a barrel for barrel basis over time, the corporations Alaskan apportionment factor would decline more than in proportion to the decline in its Alaskan production. Therefore, the assumption of constant worldwide production may result in understating projected current law income tax collections in the lower price scenarios and overstating them in the higher price scenarios.

Projected total worldwide net profits and weighted average Alaska apportionment factors for the "Big Three" were used to project Alaska taxable income on a calendar year basis for the "Big Three" under each scenario. Taxable income was then multiplied by the 9.4 percent tax rate

to compute tax liability. The "Big Three" were assumed to continue to account for 90 percent of the total tax liability under the current petroleum corporate income tax over the period projected, under each scenario. Total tax liability on a calendar year basis was then adjusted to a fiscal year tax collections basis. A given fiscal year's tax collections were assumed to equal .5181 times the same calendar year's tax liability plus .4821 times the previous calendar year's tax liability. This method accounts for the historical relationship which has been observed as to the timing of estimated payments and return filings relative to tax liability. Also note that part of FY 1986 collections are dependent on estimated CY 1985 tax liability.

Alaska State Legislature
House of Representatives.



Official Business

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October 10, 1985

MEMORANDUM

TO: Representative Al Adams, Chair

Representative Sam Cotten, Chair,
Oil & Gas Revenues Subcommittee

FROM: *Loann*
Loann Cutler, Special Assistant

SUBJ: **Overview of Issues Involved in Consideration of HB 353**

At your request, I have prepared an overview of the major issues involved in consideration of HB 353, the Committee's oil and gas tax legislation.

I. What does HB 353 do?

- A. HB 353 would reinstate separate accounting as the method that the oil industry must use to compute income earned in Alaska to determine their income tax liability to the state.
- B. HB 353 returns the nominal severance tax rate from 15% to its pre-1981 level of 12.25%. The nominal rate was raised in 1981 at the same time that separate accounting was repealed in order to compensate for the loss in tax revenue anticipated at the time due to implementation of modified apportionment.

II. Executive Summary

- A. HB 353 is well constructed tax reform legislation that will restore the state's fair share of Alaskan oil wealth. The industry's share has increased since the changeover to modified apportionment while the state's share has decreased. The changeover has cost the state at least \$800 million and an additional \$1 billion

will be raised if the state returns to separate accounting.

- B. The Alaska Supreme Court has found that separate accounting is constitutional in every respect. The court even declared that it is a better measure of oil industry income in Alaska than formula apportionment.
- C. Separate accounting is a fairer tax because it will lower the income tax on less profitable investments like marginal field exploration and development and raise the income tax on highly profitable fields like Prudhoe Bay (i.e., conventional recovery in the Sadlerochit reservoir). The industry can afford a higher income tax on Prudhoe because it made as much in FY 85 as it made in FY 82 (about \$6 billion in real terms) even with the downward price spiral. Additionally, the income tax increase on Prudhoe would be coupled with a 22% severance tax decrease under HB 353.
- D. Future tax policy should be directed by the overwhelming importance of Prudhoe Bay to our revenue stability. Even with marginal field development, Prudhoe is still expected to provide almost 80% of production through 2010. Almost two thirds of recoverable reserves in Alaska are found in Prudhoe.

III. Background

- A. After four years of comprehensive study, the 1978 legislature changed the method of accounting that oil companies must use to compute their corporate income tax liability from formula apportionment to separate accounting. It was determined that separate accounting would more accurately reflect how much of an oil company's income is earned in Alaska.
- B. The constitutionality of separate accounting was quickly challenged by the major oil companies in Arco v. State. The legislature was faced with the threat of having to refund about \$9 billion in 1985 when resolution of the litigation was expected. In response to this threat, the 1981 legislature repealed separate accounting and enacted modified apportionment in its place. In 1983, an Anchorage superior court judge ruled that separate accounting is constitutional. This decision was unanimously upheld by the Alaska Supreme Court in August, 1985. (The potential

liability from 1978 to 1981 is currently about \$2 billion. This will only have to be refunded to the companies if the Alaska Supreme Court decision is reversed by the US Supreme Court.)

C. Definitions:

1. Formula apportionment: If a firm operates in several states and one of the states wishes to tax its income, a method must be chosen to determine how much income was actually earned in the taxing state. The formula apportionment method looks at the firm's worldwide income and, by use of a formula, attributes part of it to the taxing state. The standard formula uses three indicators of business presence in the state: payroll, property and sales.
2. Modified apportionment: This is a modified version of formula apportionment. It is different because of the substitution of the extraction factor for the payroll factor since the former is a better indicator of oil industry presence in Alaska. The extraction factor helps to determine income from oil production by measuring the amount of a company's in-state production activity. Since in Alaska production is far more prevalent than marketing and refining, modified apportionment more accurately determines oil company income and profitability in Alaska than does the standard formula apportionment method.
3. Separate accounting: This method does not use a formula to carve out a portion of worldwide income and attribute it to Alaska. Instead, it takes the wellhead value of oil (gross income) in Alaska and deducts from it all the costs of production to arrive at net income. This amount is then taxed at the same corporate income tax rate that all other non-oil businesses pay. Because it is considered by many to be the most accurate way to measure the value of oil production activity it comes closest to measuring income earned only in Alaska, and therefore, the income of oil companies directly attributable to business activities in Alaska.

IV. What important issues are involved in deciding whether to enact HB 353?

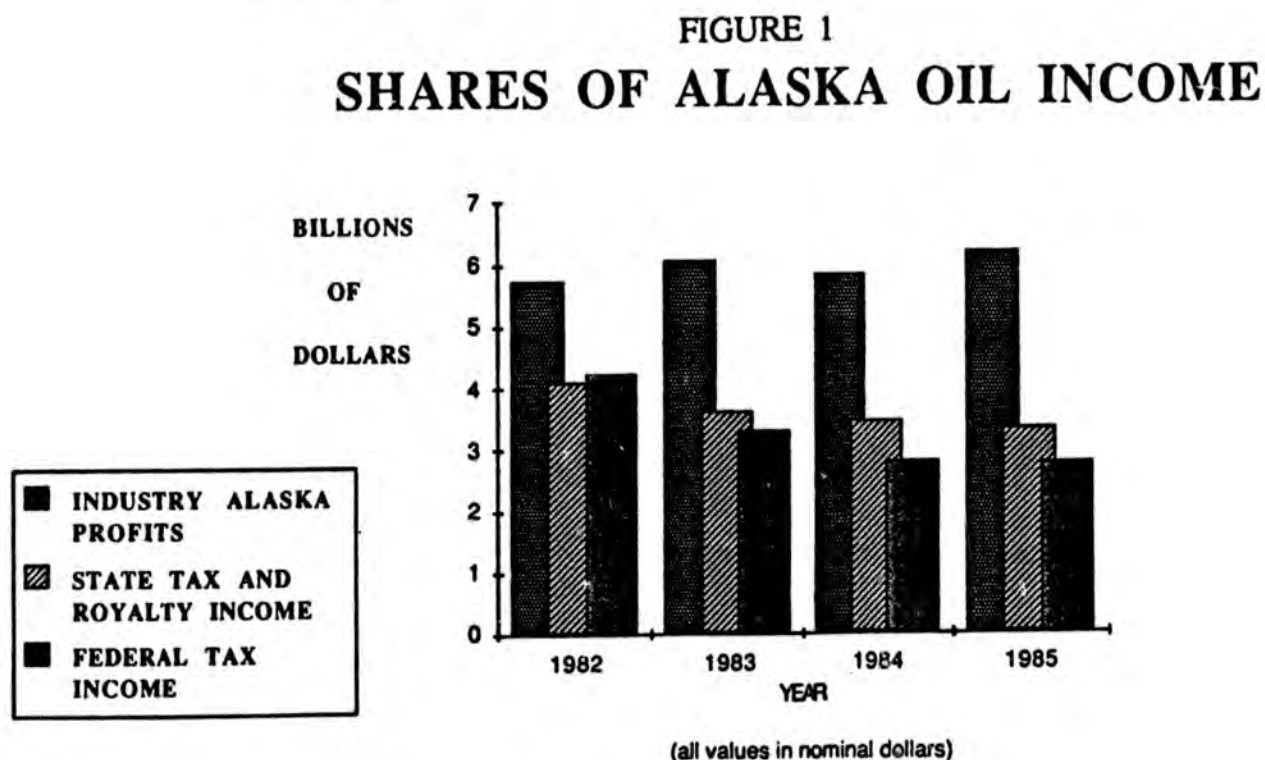
- A. Is separate accounting a better, fairer way to tax the oil industry in Alaska?
 - B. Will HB 353 discourage further exploration and development of new oil fields in Alaska?
 - C. Will HB 353 destabilize Alaska's business climate?
 - D. How will a return to separate accounting affect our tax revenues and what kinds of projects could be funded with any additional revenues?
 - E. How will a reduction in the severance tax affect our tax revenues?
 - F. How will the inevitable decline in Prudhoe Bay production affect Alaska's revenue picture?
 - G. Should the legislature consider any other changes to our oil & gas tax structure?
 - H. What is the current status of Arco v. State?
 - I. Was there a conspiracy in 1981?
 - J. How healthy is the oil industry at present?
 - K. How does taxation of the oil industry in Alaska compare to taxation of the industry in other states and at the federal level?
- V. Is separate accounting a better and fairer tax accounting method for Alaska?
- A. This issue poses two major questions: (1) Which method -- separate accounting or formula apportionment type of accounting -- best measures the amount of income earned within the taxing state? A fair tax will only apply to income earned in that particular state. (2) What is Alaska's "fair share" of the oil wealth provided by our oil resources?
 - B. Question #1 was answered by the legislature in 1978 and again by Alaska courts in both 1983 and 1985. In August, '85, the Alaska Supreme Court stated that separate accounting is the prevailing method throughout the United States for reporting income from oil production because it conforms more to an oil company's financial accounting procedures and "more accurately reflects income than formula apportionment. ...[T]he Alaska

legislature turned to separate accounting for oil producing businesses only after it determined that the use of formula apportionment to compute Alaska's share of oil production income would seriously underestimate the production income that was rightly subject to taxation by this state (emphasis added)." The Court noted further that the case of Sohio is the best illustration of the superiority of separate accounting as a means of allocating income earned in a particular jurisdiction. During the period 1978-80, Sohio maintained that only 10% of its payroll, 12% of its sales and 50% of its property were in Alaska. Yet its 1980 annual report states that over 90% of its total oil production derived from reserves in Alaska. Additionally, documents submitted to the Court (and not disputed by the companies) indicate that Sohio's earnings had elevated it from 17th to 7th industrywide. So, the Court concluded, "... the traditional formula apportionment method would inadequately reflect the phenomenal value of the companies' oil reserves in Alaska."

- C. Separate accounting is also superior to modified apportionment because it taxes conventional recovery at Prudhoe Bay more heavily than less profitable ventures, such as new technology applications at Prudhoe, and exploration and development in marginal fields. These less profitable ventures will actually experience an income tax reduction under separate accounting, just as Prudhoe will experience a tax increase. Prudhoe can afford to pay more taxes and still be highly profitable. A 1984 Institute of Social & Economic Research (ISER) study found that Prudhoe had made the companies about \$9 billion in net profits and that its 1982 profit rate hovered around 25%. But some of the riskier investments that industry is making in Alaska that are expected to yield a less-than-average profit could use an additional tax break. This is a much more equitable approach than modified apportionment which taxes all industry activities at approximately the same rate regardless of risk and expected profit.
- D. With regard to question #2, Alaska's fair share should be thought of principally in philosophical terms rather than only in terms of numbers. The following comments were made in a joint statement from the Governor and the legislative leadership in March, 1981: "[A]ny significant decreases in State oil and gas revenues appear both

unwarranted and unsupported by the majority of Alaskans. The State's current level of taxation ... provides that both the oil companies and the federal government will receive greater shares of Alaska's wealth than will Alaskans. Accordingly, any greater percentage granted the former at the expense of the latter would be inequitable... All agree that any changes [to the tax code] that would give large sums of money to the oil industry at the expense of the people of Alaska are unacceptable." These statements express the philosophy behind Alaska's oil and gas tax code and provide a framework for determining if Alaska receives its fair share of the oil wealth. They continue to be relevant in 1985.

- E. With the philosophy behind the tax code firmly in mind, consider the following measures of whether Alaska continues to receive its fair share. According to economist Eban Goodstein, in FY82, shares of oil wealth in Alaska were divided as follows: industry: 41%, federal government: 30%, and state: 29%. By FY85, the shares had shifted such that industry received 50%, the federal government received 22% and the state received 27%. Figure 1 expresses this same information in dollars:



- F. Alaska is not receiving its fair share as defined by the Governor and the legislature in 1981

because its share has declined while the oil industry's share has increased. Goodstein's analysis further suggests that the change from separate accounting to modified apportionment is one of the reasons why Alaska's share has diminished and the industry's share has increased. If separate accounting had not been repealed, the FY82 shares would have been 42% industry, 30% federal government and 28% state government while the FY85 shares would have been 47% industry, 21% federal government and 33% state government.

VI. Will HB 353 discourage exploration and development?

- A. The major determinants of a company's decision to explore and develop a particular oil field are availability of the oil, the price of oil, and the cost of production in that particular field. These factors determine the rate of return which in turn determines whether or not a field will be explored or developed. Since a state's tax rate is only one aspect of the cost of production, and the cost of production is only one factor in the rate of return equation, it follows that the tax rate can only play a small role in the company's final decision to explore or develop. Although taxation may have a psychological affect on a company's decision, it will rarely be the principal factor in the decision making process. The overall rate of return is the ultimate decision maker and the rate of taxation plays only a small part in determining that rate of return. As the ISER report states: "[F]our factors are typically more important than state tax rates in shaping the pattern of resource development." These factors are described as geologic good fortune, ownership of the mineral rights, cost environment and world energy prices.
- B. Unlike formula or modified formula apportionment, separate accounting only taxes a company on profits made in Alaska. In fact, a company will only pay a tax on profitable fields in Alaska so that if it has production activity at Prudhoe Bay and exploratory activities elsewhere, it will only pay taxes on the Prudhoe production activity because it does not yet derive any income from its exploratory work. Moreover, separate accounting would allow the company to deduct its exploratory expenses from its Prudhoe tax liability. Apportionment, on the other hand, taxes a portion of a company's worldwide income

so the company will pay taxes in Alaska even if all its profits were made elsewhere and even if its Alaskan activities operate at a loss. Separate accounting, then, is a better incentive for exploration and development since a company will not pay taxes until the field it is exploring or developing starts to produce and generates a profit. In a letter to the House Finance Committee, ISER economics professor Matthew Berman explained this effect as follows: "[S]eparate accounting...has virtually no adverse effect on development of marginal fields. A firm ...will make the investment only if it expects such development to be profitable after subtracting all taxes. Under... separate accounting... the proposed investment...will generate a tax liability...only if the investment is profitable anyway." Berman continues, "Corporate income taxes assessed under the modified apportionment system... may have some adverse effects [because] any investment, profitable or not, will generate an Alaska income tax liability." Berman reaches the same conclusion for exploration of marginal fields. A recent issue of Pacific OCS News, an industry newsletter, made a similar observation about Conoco's development of Milne Point: "The start up of this field begins a new era of marginal, N. Slope projects ... If the state returns to the pre-1982 'separate accounting' tax methods, it could offer a significant incentive to this type of small development, because it would be taxed on its own profitability and not on the companies' national profit base."

- C. Exploration and development takes place in many jurisdictions that require separate accounting. Foreign nations, the US Government, Oklahoma, Louisiana and Mississippi all utilize separate accounting and all have experienced exploration and development activity.
- D. Although the industry indicated to the legislature last session that a return to separate accounting would hamper their exploration and development activities in Alaska, their annual reports appear to lead their shareholders to a much different conclusion. Take, for example, the annual reports of ARCO from 1978 to 1981, the years that separate accounting was on the books. In 1978, ARCO's earnings were up 15%; in 1979, they were up 45%; in 1980, they were up 42%; and in 1981, they were up slightly again. "As it was in 1978", ARCO

informed its shareholders, "the North Slope of Alaska was a prime source of the Company's earnings improvement in 1979." Clearly, separate accounting did not interfere with its earnings nor its exploration and development plans. These plans were in fact expanded dramatically during the separate accounting years. The 1979 annual report states: "For its part, Atlantic Richfield has dramatically intensified its search for new domestic reserves of oil and gas." Exploration and development occurred within Alaska during these years. For example, Kuparuk development was started in 1979 and completed in 1981, "three months ahead of schedule", according to the 1981 ARCO annual report. Surprisingly, the first year that ARCO complains about its tax burden to its shareholders is 1982 -- a full year after Alaska repealed its separate accounting statute.

- E. According to economist Goodstein, the oil companies made so much money in Alaska between 1982 and 1985 that \$24 billion in profits went outside. According to ARCO Alaska president Harold Heinze's remarks to the Committee last spring, the industry has invested about \$6 billion in Alaska during this period. Perhaps more of the \$24 billion that went outside would also have been invested in Alaska if separate accounting had been on the books to encourage marginal exploration and development without paying taxes.
- F. HB 353 should also encourage exploration and development because it reduces the amount of severance tax that a company would pay. As Vince Wright with the Department of Revenue pointed out to the House Finance Committee last May, "On the severance tax side ... what you have done is lowered the rate from 15% to 12.25% so in fact ... this might be more of an inducement to expand exploration." For fields that have a 15% rate now, HB 353 would result in a 22.4% reduction in severance taxes.
- G. The House Research Agency is currently preparing a study of HB 353's effect on future exploration and development in individual marginal fields in Alaska. The study will be available in early 1986.

VII. Will HB 353 create an unstable business climate for the oil industry in Alaska?

- A. Since HB 353 will encourage exploration and development, it should make Alaska's business climate even more attractive to the industry.
- B. Since 1955, the state's oil tax structure has been through eleven major changes. HB 353 must be viewed in this historical context. A state's tax code should be dynamic and flexible as well as a reflection of a state's changeable economic picture and public policy goals.
- C. HB 353 does not create any new taxes. It merely reinstates taxes that were on the books before 1981. Moreover, separate accounting was repealed in 1981 largely because of the threat posed by the lawsuit. The Alaska Supreme Court has laid that issue to rest and HB 353 merely returns our system to its pre-1981 state. The House floor debate on the 1981 amendments indicates that a bill like HB 353 was in fact anticipated. Consider the comments of the majority leader in the House at the time the amendments were enacted: "[B]y that time... we should have an answer to that lawsuit. And with that answer, we should be able to develop possibly a more consistent taxing policy at that time." Apparently it was expected that the legislature would reconsider its oil and gas tax structure once the constitutional status of separate accounting was determined.
- D. It is perhaps more appropriate to view the legislature's 1981 action as the one that created an unstable business climate. This is especially true in light of the fact that the 1981 revisions did create an entirely new method of accounting for income tax liability. Modified apportionment is not used by any other state that relies heavily on oil production activity. And, whereas separate accounting was adopted only after four years of careful, comprehensive study of all tax possibilities, modified apportionment was adopted with little analysis and hardly any debate.
- E. Another way to look at stability is from the state's point of view. A stable revenue stream to provide necessary public services is just as important to Alaskans as maintaining a stable business climate. This is especially true in light of the fact that government dollars in large part determine the health of Alaska's economy. The 1981 amendments destabilized our revenue stream because they reduced our share of the oil money. HB 353 returns us to the old

system, returns us to our pre-1981 share of the wealth, and, therefore, stabilizes our revenue stream.

VIII. How will a return to separate accounting affect our tax revenues and how will the additional funds be used?

- A. The Department of Revenue's 5/2/85 fiscal note for HB 353 shows that the bill would increase our tax revenues by about \$1 billion between FY87 and FY95. (A new fiscal note from DOR is expected in November. The new note will include the impact of the various TAPS settlement scenarios, the latest revenue projections, and will include a range of projections, i.e. 10th, 30th, 50th, 70th percentile.) Beginning in FY93, the DOR fiscal note predicts that the state would make less from separate accounting and the lowering of the severance tax than if the higher severance tax and modified apportionment were in effect. This is because of Prudhoe's decline in relation to profits companies will make elsewhere in the world.
- B. It is disturbing to note that, as Vince Wright indicated to the Committee last May, the Department's analysis shows that the changeover to modified apportionment has cost the state approximately \$800 million in tax revenues from FY82 through the current fiscal year.
- C. The additional tax revenue could be spent or saved as Alaskans and their elected representatives wish. But several possibilities come to mind: increased deposits to the permanent fund; energy price supports for rural Alaska and energy projects for urban Alaska; water, sewer, health facilities, and other basic needs for rural Alaska as well as roads, parks, bike trails, and other projects for urban Alaska; increased mineral development, increased tourism, and increased economic development in general; continuation of the state's low interest loan programs; and continued provision of government jobs and services throughout Alaska.
- D. Since it is becoming increasingly evident that without additional revenues, spending priorities cannot continue to be met, enacting HB 353 could put off many painful choices such as reimposition of a personal income tax, repeal of the permanent fund dividend program, or increasing our bonded

indebtedness to such an extent that our bond rating is jeopardized.

IX. How will the proposed severance tax affect our tax revenues?

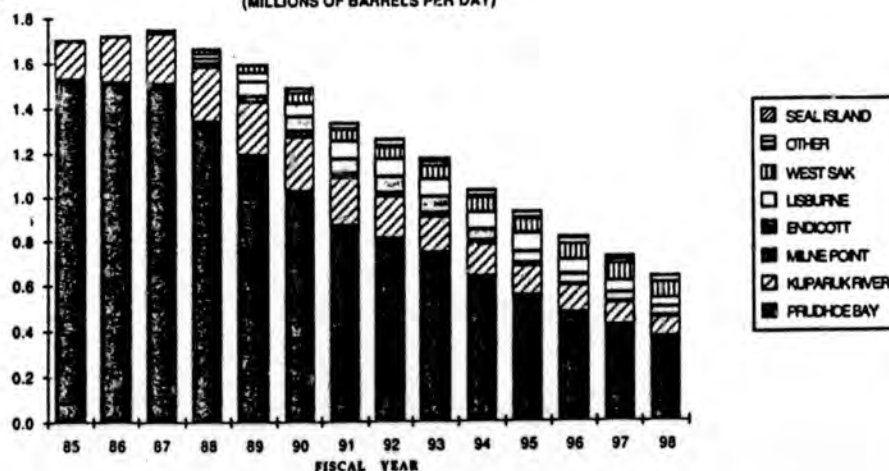
- A. Because HB 353 lowers the nominal severance tax rate from 15% to 12.25%, severance tax revenues are reduced. However, because of the separate accounting impact, overall tax revenues are increased (see previous section). The DOR fiscal note shows that if the nominal rate was not reduced in HB 353, the state would gain an additional \$1.3 billion between FY87 and FY95 or a total additional gain of approximately \$2.3 billion from reimposition of separate accounting and leaving the nominal severance tax rate at 15%.
- B. It is important to understand another impact of reducing the nominal severance tax. The actual severance tax paid by the taxpayer depends on the economic limit factor (ELF). When applied to the nominal rate, the ELF reduces the effective rate and therefore the actual amount of severance tax that is paid to the state. Beginning in FY88 when Prudhoe production starts to decline, the ELF will cause our severance tax receipts to decline dramatically because it will lower our severance tax revenues from Prudhoe considerably. According to DOR's June revenue forecast, FY88 severance tax receipts will be \$230 million less than FY87 receipts. Since HB 353 drops the nominal rate, that change in combination with the ELF will increase the \$230 million drop by another \$143 million, according to calculations made from OMB data.
- C. An OMB analysis indicates that repeal of the ELF could bring the state an additional \$2.4 billion in revenues from FY87 to FY94.
- D. The ELF was developed because it was thought that the burden of the severance tax would tend to close a field down before all the oil was taken out of it. The ELF is designed to prolong the life of a field -- and therefore stretch oil revenues out further over time -- by lowering the tax burden when the field is not producing very much oil. But in its 1984 report, ISER concluded that the ELF does not do a very good job of stretching out our revenues; in fact it

only adds an additional year or two to the revenue stream. However, the report does conclude that the ELF is valuable as an incentive to explore and develop marginal fields. This is because marginal fields generally have lower production rates per well, so that the ELF significantly lowers their actual severance tax burden. These conclusions suggest that further consideration of the ELF's impact on revenues and production is warranted and that it should be looked at on an individual field basis since it may encourage production where there otherwise might not be any, such as in a marginal field, but may not have its intended affect on a very profitable field, such as Prudhoe Bay.

X. How does the decline of Prudhoe Bay affect our revenues?

- A. Prudhoe Bay production to date far outweighs production from any other field in Alaska. The ISER study shows that of the 3.6 billion barrels of oil produced in Alaska from 1959 to 1983, about 3.2 billion of those barrels -- or 90.3% came out of Prudhoe even though the field did not start production until 1977. ISER also forecast production in the future and found a similar pattern. Using their base case assumptions (real wellhead price of \$17.50 per barrel, declining TAPS tariff, and no change in the federal or state tax structure), they find that of the 8.9 billion barrels likely to be produced between 1983 and 2010, about 6.9 billion -- or 79.4% -- will come from Prudhoe. These figures show that the Prudhoe Bay field is extremely important to Alaska's revenue stability. One draws the same conclusion from figure 2, which depicts production for FY85 through FY98.

FIGURE 2
PROJECTED DAILY OIL PRODUCTION
NORTH SLOPE FIELDS
(MILLIONS OF BARRELS PER DAY)



- B. As Prudhoe declines then, so do our revenues. What is perhaps less apparent is that analysis of future oil production shows that even if all the currently known marginal fields are developed, their combined production cannot make up for the decline of Prudhoe. Lease, tax, and other revenue from development of these fields will not come close to providing Alaska with the wealth it now receives from Prudhoe Bay. As Kay Brown, Director of the Division of Oil & Gas stated to the Permanent Fund trustees, "[B]ased on current knowledge, it is unlikely that new oil and gas discoveries from state lands alone will be sufficient to offset the decline in the main Prudhoe Reservoir. Most of the remaining best prospects appear to be in federal waters and perhaps in the Arctic National Wildlife Refuge." The Division of Oil & Gas estimates that about 62% of recoverable state reserves in Alaska are in the Sadlerochit (Prudhoe Bay) reservoir.
- C. The importance of Prudhoe to our revenue stability should be a driving force in determining the future of Alaska's oil and gas tax structure. It is certainly a valid public policy goal to tax the tremendous profits of Prudhoe Bay. Policy makers should not forget that revenue from production in new fields is not going to make up for the loss of Prudhoe Bay revenues. The \$24 billion in profits that the companies took out of Alaska in the last four years is gone forever; it would be a mistake to continue encouraging them to take their money elsewhere.
- D. Although much of Alaska's oil reserves lie off shore, development of these resources will not be a panacea for the decline of Prudhoe, either. These resources are owned by the federal government and therefore, most tax and other revenue benefits will flow back to the feds, not to the state. The only taxes that the state will get are property taxes from onshore facilities. It will not get any lease payments (except from 3-6 miles offshore if President Reagan approves a bill currently moving through Congress).

XI. Should any additional changes to the tax code be considered?

- A. Ideally, the Alaskan tax code will provide revenue stability to the state even when market forces bring about lower oil prices and even when

the quantity of oil in Alaska that can be taxed diminishes. Measuring price and quantity sensitivity is not easy, however.

- B. Section VI discusses the fact that separate accounting is a better incentive for exploration and development than modified apportionment because it only requires the payment of taxes when a field is profitable. Many economists believe that a state can facilitate exploration and development of marginal oil fields if it increases the reliance on income taxes and decreases the reliance on severance taxes in the marginal fields. In other words, the state should consider emphasizing taxation of net income instead of gross income in marginal fields. For this reason, Professor Berman concludes that, for marginal fields, net income taxes and net profit shares in leases are superior to excise (such as severance) taxes and royalty shares in leases because a company shares profit with government, not income that just covers expenses. Although 1986 may not be the appropriate time to consider a complete overhaul of our tax and leasing policies, some comprehensive changes may eventually be desirable.

XII. What is the current status of ARCO v. State?

- A. The Alaska Supreme Court ruled unanimously in the state's favor on August 16, 1985. The decision fully supported the state's position that separate accounting is constitutional in every respect.
- B. In fact, the Supreme Court went even farther than it had to in upholding the lower court's decision. Instead of stating that separate accounting was an acceptable method of tax accounting, it stated that it is the preferable method for Alaska. (See section V for further details.)
- C. The oil companies declined to petition the Alaska Supreme Court for a rehearing of the case. They have until November, 1985 to appeal the decision to the US Supreme Court (unless they ask for a 60 day extension, but this is not expected). The Department of Law anticipates that the companies will appeal and that the Court will decide whether to hear the case by January, 1986. If the Court decides not to hear it, the case is officially closed. On the other hand, if the

Court decides to hear the case, it is unlikely that a decision would come out before the end of the 1986 session.

- D. Though the industry is challenging the use of separate accounting in Alaska, it has argued strenuously to be allowed to use it in other states. In at least two states, Wisconsin and South Carolina, the industry took their arguments to the top levels of the court system -- to the state supreme court in South Carolina and to the US Supreme Court in the Wisconsin case. Also, before Prudhoe Bay was in the production stage, the industry tried to file separate accounting returns in Alaska. This demonstrates that the industry is interested in separate accounting when it lowers their tax burden; in other words, when their operations in a state are less profitable than the industry average.

XIII. Was there a conspiracy in 1981?

- A. It has been suggested that the oil companies and the Department of Revenue conspired to convince the legislature to enact amendments in 1981 that substantially lowered our fair share of Alaskan oil wealth. Although this point of view is strengthened by the fact that the 1981 amendments now appear to have cost the state about \$800 million, an analysis prepared by OMB suggests that there probably was no conspiracy. The fiscal information provided by the companies to the department, which in turn was used to prepare the legislation's fiscal note, has turned out to be wrong. But it does not appear likely that wrong information was intentionally provided. According to Gregg Erickson, Senior Economist at OMB, "I know of no evidence which would positively rule out the possibility that this discrepancy resulted from an effort to mislead; ... a more plausible explanation is that the oil company experts simply goofed."
- B. Although the above information is interesting, what did or did not happen in 1981 should not be the motivation for a return to our pre-81 tax structure. Rather, the motivating forces should be such aspects of HB 353 as the superiority of separate accounting as evidenced by the recent court ruling, its incentives for exploration and development, and the goal of restoring Alaska's fair share of the wealth created by our abundant

oil. In this context it is interesting to note that when the legislature enacted the 1981 changes, it did not repeal the findings section of the original 1978 statute which stated the superiority of separate accounting over an apportionment method.

XIV. Is the oil industry healthy?

- A. It would certainly appear that Exxon is healthy. A recent Business Week article made the following observations: "The only surplus at Exxon Corp. is a surplus of cash. ... The bottom line is that Exxon can make a nice living even if the price of oil falls quite a bit more. ... Salomon Bros. estimates that Exxon will have as much as \$7 billion in spare cash to spend through 1988. ... In fact, Exxon's real limitation is not a lack of money but of enough places in which to invest it profitably." Because prices are down right now, Exxon is frugal with investments and cautious about the future. But it is hardly suffering and couldn't be accurately characterized as anything but very healthy.
- B. The legislature commissioned a report by Tanzer Economic Associates, Inc. in 1977. Among other things, the report examined many historical examples of tax changes throughout the world. It concluded that "there is one effect almost invariably caused by such tax changes. Namely, an almost automatic reaction of the oil companies to claim that such increased taxation will force them to look elsewhere for increased future production. These claims are sometimes backed up by actions, aimed at getting the country to rescind the tax increase, such as temporarily cutting present production or reducing exploration and development efforts. ... Some of the actions and much of the rhetoric ... is "theater", aimed at improving a bargaining position, and often needs to be taken with a very large grain of salt." One can infer from this conclusion that the industry will often exaggerate how it will be affected by a tax change in order to keep the change from occurring.
- C. In 1985, however, the industry insists that times are hard and profits are slim. It uses the current production surplus and price decline pattern as justification for laying off hundreds of Alaskans and cutting daily rates paid to the various oil industry support companies that

operate on the Slope. Not surprisingly, it also comes to Juneau and complains bitterly about HB 353, stating again that times are hard and profits are slim and because of this it is cutting back and, in fact, it might consider leaving Alaska if the legislature enacts tax reform. Industry testimony is difficult to swallow since we know they are not leaving Alaska, with its Prudhoe bonanza and its undeveloped reserves, and since we know that separate accounting provides them the proper incentives to stay. It becomes even harder to take when one considers another factor that may explain the majors' cutbacks in a time of great wealth. The fear of takeover is prevalent in American industry right now. This fear probably exists in the boardrooms of the major multinationals. It is possible that this fear is a major factor in industry thinking and that the desire to cut costs to a minimum is really motivated by the need to have enough cash around to prohibit an unfriendly takeover.

XV. How does taxation of the industry in Alaska compare to taxation in other states and at the federal level?

- A. Of the top five oil producing states -- Alaska, California, Texas, Oklahoma and Louisiana, two currently require the use of separate accounting to determine income derived from oil production. These states are Louisiana and Oklahoma. California utilizes formula apportionment and Texas does not have a corporate income tax. (Actually California does require separate accounting in cases where formula apportionment under represents income generation within the state.) In addition, the United States government requires the use of separate accounting in certain instances.
- B. Another way to compare taxation of the industry in Alaska to industry taxation elsewhere is to compare how much is collected by states from the whole tax code and leasing structure, not just the income tax. The ISER study compared tax and leasing policies in Alaska to such policies in Texas and concluded that "... Alaska and Texas collected approximately the same amount of revenue from oil and gas production." This is interesting because the tax and leasing structure in Texas and Alaska are very different yet, essentially, industry is treated the same. Alaska should not be judged by whether it has a separate accounting or a formula apportionment

based income tax but rather by how its policies as a whole impact the oil industry. Is the industry making money? Does the state provide it with the proper incentives to remain in Alaska? And does the state reap its fair share of benefits from the industry's presence?

XVI. Conclusion

- A. HB 353 is well constructed tax reform legislation. It is an attempt to restore Alaska's fair share of the oil wealth to provide Alaskans with desired public services, provide an atmosphere that encourages the oil industry to remain in Alaska, and return Alaska's tax structure to the exhaustively studied and carefully refined one that existed before it was challenged by the oil companies in the late 1970s.

ALASKA STATE AFL-CIO
AND
ALASKA TEAMSTERS LOCAL 959

*File
Separate Act
H3353*

WHITE PAPER REPORT
TO THE
ALASKA STATE LEGISLATURE
ON
ALASKA OIL AND GAS RESOURCES

Presented to the
Alaska State Legislature
January 30, 1986

ALASKA OIL AND GAS
HOUSE BILL 353

Introductory Review

In concurrence with the findings of fact of the Alaska House Finance Subcommittee on Oil and Gas, we find that House Bill 353 is essential to the preservation of fair taxation under the Alaska Corporate Petroleum Income Tax. The responsibility to assure that the extraction of Alaska's depletable petroleum resource by the industry meets the best interests of the State of Alaska now stands before our Legislators. Prompt legislative action will protect this resource.

As the compendium of economic research and analyses completed in the state to date all conclude, separate accounting under HB 353*1 will reestablish fair taxation. First, such research observes that separate accounting most accurately determines the Alaska net income for Alaskan petroleum operations. Second, separate accounting will encourage oil exploration and development ventures in this state since no tax liability is incurred until the field generates a profit. Third, HB 353 will assure state revenue necessary to build and maintain schools for our children, police protection for our state, health and services programs for our people, and roads and buildings for Alaska. Opinions in opposition to separate Alaskan accounting have not yet answered these facts.

*1 HB further provides a reduction in the nominal severance tax rate

Based on our assessment, it is necessary to close the loopholes in the current tax structure created in 1981 so we can retain the standard of living for Alaskans. We do not, however, advocate any tax increase in the 9.4% tax rate for the Alaska oil industry as some would suggest. Fair taxation through separate "Alaskan" accounting adequately protects Alaska's interests while also encouraging economic development for the benefit of both the oil industry and Alaskans.

The Economics of Fair Taxation Under Separate Accounting

The cost to the State of Alaska in terms of "economic loss" without a separate accounting system has been well documented. Actual estimates now place the loss at \$850 million from FY 82 to present under modified apportionment. Most projections also estimate further losses of \$1.4 billion by the state without a separate accounting system. See Department of Revenue Fiscal Analysis 10/31/85. Of course, those economic principles which led to the initial adoption of separate accounting in 1978 certainly hold true today. Separate accounting directly measures actual petroleum revenues for production (mbd X wellhead price) and pipeline revenue (thruput X tariff) for Alaskan operations. Net taxable income is then derived by deduction of all costs of development and production. No opportunity exists for cost transfers or accounting measures which offset true Alaska profitability.

It then becomes debatable whether the losses attributable to the lack of separate accounting since 1981 have somehow spurred economic development. Or more directly, whether the system of modified apportionment accounting maximizes economic growth in Alaska. That question has been addressed by the DCR and the report of Institute of Social and Economic Research, Alaska Petroleum Revenue (Prof. Berman 1985).

As also indicated in the DCR analysis by Chief Analyst Vincent Wright, the modified accounting system simply does little to promote Alaskan investment. Currently those investments of revenue generated from Alaska oil fields, but spent elsewhere, are still provided tax deductibility. In contrast, separate accounting promotes reinvestment of Alaskan-generated revenues back into Alaska operations. With the worldwide operations of Atlantic Richfield Co., Sohio-British Petroleum Co., and Exxon Corporation* - the major North Slope producers - it is certainly understandable why Alaskan revenues may be invested worldwide. As with other jurisdictions, however, a separate accounting system would encourage investment in this state.

It should also be pointed out, of course, that separate accounting encourages the development of marginal fields since no taxes become due in

*2 Principal offices (Securities and Exchange Commission 10-K reports):

Atlantic Richfield Co. - Los Angeles, California;
Sohio - Ohio corporation
British Petroleum Co. - United Kingdom corporation

such fields until oil production commences and actual profits are generated. To the extent that tax relief plays a role in the exploration and development of such fields, this reduction promotes greater Alaska oil production, economic development, and employment opportunities. Nominal severance tax adjustments in HB 353 further this effect.

The History of Separate Accounting

A review of the background which led to the establishment of separate accounting in 1978, and the later passage of SB 524 on Modified Apportionment, is essential to realistically assess arguments for "stable taxation." Little information has been provided to the public.

Enactment of separate accounting by the 1978 Legislature followed the prevailing tax system used in the U.S. to accurately tax petroleum companies. Its superiority is well-recognized. Faced with the leverage of the Atlantic Richfield et al v. State suit, however, the 1981 Legislature retreated from separate accounting to a "Modified Apportionment" system drafted by the oil industry itself.

Legislative testimony by then DOR Commissioner Thomas Williams indicates that SB 524 was not intended to cause the tax decrease it has in fact provided to the oil industry. Its objective was to avoid potential loss of revenue raised by the suit.

The U.S. Supreme Court's January 13, 1986 decision has now cleared the industry's challenge of separate accounting. Atlantic Richfield et al v. State cert. denied (U.S. 1986). Now only political forces preclude return to the separate accounting system. The issue has been met by an intensive industry lobby and media campaign to affect public policy.

Alaska Public Policies

Extraction of Alaska's depletable petroleum resource by the industry should fulfill the interests of Alaskans while certainly providing a fair rate of return to the industry. Despite the decline in worldwide oil prices, North Slope oil producers have continued attractive net profits estimated at \$5.8 to \$6 billion annually since 1981. But the state's revenues have declined in this period, as has its actual share of the net oil wealth.

Lost revenue attributable to the lack of a separate accounting system directly affects the services in this state. The Alaska AFL-CIO and Alaska Teamsters Local 959, combined, represent over 60,000 Alaskans. We understand and appreciate the value of public education, health and social services, public roads and buildings, police and our court system, development of adequate facilities for rural Alaskans, and endowment of our Alaska Permanent Fund.

ALASKA OIL AND GAS RESOURCES
Page 6

Astute protection of these interests requires us to use the most accurate corporate petroleum tax system available. We intend to do our best to provide all Alaskans with the facts and information on what HB 353 means for Alaska.

THE EFFECT OF STATE INCOME TAX POLICY ON THE DEVELOPMENT
OF MARGINAL OIL FIELDS
An Analysis of the Impact of House Bill 353

Jay Livey
House Research Agency
Alaska State Legislature
January 1986

House Research Agency Report 86-C

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INTRODUCTION

Since the time that oil was first produced in Alaska, taxation of the corporate income generated from that production has been controversial. Over the years, three methods have been used to tax income from oil production: formula apportionment, separate accounting, and modified apportionment. With the introduction of House Bill 353 during the 1985 legislative session, taxation of petroleum-related corporate income by the State has again become an important legislative issue.

The State of Alaska first adopted income taxes based on separate accounting in 1978. Several petroleum companies challenged the constitutionality of this tax in court. Because of the State's potential tax liability if the separate accounting law were declared unconstitutional, the legislature in 1982 replaced the separate accounting law with a modified formula apportionment. Recently, both the State and United States Supreme Courts have found the State's separate accounting law to be an appropriate method of taxation. This liberated the State from potential tax liabilities resulting from the previous separate accounting law.

Although the State imposes other types of taxes on oil production and related activities--severance tax, conservation tax, property tax--this report concentrates on corporate income taxes, with particular emphasis on the impact of income taxes on marginal oil fields. Chapter One provides a brief history of corporate taxation in Alaska and describes the difference between separate accounting and modified formula apportionment. Chapter Two discusses the impact of income taxes on petroleum investment decisions. Chapter Three examines the impact of income taxes on three of Alaska's marginal oil fields.

SUMMARY

Corporate Income Taxation in Alaska

The Territory of Alaska first taxed corporate income with the passage of Chapter 115, SLA 1949. This tax apportioned a corporation's taxable income to Alaska based on a three-factor formula that compared the property, sales and payroll in Alaska to the corporation's property, sales and payroll everywhere. Corporate income tax collections for all Alaska corporations were based on this formula apportionment approach until 1978. (Page 1)

By the middle of the 1970s, critics were claiming that formula apportionment would not apportion to Alaska a fair share of petroleum income that was going to be earned in the state. After a series of legislative hearings concerning income taxation, two options emerged as popular alternatives to standard formula apportionment. The first, modified apportionment, replaced the payroll factor in the standard apportionment formula with an extraction factor. This change was designed to make the apportionment formula more applicable to the taxation of oil and gas income earned in Alaska. The second alternative, separate accounting, segregated corporate income earned in Alaska from corporate income earned in any other location. In 1978, the separate accounting method was enacted into law (AS 43.21). (Page 1-5)

ARCO, Sohio, Exxon and their pipeline subsidiaries challenged the constitutionality of the separate accounting income tax law in court. Because taxes collected under the challenged law were subject to refund should the State lose, the legislature in 1981 repealed the separate accounting law and replaced it with a modified apportionment law similar to the one debated three years earlier. (Page 5-6)

Recently, the State Supreme Court ruled that the separate accounting law was an appropriate allocation method and that the petroleum companies failed to show that separate accounting misappropriated income to Alaska. The United States Supreme Court upheld the decision of the State court by dismissing the oil companies appeal of the State court decision. The oil companies have filed for a rehearing of the case. If this reconsideration is rejected, the final appeal of the oil companies is eliminated. (Page 6)

Comparison of Modified Apportionment and House Bill 353

Modified apportionment and separate accounting both apply a tax rate of 9.4 percent to income earned by oil and gas producers and transporters in the state. However, the methodologies used to determine income subject to tax are significantly different. (Page 6-8)

Under modified apportionment, Alaska taxable income is determined by adjusting corporate federal taxable income to meet special rules imposed by the State. After this adjustment, corporate income is apportioned to Alaska through a formula comprised of three factors that compare the taxpayer's oil and gas related activities in Alaska to the taxpayer's oil and gas related activities everywhere. (Page 8-9)

Under separate accounting (House Bill 353), Alaska taxable income for petroleum producers and transporters would be calculated by subtracting allowable deductions from revenues earned in the state. Net income from the transportation of oil or gas in the state would be defined as the amount of operating income reported or required to be reported to the Federal Energy Regulatory Commission. (Page 10-11)

Critics and proponents of formula apportionment and separate accounting argue the relative merits of the systems. Areas of disagreement include equity, distortion, applicability, and ease of administration. (Page 11-14)

Alaska's Marginal Oil Fields

Marginal fields are those in which the expected risk-adjusted return from the oil production approximates the minimal return required to provide sufficient incentive for an oil company to develop an oil field. At this time, only four marginal projects--Prudhoe Bay Enhanced Oil Recovery, Lisburne, Endicott and Milne Point--are being developed for near-term production. Based on technological advances and favorable economic conditions, West Sak could potentially contribute significant quantities of oil to North Slope output. The commercial development of Gwyder Bay, Flaxman/Point Thompson and Seal Island are doubtful based on current conditions. (Page 15-17)

The contribution of marginal fields to cumulative North Slope oil production between 1986 and 2010 is projected by the Department of Natural Resources to be about 21 percent. However, this projection includes considerable oil from the West Sak sands, a development that is speculative based on current economic conditions. (Page 17-18)

Despite contributions from the marginal oil fields, total North Slope production is projected to decline steadily from 1986 through 2010. This occurs because the incremental production from the marginal fields is not sufficient to replace the decline in production from the Prudhoe Bay and Kuparuk fields. By 1995, total North Slope production is projected to be 40 percent lower than the 1986 total North Slope projected production. (Page 19-21)

Effect of Taxation on Decisions to Explore and Develop an Oil Field

Taxation affects decisions of oil companies to find, develop and produce from oil fields. Given the assumption that capital is unlimited, economic theory suggests that income taxes may affect exploration decisions but have no effect on development and production decisions. In a world of limited capital, higher income taxes affect investment decisions by: 1) reducing the amount of capital available to invest; and 2) lowering an investment's projected rate of return, thus making the investment less desirable when compared to other investment opportunities of the corporation. (Page 22-25)

Economic theory suggests that House Bill 353 (HB 353) would have less negative impact than modified apportionment on marginal field investment decisions because, under separate accounting, income taxes are directly related to the profit made from an investment in Alaska. Apportionment does not directly tax income earned in Alaska; it taxes a company's worldwide income in proportion to the company's economic activities in Alaska. Consequently, apportionment could impose higher income taxes than the actual profitability of an investment warrants. These higher taxes would reduce cash flow projections, decrease the projected rate of return on the project and make the project less desirable compared to other investment options. (Page 25)

Highly profitable projects would be taxed more heavily under HB 353 than under modified apportionment. If an Alaska investment has a higher rate of return than the average of the company's worldwide investments, separate accounting will tax the earnings of the Alaska investment more heavily than would the modified apportionment formula. (Page 26-27)

Capital Accumulation and Income Taxes

Income taxes reduce the amount of earnings corporations retain from their economic activities. It is these earnings that account either indirectly or directly for the capital used for future investments. (Page 32-36)

The Department of Revenue has projected that State income and severance tax collections would increase by \$1.6 billion dollars (in 1985 value) between 1986 and 2005 if HB 353 replaced the current income tax law. A significant portion of the additional revenues from HB 353 occurs in the next few years. If HB 353 were not enacted until 1988, total additional collections would fall by \$705 million to \$859 million, a decrease of 45 percent. The difference in tax collections under the two laws is primarily from the more profitable Prudhoe Bay and Kuparuk fields. (Page 36-37)

Tax collections under HB 353 are much more sensitive to changes in the price of oil than are collections from modified apportionment. As oil prices fall, tax collections from separate accounting would decline at a faster rate than collections under modified apportionment. As prices rise, collections under HB 353 would increase more rapidly than under modified apportionment. (Page 31)

Some oil industry representatives argue that during times of expected lower earnings, capital availability becomes a more important factor in investment decisions than during times of higher oil prices. This occurs because as earnings fall, reducing available capital, capital rationing may exclude projects with acceptable rates of return. Other analysts disagree, and claim that capital availability should not be a problem for the major oil companies in the future. (Page 34-35)

Sources of Petroleum Capital Investment. Three sources of capital are generally available to corporations: proceeds from the sale of stock; proceeds from the sale of bonds; and cash generated from operations. During 1983 and 1984, internal operations was the primary source of capital for a selected group of petroleum companies, supplying 80 and 75 percent respectively. Projections of future capital sources for the petroleum industry indicate that through the year 2001, eighty to eighty-five percent of investment capital will be supplied by internal operations. (Page 32)

Uses of Investment Capital. In 1983 and 1984, the largest use of capital was for exploration and drilling. Capital expenditures are generally expected to be sensitive to the market price of oil; lower crude oil prices reduce expectations of profits, which lead to less exploration and drilling. (Page 33)

Effect of Income Taxes on Marginal Field Net Revenue

Net revenues are gross revenues from petroleum production and transportation activities minus all the allowable nontax expenses (deductions) associated with earning those revenues. It is net revenue that constitutes the pie that is divided among the industry and State and federal governments. The State and federal share of net revenue is comprised of royalty, tax and rental income. The industry share is the amount of net revenue retained after the State and federal shares are deducted. (Page 39-44)

Shares of Net Revenues--All Producing Fields. Under either HB 353 or current law, the State share of net revenue increases between the years 1986 and 2005; the industry and federal shares decline. This is primarily due to severance taxes and royalties. Because these sources of State income are levied on a percentage of production rather than as a percentage of net income, they are unaffected by changes in the cost

of production. As per barrel production costs increase in the declining years of Prudhoe Bay and Kuparuk production and as marginal fields begin production, net revenue declines more rapidly than State collections, resulting in the increasing State share of net revenue. (Page 44-46)

Between the years 1986 and 2002, the State share is higher under HB 353 than under current law. After 2002, the State share is higher under current law than under HB 353. Between 1986 and 2002, the industry share is higher under current law and lower under HB 353. After 2002, industry share is higher under HB 353 and lower under current law. (Page 44-46)

Shares of Net Revenue--Marginal Fields. For the three marginal fields that we analyzed--Milne Point, Endicott and Lisburne--the industry share of net revenue was consistently higher under HB 353 than under current law. Conversely, the State share was higher under current law than under HB 353. This result is contrary to the findings of the shares analysis that included all the producing fields. (Page 47)

The State and industry shares of net revenue are sensitive to the inclusion or exclusion of specific oil fields because of the large disparity in the profitability of oil production among different fields. The marginal fields are less profitable than the average investment so are subject to higher taxation under modified apportionment than under HB 353. In contrast, the high profitability of production and transportation activities associated with the Prudhoe Bay and Kuparuk fields mean that income from these fields is taxed more heavily under HB 353 than under current law. (Page 51)

Although our analysis indicated that the State share of net revenue from the marginal fields is lower under HB 353 than under current law, the difference in State collections from the marginal fields is relatively small. Our projections show that over the life of three marginal fields--Milne Point, Lisburne and Endicott--total State collections under current law would exceed collections under HB 353 by 5.2 percent, or \$180 million. The total additional revenue collections to the State from the adoption of HB 353 was \$1.6 billion between 1986 and 2005. So, the additional revenues associated with the adoption of HB 353 are generated by higher taxes on the Prudhoe Bay and Kuparuk fields. The adoption of HB 353 seems to have little effect on the development of known marginal fields. (Page 51)

It should not be overlooked that income taxes do impact exploration decisions. However, it is not clear that HB 353 discourages exploration to a greater degree than current law. Although larger, more profitable fields that were discovered would pay higher taxes under HB 353, smaller, marginal fields would pay lower taxes. In addition, current law provides a disincentive to explore because, under the modified apportionment, exploration activities would be taxed even though oil may not be produced. (Page 52)

In considering the economic impact to the State's economy of the adoption of HB 353, the legislature is faced with a dilemma common to all economic problems: weighing return against risk. Adoption of HB 353 would result in increased tax revenues without adversely affecting the development of known marginal fields. However, this decision is not without risk. Adoption of HB 353 may discourage future exploration by reducing the potential value of very large fields, leaving potential oil fields undiscovered and ultimately lowering potential State revenues. It could also subject the State to excessive revenue declines if oil prices are lower than projected. (Page 52)

CHAPTER ONE

CORPORATE INCOME TAXATION IN ALASKA

The Territory of Alaska first taxed corporate income with the passage of Chapter 115, SLA 1949. This tax apportioned a corporation's taxable income to Alaska based on a three-factor formula that compared the property, sales and payroll in Alaska to the corporation's property, sales and payroll everywhere.

In 1959, Alaska became the first state to adopt the Uniform Division of Income for Tax Purposes Act (UDITPA). This act attempted to provide states with a uniform method of apportioning income of multi-state taxpayers. This effort toward uniformity was continued with the establishment in 1966 of the Multistate Tax Compact, which Alaska joined in 1970 (Ch. 124, SLA 1970). Corporate income tax collections for all Alaska corporations were based on this formula apportionment approach until 1978.

By the middle of the 1970s, the formula apportionment method of determining corporate income subject to State taxation was coming under increasing criticism. Even though formula apportionment allowed the State to tax the income of oil companies prior to the start of production, State officials and legislators began to question the applicability of formula apportionment to the oil and gas industry. Critics claimed that this method of taxation would not apportion to Alaska a fair share of petroleum income that was going to be earned in the state. By 1975, the legislature began to actively study the corporate income tax policy of the state.

ANALYSIS OF FORMULA APPORTIONMENT

Consultants, hired by both the legislature and the executive branch to analyze the State's corporate income tax, levied similar criticisms against the existing taxation method.¹ First, they claimed that the

¹Milton Lipton of Walter Levy and Associates recommended changes in the corporate income tax in several appearances before legislative committees. See the following testimony: February 12, 1975 and April 14, 1975 before the Senate Resources Committee and November 7, 1975 before legislative council. Also, Jerome Zeifman and Kenneth Ainsworth analyzed state corporate taxation policies for the Department of the Revenue in their report entitled "The Taxation of the Petroleum Industry Under Alaska's Corporate Income Tax."

CORPORATE INCOME TAXATION

State tax base was seriously eroded because income was based on federal taxable income. Secondly, the three-factor formula used to apportion income taxable in Alaska was not applicable to the oil and gas industry.

Erosion of the Tax Base

Before 1978, a corporation's taxable income in Alaska was based on its federal taxable income. The use of federal taxable income meant that Alaska also adopted all of the federal tax incentives and deductions including accelerated depreciation, percentage depletion, deduction of intangible drilling costs and foreign tax and investment credits. These rules are generally designed to lower a corporation's tax liability by reducing the amount of income subject to taxation. They were applied to the petroleum industry as part of a national policy of encouraging exploration for and development of oil and gas resources. This policy recognized the riskiness of exploration and production investments, the desire to reduce United States dependence on foreign oil and the need for lower petroleum prices. As the federal government enacted tax laws to promote this national social and economic policy, the automatic and direct consequence was reduced State taxable income.

The effect of using federal taxable income as the State tax base was examined in a 1977 Department of Revenue report. That report concluded:

...the approximate effective federal tax rate on the corporate net income (before federal tax) reported to shareholders ranged from 1.8 percent to 35.6 percent. Adoption of the same eroded tax base by Alaska, even assuming that all income is taxable by Alaska, would mean a comparable effective tax rate of .28 to 5 percent instead of the 9.4 percent statutory rate for these selected companies.²

In addition to the lost revenue resulting from the eroded tax base, the wisdom of adopting federal taxation policy by default was also questioned by the Department of Revenue report:

...Although this is only one example of many, it points to a particular problem of incorporation of the federal tax laws in total. If Alaska wants to encourage certain types of development or certain industries through its tax laws, the State may be thwarted by Federal tax provisions working at cross purposes. On the other hand, if State policies dictate the denial of incentives

²Alaska's Oil and Gas Tax Structure: A Study with Recommendations for Improvement, State of Alaska Department of Revenue, February 1977, page v-7.

or subsidies in certain circumstances, Alaska may find itself unwittingly providing those incentives through its adoption of the federal tax code.³

Applicability of Three-Factor Formula

The State's corporate income tax was based on the provisions of the multi-state tax compact. If a corporation conducted all of its business in Alaska, all of its income was assigned to Alaska for taxation purposes. If a corporation conducted business in more than one state or nation, the corporation's total income was divided among the states according to an apportionment formula that based the corporation's taxable income on the ratio of the company's Alaska-based property, sales and payroll to the corporation's property, sales and payroll everywhere.

The theory behind the use of the three-factor formula to apportion income is that a corporation's sales, property and payroll in a state are reasonably accurate indicators of the share of total corporate income earned in that state. However, critics of formula apportionment claimed that the factors are not applicable to the resource extraction industry in Alaska which is characterized by few in-state sales and oil production activities that are not labor intensive relative to marketing and refining. A more detailed discussion of the criticism of formula apportionment is found later in this chapter.

OPTIONS FOR CORPORATE INCOME TAXATION

After a series of legislative hearings concerning income taxation, two options emerged as the popular alternatives:

1. Retain the formula apportionment method of determining taxable income, but replace the payroll factor with an extraction factor (which would compare a corporation's oil and gas extraction in Alaska to its oil and gas extraction everywhere) and use corporate book income rather than federal taxable income as the tax base. This option became known as modified apportionment.
2. Develop a corporate tax based on separate accounting. This tax scheme would segregate corporate income earned in Alaska from corporate income earned in any other location. Only income specifically recognized as being earned in Alaska could be taxed in Alaska.

³Alaska's Oil and Gas Tax Structure, page v-11.

Modified Apportionment

Supporters of modified apportionment argued that using book income would reduce tax base erosion and the extraction factor would properly assign more income to Alaska as Prudhoe Bay production increased. Critics claimed that the extraction factor would be difficult to administer because of difficulty in determining a corporation's worldwide extraction. Critics of modified apportionment also pointed out that because this taxation scheme is based on the assumption that all business enterprises of a corporation are equally profitable, the modified apportionment system would create inequities among oil and gas producers in Alaska due to its failure to properly recognize the higher profitability of a field like Prudhoe Bay.

Separate Accounting

Supporters of separate accounting claimed that this method would be the most equitable taxation scheme as corporations would pay tax only on the income earned in Alaska. Equity would occur among all the oil and gas producers in Alaska and the State would enjoy tax collections that approached the 9.4 percent statutory tax rate. Critics of separate accounting claimed that the tax was almost impossible to administer because of the difficulty in determining income earned in Alaska. Opponents also questioned the ability of State auditors to accurately determine income earned in the state because of the complex sales and transfer transactions made by integrated multi-national oil companies.

The Industry Position

During this debate, the petroleum industry was also testifying on the various taxation proposals.⁴ Representatives of the petroleum industry argued that the Alaska corporate taxation scheme did not need revision. First, representatives claimed that Alaska taxes were already relatively

⁴See State Income Taxation of Multinational Oil Companies Operating in Alaska: A Discussion of Various Proposals and Their Effects on Taxpayers, by the Alaska Oil and Gas Association; The Effects of House Bill 322 and Senate CS for CS for House Bill 322 on Uniformity and Equity, by Gary Boren; Position Paper on Alaska Oil and Gas Taxation, by John Warren; A Summary of State Taxation of Multi-state Business Income--History and Present Status, by Leonard Kust; Income Taxation of Multi-state Corporations Engaged In Oil and Gas Production and Transportation in Alaska, by Leonard Kust; and Prudhoe Bay Field and Trans-Alaska Pipeline System--Comparative State Burden Study by Arthur Anderson and Company.

high compared to other states. To further increase taxes would unfairly tax Prudhoe Bay as well as jeopardize the future development of the petroleum industry in the state.

Secondly, industry representatives claimed that separate accounting would lead to double taxation of income earned in Alaska. They noted that this income would be taxed in Alaska as well as other states that applied formulas to apportion income.

Also, legal representatives of the petroleum industry claimed that not allowing companies to use federal taxable income resulted in illegal discrimination. Claims were also made that if either the modified apportionment or separate accounting option were adopted, the State would be forced out of the multi-state tax compact.

The Selected Option

The result of the corporate taxation debate was the passage, in 1978, of Alaska's Oil and Gas Corporate Income Tax (AS 43.21), a tax law based on the separate accounting methodology. Several petroleum transportation and production companies challenged the constitutionality of the separate accounting approach; these cases were consolidated in Superior Court in 1980.

In response to this legal challenge and the enormous tax liability that was accruing, Alaska's separate accounting income tax law was repealed by Chapter 116, SLA 1981. The same law imposed a modified formula apportionment method of income attribution that was similar to the method discussed by the legislature three years earlier except that federal taxable income rather than book income was used as the tax base. This is the law that is currently in effect.

The primary motivation in the legislature's decision to repeal separate accounting was an attempt to limit the State's potential liability in the separate accounting lawsuit (tax collection made under the separate accounting law could be subject to refund with interest if the State lost). In conjunction with this change in the income tax law, Chapter 116, SLA 1981 raised the severance tax on oil production in order to offset the revenue decline expected as a result of the change in the income tax.

ARCO et.al. v State of Alaska

Atlantic Richfield Company, Exxon Corporation, Sohio Corporation and their pipeline subsidiaries claimed that the use of separate accounting to apportion income was unconstitutional because by applying separate accounting, the State of Alaska taxed income that was not earned in

Alaska. The State of Alaska argued that separate accounting is a legitimate method of income allocation and fairly apports income earned in Alaska. The State Supreme Court agreed that the State's separate accounting law was an appropriate allocation method and that the petroleum companies failed to show that the application of the law misapports income to Alaska. This case was decided in August 1985.

The oil companies involved in the case appealed to the United States Supreme court after the State court decision. Recently, the United States Supreme Court upheld the decision of the State Supreme Court by dismissing the oil companies' appeal. The oil companies have filed a petition of rehearing with the U. S. Supreme Court, but the court has made no ruling concerning the petition. If the Supreme Court refuses to reconsider the case, the final appeal of the companies is eliminated, as is the State's potential liability of approximately \$2 billion (resulting from tax revenues and accrued interest). Had the State lost the case, these tax collections from the years the separate accounting law was in effect would have had to be refunded. Clearly, the removal of this liability increases the legislature's freedom to consider separate accounting as an option to the current income taxation law. However, before examining this option, we will first discuss the modified apportionment income tax law currently in effect.

DETERMINATION OF TAXABLE INCOME

Alaska Statute 43.20 states that the business income of a corporation subject to apportionment in Alaska is the taxpayer's federal taxable income subject to several modifications detailed in that chapter. Some of these modifications apply to all corporate taxpayers in Alaska and some apply specifically to oil producers and transporters. Before identifying these, however, we need to briefly discuss how federal income is determined.

Federal Taxable Income

The starting point for calculating federal taxable income is gross revenue. This is the total of all the sales of the company's products during the tax year. From gross revenue the company subtracts all the costs associated with producing those revenues. These deductions include items such as labor, supplies, rent, utilities, depreciation interest expense, etc. The amount of revenue left after subtracting all expenses is federal taxable income. Taxable income is multiplied by the applicable tax rate to determine the income tax payable.

Certain expenses that a corporation incurs are treated differently than deductions from revenue. Tax credits are expenses that can be subtracted directly from the corporation's tax liability. For example, the federal government allows corporations to subtract certain investment costs directly from their income tax. In addition, not all corporations make money every year. If the expenses of a corporation exceed their revenues, the federal taxable income will be zero. But the law allows corporations to apply the loss from one year to other years in which a profit is earned. Thus, the taxable income from one year can be reduced by the amount of applicable losses from other years.

The federal government has also adopted special rules that apply specifically to the petroleum industry. Generally, these rules recognize the riskiness of oil and gas exploration and are an attempt to use the federal tax code to encourage exploration for and development of oil and gas reserves. When an oil company finds that a property will not be productive, all the expenses incurred in drilling the exploratory well as well as other related costs can be deducted from taxable income in the year that the decision to abandon is made. For example, in 1983, Sohio deducted \$163 million dollars from income because the company abandoned their Mukluk prospect.⁵

Intangible drilling costs are expenditures which do not ordinarily have a salvage value. They may include such items as drilling rig transportation, drilling fluid, drilling rig operations and well supplies. The Internal Revenue Service (IRS) gives oil producers the choice of expensing 80 percent (i.e. deducting 80 percent of these costs in a single year) or capitalizing these costs; however, only one choice is possible and the choice must be made in the year that intangible drilling costs are incurred. If these costs are capitalized, only a portion could be written off each year.

Depletion costs are the deductions allowed oil producers to offset the reduction in value of reserves as the oil is removed. The portion of costs deducted each year is proportional to the reserves recovered. Before 1975, percentage depletion was available to all oil producers. This method allowed a percentage of gross revenue to be deducted from income (up to 50 percent of net income) to compensate for the reduction in reserves. However, in 1975, percentage depletion was largely eliminated for major producers and its use by smaller producers was greatly restricted. Cost depletion, which bases the allowable deduction on the investment in the producing property and the percentage of reserves that have been removed, is still allowed for all producers.

⁵1984 Sohio Annual Report, page 42.

CORPORATE INCOME TAXATION

State Taxable Income

Although the State of Alaska references federal taxable income as the starting point for calculating corporate income to be apportioned, the legislature has adopted several special rules (AS 43.20.036) that apply to the calculation of income tax.

- The foreign tax credit allowed by the federal government cannot be applied against State tax liability;
- The amount of investment tax credit that may be applied to the State tax liability is limited; and
- The tax exemption allowed for domestic international sales corporations (DISC) is allowed. (A DISC is defined in the IRS code as a corporation with 95 percent of its receipts coming from exports.)

Also, AS 43.20.072 requires that State taxable income includes any taxes on net income that the taxpayer deducted to determine federal taxable income.

In addition, the legislature has adopted special rules that apply to the way oil producers and pipeline transporters must modify federal taxable income before it is apportioned to the State. Alaska Statute 43.20.072 applies the following rules:

- intangible drilling and development costs that had been deducted from income as expenses shall be capitalized and depreciated;
- depletion costs, if applicable, deducted by the percentage of depletion method shall be recomputed on the cost depletion basis; and
- depreciation shall be computed on the basis of 26 USC 167 (Internal Revenue Code) as that section read on June 30, 1981. This means that the State of Alaska does not recognize accelerated depreciation methods that have been adopted by the federal government since that date.

Apportionment of Income to Alaska

After federal taxable income for a corporation has been calculated and adjusted under the special rules that the State of Alaska has imposed, it must be apportioned to Alaska. If the company earns all of its income in Alaska, then all of the taxable income is subject to Alaska taxes. If the income is earned in more than one state or nation, it is

apportioned according to apportionment formulas. Special apportionment formulas are used for oil and gas producers, pipeline transporters and corporations that do both.

If a company is engaged in economic activities that are unrelated to oil and gas production and transportation, only the oil and gas income is subject to the special apportionment formulas. The income not related to oil and gas activity is subject to the standard apportionment formula. We will concentrate on the modified formula that applies to corporations that are both oil and gas producers and transporters.

The formula used for apportionment of oil and gas related income is based on three factors: extraction, sales and property. The extraction factor is a ratio of the volume of the taxpayer's oil and gas production (net of royalty) in Alaska to the volume of the taxpayer's oil and gas production (net of royalty) everywhere. The sales factor is a ratio of the taxpayer's pipeline tariffs plus oil and gas (and oil and gas product) sales in the state to the taxpayer's pipeline tariffs and oil and gas sales (and oil and gas product sales) everywhere. The property factor is a ratio of the taxpayer's oil and gas related property in Alaska to the taxpayer's oil and gas related property everywhere.

Because each of the factors are considered equally in the apportionment of income, each one is divided by three and the results are summed. The resulting percentage is the ratio of worldwide extraction, sales and property that are used for oil and gas production and transportation in Alaska. This percentage is then multiplied by the taxpayer's federal taxable income (adjusted by Alaska's special rules) to determine Alaska taxable income. This income is then multiplied by the applicable tax rate to determine State income tax liability. This liability is then adjusted for any applicable tax credits. The result is the tax payable to the State.

In equation form the formula looks like this:

$$\left[\frac{\text{Instate extraction}}{\text{total extraction}} + \frac{\text{Instate sales}}{\text{total sales}} + \frac{\text{Instate Property}}{\text{total property}} \right] \div 3 \times \text{Federal Taxable Income} = \text{Taxable Income}$$

$$\left[\text{Alaska Taxable Income} - \text{Previous Applicable Losses} \right] \times \text{Corporate Tax Rate (9.4\%)} = \text{Tax Liability}$$

$$\text{Corporate Tax Liability} - \text{Tax Credits} = \text{Taxes Payable}$$

State Taxable Income Under House Bill 353

House Bill 353 (HB 353) determines Alaska taxable income for petroleum producers and transporters by first calculating gross revenue from Alaska operations and then subtracting allowable deductions. Although this method is similar to the calculation of federal taxable income, it should be noted that HB 353 does not reference the Internal Revenue Code; all the deductions and special rules applicable for calculating corporate income taxation are found in the law itself or the regulations implementing the law.

Gross Income. Gross income for oil and gas production is defined as the gross value (at the point of production) of oil or gas produced from leases or property in the state. Although the determination of gross value depends upon the specific regulations adopted by the Department of Revenue to implement the law, HB 353 directs the department to consider the actual price or values received for the oil or gas, the posted price for the oil or gas in the same field or the prevailing price or values for oil or gas in the same fields. In addition, the department is to determine the reasonable cost of transportation from the point of production to the point of sale and factor this cost into the gross value.

Net Income. Net income is the gross income less the following deductions:

- royalties paid in kind or in value;
- taxes imposed under AS 43.55 (Severance Taxes), AS 43.57 (Conservation Taxes), AS 29.53 and 43.56 (Property Taxes) that are actually paid or incurred;
- direct costs incurred by or for the corporation in operating the lease or property excluding indirect and administrative cost;
- depreciation and expenses incurred from amortization of capitalized interest from investments applicable to the property;
- the amortization of lease acquisition payments and taxes paid or incurred under AS 29.53 and AS 43.56 (property tax) before the lease comes into commercial production;
- interest expense of the corporation not capitalized during construction, that was paid or incurred in connection with property in the State;
- expenses incurred by the corporation after December 31, 1984, related to unsuccessful exploration for oil and gas in the state,

including the acquisition costs of abandoned properties, dry hole costs, and the costs of geological and geophysical exploration related to those abandoned properties;

- general overhead or administrative expense incurred by the corporation attributable to oil and gas exploration or production activities in the state; and
- income from the production of oil and gas from a lease or property that is divided among the regional Native corporations according to provisions of the Alaska Native Claims Settlement Act.

Taxable Income For Oil and Gas Transporters. Taxable income attributed to corporations that transport oil or gas in the state is the amount of operating income reported or required to be reported to the Federal Energy Regulatory Commission. This operating income is adjusted by adding back taxes based on income and deducting interest and general administrative expense attributable to transportation operations in Alaska.

Income Tax Payable. The taxable income, which is gross revenue less allowable deductions, is then multiplied by the applicable tax rate (currently 9.4 percent) and adjusted for any tax credits that may apply.

Change in Severance Tax. House Bill 353 also changes the Oil and Gas Properties Production Tax (AS 43.55). It establishes the percentage of value taxed at 12.25 percent of the value at the point of production for all oil produced after June 30, 1981. Current law establishes the percentage of value for any lease coming into production after June 30, 1981 at 12.25 percent for the first five years of production and at 15 percent on production after the first five years. This change would become effective January 1, 1987.

Comparison of Current Income Tax Law to House Bill 353

Under HB 353 and Alaska's current corporate income tax law (modified formula apportionment), the income of oil and gas producers and transporters in Alaska is subject to a tax rate of 9.4 percent. However, modified formula apportionment and HB 353 offer two distinct methods for identifying the income that is taxable in Alaska.

Modified Formula Apportionment. The assumption underlying formula apportionment is that the sales, extraction and property factors used in the apportionment formula reflect the income generating contribution of those factors.

Critics of modified apportionment claim that this method of allocating income is flawed because these factors are not necessarily related to income generation for oil and gas producers; not only does modified apportionment distort income earned in Alaska, it distorts income tax liability among the taxpayers. Companies with comparable factors of production and income in Alaska could have different tax liabilities depending on their corporate activities worldwide.

The sales factor, which is widely criticized by opponents of modified apportionment, is destination-oriented under the multi-state tax compact. Therefore, in-state sales include only pipeline revenues and in-state product sales. Consequently, sales of North Slope oil which occur outside of the state--and which include virtually all North Slope production--do not attribute taxable income to Alaska. This problem was noted by Jerome Zeifman and Kenneth Ainsworth during the 1977 legislative hearings on petroleum industry taxation.

...the present apportionment formula operates in such a way as to reduce the amount of taxable income attributable to Alaska by corporations which extract non-renewable petroleum resources from the State. This effect occurs largely because the Uniform Division of Income for Tax Purposes Act contains a "destination oriented" sales factor, in which sales of Alaskan oil are generally assigned to Alaska only with respect to petroleum products which are ultimately consumed in the State. As a result, the exportation of petroleum from Alaska has the effect of reducing the tax liability of the extractor of the Alaska petroleum.⁶

As more oil is extracted from Alaska and sold outside of the state, the State's share of the income generated by those sales actually declines.

Opponents of formula apportionment also criticize the property factor as a poor indicator of income-producing activity. These critics claim that property values do not reflect the value of the reserves in the ground; and it is the value of these reserves that will determine profit or loss. Once a lease is acquired, the value of the property is derived from the historical costs incurred in finding and developing the property. For example, in valuing oil-producing property in Alaska, the production facilities in Prudhoe Bay would be included but the value of the oil in the reservoir would not contribute to property values. Because income to Alaska depends upon the ratio of property in Alaska to a corporation's property worldwide, and because other kinds of oil and gas property are valued at close to their full value, undervaluing Alaska property also understates Alaska income.

⁶Jerome Zeifman and Kenneth Ainsworth, The Taxation of the Petroleum Industry Under Alaska's Corporate Income Tax, January 1977, page 3.

The third factor, the extraction factor, has been criticized for similar reasons. Although the factor provides a ratio of extraction in Alaska to extraction worldwide, the factor ignores the value of the oil that is extracted, and it is the value of the oil, as well as quantity, which corresponds to income.

Proponents of modified apportionment claim that although the factors may cause some distortion, the imbalance of activity and income is not as great as critics have claimed. For example, the extraction factor, actually apportions excessive income to Alaska because of the high cost of producing oil in Alaska. Oil that is cheaper to produce is more profitable than higher cost oil. So the State captures excess income because the extraction of that cheaper oil is included in the world-extraction factor. Therefore, supporters of modified apportionment claim that this formula factor does not distort Alaska income.

Proponents of modified apportionment make similar claims concerning the property factor. They disagree that this factor undervalues Alaska property. Because of the higher development costs in Alaska, the value of production property in Alaska is higher than the value of property elsewhere. This apportions more income to Alaska, not less, as opponents of modified apportionment have claimed.

In addition, supporters note that the determination of taxable income is much simpler using formula apportionment than separate accounting. Determining income under separate accounting requires the tracking of many individual transactions to determine sales and revenue information from which income is determined.

Separate Accounting. Separate accounting apportions income to a state by identifying only the specific income producing activities that occur in a state and valuing them to determine taxable income. Proponents of this methodology claim that it apportions income more accurately than the formula method, which estimates income based on economic activity.

For example, supporters of separate accounting point out that should an investment lose money, separate accounting would impose no tax because income apportioned to Alaska would depend only upon economic activity specific to that investment. If a profit is made on the investment, it is taxed; if a loss is incurred, no tax is paid. However, formula apportionment could tax the investment, even in the absence of profit from that investment, so long as the corporation reported a profit from its other economic activities.

Critics claim that separate accounting is unfair because, contrary to the claims of its supporters, it does tax economic activities that occur outside the state. This occurs because many activities related to the actual production of North Slope oil, such as planning and engineering, take place outside of the state and cannot be deducted as expenses in

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calculating Alaska taxable income. These activities contribute to oil production and ultimately add value to the oil; a value that the State of Alaska captures as income tax when the oil is sold for a profit.

Opponents of separate accounting also claim that the method is unfair because it leads to double taxation of income. Other states that use formula apportionment also tax Alaska income as they apportion this income as part of the corporation's total income. Critics claim that HB 353 would subject each dollar earned in Alaska to tax in Alaska as it is earned and again by other states that apply apportionment formulas to determine taxable income.

These critics point out that so long as all states apply similar formulas to apportion income--and most states have adopted this form of income attribution--double taxation is minimized. If Alaska changes from the norm and adopts separate accounting, the balance among the states is upset and all income earned in Alaska will be subject to unfair, double taxation. (Of the five largest petroleum-producing states excluding Alaska, Texas and Wyoming impose no corporate income tax, California taxes corporate income using formula apportionment and Louisiana and Oklahoma use separate accounting.)

It has also been noted that the separate accounting methodology is more sensitive to oil price fluctuations than is modified apportionment. As the price of oil changes, tax collections under separate accounting will vary more than under modified apportionment. In light of the current volatility of oil prices, the adoption of HB 353 would increase the instability of State revenues.

Finally, opponents of separate accounting claim that imposition of this method on oil and gas income exclusively is clearly discriminatory. All other corporate taxpayers have their income determined by some method of formula apportionment. Opponents claim that if separate accounting is used to tax the petroleum industry, it should be used to tax all corporations in Alaska.

As the debate over HB 353 continues, many of the arguments outlined above will be discussed. It should be noted that both the Alaska and United States Supreme Courts were presented with many of these arguments during their consideration of ARCO et al v the State of Alaska. Both courts agreed that separate accounting is an appropriate method of determining oil and gas income earned in Alaska.

CHAPTER TWO

THE EFFECT OF STATE TAX POLICY ON THE DEVELOPMENT OF MARGINAL FIELDS

One of the primary factors in the consideration of separate accounting as a method of taxing oil and gas income earned in the state is the effect this taxation would have on the development of marginal oil fields in Alaska. This chapter will explore this issue by surveying Alaska's current marginal fields, discussing the factors relevant to the decision to develop a marginal field and examining the financing of the oil industry.

ALASKA'S MARGINAL OIL FIELDS

Investments in the exploration for and development of oil and gas fields are made so that the sale of the resources resulting from those activities will earn a profit. Marginal fields are those in which the expected risk-adjusted return from the oil production approximates the minimal return required to provide sufficient incentive for an oil company to develop an oil field. The following North Slope oil fields are generally identified as economically marginal.

Prudhoe Bay Enhanced Oil Recovery

Efforts are currently underway at the Prudhoe Bay field to expand recoverable reserves through a miscible gas recovery project. This project calls for alternate injections of water and natural gas into the Prudhoe Bay field to coax additional oil to the surface. The project, expected to begin in 1987 and last for approximately 10 years, will boost recovery from the Prudhoe Bay field by 115 million barrels. The cost of the project is estimated to be approximately \$750 million.

Lisburne

The Lisburne reservoir lies under the Sadlerochit reservoir (which is the main reservoir in the Prudhoe Bay field). Current estimates are that approximately 3 billion barrels of oil are in the Lisburne reservoir but only 15 percent (495 million barrels) are recoverable because of the rock formations that have trapped the oil. Production is expected to begin in 1987, reach a peak production rate of 100,000 barrels per day in 1995 and decline thereafter. Total development costs are projected to be about \$2 billion. Interest in the field is split between ARCO (40 percent), Exxon (40 percent) and Sohio (20 percent).

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Milne Point

With reserves of less than 100 million barrels, the Milne Point reservoir is small by North Slope standards. Peak production is expected to be 30 thousand barrels per day in 1990, tapering off to 10,000 barrels per day by 1997. Total development costs are estimated to be \$800 million. Production from the first phase of development has already begun. The primary owner and operator of the field is Conoco.

Endicott

The Endicott reservoir contains approximately one billion barrels of oil, of which 350 million barrels are recoverable. Sohio is currently constructing two offshore gravel islands from which production will occur. Total development costs are expected to be two billion dollars. Production is to begin in 1988, with a peak flow of 100,000 barrels per day expected to be maintained for four years. Leases in the Endicott development are held by Sohio, ARCO, Exxon, Alaska Union, Amoco, Doyon Ltd., Cook Inlet Regional Corporation, NANA and Sealaska.

West Sak

West Sak is a huge reservoir with possibly 15-25 billion barrels of oil in place. However, because the oil is found in sand deposits, it is very difficult and expensive to extract. ARCO has initiated a pilot project using hot water injection to separate the oil from the sands. The success of this operation will determine to a large extent the feasibility of future development. Although it is too early to predict future production, the Oil and Gas Journal reports that 100,000 to 200,000 barrels per day is a likely production target.⁷ Depending on development costs and economic conditions, total yield from the reservoir could reach 750 million barrels in the first phase, with production increasing as the field is developed. If feasible, commercial production could begin by 1990.

Gwyder Bay

This reservoir, located north of Prudhoe Bay, contains reserves of about 30 million barrels. Currently, production does not appear to be economically feasible. However, if production does prove to be feasible, 10,000 barrels per day could be produced by the late 1980s.

⁷Oil and Gas Journal, June 25, 1984, page 25.

Flaxman/Point Thompson

The University of Alaska, Institute of Social and Economic Research reports that as much as 600 million barrels of oil may be recoverable from this field located east of Prudhoe Bay.⁸ However, more than one-half of this amount is gas condensate which, at this point, does not appear to be commercially feasible to develop. Oil production of 300 million barrels could begin by 1990, with a peak flow of 80,000 barrels per day.

Seal Island

The Seal Island offshore reserve was discovered by Shell in 1984. Results of recent drilling indicate that the field is larger than the initial projection of 300 million barrels of recoverable oil. The reserve lies within an area of jurisdictional dispute between the federal and State governments. It is unknown at this time if this reserve can be commercially developed.

MARGINAL FIELDS IN PERSPECTIVE

Although a variety of marginal fields could potentially produce oil from the North Slope, their contribution to future North Slope production must be put into perspective. At this time, only four of the marginal projects, Prudhoe Bay Enhanced Oil Recovery (EOR), Lisburne, Endicott and Milne Point are being developed for near-term production. Based on technological advances and favorable economic conditions, West Sak could potentially contribute considerable quantities of oil to North Slope output. The commercial development of Gwyder Bay, Flaxman/Point Thompson and Seal Island are doubtful, based on current conditions.

Table 1 shows the yearly contribution that Lisburne, Endicott, Milne Point, Prudhoe Bay EOR and currently unspecified production are expected to make to total North Slope oil production between 1986 and 2010. Based on the Department of Natural Resources most likely case of expected oil production, cumulative North Slope oil production is projected to be over 7.2 billion barrels of oil. Of this total, 1.7 billion barrels (21 percent) will be contributed by the marginal fields. It should be noted that some observers feel that unspecified production should be omitted from Table 1 because this production is speculative, especially considering current economic conditions. If unspecified production

⁸Alaska North Slope Oil Production and Revenue Projections, University of Alaska, Institute of Social and Economic Research (ISER), February 1985, Volume XXII, Number 1, page 4.

projections were to be lowered or eliminated, the contribution that marginal fields are expected to make to cumulative production would be significantly lessened.

The largest contribution to total North Slope production from marginal fields (32-33 percent) occurs from 1995 to 2001, and steadily declines thereafter. Yet, from 1995 to 2001, the Prudhoe Bay and Kuparuk fields are expected to produce twice the amount of oil produced by the marginal fields. In 1993, the year that marginal fields are projected to produce their highest annual volumes (approximately 137 million barrels), Kuparuk and Prudhoe Bay are expected to produce over 317 million barrels, or 2.3 times the marginal field volume.

Figure 1 indicates that North Slope oil production is expected to decline steadily. This occurs because the incremental production from the marginal fields is not sufficient to offset the declines in production from the Prudhoe Bay and Kuparuk fields. Total North Slope production for the four years of highest marginal field production averages only 45 percent of total projected 1986 North Slope production.

The marginal fields cannot offset the decline in production from Prudhoe Bay and Kuparuk simply because the marginal fields are so small in relation to those two fields. Figure 2 illustrates the relative size of the North Slope fields as measured by expected production through the year 2010. The dominance of Prudhoe Bay is evident; it is one of the largest oil fields in the world. Kuparuk, although dwarfed by Prudhoe Bay, is one of the largest fields in North America. It should be remembered that although West Sak contains enormous reserves, commercial production is still uncertain.

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Source: Historic and Projected Oil and Gas Consumption, Alaska Department of Natural Resources, Division of Oil and Gas, Jan.1986, p.11.
Prudhoe Bay enhanced oil recovery projections from personal communication with Division of Oil and Gas.
Prepared by the House Research Agency, January 1986

FIGURE 1

Projected North Slope Production

DNR Most Likely Case

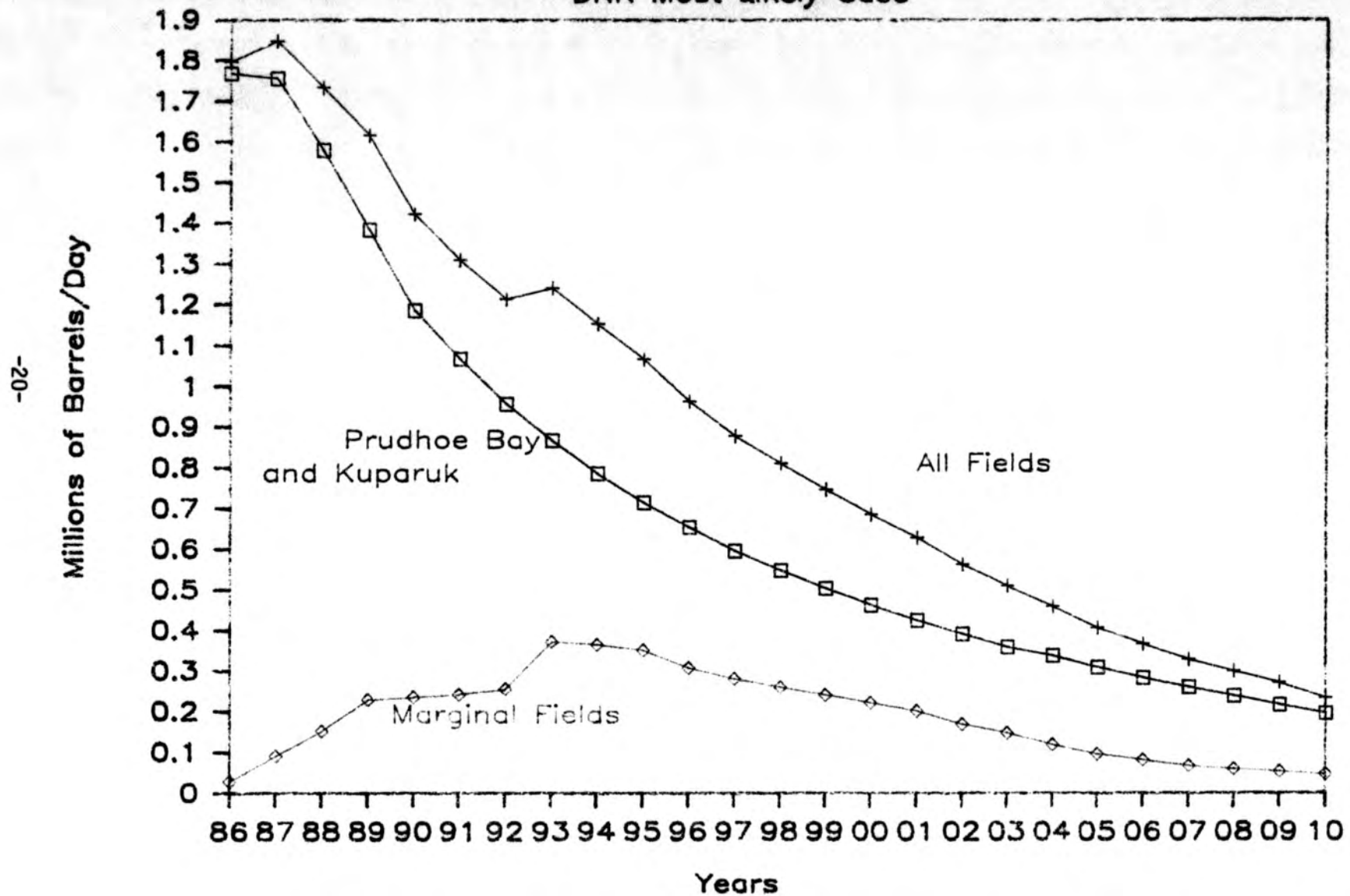
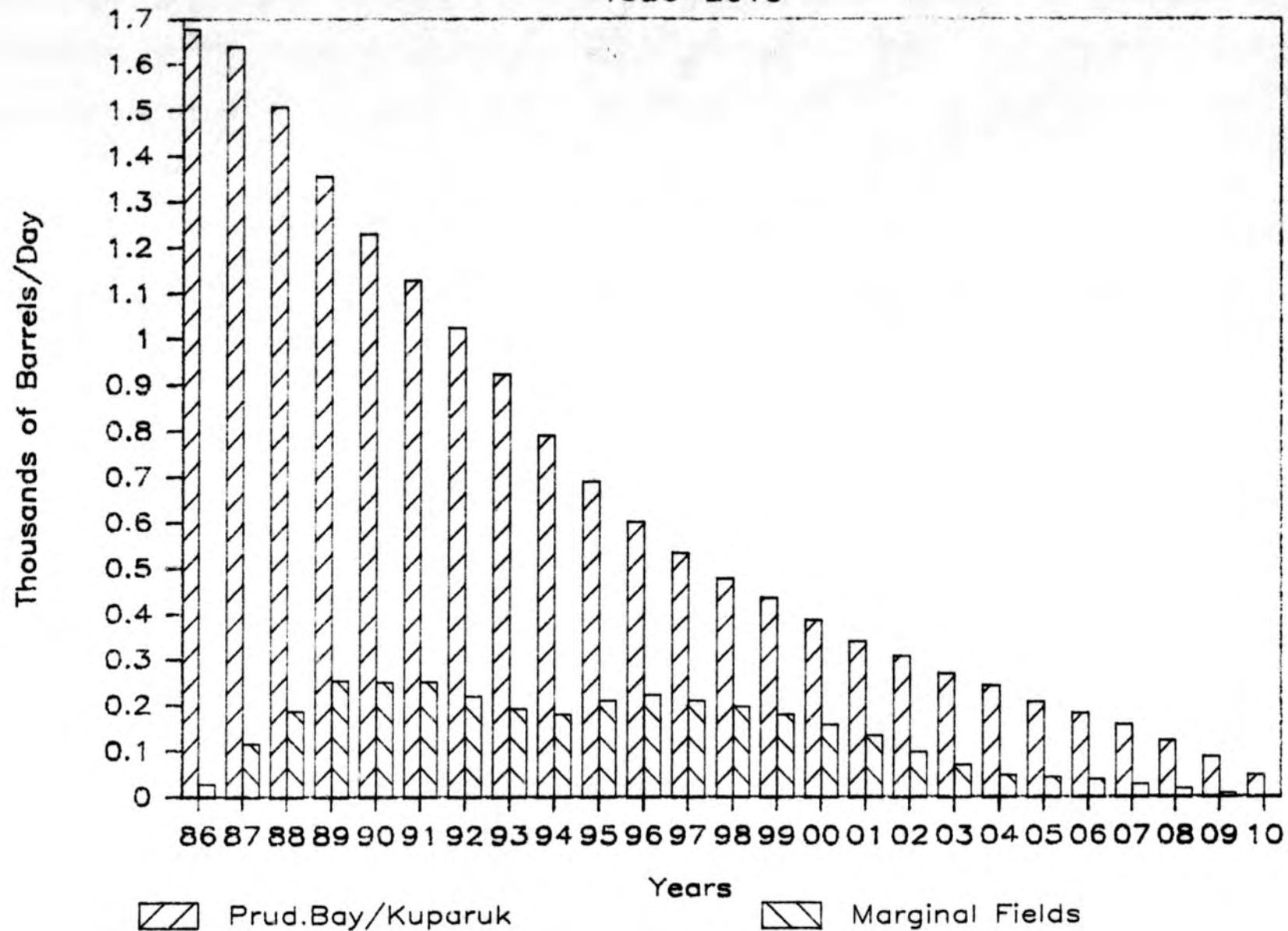


FIGURE 2

Projected N. S. Oil Production 1986-2010



EFFECT OF STATE TAX POLICY

THE EFFECT OF TAXATION ON DECISIONS TO EXPLORE AND DEVELOP AN OIL FIELD

In this section, we examine the effect that taxation has on the incentive for oil companies to find, develop and produce from oil fields. First, we will examine the effect of income taxes on these decisions assuming that a corporation has unlimited capital and therefore can invest in any project that is reasonably profitable. Then we will examine the effect of income taxation in the real world of limited capital.

Exploration Decisions--Unlimited Capital

The amount of money that a petroleum company is willing to spend on exploration depends upon the probability that the resulting development will be profitable. The probability of profit depends not only upon the market price of oil, but also on the share of revenue that is retained by the industry and the expected size of the field. At any given levels of oil prices and development and production costs, economic factors that decrease the share of net revenue retained by the industry (higher income taxes, royalties or severance taxes) will decrease the per barrel rate of return on investment in a given field. As the per barrel return decreases, the field size required to make the development economically feasible becomes larger. As the required field size increases, the probability of finding such a field decreases, discouraging exploration except in areas of exceptional promise.

Although all taxes influence the decision to explore, the difference in impact of income taxes and excise taxes (taxes levied on the value of production) is substantial. The University of Alaska, Institute of Social and Economic Research (ISER) has concluded that excise taxes negatively influence the decision to explore to a greater degree than do income taxes (net profit shares):

...net profit shares have roughly the same impact on the value of exploration property as a royalty and excise tax share that is somewhat less than one-half as large. In other words, a combination of royalty and excise taxation that added to 25 percent of the gross value of production would have around the same value to producers as if the same area were leased with a 60 percent net profit share and no royalty or excise tax.⁹

⁹Alaska Petroleum Revenues, The Influence of Federal Policy, University of Alaska, Institute of Social and Economic Research, October 1984, page 94.

Development Decisions--Unlimited Capital

If a field is to be profitably developed, it must be of sufficient size that the expected revenue from the field exceeds the expected development costs. State taxation policies affect the revenue stream and therefore influence the development decision by affecting the minimum economic field size.

At any given price of oil, the higher the excise tax rate--this would include severance tax and royalties--the larger the oil field must be to be developed economically. Based on North Slope economic conditions, ISER has estimated minimum viable field size to range from 300 million barrels of recoverable oil at a zero percent excise tax to 1.5 billion barrels at a 30 percent excise share, assuming a real wellhead price for oil of \$15 per barrel. If the price is assumed to be \$20 per barrel, the minimum field size ranges from 100 million barrels at a zero percent excise tax share to 500 million barrels at a 30 percent excise share.¹⁰ (The State excise share has varied between 20 and 30 percent.)

Income taxes (net profit shares) do not have the same effect as severance taxes and royalties. The Institute of Social and Economic Research notes the following concerning these taxes:

At the margin of development, there are no net profits to share with net profit share lease payments, even though there may be a substantial royalty and excise tax liability. Under the assumption of low risks to development investments, net profit shares do not affect the minimum economic field sizes, just as they leave unaffected the margin of production.¹¹

However, under conditions of great risk, income taxes may influence the margin of development to some degree. Income taxes require the petroleum company to share profits (through income taxes) if the development proves to be profitable. However, if the development proves to be unprofitable, the oil company must absorb the loss. This assumption of risk increases the minimum field size required for development to proceed.

Production Decisions--Unlimited Capital

The production decision occurs after a field has been developed and is producing. The producer must decide at what point to stop production. (This is also called the time of abandonment.) Production will stop at

¹⁰Alaska Petroleum Revenues, page 89.

¹¹Alaska Petroleum Revenues, page 91.

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the point in time that the value of the oil produced from the field is less than the cost of producing the oil. This decision is not influenced by the development costs that have already been spent on the field. These previous expenditures are known as sunk costs because that money is spent and cannot be recouped.

The production decision depends upon current and expected economic factors, some of which the State controls. Although the State has no control over the most important factor, the price of oil, it does control State taxation policies. The University of Alaska, Institute of Social and Economic Research concluded that although severance tax and royalties have the effect of encouraging premature abandonment of oil fields, income taxes do not. This is because royalties and severance taxes are levied on the gross revenues or gross production from the field. These taxes must be paid regardless of the profitability of the field. Income taxes are levied only if the field is making a profit. The ISER study concludes:

Net profit shares, unlike excise shares, do not affect the margin of production in any way. Since there is no income to share at the time of abandonment, neither the landowner nor the producer would wish to change the margin of production.¹²

Economic theory suggests that income taxes affect exploration decisions but have little or no impact on production or development decisions, assuming a company has unlimited capital. In the case of development and production decisions, income taxes are irrelevant because there is no profit to be taxed at these decision points. So long as a company has unlimited capital, it will continue to invest in all projects that return a reasonable profit. However, in the real world, companies are faced with capital constraints that are a major factor in investment decisions.

Decisions When Capital is Limited

Corporations make investment decisions by determining the rate of return they expect to make on a project, comparing that return with the rate of return from other potential investment projects and choosing the projects that best fit their capital availability.

In this decision-making process, income taxes affect decisions by decreasing the net cash flow of projects that are heavily taxed. A reduced net cash flow makes a project less desirable compared to projects with higher rates of after-tax return. Also, as money is diverted from the company to pay taxes, capital information--and therefore, future

¹²Alaska Petroleum Revenues, page 87.

investment options--is limited. Corporations cannot invest in every project that is profitable; they must choose the projects that appear to be most profitable.

In summary, State income taxes could negatively effect a decision to invest in Alaska by lowering the expected rate of return and making the project less competitive with other investment opportunities. Assuming that State income taxes of some kind are going to be imposed, determining the income tax that is least detrimental to decisions becomes an important issue.

ECONOMIC EFFECT: HB 353 AND FORMULA APPORTIONMENT

Marginal Fields

Earlier in this chapter, we defined a marginal oil field as one in which the projected risk-adjusted return on the investment approximates the minimal return required to provide sufficient incentive to proceed with the development of the oil field. Economic theory suggests that House Bill 353 would have less negative effect than modified apportionment on marginal field investment decisions because, under separate accounting, income taxes are directly related to the profit made from an investment.¹³ Apportionment, however, does not directly tax income earned in Alaska; it taxes worldwide income in proportion to the company's economic activity in Alaska. Consequently, apportionment could cause a petroleum company to pay Alaska income taxes that are not based on the actual profitability of a field.

This asymmetry of taxation and profit under modified apportionment could cause higher taxes to be levied against marginal fields than the profits from the marginal fields warrant. These higher taxes reduce net cash flow, which in turn reduces the rate of return from the investment and makes the development project less competitive when rated against other potential project options the company may have. In addition, the reduced cash flow may limit the industry's financing of development of other fields in the future.

¹³Designation of "marginal field" is based on projected risk-adjusted rate of return. This is the rate of return upon which development decisions are based. After the development decision has been made and production begins, risk is no longer a factor in the rate of return on the investment. The actual rate of return on a field may be above the average corporate rate of return on all oil and gas related investments resulting in higher taxes under HB 353 than under current law. In our analysis, all the marginal fields were taxed more heavily under current law than HB 353.

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A provision of HB 353 would lower the severance tax to 12.25 percent beginning in 1987. We have seen that severance taxes, because they are levied on production rather than profit, can deter development. Lowering the severance tax could help to mitigate some of these detrimental effects.

It must be noted however that highly profitable investments will be taxed more heavily under HB 353 than under modified apportionment. If an Alaska investment has a higher rate of return than the average of the company's worldwide investments, separate accounting will tax the earnings of the Alaska investment more heavily than would the modified apportionment formula. However, if the Alaska investment is less profitable than the average of the worldwide investments, current law would impose a higher tax liability than HB 353.¹⁴ Several models project higher income tax revenues under HB 353 than under current law. The bulk of those collections are attributable to the highly profitable Prudhoe Bay and Kuparuk fields.

Nonmarginal Fields

Although HB 353 may be less detrimental than current law to projects with lower than average profitability, it may have a greater impact than current law on decisions affecting the development of more profitable projects. Because of capital constraints, these nonmarginal projects still have to compete with other investment opportunities. Higher income taxes imposed by separate accounting will make them less attractive relative to projects taxed at lower rates. As one oil industry representative noted, oil companies are not in the marginal field oil business and State income tax law should be evaluated based on its investment impact on all projects, not just the impact on marginally profitable ones.

However, some economists disagree that oil companies are not in the marginal oil field business. These economists argue that oil companies may not be in the marginal oil field business during exploration, but certainly are in the marginal business if the development of those marginal fields can earn an acceptable rate of return.

¹⁴The previous two statements are true but need clarification. It would be more accurate to say that if the earnings per unit of sales, property and production is higher in Alaska than the average worldwide, income taxes would be higher under HB 353 than under formula apportionment. If the average per units of those factors were lower in Alaska than the average worldwide, formula apportionment would impose a higher tax liability.

Opponents of HB 353 note that proposals to modify the tax laws are detrimental to petroleum investment in Alaska because they increase investment risk. We mentioned that investment projects are ranked based on their projected rate of return over the life of the project. If the structure upon which forecasts are based is subject to change, increased risk must be factored into the forecast. Increased risk raises potential costs and lowers projected return. Critics of HB 353 argue that a change in taxation policy will mean Alaska projects will incur additional risk in the eyes of investment decision makers and become less attractive when ranked with other projects.

Proponents of HB 353 point out that it is uncertainty over changes in tax law and not the change itself that increases risk. Therefore, adopting HB 353 does not necessarily mean additional risk to investment projects. In addition, they acknowledge that although State tax laws have changed several times in the past few years, the federal tax code is changed every year and oil companies adapt to those changes.

Capital Accumulation and Income Taxes

As mentioned earlier, income taxes reduce the amount of profit corporations retain from their economic activities. It is this profit (retained earnings) that accounts either directly or indirectly for the capital used for future investments.

Direct investments are outflows of cash from retained earnings. Indirectly, retained earnings account for capital formation through stock dividends and improved cash flows. Higher dividends make it easier to raise capital through stock sales while improved cash flow helps a corporation secure commercial loans at lower interest rates. Because income taxes affect the ability of a corporation to raise the capital needed to implement investment decisions, it is necessary to examine the additional income tax burden that HB 353 would place on the oil industry and discuss the impact of this burden on investment decisions.

Tax Collection Under HB 353. Table 2 projects petroleum companies' income and severance tax payments under HB 353 and Alaska's current modified apportionment law assuming the Department of Revenue's (DOR) June 1985 mean price forecast. As the table indicates, an additional \$1.6 billion dollars (1985 value) would be collected if HB 353 were in effect between 1986 and 2005. If oil prices are significantly lower than the forecast, we would expect less difference between income tax collections under HB 353 and current law. The difference in tax collections under the two laws is primarily from the more profitable Prudhoe Bay and Kuparuk fields. Figure 3 compares projected annual collections from current law and HB 353 while Figure 4 shows additional collections under HB 353.

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Table 2
Projected State Income Tax and Severance Tax Collections
Current Law and HB 353
1986-2005
(Millions of 1985 Dollars)

Year	Inc. Tax Collect. Cur. Law	Inc. Tax Collect. HB 353	Sev. Tax Collect. Cur. Law	Sev. Tax Collect. HB 353	Total Collect. Cur. Law	Total Collect. HB 353	Additional Collection Under 353
1986	219.93	673.30	1161.76	1161.76	1381.69	1835.05	453.37
1987	223.16	561.25	992.05	905.78	1215.21	1467.02	251.81
1988	219.47	499.45	731.24	603.99	950.72	1103.44	152.72
1989	211.73	461.39	665.95	554.60	877.69	1015.99	138.30
1990	202.86	414.75	608.00	511.46	810.86	926.21	115.35
1991	191.29	362.08	537.88	458.84	729.17	820.92	91.76
1992	179.98	338.28	518.40	441.93	698.38	780.20	81.82
1993	167.34	319.41	492.48	417.23	659.82	736.64	76.82
1994	153.26	280.91	427.75	363.96	581.02	644.87	63.86
1995	139.58	246.90	386.10	327.54	525.68	574.44	48.76
1996	126.95	214.01	335.45	283.87	462.40	497.88	35.48
1997	115.50	187.46	294.91	249.61	410.40	437.08	26.68
1998	104.84	165.34	258.65	219.53	363.49	384.87	21.38
1999	95.33	146.22	227.83	194.17	323.15	340.39	17.23
2000	86.20	131.70	198.37	169.01	284.57	300.72	16.15
2001	76.79	109.66	160.87	139.09	237.66	248.75	11.09
2002	67.85	85.25	129.08	111.89	196.93	197.14	0.21
2003	60.19	64.26	105.50	92.33	165.70	156.59	-9.10
2004	53.29	50.18	87.44	78.40	140.73	128.58	-12.15
2005	46.79	36.29	73.65	67.16	120.43	103.44	-16.99
	2,742.34	5,348.09	8,393.35	7,352.14	11,135.70	12,700.23	1,564.54

Source Memorandum of October 31, 1985 from Vince Wright to Revenue Commissioner Nordale, table 1.
Assumes Department of Revenue mean case oil price forecast.
Deflator based on inflation projections in Department of Revenue "Revenue Sources", January 1986.
Prepared by the House Research Agency, January 1986

FIGURE 3

Income and Severance Tax Collections

Current Law and HB 353

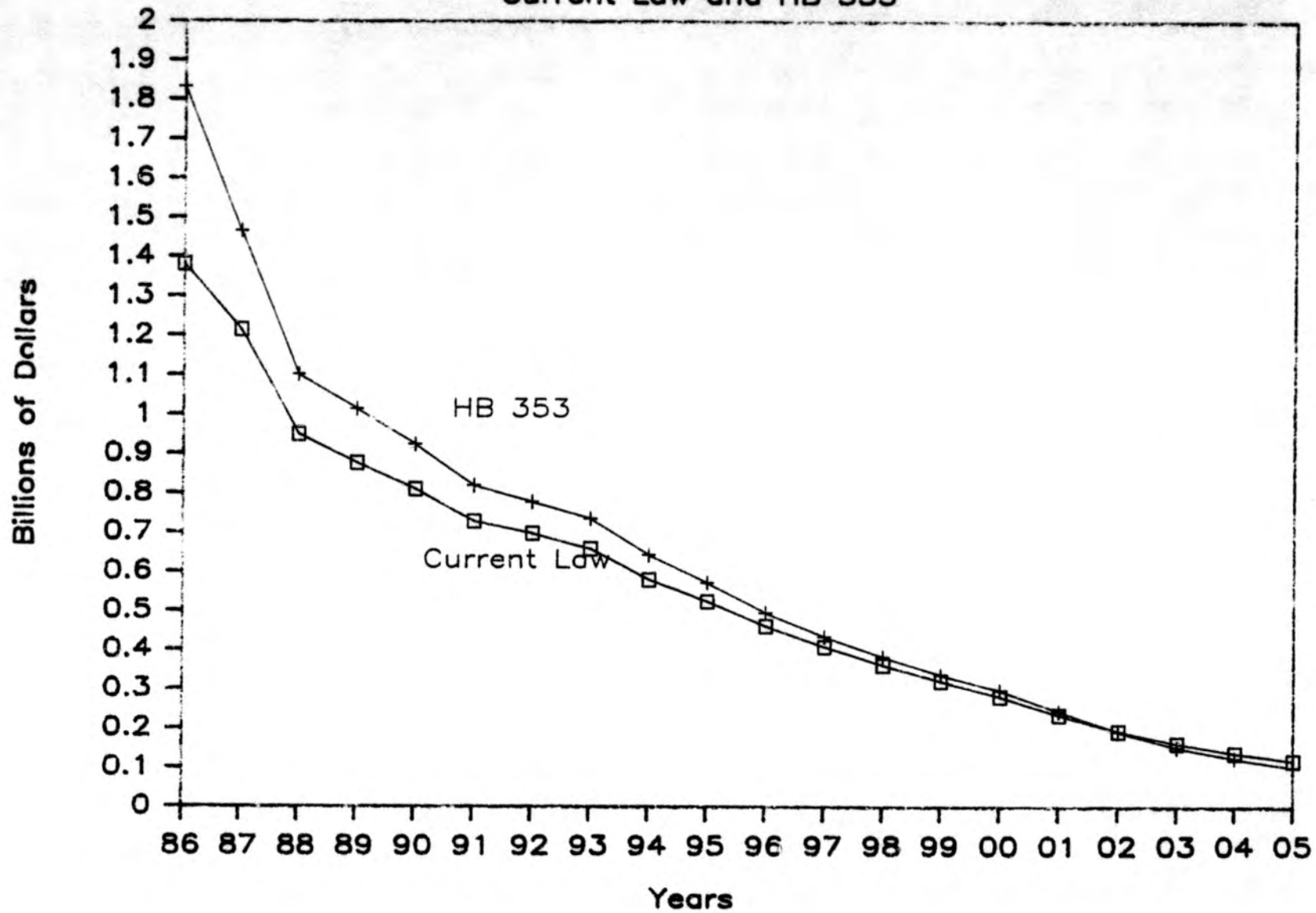


FIGURE 4

Additional Income Tax Collections

Impact of HB 353: 1986-2005

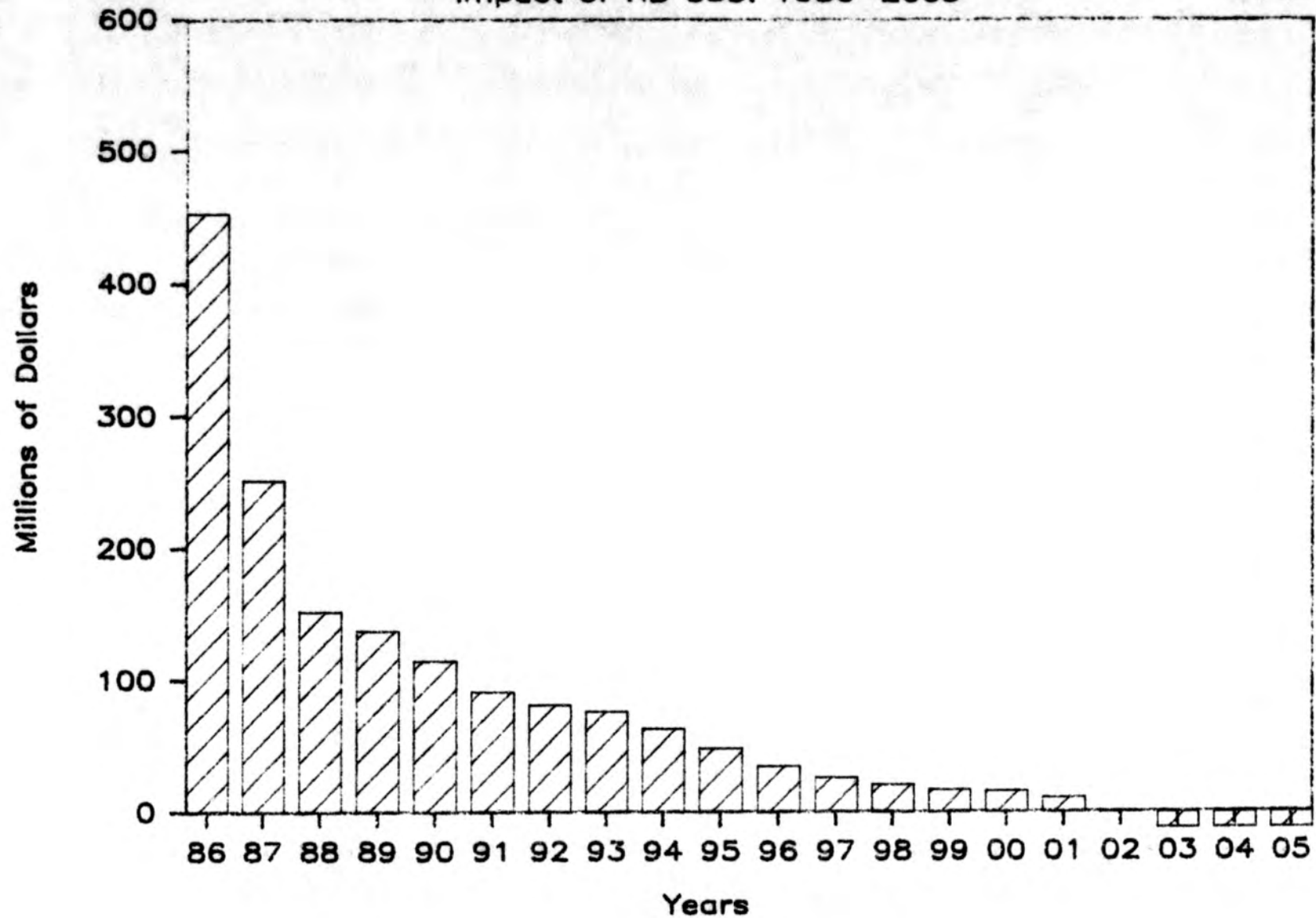


Table 2 indicates that income tax collections under both tax systems decline steadily throughout the period of analysis. Note, however, that the collections gap between the two tax laws narrows over time. Beyond the year 2003, collections under current law are projected to exceed collections under HB 353. This occurs as production from the fields declines over time, reducing profitability.

Because taxes under separate accounting are directly dependent on Alaska profitability, tax collections under separate accounting are much more sensitive to changes in the price of oil than are collections from modified apportionment. As prices fall, tax collections from separate accounting would decline at a faster rate than collections under modified apportionment. As prices rise, collections under separate accounting increase more rapidly than under modified apportionment.

This volatility of collections under separate accounting was examined in the Department of Revenue's review of HB 353. Under modified apportionment, 1985-2005 cumulative revenues under the 30 percent Department Revenue price forecast were projected to be 5.04 percent lower than collections under the mean forecast, while collections under the 70 percent price forecast were projected to be 16.94 percent higher than the mean forecast. Projected collections under HB 353 during the same period deviated 14.52 percent and 30.83 percent from the mean for the 30 percent and 70 percent price forecasts.¹⁵

Opponents of the tax changes proposed by HB 353 also claim that although the Prudhoe Bay and Kuparuk fields are profitable, it is this profit that will provide capital for future exploration and development activities. They claim that the additional collections under HB 353 would reduce the amount of capital that petroleum companies would have to reinvest in exploration and development of other oil fields. To examine this issue, it is necessary to examine some investment practices common to the petroleum industry.

Financing the Petroleum Industry

This report will not provide a detailed explanation of the corporate finances of the petroleum industry. However, we hope to present information that will help lawmakers assess the impact of higher tax collections on investments in Alaska. We begin with a look at the source of petroleum corporations' investment capital and then examine the factors involved in investment decisions and the implications the decision process has for Alaska.

¹⁵Department of Revenue analysis of HB 353, memorandum from Vince Wright to Commissioner Nordale, October 31, 1985, page 49.

EFFECT OF STATE TAX POLICY

Sources of Capital. Three sources of capital are generally available to corporations: proceeds from stock sales, proceeds from bond sales or commercial loans and cash generated from operations. Table 3 provides a summary of the sources of capital for a group of worldwide petroleum companies during 1983 and 1984. As the table indicates, internal operations was the primary source of capital during these two years, supplying 80 and 75 percent of available capital, respectively. Changes in income tax directly (and inversely) affect the funds available from internal operations because the cash generated from operations is the retained earnings of the corporation after all costs and taxes have been paid.

TABLE 3
Sources of Capital for Selected Petroleum Companies 1983-1984

<u>Source</u>	<u>Billions of Dollars</u>		<u>Percent</u>	
	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>
Net Income	\$20.3	\$19.3	31	27
Depreciation	26.2	29.0	40	41
Other non-cash charges	<u>5.9</u>	<u>5.0</u>	<u>9</u>	<u>7</u>
Total from Operations	\$52.4	\$53.3	80	75
Total from Capital Markets	\$ 7.3	\$17.8	11	25
Other	<u>5.8</u>	<u>0.0</u>	<u>9</u>	<u>0</u>
Total	\$65.6	\$71.1	100	100

Source: Financial Analysis of a Group of Petroleum Companies 1984, Chase Manhattan Bank Global Petroleum Division, July 1985, page 13.

* * * * *

Funds from the capital markets (sale of stocks and bonds) accounted for 11 percent of funds in 1983 and 25 percent in 1984. According to the Global Petroleum Division of Chase Manhattan Bank, this increase in reliance on debt was primarily related to the need for funds to finance mergers and acquisitions.¹⁶

Future sources of capital are expected to follow a similar pattern. Capital expenditures are expected to reach \$1.05 trillion dollars (in

¹⁶Financial Analysis of a Group of Petroleum Companies 1984, Chase Manhattan Bank Global Petroleum Division, July 1985, page 15.

1980 dollars) for the years 1981 through 2000. Eighty to eighty-five percent of this investment capital is expected to be provided through internal sources.¹⁷

Uses of Capital. Table 4 summarizes the uses of capital in 1983 and 1984 by a group of petroleum companies. In both years, the largest use of capital was for capital expenditures, 68.4 percent in 1983 and 51.7 percent in 1984. Within this category of capital expenditures, exploration and drilling used the most funds, consuming 46.4 and 37.02 percent of the total capital used in 1983 and 1984 respectively. It is this type of capital expenditure that would be most likely to occur in Alaska.¹⁸

TABLE 4
Uses of Capital by Selected Petroleum Companies 1983-1984

<u>Uses</u>	<u>Billions of Dollars</u>		<u>Percent</u>	
	<u>1983</u>	<u>1984</u>	<u>1983</u>	<u>1984</u>
Exploration & Production	\$29.0	\$31.0	46.4	37.0
Marketing	2.6	3.1	4.2	3.7
Processing Facilities	6.3	5.0	10.1	6.0
Transportation	0.9	0.9	1.4	1.0
Other	4.0	3.3	6.4	4.0
Total Capital Expenditures	\$42.7	\$43.2	68.4%	51.7%
Dividends	9.3	9.7	14.9	11.6
Repayment of Debt	6.1	8.3	9.8	10.0
Retirement of Stock	1.2	5.6	1.9	6.7
Investment in Companies	2.7	16.0	4.3	19.2
Other	0.5	0.6	0.8	1.0
Total	\$62.5	\$83.4	100.0	100.0

Source: Financial Analysis of a Group of Petroleum Companies 1984, pages 15-17.

¹⁷Uwe H. Jahnke and P. Gordon Webb, "A Bankers View of Petroleum Funding," Petroleum Economist, October 1983.

¹⁸During the course of our research on this project, several individuals suggested that we document previous oil industry capital and exploration expenditures in Alaska and compare these to net revenues earned by oil companies in Alaska during the same period. This comparison would provide a ratio of oil industry investment to oil industry profit in Alaska. However, it is very difficult to relate investments to profits because of the uncertainty of the timing of the cash flows.

EFFECT OF STATE TAX POLICY

In 1983, the largest use of capital--other than capital expenditures--was for dividend payments, which consumed 14.88 percent of total funds. In 1984, investments in other companies--totalling 16 percent of expended capital--was the largest consumer of funds other than capital investments.

Previous Capital Expenditures. Table 5 provides a summary of capital and exploration expenditures in the United States, by use, for selected years 1974 through 1984. It can be seen that expenditures in the United States decreased significantly in 1983 and 1984 after showing steady increases during the previous ten years. Oil industry analysts point to the drop in the price of oil for this investment decline. The Global Petroleum Division of the Chase Manhattan Bank notes:

Several factors contributed to the lower amount of capital spending, the most important being lower crude oil and product prices and reduced refining profit margins. These served to reduce cash flow for most industry participants and also contributed to the development of more bearish expectations concerning future petroleum prices and profitability.¹⁹

Oil industry representatives also argue that during times of low expected earnings, capital availability becomes a more important factor in investment decisions than during times of higher oil prices. This occurs because as earnings fall, reducing available capital, capital rationing may exclude some projects with acceptable rates of return.

However, some petroleum industry analysts do not cite capital shortages as a reason for the decline in capital investment in 1983 and 1984. Mr. David Behling, writing in the Oil and Gas Journal, concluded the following concerning capital availability:

This has not been an important factor for most companies in the Chase group, however, either in 1983 or 1984. Profitability and cash flow of these companies generally increased in both years. Further, most in the group have had continued access to commercial bank, insurance and other credit sources. However, several of the group currently are repurchasing outstanding equity and paying down long term debt rather than expanding their asset base. This is by choice and not because of any availability constraint on external finance.²⁰

¹⁹Capital Investments of the World Petroleum Industry, Chase Manhattan Bank Global Petroleum Division, September 1985, page 5.

²⁰David Behling, "Capital Needs and Availability for World Oil," Oil and Gas Journal, November 12, 1984.

TABLE 5
CAPITAL AND EXPLORATION EXPENDITURES IN THE UNITED STATES
Selected Years 1974-1984
(millions of dollars)

<u>Activity</u>	<u>1974</u>	<u>1976</u>	<u>1978</u>	<u>1980</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Crude Oil and Natural Gas Production	\$11,225	\$13,135	\$17,325	\$32,350	\$50,900	\$36,625	\$37,375
Natural Gas Liquid Plants	225	325	325	750	1,375	650	675
Pipe Lines	1,400	3,625	750	1,550	775	625	700
Tankers	200	275	600	600	525	375	275
Refineries	1,775	1,575	1,750	3,250	5,350	3,750	3,025
Chemical Plants	825	2,200	2,300	2,400	2,200	1,350	1,175
Marketing	650	625	950	1,300	1,400	1,375	1,900
Other	<u>325</u>	<u>325</u>	<u>465</u>	<u>700</u>	<u>1,025</u>	<u>850</u>	<u>725</u>
Total Capital Expenditures	\$16,625	\$22,085	\$24,475	\$42,900	\$63,550	\$45,600	\$45,850
Geological & Geophysical Expense & Lease Rents	<u>1,130</u>	<u>1,375</u>	<u>1,975</u>	<u>3,850</u>	<u>4,500</u>	<u>4,250</u>	<u>4,075</u>
Combined Total	\$17,755	\$23,460	\$26,450	\$46,750	\$68,050	\$49,850	\$49,925

Source: Capital Investments of the World Petroleum Industry, Chase Manhattan Bank Global Petroleum Division, September 1985.

EFFECT OF STATE TAX POLICY

Behling goes on to project the capital needs and capital availability of the oil industry between the years 1983 and 1990:

...we foresee total capital expenditures for the industry growing only about 6 percent annually between 1983 and 1990. This is a little higher than expected U.S. inflation. With much lower growth expected in capital needs, financing availability should not prove to be a major problem, particularly for the larger multinational companies.²¹

Although cash from operations--which would include savings from lower income taxes--is the primary source of investment capital for petroleum industry investments, some investment analysts think that the price of oil and earnings expectations will be more important factors in future investment decisions than capital availability. They foresee: 1) reduced investment requirements in the future due to lower future earnings expectations; and 2) sufficient available capital to meet these investment requirements.

Economic Benefits and Taxation

Using their mean case price forecast, the Alaska Department of Revenue has projected that adoption of HB 353 in 1986 would result in additional State tax collections of \$1.6 billion (in 1985 value) between 1986 and 2005.²² If HB 353 is not adopted, the petroleum industry will have this money available for their investment opportunities.

Clearly, the impact to the State's economy will be different depending upon whether HB 353 or the current law is in effect. Below, we present several scenarios illustrating possible disposition of this \$1.6 billion. Although the scenarios are presented as mutually exclusive events, in reality this would not be the case. We present them this way to better illustrate each scenario's potential impact to the State's economy.

If the State adopts HB 353 and collects this additional revenue, the funds become unrestricted general funds and can be appropriated at the discretion of the legislature. These additional revenues impact the state's economy through direct employment as well as through secondary effects. Positive impacts to the state's economy of adopting HB 353 would be greatest in the near future when difference in income tax collections between HB 353 and current law are expected to be largest.

²¹Behling, November 12, 1984.

²²Memorandum from Revenue Research Section to Commissioner Nordale, October 31, 1985, page 24.

Table 2 (on page 28) indicates that 45 percent of the additional revenues from HB 353 would be collected in 1986 and 1987. By the year 2003, income tax collections under current law are projected to exceed collections under HB 353.

If current law remains in effect, the petroleum industry would retain this \$1.6 billion dollars for their own investment projects. One investment option available to the petroleum industry is onshore exploration and development projects. If successful, these projects would stimulate the state's economy through additional employment and increased oil production that would be taxed.

There is no guarantee, however, that petroleum company investments would occur onshore. Petroleum companies could also invest in the exploration of Outer Continental Shelf (OCS) leases or development of OCS production facilities. Because of the specialized nature of the equipment required for these activities, little economic activity would be generated in the state unless onshore production facilities are constructed. Most equipment needed for OCS activity is manufactured outside of Alaska and towed to location. In addition, state royalties, severance taxes, and income taxes are not levied on OCS production; OCS activity would generate only minor benefits to the state's economy.

Finally, the \$1.6 billion retained by the petroleum industry could be invested outside of Alaska. Earlier, we noted that investments in Alaska must compete with other investment opportunities of the corporation. Petroleum investments in Alaska are primarily related to crude oil exploration, development and production. In times of falling crude oil prices, these investments could be vulnerable to competition from other projects with higher expected rates of return.

CHAPTER 3

EFFECT OF INCOME TAXES ON MARGINAL FIELD NET REVENUE

In the previous chapter, we noted that economic theory suggests that income taxes have a limited impact on development and production decisions. We also observed that modified apportionment may have a more detrimental effect upon the economic feasibility of marginal oil fields than separate accounting. In this chapter, we examine this theory by comparing the shares of net revenue from petroleum production and transportation that would be captured by the State government, federal government and oil industry under current law and HB 353.

We first present the division of net revenue for all Alaska production and then present the shares of net revenue for each marginal field.²³ The marginal fields presented here include Lisburne, Milne Point and Endicott. Although the West Sak sands have very large reserves that may be recoverable, the development of the technology to produce this oil is not yet complete. As a result, cost and production information for this project is very speculative and difficult to use. The Prudhoe Bay Enhanced Oil Recovery project has been excluded because the incremental production from the project cannot be separated from other Prudhoe Bay production in the severance tax calculation.

In computing shares of net revenue, we summed revenues from oil production and transportation and then deducted the costs associated with earning this revenue.²⁴ Revenue, cost and tax information used to compute the shares analysis is located in the appendix.

Net revenues are gross revenues minus all the allowable nontax expenses (deductions) associated with earning those revenues. Expenses include items such as direct operating costs, depreciation, costs associated with acquiring oil leases, interest costs, exploration cost and administrative costs. It is net revenue that constitutes the pie that is split among the industry, the State and federal governments. The State and federal share of net revenue is comprised of all royalty, tax and rental income. The industry share is the amount of net revenue retained after the State and federal portions are deducted.

²³The information on shares of net revenue from all fields is a summary of information contained in a House Research Report completed in December 1985. That report is available upon request.

²⁴The source for all revenue, cost and tax data for the shares analysis of all production is Department of Revenue, Research Section, memorandum of October 31, 1985 to Revenue Commissioner Mary Nordale.

EFFECT ON MARGINAL FIELDS

This analysis assumes that the quantity of oil produced is not affected by whether current law or HB 353 is in effect. Consequently, royalty payments, rental payments, property tax collections and conservation tax collections will be the same under either law.²⁵

SHARES OF NET REVENUE: ALL PRODUCING FIELDS

Shares of net revenues for all the producing fields are presented below. The first analysis uses the Department of Revenue mean oil price forecast and the second uses the department's 30 percent oil price forecast.

Summary of State, Federal and Industry Share--Mean Oil Price Forecast

Table 6 compares the division of net petroleum production and transportation revenue under current law with the division of this income under a combination HB 353 and AS 43.21 (the State's previous separate accounting law) for the years 1982-2005. As the table indicates, under both tax schemes, the federal and industry shares decline between 1986 and 2005 while the State share increases. Figure 5 shows State, federal and industry shares of net revenue for the years 1985-2005 for both current law and HB 353.

Federal Share. Under both tax scenarios, the federal share decreases steadily throughout the period 1982-2005. However, between the years 1986 and 2002, the federal share is slightly higher if the current law is in effect than if HB 353 is in effect. During the last three years of the period, the federal share is higher under HB 353. This occurs because because State income taxes are allowed as federal income tax deductions. Consequently, lower State taxes increase federal taxable income. Between the years 1986 and 2002, the State collects more total taxes under HB 353 than under current law. After 2002, current law generates more State revenue.

In computing the federal share, we used an effective federal income tax rate of 29 percent rather than the 46 percent statutory rate because the shares analysis is based on percentages of net revenue actually captured.²⁶ We determined that this effective rate more accurately reflects the percentage of net revenue that petroleum companies were paying as federal taxes. However, problems exist in applying this or any other effective tax rate.

²⁵Alaska Department of Revenue, Research Section, Memorandum from Vince Wright to Revenue Commissioner Mary Nordale, October 31, 1985, page 8.

²⁶The 29 percent effective rate is from an American Petroleum Institute study as reported in the Oil and Gas Journal, Sept. 16, 1985, page 76.

EFFECT ON MARGINAL FIELDS

TABLE 6: STATE, FEDERAL AND INDUSTRY SHARES OF PETROLEUM PRODUCTION AND TRANSPORTATION NET REVENUE 1982-2005

Comparison of Current Law and HB 353 (effective 1985)
Alaska Department of Revenue Mean Oil Price Forecast

Fiscal Year	Total Net Revenue	State Share Cur.Law	State Share HB 353	Federal Share Cur.Law	Federal Share HB 353	Industry Share Cur.Law	Industry Share HB 353
82	13,616.3	30.3%	28.8%	30.8%	31.2%	38.9%	39.9%
83	12,313.1	28.7	30.0	26.7	26.3	44.6	43.7
84	11,462.4	29.7	31.1	23.0	22.6	47.3	46.3
85	11,385.1	29.3	32.8	21.0	20.0	49.7	47.2
86	10,000.0	31.0	35.7	20.4	19.0	48.7	45.3
87	8,583.4	33.1	36.2	19.6	18.7	47.3	45.1
88	7,408.6	32.1	34.3	19.8	19.2	48.0	46.5
89	6,868.8	32.5	34.6	19.7	19.1	47.8	46.3
90	6,191.0	34.0	35.9	19.3	18.7	46.7	45.4
91	5,433.0	35.4	37.1	18.9	18.4	45.7	44.5
92	5,160.7	35.4	37.0	18.8	18.4	45.7	44.6
93	4,853.2	35.5	37.1	18.8	18.3	45.7	44.5
94	4,216.1	36.7	38.2	18.5	18.0	44.8	43.8
95	3,762.4	37.5	38.8	18.2	17.9	44.3	43.4
96	3,270.8	38.9	39.7	17.8	17.6	43.2	42.7
97	2,887.9	39.4	40.3	17.7	17.4	42.9	42.3
98	2,565.8	39.9	40.8	17.5	17.3	42.5	41.9
99	2,204.0	40.6	41.3	17.4	17.2	42.0	41.5
00	2,062.9	40.5	41.3	17.4	17.2	42.1	41.6
01	1,695.1	42.1	42.7	17.0	16.8	40.9	40.5
02	1,340.1	44.9	44.9	16.2	16.2	38.9	38.9
03	1,049.0	48.5	47.6	15.2	15.4	36.4	37.0
04	854.1	50.5	49.1	14.6	15.0	34.9	35.9
05	643.3	56.2	53.7	13.0	13.8	30.8	32.6

Notes: Shares assume current law in effect from 1982-2005, AS 43.21 in effect 1982-1984 and HB 353 in effect from 1985-2005. 1982 State share under current law is based on actual collections for that year.

Assumes effective federal income tax rate of 29 percent.

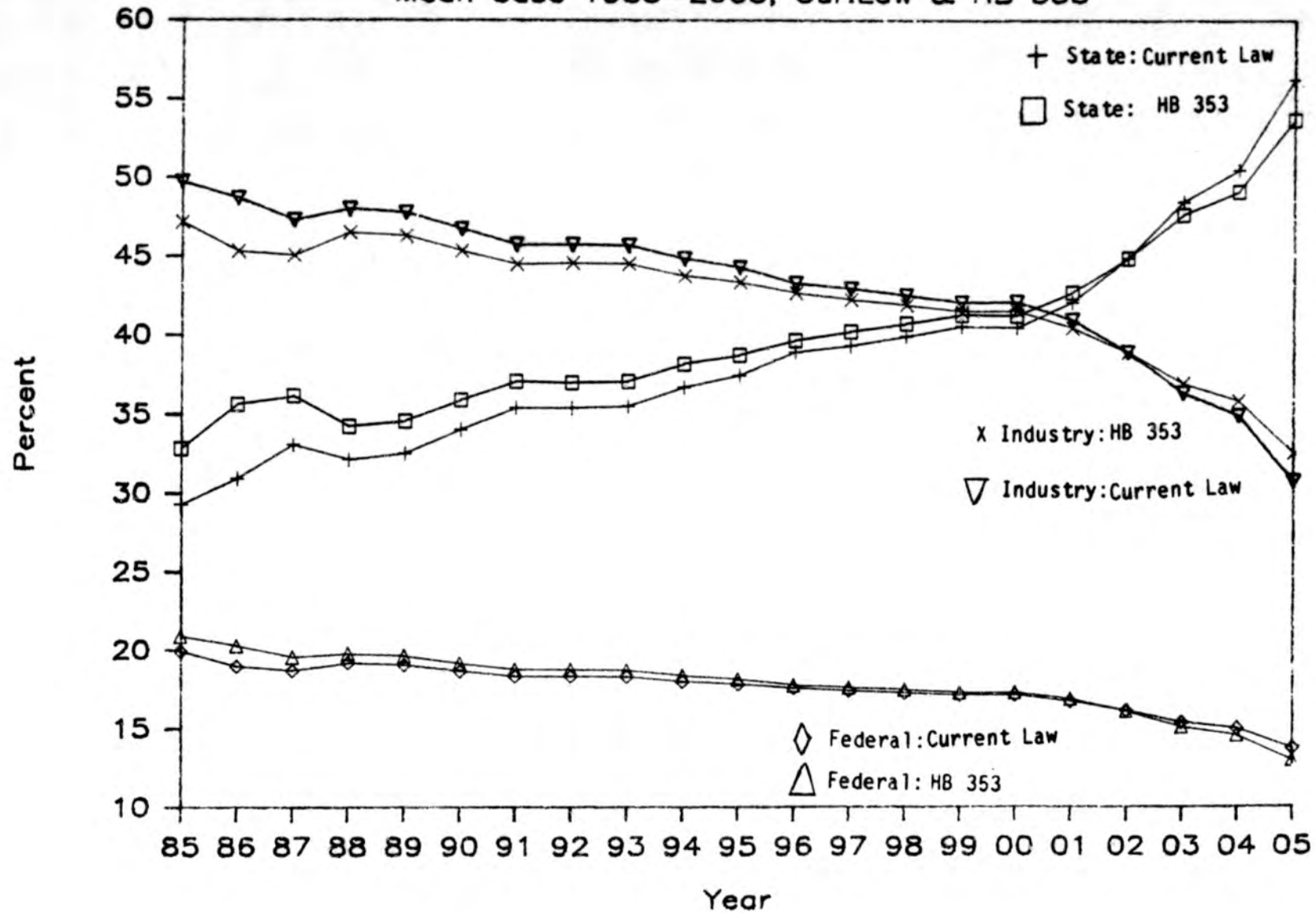
1982-1985 net revenue is actual dollars. 1986-2005 net revenue is deflated to 1986 dollars based on inflation rates found in: Revenue Sources FY 1984-87, January, 1985 page 38, published by the Alaska Department of Revenue.

Prepared by the House Research Agency 12-12-85.

FIGURE 5

Shares of Petroleum Net Revenue

Mean Case 1985-2005; Cur.Law & HB 353



First, the effective rate used here applies to all oil company activities, i.e., exploration, production, transportation, refining and marketing. In Alaska, exploration, production and transportation activities are the primary contributors to oil industry income. Therefore, the effective rate that we have used may, to some degree, distort the actual federal income tax payments associated with income earned in Alaska.

Secondly, we have applied the same effective rate throughout the period 1982-2005. In reality, the effective rate will fluctuate as tax laws change and as changes occur in the mix of petroleum industry activities. Because the petroleum industry is allowed tax incentives to explore for and develop oil fields, effective rates will generally be lower in periods of intense exploration activity and higher in periods of less intense exploration and development activity. By using the same rate throughout the period, we have assumed that the mix of oil industry activity in Alaska is similar to the mix used to calculate the effective rate and that similar levels of industry activity will continue in Alaska.

The choice of the federal income tax rate alters the division of net revenue between the federal government and industry, but does not affect the State share. A higher effective income tax rate would increase the federal share and decrease the industry share. House Research has estimated that if the statutory tax rate of 46 percent were used rather than effective rate of 29 percent, the industry share of net revenue would be approximately 10 percent lower under HB 353 or current law in every year from 1982 - 2005.

The federal share also includes the proceeds from the Windfall Profits Tax; a tax that is dependent on the price of oil. The decrease in the federal share between the years 1982 and 1985 is largely due to reduced Windfall Profit Tax collections as a result of oil price declines.

State Share. The State share of production and transportation net revenue increases under both the State tax schemes. This is primarily due to royalties and severance taxes, which comprise a substantial portion of total State revenue collections throughout the period. Both of these sources of income are assessed as a percentage of gross production rather than as a percentage of net income, so are unaffected by changes in the cost of production. If net income were a relatively constant percentage of gross revenue throughout the period, the State's share would also remain relatively constant even as gross revenues decline. However, per barrel production costs will increase in the later years of Prudhoe Bay and Kuparuk production and as marginal fields begin production. Consequently, net revenue declines more rapidly than total State collections, resulting in the State capturing an increasingly larger share of net revenue.

EFFECT ON MARGINAL FIELDS

As Figure 5 indicates, the State share is higher for every year from 1986-2002 under HB 353 than under current law. This difference is due primarily to higher corporate income tax collections under HB 353 than under current law for the period 1986-2004. The higher severance tax rate under current law does not compensate for the income tax difference until 2003, the first year that combined severance tax and corporate income tax collections under current law will exceed severance and income tax collections under HB 353.

Industry Share. The industry share of net revenue is the portion of net revenue remaining after the State and federal shares have been subtracted. The industry share of net revenue declines throughout the period 1986-2005 under both HB 353 and current law.

Between the years 1986 and 2002, the industry share of net revenue is consistently higher under current law than it would be if HB 353 were adopted. From 2003 until 2005 (the end of the period of analysis) the industry share is greater under HB 353.

Summary of State, Federal and Industry Share--30 Percent Oil Price Forecast

Table 7 compares the division of net revenue among the State government, federal government and petroleum industry under current law and HB 353 under the Department of Revenue 30 percent oil price forecast. Figure 6 presents this information graphically. As with the mean oil price forecast, the federal and industry shares decline over time while the State share increases regardless of the law that is in effect.

Assuming the 30 percent oil price forecast, the State share is higher under HB 353 than under current law from 1986-2000 and lower than the current law from 2001-2005. The industry share of net revenue is higher under current law than HB 353 from 1986-2000 and lower under current law beginning in 2001.

The State share is considerably higher by the end of the study period under the 30 percent price forecast than it is if the mean oil price forecast is used. This occurs because cost deductions do not decline as the price of oil falls. Consequently, costs are a higher percentage of gross revenue under the 30 percent forecast than under the mean forecast. However, because a substantial portion of the State's petroleum collections are based on gross production rather than net revenue, the State share increases as net revenue declines.

EFFECT ON MARGINAL FIELDS

TABLE 7: STATE, FEDERAL AND INDUSTRY SHARES OF PETROLEUM PRODUCTION AND TRANSPORTATION NET REVENUE 1982-2005

Comparison of Current Law and HB 353 (effective 1985)
Alaska Department of Revenue 30% Oil Price Forecast

Fiscal Year	Total Net Revenue	State Share Cur. Law	State Share HB 353	Federal Share Cur. Law	Federal Share HB 353	Industry Share Cur. Law	Industry Share HB 353
1982	13,616.3	30.3%	28.8%	30.8%	31.2%	38.9%	39.9%
1983	12,313.1	28.7	30.0	26.7	26.3	44.6	43.7
1984	11,462.4	29.7	31.1	23.0	22.6	47.3	46.3
1985	11,385.1	29.3	32.8	21.0	20.0	49.7	47.2
1986	9,743.6	31.1	35.8	20.3	18.9	48.6	45.3
1987	7,700.2	33.8	36.8	19.4	18.5	46.8	44.7
1988	6,793.1	33.1	35.0	19.5	19.0	47.4	46.0
1989	6,192.7	33.9	35.6	19.3	18.8	46.8	45.6
1990	5,526.0	35.7	37.1	18.8	18.3	45.6	44.5
1991	4,768.2	37.4	38.6	18.3	17.9	44.3	43.5
1992	4,530.6	37.4	38.4	18.3	18.0	44.4	43.6
1993	4,272.0	37.2	38.6	18.3	17.9	44.4	43.5
1994	3,709.4	38.7	39.7	17.9	17.6	43.4	42.7
1995	3,291.0	39.5	40.4	17.7	17.4	42.8	42.2
1996	2,872.8	40.9	41.3	17.3	17.2	41.8	41.6
1997	2,526.8	41.5	42.0	17.1	17.0	41.4	41.1
1998	2,211.6	42.5	42.8	16.8	16.7	40.7	40.5
1999	1,923.2	43.7	43.8	16.5	16.5	39.8	39.8
2000	1,678.6	44.6	44.5	16.3	16.3	39.2	39.2
2001	1,293.1	48.8	47.8	15.1	15.3	36.2	36.8
2002	985.5	53.3	51.4	13.8	14.4	32.9	34.2
2003	727.5	61.0	57.3	11.6	12.7	27.4	30.0
2004	542.7	68.9	63.5	9.4	11.0	21.6	25.5
2005	316.8	97.3	85.7	1.5	4.8	1.3	9.5

Notes: Shares assume current law in effect from 1982-2005. AS 43.21 in effect 1982-1984 and HB 353 in effect from 1985-2005. 1982 State share under current law is based on actual collections for that year.

Assumes effective federal income tax rate of 29 percent.

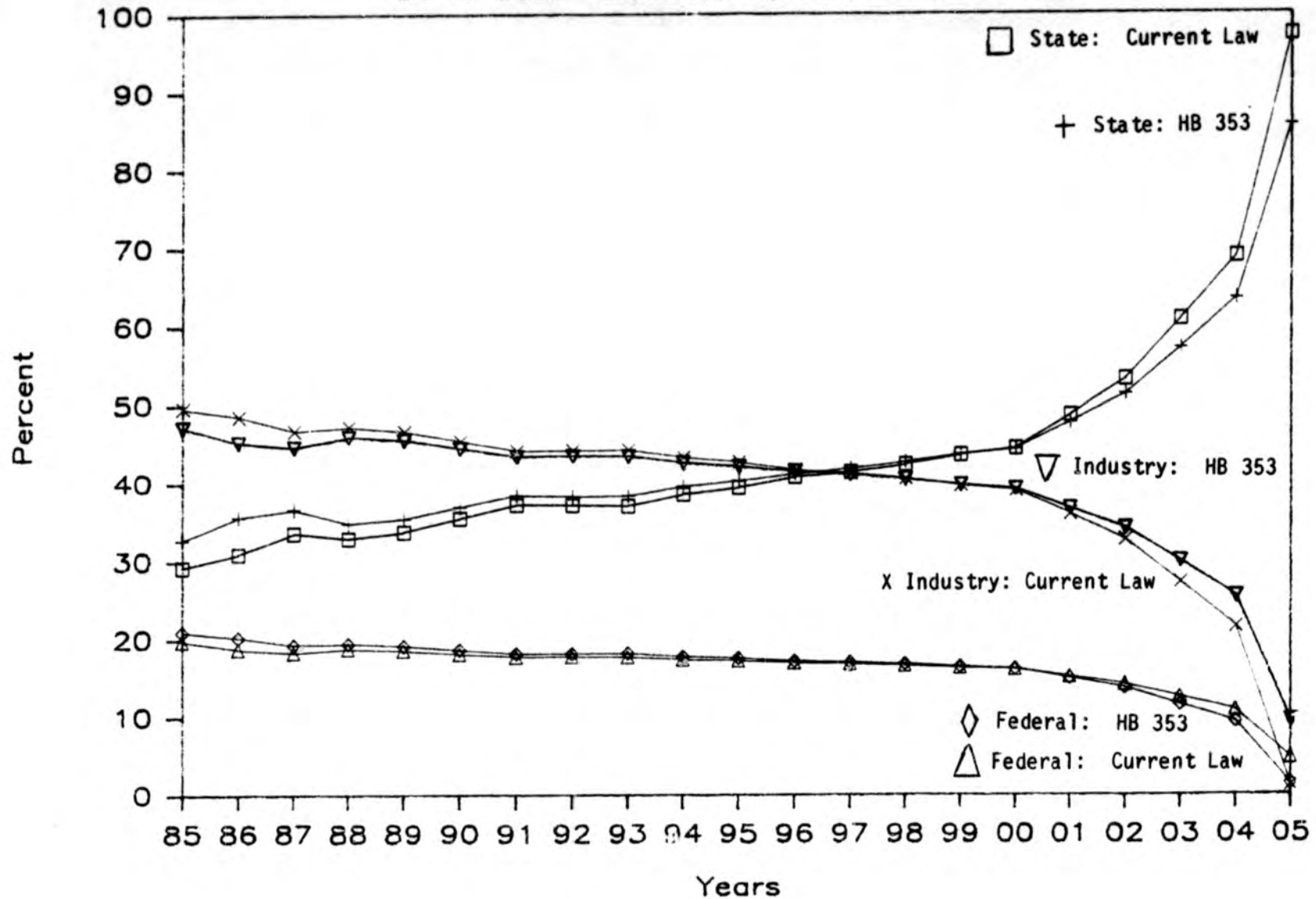
1982-1985 net revenue is actual dollars. 1986-2005 net revenue is deflated to 1986 dollars based on inflation rates found in: Revenue Sources FY 1984-87, January, 1985 page 38, published by the Alaska Department of Revenue.

Prepared by the House Research Agency 12-12-85.

FIGURE 6

Shares of Petroleum Net Revenue

30 % Case 1985--2005; Cur.Law.& HB 353



SHARES OF NET REVENUE--MARGINAL FIELDS

This section discusses the computation of the State, federal and industry shares of net revenue for each of the following marginal oil fields: Milne Point, Endicott and Lisburne. The approach used to determine the shares of net income for these marginal fields is the same as was used in the preceding analysis of all fields except that acquisition costs have been excluded. From gross income we deducted operating costs to determine net revenue. Next, we calculated all the revenues collected by the State and federal governments and subtracted these from net revenue to determine the portion of net revenue retained by the industry.

The computer model that we used to complete the shares analysis is a derivation of the model FINDOIL, which was developed by the University of Alaska, Institute of Social and Economic Research.²⁷ The model does not replicate the timing and amount of all tax deductions relevant to the development of these marginal oil fields. However, we feel that the model approximates accounting relationships and actual economic conditions to the extent that it can be used to illustrate the impact on marginal oil fields of implementing HB 353 or retaining the current law.²⁸ (Model assumptions are found in the appendix).

Summary of State, Federal and Industry Shares

Tables 8-10 show the division of net oil production and transportation income among the State government, federal government and industry under both current law and HB 353 for the three marginal fields. (Tables showing the composition of the State collections can be found in the appendix.)

For each of the marginal fields we analyzed, the industry retains a larger share of net revenues (and the State gains a smaller share) under HB 353 than under the current law. This result is contrary to the findings of the previous section in which Prudhoe Bay and Kuparuk were included in the analysis.

²⁷Alaska Petroleum Revenues: The Influence of Federal Policy, University of Alaska, Institute of Social and Economic Research, October 1984.

²⁸The model, which has been developed using a Lotus 123 spreadsheet format, is available from the House Research Agency.

Table 8
Hilme Point
State, Federal and Industry Share of Net Revenue
1985-2010
(1985 dollars)

Year	Wellhd.	Oil. Prod	Price Of Oil	Hdbbl/Yr. DNR	Total Revenue \$1000	Products. Cost \$1000	State Share of Net Revenue				Federal Share of Net Revenue				Industry Share of Net Revenue				
							Net Revenue	Current Law		HB 353		Current Law		HB 353		Current Law		HB 353	
								Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982																			
1983																			
1984																			
1985	14.37	0	0	0	0	0	1,696	0%	1,430	0%	0	0%	0	0%	0	0%	0%		
1986	13.51	10,950	201,946	38,530	163,416	48,558	30%	48,267	30%	12,610	8%	12,867	8%	102,248	63%	102,283	63%		
1987	10.84	10,950	167,910	38,957	128,953	40,133	31%	37,511	29%	19,179	15%	20,385	16%	69,642	54%	71,057	55%		
1988	10.29	10,950	159,065	39,310	119,754	38,165	32%	34,966	29%	19,590	16%	21,062	18%	62,000	52%	63,727	53%		
1989	9.82	9,125	125,810	33,066	92,744	30,425	33%	27,285	29%	18,481	20%	19,925	21%	43,838	47%	45,534	49%		
1990	9.61	7,300	97,458	26,813	70,645	23,906	34%	21,134	30%	18,990	27%	20,265	29%	27,750	39%	29,246	41%		
1991	9.45	5,475	71,762	20,499	51,263	18,224	36%	15,371	30%	13,507	26%	14,819	29%	19,533	38%	21,073	41%		
1992	10.09	5,475	74,124	21,423	52,701	19,265	37%	16,427	31%	13,877	26%	15,182	29%	19,559	37%	21,092	40%		
1993	10.46	3,650	50,438	14,553	35,884	12,876	36%	11,123	31%	9,666	27%	10,472	29%	13,343	37%	14,289	40%		
1994	10.43	3,650	49,888	15,150	34,737	12,757	37%	10,943	32%	9,361	27%	10,195	29%	12,619	36%	13,599	39%		
1995	10.35	3,650	49,288	15,737	33,551	15,020	45%	12,530	37%	7,897	24%	9,042	27%	10,634	32%	11,979	36%		
1996	11.18	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
1997	11.99	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
1998	12.52	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
1999	13.08	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2000	13.56	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2001	13.36	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2002	13.10	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2003	12.67	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2004	12.97	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2005	12.37	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2006	11.58	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2007	10.94	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2008	10.40	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2009	9.97	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
2010	9.81	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%		
			71,175	1,047,688	264,038	783,650	261,025	33%	236,986	30%	143,156	18%	154,214	20%	381,165	49%	393,880	50%	

Notes: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January 1986, page 40.
Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1985 page 11.
Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.
prepared by the House Research Agency, January, 1985

Table 9
Endicott
State, Federal and Industry Share of Net Revenue
1985-2010
(1985 dollars)

Year	Wellhd. Oil. Prod. Price \$Bbl/Yr. Of Oil	Prod. DNR	Total Revenue \$1000	Product. Cost \$1000	Net Revenue	State Share of Net Revenue				Federal Share of Net Revenue				Industry Share of Net Revenue			
						Current Law		HB 353		Current Law		HB 353		Current Law		HB 353	
						Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1982																	
1983																	
1984																	
1985	14.68	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
1986	13.82	0	0	0	0	5,219	0%	4,400	0%	0	0%	0	0%	0	0%	0	0%
1987	11.15	0	0	0	0	10,438	0%	8,800	0%	0	0%	0	0%	0	0%	0	0%
1988	10.60	10,250	270,765	72,817	197,948	60,783	31%	53,070	27%	0	0%	0	0%	137,165	69%	144,878	73%
1989	10.13	36,500	514,553	146,863	367,690	108,307	29%	93,363	25%	0	0%	0	0%	259,304	71%	274,327	75%
1990	9.92	36,500	498,607	148,666	349,941	105,827	30%	89,818	26%	17,721	5%	25,085	7%	226,393	65%	235,038	67%
1991	9.76	36,500	489,728	151,260	338,468	103,756	31%	87,222	26%	35,505	16%	63,111	19%	179,207	53%	188,136	56%
1992	10.40	36,500	505,476	157,417	348,058	107,806	31%	92,138	26%	100,465	29%	107,672	31%	139,788	40%	148,248	43%
1993	10.77	31,025	438,337	136,113	302,224	96,131	32%	79,764	26%	86,976	29%	94,505	31%	119,117	39%	127,955	42%
1994	10.74	27,375	382,643	124,576	258,067	84,190	33%	69,246	27%	74,338	29%	81,213	31%	99,539	39%	107,609	42%
1995	10.66	23,725	327,728	111,779	215,949	72,194	33%	58,738	27%	62,030	29%	68,219	32%	81,725	38%	88,991	41%
1996	11.49	23,725	345,470	113,623	231,847	77,586	33%	64,720	28%	67,680	29%	73,598	32%	86,582	37%	93,529	40%
1997	12.30	21,900	336,025	106,145	229,880	75,927	33%	64,950	28%	68,510	30%	73,560	32%	85,443	37%	91,370	40%
1998	12.83	20,075	324,713	99,709	225,003	72,490	32%	63,368	28%	68,698	31%	72,894	32%	83,816	37%	88,741	39%
1999	13.39	18,250	322,156	92,310	229,845	68,101	30%	61,835	27%	73,014	32%	75,896	33%	88,731	39%	92,114	40%
2000	13.87	16,425	305,834	84,307	221,526	63,281	29%	58,645	26%	71,507	32%	73,639	33%	86,739	39%	89,242	40%
2001	13.67	14,600	274,725	76,456	198,269	55,651	28%	51,745	26%	64,455	33%	66,251	33%	78,164	39%	80,273	40%
2002	13.41	7,300	138,207	39,042	99,166	25,597	26%	24,214	24%	33,264	34%	33,900	34%	40,305	41%	41,052	41%
2003	12.98	3,650	68,598	19,822	48,776	13,248	27%	12,381	25%	16,055	33%	16,454	34%	19,473	40%	19,941	41%
2004	13.28	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2005	12.68	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2006	11.89	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2007	11.25	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2008	10.71	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2009	10.28	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
2010	10.12	0	0	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
372,300 5,543,564 1,680,905 3,862,659 1,206,532						31%	1,038,419	27%	860,217	22%	925,997	24%	1,811,567	47%	1,911,444	49%	

Notes: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January 1986, page 40.
Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1985, page 11.
Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.
prepared by the House Research Agency, January, 1985

Table 10
Lisburne
State, Federal and Industry Share of Net Revenue
1985-2010
(1985 dollars)

Year	Wellhd. Of Oil	Oil Prod MMbbl/Yr	Total Revenue \$1000	Product Cost \$1000	Net Revenue	State Share of Net Revenue				Federal Share of Net Revenue				Industry Share of Net Revenue				
						Current Law		HB 353		Current Law		HB 353		Current Law		HB 353		
						Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	
1982																		
1983																		
1984																		
1985	17.48	0	0	0	0	5,219	0%	4,400	0%	0	0%	0	0%	0	0%	0	0%	
1986	16.62	0	0	0	0	10,438	0%	8,800	0%	0	0%	0	0%	0	0%	0	0%	
1987	13.95	18,250	336,607	41,279	275,329	68,592	25%	69,517	25%	0	0%	0	0%	206,737	75%	205,811	75%	
1988	13.40	21,900	306,238	74,240	311,998	73,675	24%	74,373	24%	0	0%	0	0%	233,323	76%	237,625	76%	
1989	12.93	25,550	431,727	87,474	344,253	79,745	23%	79,779	23%	0	0%	0	0%	264,508	77%	264,475	77%	
1990	12.72	29,200	480,645	101,413	379,233	88,037	23%	87,495	23%	82,296	22%	82,545	22%	208,900	55%	209,192	55%	
1991	12.56	32,050	532,735	116,424	416,311	96,435	23%	95,559	23%	136,754	33%	137,157	33%	183,123	44%	183,596	44%	
1992	13.20	36,500	607,676	135,517	472,158	113,042	24%	108,831	23%	154,903	33%	156,840	33%	204,213	43%	206,488	44%	
1993	13.57	36,500	617,890	138,232	479,658	123,274	26%	117,625	25%	154,489	32%	157,088	33%	201,894	42%	204,945	43%	
1994	13.54	36,500	612,390	144,201	468,189	122,985	26%	116,505	25%	151,028	32%	154,009	33%	194,176	41%	197,675	42%	
1995	13.46	32,050	545,757	135,061	410,696	109,973	27%	103,357	25%	132,443	32%	135,487	33%	168,278	41%	171,851	42%	
1996	14.29	29,200	506,954	122,324	384,630	102,226	27%	97,534	25%	125,677	33%	127,836	33%	156,727	41%	159,261	41%	
1997	15.19	26,280	476,815	111,606	365,208	96,520	26%	93,448	26%	120,655	33%	122,068	33%	148,033	41%	149,692	41%	
1998	15.63	23,725	450,181	103,603	346,578	89,772	26%	88,255	25%	116,252	34%	116,950	34%	140,554	41%	141,373	41%	
1999	16.19	21,170	432,977	94,378	338,599	82,327	24%	83,356	25%	116,135	34%	115,662	34%	140,136	41%	139,581	41%	
2000	16.67	18,980	406,352	86,030	320,318	75,849	24%	77,955	24%	110,937	35%	109,968	34%	133,732	42%	132,595	41%	
2001	16.47	17,155	370,836	79,543	291,293	68,141	23%	70,236	24%	101,187	35%	100,223	34%	121,966	42%	120,834	41%	
2002	16.21	15,330	333,159	72,790	260,370	60,198	23%	62,162	24%	90,766	35%	89,862	35%	109,406	42%	108,346	42%	
2003	15.78	13,870	299,508	67,000	232,508	68,195	29%	66,039	28%	74,400	32%	75,392	32%	89,913	39%	91,077	39%	
2004	16.08	12,410	270,681	66,129	204,552	62,315	30%	59,825	29%	64,363	31%	65,509	32%	77,874	38%	79,218	39%	
2005	15.48	11,315	242,691	55,996	186,695	55,366	30%	53,375	29%	59,450	32%	60,366	32%	71,879	39%	72,954	39%	
2006	14.69	10,220	208,045	51,087	156,958	48,252	31%	45,672	29%	49,162	31%	50,349	32%	59,544	38%	60,937	39%	
2007	14.05	9,125	177,344	45,949	131,395	42,068	32%	39,131	30%	40,357	31%	41,708	32%	48,970	37%	50,557	38%	
2008	13.51	7,300	136,126	37,170	98,956	33,288	34%	30,570	31%	29,633	30%	30,884	31%	36,035	36%	37,503	38%	
2009	13.08	5,475	98,169	27,881	70,288	25,535	36%	22,990	33%	20,165	29%	21,336	30%	24,589	35%	25,963	37%	
2010	12.92	3,650	63,747	18,594	45,153	18,355	41%	16,205	36%	12,050	27%	13,039	29%	14,748	33%	15,909	35%	
			495,305	9,025,452	2,033,924	6,991,528	1,819,821	26%	1,772,992	25%	1,943,104	28%	1,964,278	28%	3,244,260	46%	3,267,458	47%

Notes: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January 1986, page 40.
Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1985 page 11
Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.
prepared by the House Research Agency, January, 1985

The State and industry shares are sensitive to the inclusion or exclusion of specific oil fields because of the large disparity in the profitability of oil production among different fields. We have noted that economic activities with higher profitability than the average corporate profitability would be taxed more heavily under HB 353 than under modified apportionment while economic activities with lower profitability than the corporate average would be taxed more heavily under modified apportionment than under HB 353. The marginal fields are, by definition, less profitable than the average investment so are subject to higher taxation under modified apportionment than under HB 353. In contrast, the relatively high profitability of production and transportation activities associated with the Prudhoe Bay and Kuparuk fields cause income from these fields to be taxed more heavily under separate accounting than under current law.

One consequence of the adoption of HB 353 is an immediate increase in State tax collections. Table 2 in Chapter 2 shows that by 2005, the State would have collected \$1.6 billion more (in 1985 dollars) under HB 353 than under current law. However, beyond 1990, the difference in tax revenues collected under the two income tax schemes narrows rapidly until 2003, when more revenue is collected under current law than under HB 353. Table 2 also indicates that a significant percentage of the additional tax revenues from the imposition of HB 353 would be collected in the next few years. We have seen that adoption of HB 353 in 1986 results in additional tax collections of \$1.6 billion by year 2005. If HB 353 were not adopted until 1988, total additional collections would fall by \$705 million to \$859 million, a decline of 45 percent.

Our analysis of the marginal fields indicates that the State share of net revenue from these fields is higher under the current law than it would be under separate accounting. However, over the life of the marginal fields, the difference in the State and industry revenues under current law and HB 353 is relatively small. Total State revenues (from the marginal fields) under current law would exceed collections under HB 353 by 5.2 percent (approximately \$180 million) over the life of the three marginal fields. The industry share is 1.8 percent (approximately \$103 million) higher under HB 353 than under current law. This means that Prudhoe Bay and Kuparuk would generate about \$1.8 billion in additional taxes under HB 353. These increased collections will be partially offset by the loss in collections from the marginal fields.

It also appears that the adoption of HB 353 would not have an adverse effect on the development of known marginal fields. The industry share of net income from marginal fields is higher under the separate accounting law than under the current modified apportionment law, making the fields a more attractive investment. As noted in Chapter 2, the decision to develop may be constructed by the availability of capital.

EFFECT ON MARGINAL FIELDS

However, when compared to economic factors such as the price of oil, Capital accumulation is not so critical to the development of marginal fields.

In a previous chapter, we noted that State revenues under HB 353 may be more vulnerable to oil price fluctuations than revenues under current law. The results of our analysis support this conclusion. As we reduced the expected price of oil, State revenues under HB 353 decreased by a larger percent than revenues under current law. As we increased the expected price of oil, revenues from HB 353 increased more than revenues under current law. Because of the apparent chaos in world oil markets, this feature of HB 353 suggests the total State petroleum revenues would be subject to more uncertainty under HB 353 than under current law.

While the immediate impact of the adoption of HB 353 is increased State income tax revenues, the economic impact of retaining current law is not so clear or immediate. Assuming that current law remains unchanged, the industry will retain the \$1.6 billion the State would collect under HB 353. Clearly, the benefit to the State's economy of industry retention of this money depends upon how it is spent by the industry. Onshore exploration and development of future oil fields on State land could have a long-term positive effect on the state's economy. Industry investments in offshore development would have relatively minor impacts while investments in other parts of the world would have virtually no impact on the state's economy.

Other long-term considerations involve exploration. In Chapter Two, we noted that higher taxes have a detrimental impact on exploration activity because discoveries must be larger to make development feasible. However, the relative impact of a change from current law to HB 353 is difficult to assess. Although larger oil fields would pay higher taxes under HB 353 than under current law, smaller, marginal fields would pay lower taxes. In addition, current law provides a disincentive to explore because exploration activities indicate economic presence for the State. Because modified apportionment assigns income to Alaska in proportion to the level of activity that occurs in state, exploration activity in Alaska is taxed regardless of whether any oil is ever produced.

In considering the economic impact to the State's economy of the adoption of HB 353, the legislature is faced with a dilemma common to all economic problems: weighing return against risk. Adoption of HB 353 would result in increased income tax revenues without adversely affecting the development of known marginal fields. However, this decision involves some risk. Adoption of HB 353 may discourage future exploration by reducing the potential value of large fields, leaving potential oil fields undiscovered and ultimately lowering potential State revenues. It could also subject the State to excessive revenue declines if oil prices are lower than projected.

APPENDIX

COST AND FINANCIAL DATA USED TO CALCULATE SHARES OF NET REVENUES
FROM ALL FIELDS

Petroleum Production and Transportation Financial Data
Department of Revenue Mean Case
1982-2005

Fiscal Year	Total Revenue	State Royalty Share	Prod'n Cons Tax	Prod. Cons. Taxes	Total Property Tax	Mineral Rents	-----Collections-----			Total Depre	Total Acquis Costs	(mil current FY \$)			Admin Costs	Other Deductns	Total Deductns	Total Net Income
							HB 353 1)	AS 43.20 2)	Oper'g Costs			Windfall Profits Tax	Interest Expense Uncap	Exploratn Costs				
82	16455.80	1564.30	1219.03	1581.7	275.90	28.9	837.62	668.90	939.80	602.58	0.77	2017.66	720.69	190.90	236.20	148.58	7916.41	8539.40
83	15469.75	1442.73	1098.94	1493.7	306.55	55.1	796.15	236.00	1100.56	780.16	0.98	1018.38	676.04	204.26	252.30	142.39	7023.30	8446.46
84	14955.04	1370.57	1032.93	1393.1	357.66	21.7	782.86	263.10	1259.34	998.45	1.09	412.33	614.13	218.56	264.90	136.20	6666.16	8298.87
85	15135.99	1362.44	1377.52	1388.5	396.56	20.4	581.52	168.60	1449.17	1093.32	0.80	69.59	565.55	233.86	278.20	130.00	6887.41	8248.58
86	13905.72	1220.81	1204.74	1204.74	420.27	21.6	698.21	228.07	1477.66	1224.05	0.76	39.85	541.76	245.55	292.10	123.82	6731.52	7154.20
87	13017.78	1098.54	979.68	1072.99	465.05	22.9	607.04	241.37	1599.63	1441.20	7.86	18.80	517.87	257.83	306.70	117.63	6791.98	6225.79
88	12634.59	1025.54	685.93	830.45	501.61	22.9	567.21	249.25	1644.96	1583.60	25.26	9.83	490.28	270.72	322.00	114.43	6664.33	5970.26
89	12632.59	1017.67	661.33	794.12	518.92	22.9	550.19	252.48	1672.48	1698.84	55.27	6.32	466.41	284.26	338.10	105.24	6819.52	5814.06
90	12386.27	1014.66	640.39	761.26	542.76	22.9	519.30	254.00	1760.02	1711.70	93.64	4.14	442.64	298.47	355.00	97.05	6958.33	5427.94
91	11789.55	983.67	603.23	707.14	537.14	22.9	476.02	251.48	1747.62	1653.39	124.08	2.71	418.55	313.40	372.80	92.86	6846.74	4942.81
92	11834.36	1008.16	610.04	715.61	528.09	22.9	466.96	248.45	1763.64	1618.38	129.44	1.72	393.54	329.07	391.40	86.67	6858.43	4975.93
93	11738.58	1022.99	609.35	719.25	515.73	22.9	466.49	244.40	1761.02	1535.91	130.52	0.70	367.83	345.52	411.00	80.48	6780.35	4958.23
94	11023.66	982.41	562.39	660.96	501.06	22.9	434.06	236.82	1727.71	1405.20	126.96	0.03	345.21	362.79	431.50	74.29	6519.52	4504.14
95	10538.10	958.25	535.46	631.2	484.11	22.9	403.64	228.19	1674.87	1305.73	124.63	0.00	328.97	380.93	453.10	68.10	6314.15	4223.95
96	9936.75	922.47	490.79	580.2	464.38	22.9	370.16	236.82	1649.40	1199.88	113.07	0.00	316.45	399.98	475.70	61.91	6094.23	3842.52
97	9515.63	904.71	456.78	539.66	442.44	22.9	343.05	211.35	1632.22	1116.78	97.80	0.00	304.62	419.98	499.50	55.72	5930.55	3585.08
98	9171.58	891.76	427.43	503.6	418.20	22.9	321.93	204.13	1621.84	1052.52	80.44	0.00	293.02	440.98	524.50	49.53	5800.22	3371.36
99	8885.20	884.73	402.26	471.98	392.51	22.9	302.91	197.49	1619.95	1002.70	70.07	0.00	283.10	463.03	550.70	43.34	5712.39	3172.81
2000	8645.68	877.78	372.55	437.26	365.75	22.9	290.31	190.00	1584.89	949.30	59.65	0.00	273.89	486.18	578.30	37.14	5585.42	3060.26
01	8025.03	831.91	326.22	377.3	313.85	22.9	257.19	180.10	1580.39	879.42	50.65	0.00	265.99	510.49	607.20	30.95	5397.07	2627.96
02	7343.31	775.51	279.22	322.12	262.26	22.9	212.73	169.31	1567.70	812.89	43.16	0.00	262.91	536.01	637.50	24.76	5201.92	2141.39
03	6811.31	725.47	245.16	280.13	211.62	22.9	170.62	159.82	1380.84	762.60	35.11	0.00	263.33	562.81	699.40	18.57	5104.91	1706.40
04	6367.79	684.66	221.49	247.03	161.34	22.9	141.77	150.55	1539.73	719.23	28.51	0.00	264.44	590.95	702.90	12.38	4925.63	1442.16
05	5850.75	637.09	201.86	221.37	111.27	22.9	109.07	140.64	1507.31	672.99	24.26	0.00	264.88	620.50	738.00	6.19	4784.35	1066.49

Notes: All revenue, cost and tax data from October 31, 1985 memo from Vince Wright to Revenue Commissioner Nordale.

AS 43.20 collections for 1982 reflect total income tax collections in that year. HB 353 collections assume AS 43.21 in effect 1982-1984 and HB 353 in effect 1985-2005.

First "prod. cons. tax" column provides severance tax collections assuming AS 43.21 in effect 1982-1984 and HB 353 in effect 1985-2005.

Second "prod. cons. taxes" column provides severance taxes assuming current law in effect 1982-2005.

Projections based on 6/85 Department of Revenue mean case price and production assumptions.

Petroleum Production and Transportation Financial Data
Department of Revenue 30 Percent Case
1982-2005

1982-2005										Income Tax Estimates (all current FY \$)									
Fiscal Year	Total Revenue	State Royalty Share	Prod'n Cons Tax	Sever. Taxes	Total Property Tax	Mineral Rents	-----Collections-----			Total Depre	Total Acquis Costs	Windfall Profits Tax	Interest Expense Uncap	Explorato Costs	Admin Costs	Other Deductns	Total Deductns	Total Net Income	
							HB 353 1)	AS 43.20 2)	Oper'g Costs										
82	16455.80	1564.30	1219.03	1581.7	275.90	28.9	837.62	668.90	939.80	602.58	0.77	2017.66	720.69	190.90	236.20	148.58	7916.41	8539.40	
83	15469.75	1442.73	1098.94	1493.7	306.55	55.1	796.15	236.00	1100.56	780.16	0.98	1018.38	676.04	204.26	252.30	142.39	7023.30	8446.46	
84	14955.04	1370.57	1032.93	1393.1	357.66	21.7	782.86	265.10	1259.34	998.45	1.09	412.33	614.13	218.56	264.90	136.20	6666.16	8288.87	
85	15135.99	1362.44	1377.52	1388.5	396.56	20.4	581.52	168.60	1449.17	1093.32	0.80	69.59	565.55	233.86	278.20	130.00	6887.41	8248.58	
86	13648.52	1187.44	1172.84	1172.84	420.27	21.6	684.73	223.67	1477.66	1224.05	0.76	35.96	541.76	244.80	292.10	123.82	6685.50	6963.02	
87	12293.68	1008.96	904.34	989.98	465.05	22.9	563.79	232.71	1597.00	1437.62	6.25	10.87	517.87	256.24	306.70	117.63	6617.65	5676.03	
88	11908.06	946.18	638.67	773.71	501.61	22.9	515.28	238.38	1629.36	1562.56	17.75	4.06	490.28	268.23	322.00	114.43	6491.08	5416.98	
89	11697.10	929.31	610.81	737.88	518.92	22.9	491.39	241.26	1625.11	1624.89	33.16	2.14	466.41	280.77	338.10	105.24	6532.71	5164.38	
90	11377.10	922.19	586.91	703.35	539.00	22.9	456.84	241.28	1702.64	1619.49	57.70	0.51	442.64	293.90	355.00	99.05	6618.51	4758.59	
91	10708.14	885.09	541.91	642.15	532.83	22.9	410.91	238.09	1686.99	1546.15	80.98	0.00	418.55	307.65	372.80	92.86	6465.81	4242.34	
92	10766.04	908.04	546.70	646.31	523.25	22.9	401.05	235.48	1709.49	1516.09	94.23	0.00	393.54	322.03	391.40	86.67	6491.44	4274.61	
93	10718.44	924.67	552.78	639.54	510.39	22.9	401.31	232.44	1715.39	1448.71	102.58	0.00	367.83	337.09	411.00	80.48	6450.92	4267.51	
94	10099.09	890.42	507.40	595.9	495.27	22.9	373.10	225.67	1691.98	1333.24	107.22	0.00	345.21	352.86	431.50	74.29	6229.38	3869.70	
95	9623.39	863.98	480.40	562.13	477.91	22.9	344.91	217.58	1640.12	1230.56	108.41	0.00	328.97	369.36	453.10	68.10	6020.92	3602.48	
96	9118.50	833.24	443.18	516.64	457.82	22.9	316.61	225.67	1621.89	1127.87	103.73	0.00	316.45	386.63	475.70	61.91	5828.43	3290.08	
97	8719.61	812.20	415.23	484.75	435.59	22.9	292.49	202.00	1606.92	1035.88	97.12	0.00	304.62	404.71	499.50	55.72	5667.49	3052.12	
98	8319.52	789.94	388.95	451.24	411.37	22.9	270.06	194.51	1592.93	947.57	84.77	0.00	293.02	423.64	524.50	49.53	5506.22	2813.30	
99	7936.71	770.14	361.51	418.64	386.00	22.9	247.16	187.15	1584.30	871.20	74.87	0.00	283.10	443.45	550.70	43.34	5368.61	2568.09	
2000	7567.89	750.23	332.77	384.15	359.60	22.9	226.90	178.63	1542.66	802.43	64.20	0.00	273.89	464.19	578.30	37.14	5205.41	2262.48	
01	6769.50	687.20	283.19	328.46	307.43	22.9	184.23	167.79	1513.33	709.22	53.36	0.00	265.99	485.89	607.20	30.95	4943.76	1825.74	
02	6187.36	640.81	245.12	278.92	256.93	22.9	141.64	156.78	1516.82	647.61	45.77	0.00	262.91	508.62	637.50	24.76	4786.85	1400.51	
03	5687.43	601.02	214.35	243.63	206.77	22.9	102.09	147.24	1533.59	598.56	38.15	0.00	263.33	532.40	699.40	18.57	4706.14	981.29	
04	5211.32	564.20	198.20	217.3	157.02	22.9	70.65	137.62	1489.05	559.16	31.62	0.00	264.44	557.30	702.90	12.38	4536.28	675.04	
05	4618.09	509.52	181.65	199.81	107.53	22.9	29.57	126.56	1494.37	511.86	26.27	0.00	264.88	583.36	738.00	6.19	4423.63	194.46	

Notes: All revenue, cost and tax data from October, 31, 1985 memo from Vince Wright to Revenue Commissioner Nordale.

AS 43.20 collections for 1982 reflect total income taxes collected in that year. HB 353 collections assume AS 43.21 in effect 1982-1984 and HB 353 in effect First "prod. cons. tax" column provides severance tax collections assuming AS 43.21 in effect 1982-1984 and HB 353 in effect 1985-2005.

Second "prod. cons. tax" column provides severance tax collections assuming current law in effect 1982-2005.

Projections based on 6/83 Department of Revenue 30% case price and production assumptions.

ASSUMPTIONS USED FOR ANALYSIS OF SHARES OF NET REVENUE FROM
MARGINAL FIELDS

-----Field Specific Variables-----

		MILNE	ENDICTT	LISBURNE
ROIL	royalty percentage	0.2	0.15	0.121
CAPOIL	Peak capacity (1000bpd)	30	100	100
FIXED	Exploration/Development	325000	2000000	2000000
NOIL	Years of Peak Production	3	4	3
POILDELT	\$/b less than Prud.Price	3.11	2.8	0
RESERVTD	Initial Reserves (000)	71000	375000	495000
TO	Year of Initial Production	1986	1988	1987
VARIABLE	Variable Dev. cost/bar.	0	0	0
QOIL84	oil produced in 1984	0	0	0
COIL84	cum oil pumped thru 1984	0	0	0
CBBL	operating cost (\$/b)	3	3.4	2.8
CWOIL	operating cost/oil well	0	0	0
RENTAL	lease payments (\$mil/yr)	0	0.1	0

-----Parameters Applicable to All Fields-----

GAMMA	production decline rate	0.094682
PDILBASE	1985 Prudhoe Wellhead Price	30
CONSRATE	Oil Cnsv. Tax Rate (\$/b)	0.00125
DEPRATE	Average Depreciation Rate	0.12
PCTINTAN	% Intangible Drilling Costs	0.9
PELOIL	Oil Prod at Econ Lat (b1000/yr	109.5
PROPRATE	Property Tax Rate	0.02
CENTSBBL	minimum severance tax (\$/b)	0.8
DRILLING	cost of drilling (\$/ft)	498
ELOILEXP	exponent ELF formula	1.533
OILPCT1	severance tax rate (fraction)	0.15
DEPALLRT	depletion allowance	0.18
FRINDEPN	fraction oil from independents	0.013
FCORPRT	effective federal tax rate	0.46
INVTXCR	federal investment tax credit	0.1
SCORPRT	state corp income tax rate	0.094
EXPLINCR	exploration incentive credit (	0
BONUS	Bonus	0
Y/Q	extraction fraction for mod ap	13
Y/S	sales fraction for mod apport	0.21
Y/K	property fraction for mod appo	0.12

Department of Revenue
Oil Price and Inflation Forecast
1985-2010

Year	DOR Oil Price Forecast (Nominal)	DOR Inflation Forecast	DOR Deflator
1985	17.48	1	1
1986	17.24	1.037	1.0318
1987	15.07	1.042	1.0762
1988	15.2	1.05	1.1224
1989	15.4	1.05	1.1707
1990	15.91	1.05	1.2210
1991	16.5	1.05	1.2736
1992	18.2	1.05	1.3398
1993	19.8	1.058	1.4094
1994	20.9	1.058	1.4827
1995	21.98	1.058	1.5598
1996	24.7	1.058	1.6410
1997	27.6	1.058	1.7378
1998	30.4	1.064	1.8403
1999	33.5	1.064	1.9489
2000	36.72	1.064	2.0639
2001	38.6	1.064	2.1856
2002	40.4	1.064	2.3168
2003	41.86	1.064	2.4558
2004	45.39	1.064	2.6031
2005	46.5	1.064	2.7593
2006	47.2	1.07	2.9249
2007	48.3	1.07	3.1004
2008	49.7	1.07	3.2957
2009	51.5	1.07	3.5033
2010	54.4	1.07	3.7240

Department of Revenue
Projections of Producing Oilwells

Year	Milne Point	Endicott	Lisburne
1982	0	0	0
1983	0	0	0
1984	0	0	0
1985	0	0	0
1986	22	0	0
1987	22	0	51
1988	22	62	80
1989	20	111	104
1990	17	111	120
1991	15	111	135
1992	14	111	155
1993	13	111	120
1994	13	100	116
1995	0	90	105
1996	0	81	95
1997	0	73	85
1998	0	65	77
1999	0	60	70
2000	0	53	62
2001	0	48	56
2002	0	43	51
2003	0	40	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

Oil Production by Field
DNR Projections Mbbl/yr (000)

Year	Hilne Point	Endicott	Lisburne
1985	0	0	0
1986	10950	0	0
1987	10950	0	18250
1988	10950	18250	21900
1989	9125	36500	25550
1990	7300	36500	29200
1991	5475	36500	32850
1992	5475	36500	36500
1993	3650	31025	36500
1994	3650	27375	36500
1995	3650	23725	32850
1996	0	23725	29200
1997	0	21900	26280
1998	0	20075	23725
1999	0	18250	21170
2000	0	16425	18980
2001	0	14600	17155
2002	0	7300	15330
2003	0	3650	13870
2004	0	0	12410
2005	0	0	11315
2006	0	0	10220
2007	0	0	9125
2008	0	0	7300
2009	0	0	5475
2010	0	0	3650
	71175	372300	495305

PROJECTED STATE REVENUE AND ADDITIONAL FINANCIAL INFORMATION
APPLICABLE TO THE MILNE POINT, ENDICOTT AND LISBURNE FIELDS

Milne Point

Projected State Revenues: Current Law and HB 353

1985-2010

(1985 dollars)

71,175	152,002	51,959	48,949	89	24,775	0	32,200	11,172	261,025	236,986
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Notes: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January, 1986, page 40. Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1986. Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.

Prepared by the House Research Agency, January 1986.

Milne Point
Miscellaneous Information
1985-2010

Year	Field Intangibl Dev Cost (1000)	Dev Cost (1000)	Taxbase (1000)	Statutory ----- Cur.Law	Sev Tax HB 353	Sev. tax \$/bar. ----- Cur.Law	Calculate Econ.L.F.	E L F Applied	Actual Sev.Tax \$ ----- Cur.Law	Fed. Taxable Inc. ----- Cur.Law	State Taxable Inc. ----- Cur.Law	Reserves (1000 bar)
1982	0	0	0									
1983	0	0	0									
1984	65,000	29250	35750									
1985	130,000	58500	71500	0.1225	0.1225	1.76	1.76	0.000	0.0000	(23,634)	(23,369)	71,000
1986	130,000	58500	71500	0.1225	0.1225	1.66	1.66	0.683	0.0837	43,916	44,473	60,050
1987	0	0	60473	0.1225	0.1225	1.33	1.33	0.683	0.0837	42,326	44,950	49,100
1988	0	0	51146	0.1225	0.1225	1.26	1.26	0.683	0.0837	43,244	46,443	39,150
1989	0	0	44573	0.1225	0.1225	1.20	1.20	0.657	0.0804	40,796	43,937	29,025
1990	0	0	39990	0.1225	0.1225	1.18	1.18	0.637	0.0780	41,777	44,549	21,725
1991	0	0	36906	0.15	0.1225	1.42	1.16	0.579	0.0668	29,727	32,580	16,250
1992	0	0	34060	0.15	0.1225	1.51	1.24	0.604	0.0907	30,544	33,382	10,775
1993	0	0	32309	0.15	0.1225	1.57	1.28	0.469	0.0703	21,269	23,022	7,125
1994	0	0	30648	0.15	0.1225	1.56	1.28	0.469	0.0703	20,603	22,418	3,475
1995	0	0	29073	0.15	0.1225	1.55	1.27	1.000	0.1500	17,417	19,908	0
1996	0	0	0	0.15	0.1225	1.68	1.37	0.000	0.0000	0	(0)	0
1997	0	0	0	0.15	0.1225	1.80	1.47	0.000	0.0000	0	(0)	0
1998	0	0	0	0.15	0.1225	1.88	1.53	0.000	0.0000	0	(0)	0
1999	0	0	0	0.15	0.1225	1.96	1.61	0.000	0.0000	0	(0)	0
2000	0	0	0	0.15	0.1225	2.03	1.66	0.000	0.0000	0	(0)	0
2001	0	0	0	0.15	0.1225	2.00	1.64	0.000	0.0000	0	(0)	0
2002	0	0	0	0.15	0.1225	1.96	1.60	0.000	0.0000	0	(0)	0
2003	0	0	0	0.15	0.1225	1.90	1.55	0.000	0.0000	0	(0)	0
2004	0	0	0	0.15	0.1225	1.95	1.59	0.000	0.0000	0	(0)	0
2005	0	0	0	0.15	0.1225	1.86	1.52	0.000	0.0000	0	(0)	0
2006	0	0	0	0.15	0.1225	1.74	1.42	0.000	0.0000	0	(0)	0
2007	0	0	0	0.15	0.1225	1.64	1.34	0.000	0.0000	0	(0)	0
2008	0	0	0	0.15	0.1225	1.56	1.27	0.000	0.0000	0	(0)	0
2009	0	0	0	0.15	0.1225	1.50	1.22	0.000	0.0000	0	(0)	0
2010	0	0	0	0.15	0.1225	1.47	1.20	0.000	0.0000	0	(0)	0

Notes All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January, 1986, page 40.
Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1985.
Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.
Prepared by the House Research Agency, January 1986.

Endicott

Projected State Revenues: Current Law and HB 353

1985-2010

(1985 dollars)

Year	Wellhd. Price Of Oil	Oil Prod. Mbb1/Yr DNR	Royalty Oil Income	Sev. Tax Revenue		Conser- vation Tax	Property Tax	Rental Payments	State Income Tax		Total St. Income	
				Cur. Law	HB 353				Cur. Law	HB 353	Cur. Law	HB 353
1982								0.1				
1983								0.1				
1984								0.1				
1985	14.68	0	0	0	0	0	0	0.1	0	0	0	0
1986	13.82	0	0	0	0	0	4,400	0.1	819	0	5,219	4,400
1987	11.15	0	0	0	0	0	8,800	0.1	1,638	0	10,438	8,800
1988	10.60	18,250	29,009	9,869	9,869	23	12,450	0	9,432	1,719	60,783	53,070
1989	10.13	36,500	55,445	20,688	20,688	46	13,110	0	17,018	2,075	108,307	93,363
1990	9.92	36,500	54,307	20,263	20,263	46	14,359	0	16,852	843	105,827	89,818
1991	9.76	36,500	53,450	19,943	19,943	46	13,623	0	16,694	160	103,756	87,222
1992	10.40	36,500	56,924	21,240	21,240	46	13,040	0	16,557	889	107,806	92,138
1993	10.77	31,025	50,122	19,881	16,236	39	11,961	0	14,128	1,406	96,131	79,764
1994	10.74	27,375	44,096	17,129	13,989	34	10,423	0	12,507	703	84,190	69,246
1995	10.66	23,725	37,929	14,158	11,562	30	9,127	0	10,951	91	72,194	58,738
1996	11.49	23,725	40,905	16,963	13,853	30	8,650	0	11,038	1,282	77,586	64,720
1997	12.30	21,900	40,395	17,116	13,978	27	8,116	0	10,272	2,433	75,927	64,950
1998	12.83	20,075	38,629	16,783	13,706	25	7,562	0	9,491	3,447	72,490	63,368
1999	13.39	18,250	36,644	15,714	12,833	23	7,015	0	8,704	5,319	68,101	61,835
2000	13.87	16,425	34,184	14,894	12,163	21	6,279	0	7,903	5,998	63,281	58,645
2001	13.67	14,600	29,946	12,842	10,488	18	5,780	0	7,065	5,513	55,651	51,745
2002	13.41	7,300	14,679	2,550	2,083	9	4,512	0	3,847	2,932	25,597	24,214
2003	12.98	3,650	7,107	0	0	5	3,916	0	2,220	1,354	13,248	12,381
2004	13.28	0	0	0	0	0	0	0	0	0	0	0
2005	12.68	0	0	0	0	0	0	0	0	0	0	0
2006	11.89	0	0	0	0	0	0	0	0	0	0	0
2007	11.25	0	0	0	0	0	0	0	0	0	0	0
2008	10.71	0	0	0	0	0	0	0	0	0	0	0
2009	10.28	0	0	0	0	0	0	0	0	0	0	0
2010	10.12	0	0	0	0	0	0	0	0	0	0	0
372,300 623,772 240,032 212,894 465 165,125 1 177,137 36,162 1,206,532 1,039,419												

No. 25: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January, 1986, page 40. Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1986. Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.

Prepared by the House Research Agency, January 1986.

Endicott
Miscellaneous Information
1985-2010

Year	Field Intangibl Dev. Cost (1000)	Dev. Cost (1000)	Taxbase (1000)	Statutory Cur. Law	Sev. Tax HB 353	Sev. tax \$/bar Cur. Law	Calculate Econ. L.F.	E. L. F. Applied	Actual Sev. Tax % Cur. Law	Fed. Taxable Inc. Cur. Law	State Taxable Inc. Cur. Law	Reserves (1000 bar)
1982	0	0	0									
1983	0	0	0									
1984	0	0	0									
1985	0	0	0	0.1225	0.1225	1.80	1.80	0.000	0.0000	(0)	(0)	375,000
1986	400,000	180000	220000	0.1225	0.1225	1.69	1.69	0.000	0.0000	(150,219)	(49,400)	375,000
1987	800,000	360000	440000	0.1225	0.1225	1.37	1.37	0.000	0.0000	(195,657)	(193,200)	375,000
1988	800,000	360000	440000	0.1225	0.1225	1.30	1.30	0.490	0.0600	(298,652)	(288,482)	356,750
1989	0	0	397173	0.1225	0.1225	1.24	1.24	0.538	0.0658	(291,859)	(266,745)	320,250
1990	0	0	358515	0.1225	0.1225	1.22	1.22	0.538	0.0658	39,306	55,315	283,750
1991	0	0	323620	0.1225	0.1225	1.20	1.20	0.538	0.0658	122,629	139,164	247,250
1992	0	0	292121	0.1225	0.1225	1.27	1.27	0.538	0.0658	220,973	236,641	210,750
1993	0	0	267953	0.15	0.1225	1.62	1.32	0.467	0.0700	191,308	207,675	179,725
1994	0	0	248392	0.15	0.1225	1.61	1.32	0.457	0.0685	163,551	178,496	152,350
1995	0	0	232677	0.15	0.1225	1.60	1.31	0.439	0.0659	136,514	149,970	128,625
1996	0	0	217956	0.15	0.1225	1.72	1.41	0.488	0.0732	148,888	161,754	104,900
1997	0	0	205228	0.15	0.1225	1.84	1.51	0.498	0.0748	150,645	161,622	83,000
1998	0	0	194241	0.15	0.1225	1.92	1.57	0.511	0.0767	150,996	160,117	62,925
1999	0	0	184788	0.15	0.1225	2.01	1.64	0.505	0.0757	160,364	166,630	44,675
2000	0	0	176694	0.15	0.1225	2.08	1.70	0.513	0.0769	157,005	161,640	28,250
2001	0	0	169815	0.15	0.1225	2.05	1.68	0.505	0.0757	141,516	145,422	13,650
2002	0	0	166509	0.15	0.1225	2.01	1.64	0.204	0.0307	73,016	74,399	6,350
2003	0	0	164889	0.15	0.1225	1.95	1.59	0.000	0.0000	35,252	36,119	2,700
2004	0	0	0	0.15	0.1225	1.99	1.63	0.000	0.0000	0	(0)	2,700
2005	0	0	0	0.15	0.1225	1.90	1.55	0.000	0.0000	0	(0)	2,700
2006	0	0	0	0.15	0.1225	1.78	1.46	0.000	0.0000	0	(0)	2,700
2007	0	0	0	0.15	0.1225	1.69	1.38	0.000	0.0000	0	(0)	2,700
2008	0	0	0	0.15	0.1225	1.61	1.31	0.000	0.0000	0	(0)	2,700
2009	0	0	0	0.15	0.1225	1.54	1.26	0.000	0.0000	0	(0)	2,700
2010	0	0	0	0.15	0.1225	1.52	1.24	0.000	0.0000	0	(0)	2,700

Notes: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January, 1986, page 40.
Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1985.
Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.
Prepared by the House Research Agency, January 1986.

Lisburne
 Projected State Revenues: Current Law and HB 353
 1985-2010
 (1985 dollars)

Year	Wellhd.	Oil Prod.	Royalty	Sev. Tax Revenue		Conser- vation	Property Tax	Rental	State Income Tax		Total St. Income	
	Price	Mbbl/Yr	Oil	-----				Payments	-----		-----	
	Of Oil	DNR	Income	Cur. Law	HB 353			Tax	Tax	Cur. Law	HB 353	Cur. Law
1982								0				
1983								0				
1984								0				
1985	17.48	0	0	0	0	0	4,400	0	819	0	5,219	4,400
1986	16.62	0	0	0	0	0	8,800	0	1,638	0	10,438	8,800
1987	13.95	18,250	30,797	15,655	15,655	23	12,674	0	9,442	10,368	68,592	69,517
1988	13.40	21,900	35,501	14,437	14,437	27	12,791	0	10,916	11,617	73,675	74,373
1989	12.93	25,550	39,964	14,393	14,393	32	12,993	0	12,362	12,396	79,745	79,779
1990	12.72	29,200	44,939	15,993	15,993	37	13,257	0	13,811	13,269	88,037	87,495
1991	12.56	32,850	49,935	17,771	17,771	41	13,443	0	15,245	14,369	96,435	95,559
1992	13.20	36,500	58,285	24,345	19,882	46	13,689	0	16,677	16,929	113,042	108,831
1993	13.57	36,500	59,933	32,948	26,908	46	13,780	0	16,567	16,959	123,274	117,625
1994	13.54	36,500	59,794	33,822	27,621	46	12,843	0	16,480	16,201	122,985	116,505
1995	13.46	32,850	53,493	30,115	24,594	41	11,394	0	14,931	13,835	109,974	103,357
1996	14.29	29,200	50,504	28,015	22,879	37	10,173	0	13,497	13,941	102,226	97,534
1997	15.10	26,280	48,006	26,761	21,855	33	9,447	0	12,272	14,107	96,520	93,448
1998	15.63	23,725	44,864	24,938	20,366	30	8,757	0	11,183	14,238	89,772	88,255
1999	16.19	21,170	41,462	22,681	18,523	26	8,073	0	10,085	15,272	82,327	83,356
2000	16.67	18,980	38,295	21,169	17,288	24	7,233	0	9,128	15,116	75,849	77,955
2001	16.47	17,155	34,196	18,915	15,447	21	6,721	0	8,288	13,851	68,141	70,236
2002	16.21	15,330	30,059	16,356	13,357	19	6,279	0	7,485	12,447	60,198	62,162
2003	15.78	13,870	26,484	28,859	23,568	17	6,042	0	6,792	9,927	68,195	66,039
2004	16.08	12,410	24,149	26,315	21,490	16	5,725	0	6,110	8,444	62,315	59,825
2005	15.48	11,315	21,200	23,101	18,866	14	5,454	0	5,596	7,841	55,366	53,375
2006	14.69	10,220	18,165	19,794	16,165	13	5,195	0	5,085	6,134	48,252	45,672
2007	14.05	9,125	15,511	16,902	13,803	11	5,064	0	4,579	4,740	42,068	39,131
2008	13.51	7,300	11,933	13,003	10,619	9	4,778	0	3,564	3,229	33,288	30,570
2009	13.08	5,475	8,667	9,445	7,713	7	4,595	0	2,821	2,008	25,535	22,990
2010	12.92	3,650	5,704	6,216	5,076	5	4,350	0	2,081	1,070	18,355	16,205

Lisburne
Miscellaneous Information
1985-2010

Year	Field Intangibl	Taxbase Statutory Sev. Tax	Sev. tax \$/bar	Calculate E.L.F.	Actual Sev. Tax %	Fed. Taxable Inc.	State Taxable Inc.	Reserves
	Dev. Cost Dev. Cost	(1000)		Econ. L.F. Applied				(1000 bar)
	(1000) (1000)		Cur. Law HB 353	Cur. Law HB 353		Cur. Law HB 353	Cur. Law HB 353	
1982	0	0	0					
1983	0	0	0					
1984	0	0	0					
1985	400,000	180000	220000	0.1225 0.1225	2.14 2.14	0.000 0.000	0.0000 0.0000	(50,219) (49,400) 8,712 (4,400) 495,000
1986	800,000	360000	440000	0.1225 0.1225	2.04 2.04	0.000 0.000	0.0000 0.0000	(195,657) (193,200) 17,424 (8,800) 495,000
1987	800,000	360000	440000	0.1225 0.1225	1.71 1.71	0.571 0.571	0.0700 0.0700	(230,469) (228,939) 100,448 110,298 476,750
1988	0	0	420533	0.1225 0.1225	1.64 1.64	0.457 0.457	0.0560 0.0560	(235,338) (234,506) 116,151 123,583 454,850
1989	0	0	396827	0.1225 0.1225	1.58 1.58	0.405 0.405	0.0496 0.0496	(170,143) (169,344) 131,514 131,872 429,300
1990	0	0	375300	0.1225 0.1225	1.56 1.56	0.400 0.400	0.0490 0.0490	181,349 181,891 146,926 141,163 400,100
1991	0	0	350394	0.1225 0.1225	1.54 1.54	0.400 0.400	0.0490 0.0490	300,002 300,878 162,176 152,856 367,250
1992	0	0	324557	0.15 0.1225	1.98 1.62	0.383 0.383	0.0575 0.0470	339,836 344,048 177,420 180,095 330,750
1993	0	0	300625	0.15 0.1225	2.04 1.66	0.505 0.505	0.0757 0.0618	338,989 344,638 176,248 180,413 294,250
1994	0	0	278458	0.15 0.1225	2.03 1.66	0.519 0.519	0.0779 0.0636	331,437 337,917 175,318 172,352 257,750
1995	0	0	259978	0.15 0.1225	2.02 1.65	0.517 0.517	0.0775 0.0633	290,697 297,314 158,840 147,180 224,900
1996	0	0	244642	0.15 0.1225	2.14 1.75	0.509 0.509	0.0764 0.0624	275,790 280,483 143,589 148,304 195,700
1997	0	0	231654	0.15 0.1225	2.26 1.85	0.512 0.512	0.0767 0.0627	264,719 267,790 130,557 150,072 169,420
1998	0	0	220551	0.15 0.1225	2.34 1.91	0.510 0.510	0.0765 0.0625	255,013 256,529 118,970 151,472 145,695
1999	0	0	211118	0.15 0.1225	2.43 1.98	0.502 0.502	0.0753 0.0615	254,670 253,642 107,289 162,465 124,525
2000	0	0	203023	0.15 0.1225	2.50 2.04	0.507 0.507	0.0761 0.0621	243,235 241,129 97,110 160,808 105,545
2001	0	0	195987	0.15 0.1225	2.47 2.02	0.508 0.508	0.0761 0.0622	221,858 219,762 88,167 147,353 88,390
2002	0	0	189918	0.15 0.1225	2.43 1.99	0.499 0.499	0.0749 0.0612	199,011 197,048 79,622 132,411 73,060
2003	0	0	184596	0.15 0.1225	2.37 1.93	1.000 1.000	0.1300 0.1225	163,263 165,419 72,260 105,604 59,190
2004	0	0	179968	0.15 0.1225	2.41 1.97	1.000 1.000	0.1500 0.1225	141,298 143,788 64,998 89,831 46,780
2005	0	0	175854	0.15 0.1225	2.32 1.90	1.000 1.000	0.1500 0.1225	130,475 132,465 59,534 83,411 35,465
2006	0	0	172223	0.15 0.1225	2.20 1.80	1.000 1.000	0.1500 0.1225	107,932 110,512 54,097 65,257 25,245
2007	0	0	169049	0.15 0.1225	2.11 1.72	1.000 1.000	0.1500 0.1225	88,634 91,571 48,717 50,429 16,120
2008	0	0	166556	0.15 0.1225	2.03 1.65	1.000 1.000	0.1500 0.1225	65,113 67,831 37,913 34,355 8,820
2009	0	0	164713	0.15 0.1225	1.96 1.60	1.000 1.000	0.1500 0.1225	44,336 46,881 30,010 21,360 3,345
2010	0	0	163499	0.15 0.1225	1.94 1.58	1.000 1.000	0.1500 0.1225	26,521 28,671 22,133 11,388 0

Notes: All dollars have been deflated to 1985 value. Inflation factors based on Department of Revenue "Revenue Sources", January, 1986, page 40.
Oil price projections based on Department of Revenue "Petroleum Production Revenue Forecast", December, 1985.
Annual oil production projections from "Historic and Projected Oil and Gas Consumption", Department of Natural Resources, January 1986, page 11.
Prepared by the House Research Agency, January 1986.

MEMORANDUM

Division of Strategic Planning
Office of Management and Budget
MS 0164

TO: Mary Halloran
Office of the Speaker

DATE: 11 Dec. 1986

FROM: Gregg Erickson *GKE*
Senior Economist

SUBJECT: Revenue from Separate Accounting

The tables below show, under alternative assumptions, the additional revenue the state would receive if the modified apportionment method of taxing petroleum corporate income were replaced with the separate accounting method. Note that separate accounting raises substantially more than modified apportionment, even using DOR's higher estimates of field operating costs, and even under the more pessimistic oil price scenarios.

A full set of tables is attached for each set of cost assumptions, along with our earlier memo describing the basis for OMB's lower estimates of likely field costs.

TABLE 1
FISCAL 1987
REVENUE GAINS FROM ADOPTING SEPARATE ACCOUNTING
UNDER ALTERNATIVE PRICE AND OPERATING COST ASSUMPTIONS
(millions of dollars)

<u>Oil Price Scenario</u>	<u>Field Operating Costs</u>	
	<u>DOR</u> Cost <u>Assumption</u>	<u>OMB</u> Cost <u>Assumption</u>
Dec. 1986 Mean Case	\$59	\$92
Dec. 30 Percent Case	\$22	\$54

TABLE 2
FISCAL 1988
REVENUE GAINS FROM ADOPTING SEPARATE ACCOUNTING
UNDER ALTERNATIVE PRICE AND OPERATING COST ASSUMPTIONS
(millions of dollars)

<u>Oil Price Scenario</u>	<u>Field Operating Costs</u>	
	<u>DOR</u> Cost <u>Assumption</u>	<u>OMB</u> Cost <u>Assumption</u>
Dec. 1986 Mean Case	\$148	\$180
Dec. 30 Percent Case	\$60	\$92

TABLE 1 OMB COSTS

SUMMARY OF REVENUE UNDER CURRENT INCOME TAX AND UNDER SEPARATE ACCOUNTING
(millions, based on Dec. 1986 forecast)

Fiscal Year	State Tax Under Current Law*	MEAN CASE		30 PERCENT CASE	
		State Tax Under Separate Accounting**	Gain (Loss) Due To Separate Accounting	State Tax Under Separate Accounting†	Gain (Loss) Due To Separate Accounting
1987	\$111	\$203	\$92	\$165	\$54
1988	\$110	\$290	\$180	\$202	\$92

*DOR Dec. 1986 forecast value; DOR provides only single point projections for the corporate income tax.

**From Tables 2 & 3.

†From Tables 2 & 4.

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 2
TRANS-ALASKA PIPELINE SYSTEM
ALASKA OIL AND GAS CORPORATE INCOME TAX PAYMENTS UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pipe- line Thru- put (MM/D)	Estimated Tariff (\$/B)	Total Rev- enue	Prop- erty Tax	Oper- ating Costs	Amort- ization & Depre- ciation	Uncapi- talized Interest	Net Income	In- come Tax
FISCAL YEAR									
1987	1.81	4.25	2,808	126	232	269	382	1,799	169
1988	1.73	3.76	2,374	138	242	269	352	1,373	129

Notes:

Columns 1 & 2: Memorandum, Wright to Cowper, Dec. 3, 1986, Table II.

Column 3: (column 1)*(column 2)*(365 days).

Column 4: OMB estimates, 10/30/86.

Columns 5-7: V. Wright, memorandum to Nordale, Oct. 31, 1985, Table 5 (FY '87-'88 property tax adjusted by OMB for effects of TAPS settlement).

Column 8: (column 3)-(sum of columns 4-7).

Column 9: (.094)*(column 8).

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 3 *OMB COSTS*
PRODUCING FIELDS-MEAN CASE:
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

FISCAL YEAR	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) Revenue at Well- head	(4) State Royalty	(5) Produc- tion & Conser. Tax	(6) Prop- erty Tax	(7) Oper- ating Costs	(8) Depre- ciated Dev. Costs
1987	5.51	1.81	3,640	436	505	222	495	1,173
1988	8.61	1.73	5,437	676	582	246	474	1,315
FISCAL YEAR	(9) Amort. Of Acqui. Costs	(10) Federal Wind- fall Profits Tax	(11) Interest Expense	(12) Explor- ation Expense	(13) Adminis- trative Costs	(14) Other Deduc- tions	(15) Net Alaska Produc- tion Income	(16) Alaska Produc- tion Income Tax
1987	8	0	136	26	165	118	356	33
1988	25	0	139	0	158	114	1,708	161

Notes:

Columns 1 & 2: Memorandum, Wright to Cowper, Dec. 3, 1986, Table II.
Column 3: (365 days)*(column 1)*(column 2).
Columns 4-5: Dec. 1986 Petroleum Revenue Forecast (from C. Logsdon).
Columns 6-7: OMB estimates, 10/30/86.
Columns 8-9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985.
Column 10: OMB estimates.
Column 11: Wright, op. cit.
Columns 12-13: OMB projections.
Column 14: Wright, op. cit.
Column 15: (column 3)-(sum of columns 4-14).
Column 16: (.094)*(column 15).

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 4 OMB COSTS
PRODUCING FIELDS-30 PERCENT CASE:
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

FISCAL YEAR	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) Revenue at Well- head	(4) State Royalty	(5) Produc- tion & Conser. Tax	(6) Prop- erty Tax	(7) Oper- ating Costs	(8) Depre- ciated Dev. Costs
1987	4.74	1.81	3,131	369	460	222	495	1,173
1988	6.68	1.73	4,218	520	455	246	474	1,315
FISCAL YEAR	(9) Amort. Of Acqui. Costs	(10) Federal Wind- fall Profits Tax	(11) Interest Expense	(12) Explor- ation Expense	(13) Adminis- trative Costs	(14) Other Deduc- tions	(15) Net Alaska Produc- tion Income	(16) Alaska Produc- tion Income Tax
1987	8	0	136	26	165	118	(41)	(4)
1988	25	0	139	0	158	114	773	73

Notes:

Columns 1 & 2: Memorandum, Wright to Cowper, Dec. 3, 1986, Table II.

Column 3: (365 days)*(column 1)*(column 2).

Columns 4-5: Memorandum, Wright to Cowper, Dec. 3, 1986, Table 1.

Columns 6-7: OMB estimates, 10/30/86.

Column 6-9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985.

Column 10: OMB estimates.

Column 11: Wright, op. cit.

Columns 12-13: OMB projections.

Column 14: Wright, op. cit.

Column 15: (column 3)-(sum of columns 4-14).

Column 16: (.094)*(column 15).

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 1 *DOR COSTS*

SUMMARY OF REVENUE UNDER CURRENT INCOME TAX AND UNDER SEPARATE ACCOUNTING
(millions, based on Dec. 1986 forecast)

Fiscal Year	State Tax Under Current Law*	MEAN CASE		30 PERCENT CASE	
		State Tax Under Separate Accounting**	Gain (Loss) Due To Separate Accounting	State Tax Under Separate Accounting†	Gain (Loss) Due To Separate Accounting
1987	\$111	\$170	\$59	\$133	\$22
1988	\$110	\$258	\$148	\$170	\$60

*DOR Dec. 1986 forecast value; DOR provides only single point
projections for the corporate income tax.

**From Tables 2 & 3.

†From Tables 2 & 4.

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 2
TRANS-ALASKA PIPELINE SYSTEM
ALASKA OIL AND GAS CORPORATE INCOME TAX PAYMENTS UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pipe- line Thru- put (MM/D)	Estimated Tariff (\$/B)	Total Rev- enue	Prop- erty Tax	Oper- ating Costs	Amort- ization & Depre- ciation	Uncapi- talized Interest	Net Income	In- come Tax
FISCAL YEAR									
1987	1.81	4.25	2,808	126	232	269	382	1,799	169
1988	1.73	3.76	2,374	138	242	269	352	1,373	129

Notes:

Columns 1 & 2: Memorandum, Wright to Cowper, Dec. 3, 1986, Table II.

Column 3: (column 1)*(column 2)*(365 days).

Column 4: OMB estimates, 10/30/86.

Columns 5-7: V. Wright, memorandum to Nordale, Oct. 31, 1985, Table 5 (FY '97-'88 property tax adjusted by OMB for effects of TAPS settlement).

Column 8: (column 3)-(sum of columns 4-7).

Column 9: (.094)*(column 8).

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 4 *DOR COSTS*
PRODUCING FIELDS-30 PERCENT CASE:
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

FISCAL YEAR	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) Revenue at Well- head	(4) State Royalty	(5) Produc- tion & Conser. Tax	(6) Prop- erty Tax	(7) Oper- ating Costs	(8) Depre- ciated Dev. Costs
1987	4.74	1.81	3,131	369	460	222	707	1,173
1988	6.68	1.73	4,218	520	455	246	676	1,315
FISCAL YEAR	(9) Amort. Of Acqui. Costs	(10) Federal Wind- fall Profits Tax	(11) Interest Expense	(12) Explor- ation Expense	(13) Adminis- trative Costs	(14) Other Deduc- tions	(15) Net Alaska Produc- tion Income	(16) Alaska Produc- tion Income Tax
1987	8	0	136	26	297	118	(384)	(36)
1988	25	0	139	0	297	114	432	41

Notes:

Columns 1 & 2: Memorandum, Wright to Cowper, Dec. 3, 1986, Table II.
Column 3: (365 days)*(column 1)*(column 2).
Columns 4-5: Memorandum, Wright to Cowper, Dec. 3, 1986, Table 1.
Columns 6: OMB estimates, 10/30/86.
Column 7: DOR estimate (R. Marks, 12/9/86)
Column 8-9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985.
Column 10: OMB estimates.
Column 11: Wright, op. cit.
Columns 12: OMB projections.
Column 13: DOR estimate (R. Marks, 12/9/86).
Column 14: Wright, op. cit.
Column 15: (column 3)-(sum of columns 4-14).
Column 16: (.094)*(column 15).

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

TABLE 3 *DOR COSTS*
PRODUCING FIELDS-MEAN CASE:
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

FISCAL YEAR	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) Revenue at Well- head	(4) State Royalty	(5) Produc- tion & Conser. Tax	(6) Prop- erty Tax	(7) Oper- ating Costs	(8) Depre- ciated Dev. Costs
1987	5.51	1.81	3,640	436	505	222	707	1,173
1988	8.61	1.73	5,437	676	582	246	676	1,315
FISCAL YEAR	(9) Amort. Of Acqui. Costs	(10) Federal Wind- fall Profits Tax	(11) Interest Expense	(12) Explor- ation Expense	(13) Adminis- trative Costs	(14) Other Deduc- tions	(15) Net Alaska Produc- tion Income	(16) Alaska Produc- tion Income Tax
1987	8	0	136	26	297	118	12	1
1988	25	0	139	0	297	114	1,367	129

Notes:

Columns 1 & 2: Memorandum, Wright to Cowper, Dec. 3, 1986, Table II.
Column 3: (365 days)*(column 1)*(column 2).
Columns 4-5: Dec. 1986 Petroleum Revenue Forecast (from C. Logsdon).
Columns 6: OMB estimates, 10/30/86.
Column 7: DOR estimate (R. Marks, 12/9/86)
Columns 8-9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985.
Column 10: OMB estimates.
Column 11: Wright, op. cit.
Columns 12: OMB projections.
Column 13: DOR estimate (R. Marks, 12/9/86).
Column 14: Wright, op. cit.
Column 15: (column 3)-(sum of columns 4-14).
Column 16: (.094)*(column 15).

DRAFT-Division of Strategic Planning, OMB, 12/10/86.

MEMORANDUM

COPY

Division of Strategic Planning
Office of Management and Budget
MS 0164

TO: Vince Wright
Chief, Research Section
Dept. of Revenue

DATE: 28 Oct. 1986

FROM: Gregg Erickson
Senior Economist

SUBJECT: North Slope Variable Production Costs

In Table 4 of your Oct. 31, 1985 memorandum to Mary Nordale on the fiscal effects of separate accounting I notice that lifting costs implicit in the analysis are much higher than estimates from other sources.

ESTIMATES OF NORTH SLOPE LIFTING COSTS

Wright Memorandum To Nordale ¹ <u>10/31/85</u>	Petroleum Intelligence Weekly ² <u>6/24/85</u>	First Boston Corporation ³ <u>4/15/86</u>
\$2.58/barrel	\$1.00/barrel	\$1.00/barrel

The difference is significant. Had the lower estimates been used it would have increased annual separate accounting tax revenue by more than \$100 million. Since you are updating the separate accounting analysis, you may wish to pursue this matter further, particularly since recent cost cutting efforts by the operators may have reduced costs by even more.⁴

Notes:

1. Memorandum from Vincent D. Wright to Mary Nordale, Oct. 31, 1985, Table 4, "All Producing Fields." Figures apply to all North Slope production. Per barrel figure is for FY '87, "total oper'tg costs" (\$1,367 million) plus "admin cost" (\$307 million), divided by FY '87 output-- (1.7808 mil. B/D) * (365 days) = 650 million barrels.

2. "Alaskan Producers To Feel The Squeeze If Prices Fall Again," *Petroleum Intelligence Weekly*, June 24, 1985, pp.1-3. Estimate is of "production cost" in "Alaskan North Slope Crude Production." The article estimates current state income tax collections at an average "rate of 3 % for all producers."

3. Thomas Petrie and Suzanne Cook, *Alaska's Prudhoe Bay Field: An Oil Price/Cash Flow Sensitivity Analysis*, First Boston Corporation, April 15, 1986, p. 14. Costs are estimated to escalate at four percent annually.

4. Frederick Rose, "Weakness in Oil Prices Is Forcing Economies At Alaskan Oil Field," *The Wall Street Journal*, October 21, 1986, p. 1.

cc: Gordon Harrison

Overview and Sectional Analysis - HB 353

Overview.

Separate accounting and apportionment by formula. Whenever a business operates in more than one state, and a state wishes to impose a corporate income tax on that business, some method must be used to determine how much of the business' overall income was earned within the taxing state. There are two historic solutions to this problem: the separate accounting approach and the formula apportionment approach. Separate accounting, sometimes known as the "direct" method, the "arm's length" method, or the "separate entity" method, does what those names imply: it treats the in-state activity as if it were a separate entity dealing at arm's length with the remainder (the out-of-state portion) of the corporation. It looks only at in-state revenues and expenses and ignores the remainder of the corporate activity outside the state. Apportionment by formula, on the other hand, looks at the overall income of the corporation, both in-state and out-of-state. It then attributes a part of that overall income to the taxing state by a formula based on certain indicators of business presence such as payroll, property and sales. Thus, if one half of each of a business' payroll, property and sales are in the state, that formula would attribute one half of the corporation's overall income to the state.

Historically, states have generally preferred to use apportionment formulas rather than separate accounting because they are easier to administer, and because of a fear that

corporate taxpayers, under separate accounting, can manipulate intercompany transactions so that their books show that little or no profit was earned in the taxing state.

History of corporate income tax in Alaska. Prior to 1978, Alaska used a form of formula apportionment for all corporate taxpayers. Between 1974 and 1978, the legislature studied carefully how the standard apportionment formula (based on payroll, property and sales) would work for oil production income when Prudhoe Bay production began. The legislature determined that the formula would be an extremely defective tool for properly determining the income from production in Alaska. Some of the reasons follow: since oil production is generally far more profitable than the other activities of an oil company (such as refining and marketing), and since formula apportionment looks at the overall profitability of a company, the profitability of production is diluted when a formula is used. Further, none of the traditional factors used in the formula is suited to oil production in Alaska. The property factor does not include the value of the oil itself, but rather only the cost of the lease and the value of the wells. Thus, the most important asset which an oil company has (its oil reserves) is not reflected in the formula. The sales factor is not sensitive to the magnitude of production in Alaska, since only a few barrels are sold in Alaska. No matter how many more barrels are produced, the sales

factor attributes the sale of that oil out-of-state. Finally, oil production is not labor intensive, so that the payroll necessary for oil production is disproportionate to the payroll necessary for refining and marketing. As a result of the failure of the formula to properly attribute income to Alaska, oil companies would pay tax on only a fraction of the income which they actually earn in Alaska, and thus the effective tax rate for oil producers would be only a fraction of the effective tax rate for other businesses.

For all these reasons, the legislature adopted the separate accounting approach (AS 43.21) in 1978. Separate accounting for oil production takes the wellhead value of the oil (gross income) and deducts all the costs associated with producing that income to arrive at net income, which is then taxed at the general corporate income tax rate. For pipelines, net income is the income reported to the Federal Energy Regulatory Commission (FERC) with minor adjustments.

Shortly after the law was passed in 1978, the major oil companies challenged the law in Arco v. State. They claim primarily that separate accounting is invalid under the Commerce Clause of the United States Constitution.

By 1981, more than \$2 billion had been collected under the challenged statute and it was estimated that by 1986, when the litigation might finally be resolved, the state's potential

liability would rise to more than \$9 billion. There were attempts to settle the litigation in the 1981 session. After those attempts failed, the legislature, recognizing that the \$9 billion contingent liability was too great a risk to take, passed a bill which did three things. First, it made retroactive amendments to AS 43.21 which resolved many of the oil companies' complaints about that act. Second, it repealed the separate accounting statute for tax years beginning in 1982, and adopted in its place a modified apportionment formula. This system uses a two factor (extraction and property) formula for producers, and a two factor (property and sales) formula for pipelines and, if a taxpayer does both, a three factor (extraction, property and sales) formula. This modified formula is better than the old standard three factor formula, but does not determine in-state income as accurately as separate accounting. Finally, the 1981 legislation raised the severance tax from a nominal rate of 12.25% to a nominal rate of 15%. At the time the bill was passed, it was estimated that the net effect of changing both the income tax and the severance tax would be a slight decline in revenue over the long term.

In 1983, an Anchorage superior court ruled that AS 43.21 is constitutional. The oil companies appealed, and the case is presently pending before the state supreme court. A decision could come out anytime within the next 18 months.

Section-by-section Analysis

Section 1.

Expresses the legislature's reasons for returning to the separate accounting method of determining the in-state income of a multi-state taxpayer that produces or transports by pipeline oil or natural gas.

Section 2.

Amends the corporate income tax chapter that applies to all corporations (AS 43.20) to indicate that a taxpayer that is exploring, producing, or transporting by pipeline oil or gas in the state is subject to the separate accounting provisions of new AS 43.22. Further, this section modifies the calculations for an AS 43.20 taxpayer (for example, a company that does business in Alaska other than production, but has production income in another state or a company doing business in Alaska that is affiliated with a company which has production or pipeline income) to separate out exploration, production and pipeline transportation income from the apportionment provisions of that chapter. The second part of this section is a "mirror image" of the provision in the separate accounting chapter which accounts for a 43.22 taxpayer's "other" income (AS 43.22.040). Thus,

whichever chapter a taxpayer is subject to, the production and pipeline income will be separately accounted and the remainder of the income will be apportioned by formula.

Section 3.

Enacts a new chapter applicable to taxpayers engaged in exploration, production and pipeline transportation of oil and gas in the state. The section largely re-enacts the separate accounting law which was in effect prior to 1981 with minor modifications which clarify certain aspects of the former approach. Under the new chapter, a taxpayer's in-state exploration and production income is separately accounted (AS 43.22.020). Gross income is wellhead value. From this, the taxpayer deducts taxes, royalty payments, operating costs, interest, depreciation, overhead, and other costs associated with production to arrive at net income. There is no deduction for the Windfall Profits Tax. Recent cases have held that it is permissible for a state to treat that tax as it treats other federal income taxes, and not provide for a deduction. Pipeline income under the statute is simply the net income that the corporation reports to FERC with minor modifications (AS 43.22.030). Any other income of the corporation, such as refining, marketing or

marine transportation income, is calculated by the formula apportionment method. AS 43.22.040.

(Due to a drafting error, there is no Section 4.)

Section 5.

Reduces the severance tax to the pre-1981 amendment level of 12.25%. The section recognizes that when separate accounting was repealed in 1981, the severance tax was raised. The current nominal rate is 15%.

Section 6.

Repeals the current modified formula apportionment method for taxing oil and gas production and pipeline transportation income.

Section 7.

Makes the separate accounting provisions of the Act retroactive to January 1, 1985. Tax laws should operate throughout entire tax years; commonly, when tax laws are enacted mid-year, they are retroactive to the beginning of that year.

Section 8.

Delays applicability of the severance tax reduction provision until January 1, 1987. This delay is intended to recoup the unanticipated loss of revenue which resulted from the 1981 legislation.

Section 9.

Makes the Act take effect only if the state Supreme Court wholly affirms the decision of the lower court upholding the validity of former AS 43.21. Thus, if the court were only to uphold part of the former act or were to send the case back to the lower court for any reason, the Act will not become effective. Additionally, the section does not address the possibility of the United States Supreme Court reversing the Alaska court.

Recent History of Alaska Corporation Net Income Tax
Prepared by Audit Division
March 13, 1985
Alaska Department of Revenue

- I. 1975 through 1977 AS43.20.011(e)
All corporations paid tax on net income derived from sources in the state. Tax rate equaled 5.4 percent plus a 4 percent surtax on income over the Federal surtax exemption. Oil companies were required to use worldwide combination using the unitary concept. All multistate taxpayers were required to use the standard three factor formula of property, payroll and sales.
- II. 1978 AS43.20.011(e)
Regular corporations tax rates remained the same. The surtax exemption was set at \$50,000.

1978 AS43.21.010
Companies deriving income from the production or pipeline transportation of crude oil or natural gas are to calculate net income under AS43.21 using separate accounting. Their tax rate remained the same as for regular corporations. The standard three factor formula remained in effect.
- III. 1981 AS43.20.011(e)
The tax rates applicable to all corporations were revised and the surtax exemption eliminated. Progressive rates from 2 percent on income over \$10,000 to 11% on income over \$4 million was set.
- IV. 1982 AS43.20.011(e)
Regular corporation's tax rates were revised slightly with a top tax rate of 9.4% for income exceeding \$90,000.

1982 AS43.20.072
The separate accounting law at AS43.21 was repealed effective 12/31/81. AS43.20.072, applicable to oil and gas producers and pipeline companies was enacted bringing the companies back under combination and apportionment under the unitary concept. Special apportionment factors specifically for these groups were devised.

ALASKA CORPORATE NET INCOME TAX
ON OIL AND GAS FIRMS

I. STANDARD THREE-FACTOR APPORTIONMENT APPROACH (AS 43.20): 1959-1977

Although Alaska was the first state to adopt the Uniform Division of Income for Tax Purposes Act (UDITPA) in 1959, there was apparently no effective field audit program instituted by the Department of Revenue until after the state became a member of the Multistate Tax Compact in 1970. See AS 43.19. Therefore, historic compliance with the filing method was at a low level in the early 1970's and departmental experience with the tax was relatively new.

During the period 1972-74, the department established a field audit program within the Audit Division in order to audit the tax returns of multistate and multinational corporate taxpayers. At the outset it became obvious that the standard three-factor formula would work to the detriment of Alaska in the case of extractive industries.

Historically, the three-factor formula (which was incorporated in UDITPA and Article IV of the Multistate Tax Compact) worked well for manufacturing and mercantile corporations that had sales in states in which the manufacturing did not take place. Alaska's economy, on the other hand, and particularly the extractive industries within Alaska, were not at all comparable to the manufacturer/mercantile situation. In fact, the great value of our extractive industries is in the raw material which is exported from the state and not sold within the state; yet the exhaustion of a nonrenewable resource is an economic consideration that is completely absent in the "standard" three-factor formula. The large wage and property factors which are part of the UDITPA formula are also generally not representative of the extent of business activities, and the profits from them, in the State of Alaska with respect to extractive industries. Hence, there was growing legislative concern that the apportionment formula would not adequately reflect the actual value of the resource extracted and exported from Alaska.

Furthermore, the base to which the formula is applied is the federal tax base. That tax base is determined by Congress and Congress, in setting tax policy to meet national goals, often provides tax incentives which may or may not be appropriate for Alaska to adopt. These include such things as accelerated depreciation, percentage depletion, intangible drilling costs, investment credit, domestic international sales corporations, etc. Undoubtedly these serve the interest of the United States as a whole, but they do not necessarily help Alaska and may indeed be detrimental for the state. For example, allowing intangible drilling costs on a worldwide basis could erode the Alaska tax base (i.e., federal taxable income) if drilling costs were disproportionately incurred outside of

Alaska. In short, federal incentives, when incorporated automatically into Alaska's income tax, could serve to drain state income tax revenues without providing offsetting economic benefits. A study in January 1977 by Professors Jerome M. Zeifman and Kenneth G. Ainsworth, entitled "The Taxation of the Petroleum Industry Under Alaska's Corporate Income Tax," included a table which indicated the difference between book income and taxable income for a sampling of the oil companies operating in Alaska. In 1973, that difference was over one billion, eight hundred million dollars; in 1974, over three billion dollars; and in 1975, almost one billion, six hundred million dollars.

The problem, then, was seen to be an eroded tax base being apportioned to Alaska by the use of a formula which did not reflect the value and depletion of the raw material being extracted and exported from Alaska.

II. SEPARATE ACCOUNTING (AS 43.21): 1978-1981

In 1978, the Legislature proposed a possible solution to this problem with the passage of AS 43.21, the Oil and Gas Corporate Income Tax. Basically, 43.21 is a separate accounting method wherein all of the income and expense elements are defined by statute. Income is divided into three types; (1) income from oil and gas production; (2) income from oil and gas pipeline transportation; and (3) income from any other activities.

The determination of taxable income from oil and gas production starts with the calculation of gross income. Basically, the gross income from the production of oil and gas is its gross value at the point of production. There are several ways of determining that value, such as actual prices or value received, posted prices in the same field, prevailing prices of oil and gas in the same field, etc. The deductions from gross income in order to arrive at the net taxable income include royalties paid in kind or in value; production property taxes paid; direct costs in operating the lease or property; depreciation based on the units of production method; amortization of lease acquisition payments and taxes paid prior to commencement of commercial production; interest expense not capitalized during construction; expenses of unsuccessful exploration of oil and gas in the state including acquisition costs, abandonment of properties, dry-hole costs, and geological and physical exploration costs related to the abandoned properties; general overhead and administrative expense; income from the production of oil and gas which is divided among the regional native corporations under the Alaska Native Claims Settlement Act; and the Windfall Profits Tax. Interest and overhead, however, are presumed not to exceed the corporation's total interest and overhead expenses, multiplied by a fraction of which the numerator is the corporation's real and tangible personal property used directly in the production of oil and gas from a lease or property in the state and the denominator of which is all such property of the consolidated business. The corporation may rebut this presumption by satisfactorily demonstrating that its actual expenses in Alaska are greater.

The net income of oil and gas pipeline transportation, basically, is the net operating income that is reported to the Federal Energy Regulatory Commission or that would be reported to that commission in the case of the pipelines that are not regulated by FERC. That number is modified by adding back taxes on or measured by net income. There are also limitations on interest and overhead expenses that may be deducted.

With respect to income from activities other than the production of oil and gas from a lease or property in the state or pipeline transportation of oil or gas in the state, the income is apportioned to the state, starting with the total taxable income or consolidated business less that portion of its entire income attributable to production and pipeline transportation of oil and gas worldwide. The apportionment formula is modified so that the numerator and denominator of the property, payroll and sales factors are each calculated without reference to that portion of property, payroll, or sales directly related to the production of oil or gas in the state or the pipeline transportation of oil or gas in the state.

The separate accounting method, despite the oil industry's historic praise for its precision in attributing income was not well received by the industry. In fact, a lawsuit, Atlantic Richfield Co., et al., vs. State of Alaska, was filed against the state. In that case, the plaintiffs raised the issues of equal protection and commerce clause violations. They argued that a special method of taxation is discriminatory, that duplicate taxation would result, and that the tax created an undue burden on interstate commerce. The state denied the allegations.

Basically, the legislature was concerned that the lawsuit would drag out for several years, leaving in doubt the state's right to keep the five to eight billion dollars that would be collected from the application of AS 43.21 during that time. The legislature decided that it was not desirable to have such a large potential refund contingent upon the outcome of a lawsuit. Hence, during the 1981 session the legislature decided to limit the effective time for the operation of AS 43.21 and thereby limit the state's exposure to the refund risk. Starting in 1982, a different method of calculating oil and gas production and transportation income taxes was introduced based on a modified apportionment formula. The legislature also modified and increased the severance tax to offset the reduction in income tax revenue, but the net result was still a substantial decrease in total revenues.

III. MODIFIED APPORTIONMENT (AS 43.20.072): 1982-PRESENT

The new income tax adopts a modified apportionment formula with a modified federal income tax base. In order to resolve the problems inherent in the standard approach, the legislature required that intangible drilling and development costs, which are generally expensed under the Internal Revenue Code, be capitalized and depreciated as a part of the well cost; second, that depletion be limited strictly to cost depletion; and third, the depreciation be based on Section 167 of the

Internal Revenue Code as it existed on June 30, 1981. This, of course, eliminates the application of the new accelerated capital recovery system (ACRS) under the recently passed federal legislation.

The precise apportionment formula to be applied to this tax base depends on the nature of the taxpayer's business in the State of Alaska. If the taxpayer is subject to the tax but not engaged in the production of oil and gas from a lease or property in the state, then the apportionment formula is a two-factor one--basically the property factor under the Multistate Tax Compact, along with a modified sales factor. If the taxpayer is subject to the tax but is not engaged in the pipeline transportation of oil and gas in the state, then the formula again has two factors--a modified property factor and what we call an "extraction" factor. If the taxpayer is engaged in both production of oil and gas from a lease or property in the state and pipeline transportation of oil and gas in the state, then the formula has three factors: the sales factor as modified, the property factor, and the extraction factor. The sales factor is modified to include tariffs received by pipeline companies in both its numerator (Alaska tariffs) and its denominator (worldwide tariffs). The property factor has been modified to include cumulative intangible drilling and development costs, whether capitalized or expensed for federal tax purposes. The innovative extraction factor is the number of barrels of oil (or equivalents of gas) produced in the state divided by the number of barrels of oil (or equivalents of gas) produced worldwide. For equivalency purposes, six mcf of gas count the same as one barrel of oil. Depending on the type of oil and gas activities the taxpayer has in the state, the appropriate apportionment formula is applied to the adjusted federal taxable income and the end result is the income earned in Alaska. That Alaska taxable income is subject to a graduated rate schedule where all income over ninety thousand dollars is taxed at 9.4 percent.

Fundamentally, the difference between the Alaska formula and the Multistate Tax Compact is the extraction factor. The other adjustments are merely to bring the sales and property factors in line with the true extent of business activity that pipeline and production operations represent. The extraction factor is an appropriate measure for determining income earned within Alaska since it gives weight to the value of the nonrenewable resource that is extracted and permanently removed from the state. Unlike the destination sales factor in the standard UDIPTA formula, which is appropriate in measuring the impact of sales in another state on the income of a manufacturing or mercantile corporation, the extraction factor is a resource-based factor which recognizes that value exists in the raw material before it is exported from the state and that the resource can never be reextracted within the state again.

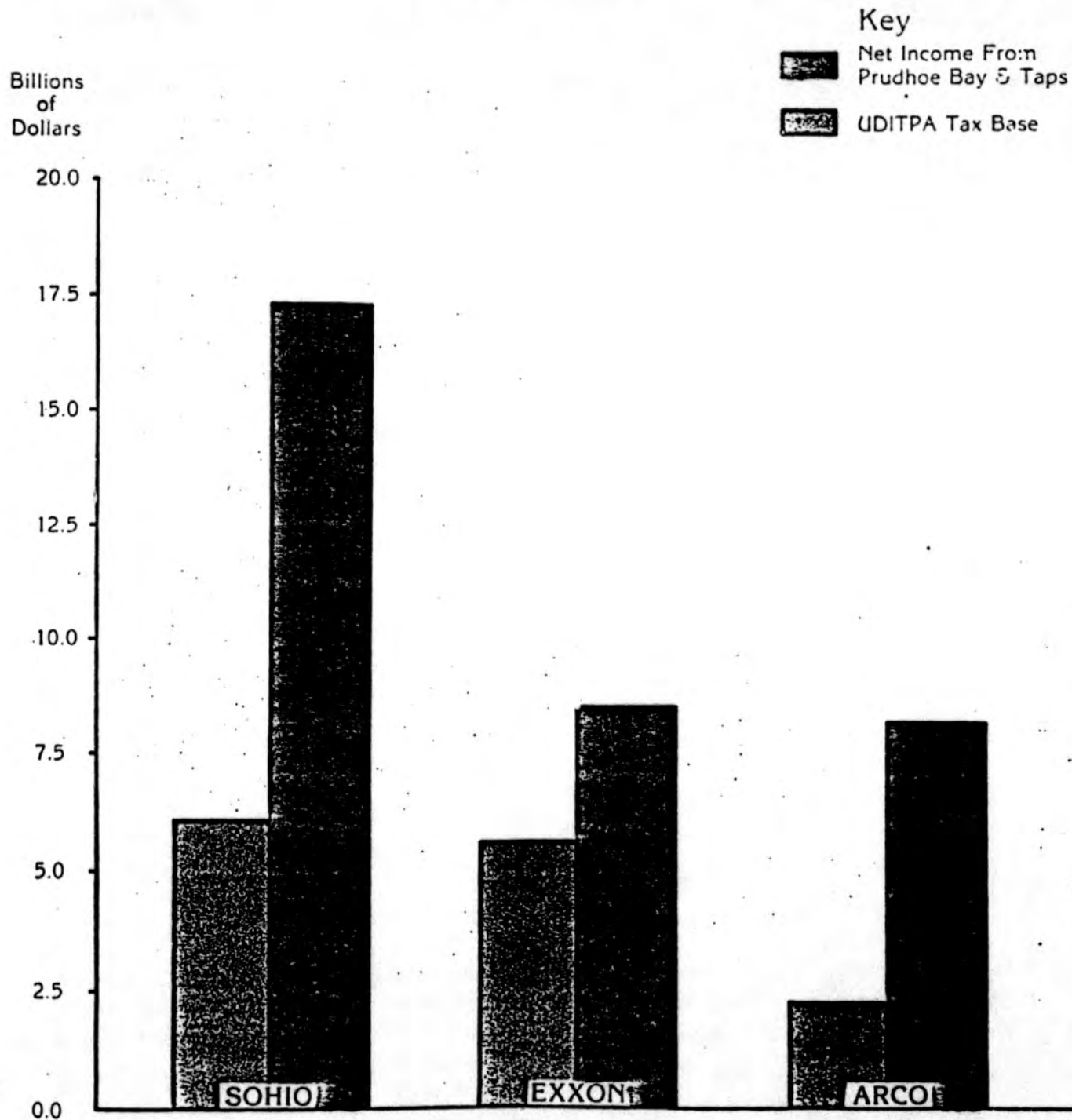
OIL AND GAS CORPORATE INCOME TAX

Sec. 1, ch. 110, SLA 1978

* Section 1. LEGISLATIVE FINDINGS AND INTENT. The legislature finds and declares that the method of apportioning income for tax purposes under the "Uniform Division of Income for Tax Purposes" formula embodied in the Multistate Tax Compact (AS 43.19) and AS 43.20.065 does not fairly represent the extent of the business activities in this state of multistate corporations engaged in the production and pipeline transportation of crude oil and natural gas in Alaska. The legislature therefore intends that, in accordance with the provisions of art. IV, sec. 18 of the Multistate Tax Compact (AS 43.19), the income tax of all corporations engaged in the production or pipeline transportation of oil or natural gas in or directly associated with this state shall be assessed by the tax administrator under this Act. The legislature further intends that the assessment of income tax against a multistate corporation engaged in the production or pipeline transportation of oil or natural gas shall be commensurate with the tax that would be assessed against a corporation owning and operating only those assets of the multistate corporation which are in or directly associated with this state.

Net Income From Prudhoe Bay and Taps

Compared With
UDITPA Tax Base
(Life of Field)



Source: Arthur Anderson Study, Exhibit VIII(a)(R. 2899)

HYPOTHETICAL TAXPAYER

STATE A (Manufacturing)

Cost of Production:
\$4/unit

Transfer Value:
\$5/unit

STATE B (Sales)

Distribution and
Marketing Costs:
\$4/unit

Retail Sales
Price:
\$10/unit

Separate Accounting Income: (1000 units)

Gross income (transfer
value X 1000) = \$5,000
Cost of production
(X 1000) = \$4,000

Net Income = \$1,000

Gross income (retail
sales X 1000) = \$10,000
Cost of goods
(transfer X 1000) = \$5,000
Cost of sales
(X 1000) = \$4,000
Net Income = \$1,000

Total Corporate Net Income = \$2,000

Three Factor Formula Income:

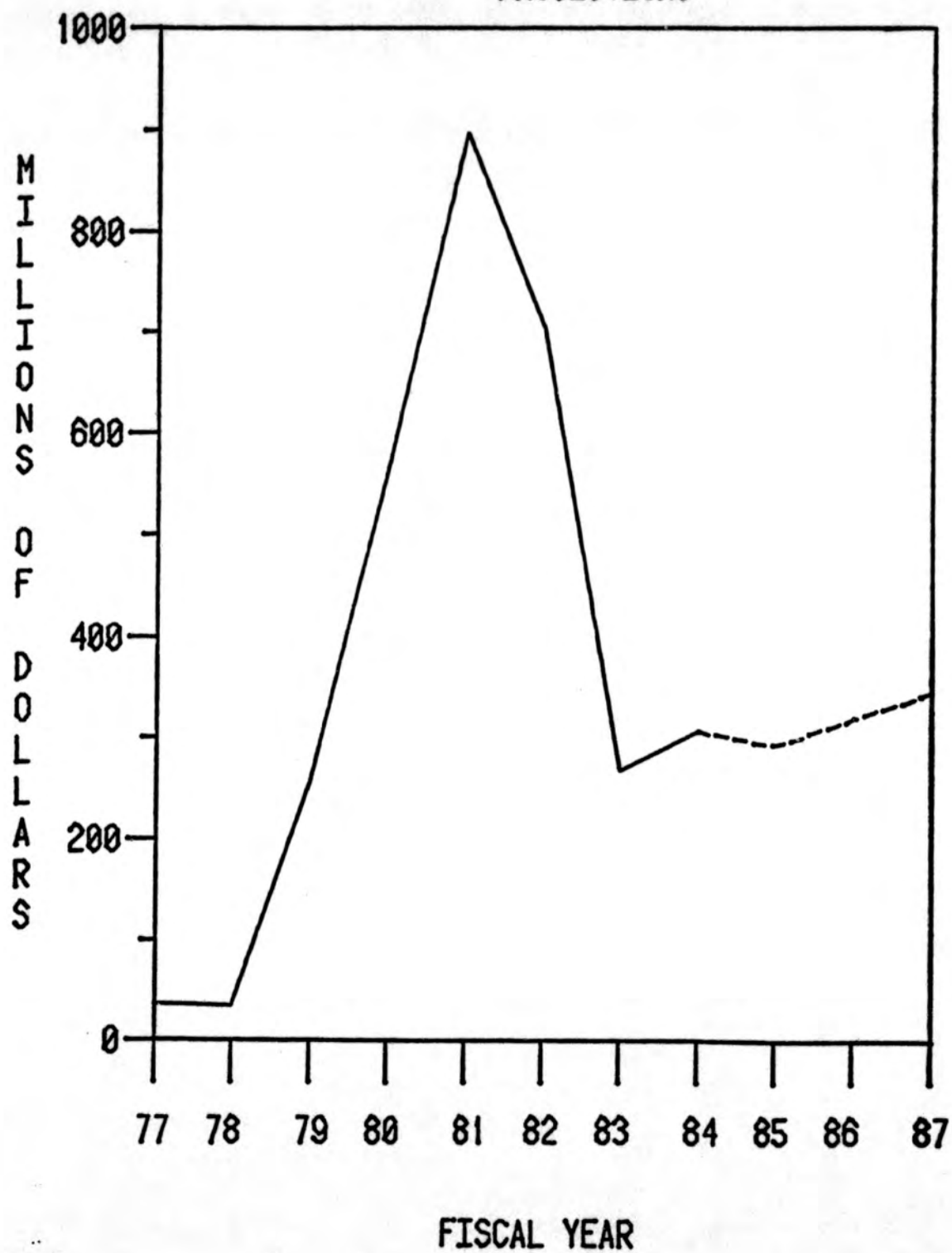
(Formula assumptions: all property State A; ½ payroll each state; all sales State B)

Formula Income:
Property Payroll Sales
1/1 1/2 0
Factor average: 1/2
Net Income (1/2 X \$2,000) = \$1,000

Formula Income:
Property Payroll Sales
0 1/2 1/1
Factor average: 1/2
Net Income (1/2 X \$2,000) = \$1,000

CORPORATION INCOME TAX
(FY 1977-87)

— ACTUALS
- - - PROJECTIONS



CORPORATION INCOME TAX

CODE 038

<u>Fiscal Year Ended</u>	<u>Net Collections</u>	<u>\$ Increase Over Prior Fiscal Year</u>	<u>% Increase Over Prior Fiscal Year</u>	<u>% of Estimate Realized</u>
-30-84*	\$304,621,369.64	\$38,315,821.55	14.39	100.87
-30-83*	266,305,548.09	(437,355,937.75)	(62.15)	98.63
-30-82*	703,661,485.84	(191,181,234.04)	(21.36)	100.67
-30-81*	894,842,719.88	329,513,452.02	58.29	101.00
-30-80*	565,329,267.86	307,854,028.97	119.57	100.38
-30-79*	257,475,238.89	223,971,580.65	668.50	108.64
-30-78	33,503,658.24	(2,007,321.14)	(5.65)	89.94
-30-77	35,510,979.38	Base Year	Base Year	100.60

*For the Fiscal Years 6-30-79 through 6-30-84, Code No. 038 (Corporation Income Tax) and Code No. 039 (Formerly Oil & Gas Corporation Income Tax) have been combined under one single Code No. 038 (Corporation Income Tax).

In 1955 the Alaska Legislature enacted two measures that imposed a tax on the production of crude oil and natural gas in the state. One of those statutes represents the foundation from which the state's existing oil and gas production properties tax evolved but the rate of tax at that time was only one percent of the gross value of that production. The other statute, that has since been repealed, was a conservation tax of five mills for each barrel of oil and every 50,000 cubic feet of gas produced.

Between 1955 and 1967 no changes were made in this tax structure. Then, in 1967, the legislature convened in a special session to provide statutory relief for the victims of the Fairbanks flood in that year. Faced with these emergency programs, the legislature enacted an additional one percent disaster severance tax based on the gross value of oil and gas production.

In 1968 the legislature raised the "regular" production tax from one percent to three percent, but did not change the one percent disaster severance tax or the five mill conservation tax.

In 1979, the legislature by amendment, embodied a progressive or "stair-stepped" rate structure for oil based on average daily production per well. The rates were three percent on the first 300 barrels per day, five percent on the next 700, six percent on the next 1,500 and eight percent on the production exceeding 2,500 barrels per day. Gas production was taxed at four percent. Since the one percent disaster severance tax and the five mill conservation tax were simultaneously repealed, there was no increase in the overall nominal gas tax rate.

In 1972 the Joint Pipeline Impact Committee requested legislation be enacted to protect state revenues from unacceptably low wellhead prices at Prudhoe Bay as the result of the high pipeline tariffs that could stem from either inadequate tariff regulation or construction cost overruns, or both. In response to that request the legislature enacted a cents-per-barrel tax with a credit for royalties paid to the state. If the cents-per-barrel tax, minus the royalty credit exceeded the tax collected under the existing percentage-of-value method, then the cents-per-barrel tax would be payable; however, almost immediately after this tax was enacted it became subject to litigation.

As a result, the tax measure that emerged from the 1973 Special Session of the Legislature repealed the royalty credit provision, increased the effective tax rate as it would apply to oil production by increasing the effective floor of the cents-per-barrel tax from \$2.65 to \$3.375 and instead of four "stair steps" there were three: the first 300 barrels a day from a well were taxed on the higher of five percent of the oil's value or \$0.16875 per barrel, the next 700 at six percent or \$0.2025 per barrel, and all production over 1,000 barrels a day at eight percent or \$0.27 per barrel. In addition, the cents-per-barrel amounts

increased or decreased by two percent for each degree of API gravity above or below 27 degrees. Thus a complete schedule of three cents-per-barrel rates (one for each "stair step") could be established for various API gravities. The whole schedule of rates was in turn to be increased or decreased monthly based on changes in the Wholesale Price Index for crude oil, published by the U.S. Bureau of Labor Statistics. The tax on gas production remained a simple four percent of value. In addition, an oil and gas regulation and conservation tax at a rate of \$0.00125 per barrel removed or sold was enacted during this legislative session.

In 1976 no changes were made to the production tax rates but the legislature did replace the "cash price prevailing" language with "prevailing value" and enacted a section titled "Determination of Gross Value". That section of the production tax statutes made it very clear that value is to be determined by using reasonable costs of transportation, if any. Therefore, to the extent of any previous confusion these changes made it obvious that the legislature did not believe the terms price and value were necessarily synonymous and that taxable gross value is to be determined by subtracting reasonable transportation costs from the full consideration realized by the producer at the point of sale.

The production tax was amended again in 1977 when the legislature enacted a statute to adopt an economic limit factor (ELF) for the purpose of reducing the effective production tax rate as the amount of production from a lease or property declines. Therefore, while the nominal tax rate for oil was 12.25 percent, and 10 percent for gas, in both cases the actual rate was determined by applying the ELF. The cents-per-barrel and cents-per-mcf rates were also subject to the ELF. Nominally they were 6.4 cents per mcf (corresponding to a 64 cent floor), 60 cents per barrel for "old oil" (a \$4.90 floor) and 80 cents for all other oil (a \$6.53 floor). Before being reduced by the ELF, the cents-per-barrel amounts were adjusted up or down by a half-cent for each degree above or below 27 degrees API gravity. There is no automatic escalator for either the cents-per barrel or cents-per-mcf rates; instead the Department of Revenue could recommend any changes to the rates that may be appropriate in light of transaction prices and market conditions. Also, the removed and sold standard that historically was used as the measure of taxable production was changed to a produced standard. At the same time, as a result of Alaska's protracted royalty litigation with oil and gas producers in the Cook Inlet area, the definitions of the point of production were either established or better defined.

It is also noteworthy that some of the complexities of this 1977 legislation caused the Department of Revenue to promulgate the state's first substantive interpretive production tax regulations that eventually became the nucleus of the more sophisticated versions promulgated by the Department in 1980, 1981 and 1982.

The remaining major amendment to the production tax statute occurred in 1981 when the nominal rate of tax on oil was changed from

12.25 percent to 15 percent on any oil produced after June 30, 1981 from a lease or property that was in commercial production prior to that date. The nominal rate of tax on oil produced from a lease or property coming in to production after that date is 12.25 percent during the first five years of production and 15 percent thereafter. Also, modifications were made to the economic limit factors for both gas and oil. The major impact of this legislation changed the effective rate of this tax on over 90 percent of the oil produced in Alaska from approximately 11.5 percent to 15 percent. That change, based on the unaudited reported value of production, increased the amount of production tax revenues by about \$350 million for FY 82 and \$325 million for FY 83.

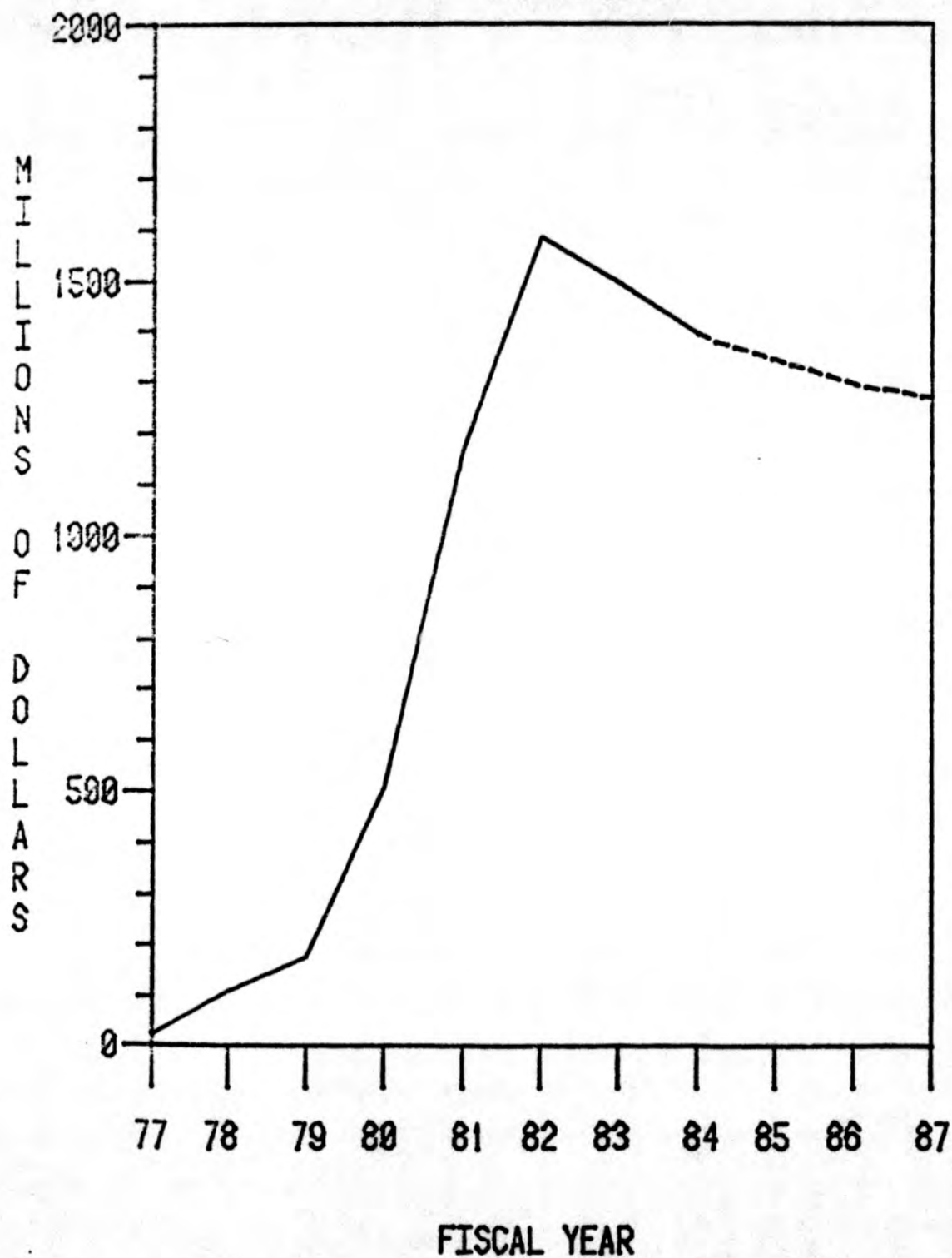
On the following page is a summary of production events and tax changes by year beginning in 1954.

OIL AND GAS PRODUCTION AND TAX TIMELINE

- 1954 - BLM issued 272 oil and gas leases
- 1955 - Oil and gas conservation tax enacted (5 mills)
 - Production tax enacted (1% of value of production)
- 1957 - Swanson River oil discovered
- 1959 - Kenai gas field discovered
- 1962 - Cook Inlet oil discovered
- 1965 - Three additional Cook Inlet oil fields discovered
- 1967 - Fairbanks struck by flood
 - 1% disaster severance tax enacted
- 1968 - Legislature increased oil severance tax from 1% to 3%
 - Prudhoe Bay oil discovered
- 1969 - Prudhoe Bay lease sale
- 1970 - Disaster severance and conservation taxes repealed
 - Oil production tax changed to a graduated tax
 - Gas severance tax increased to 4%
- 1972 - Minimum tax established based on "cents per barrel" equivalent to percent of value tax on oil with wellhead value of \$2.65 .
- 1973 - Effective oil tax rates increased
 - Five mill tax on oil for conservation reenacted
 - OPEC quadrupled world market price for crude oil
- 1977 - Nominal tax rate on oil increased to 12.25%
 - Nominal tax rate on gas increased to 10%
 - Economic Limit Factor introduced to adjust effective tax rates
 - New floors for oil and gas severance taxes established
 - Prudhoe Bay oil began flowing to Valdez
- 1979 - Prudhoe Bay well head prices increased from \$5.80 per barrel in January to \$10.57 in June as a result of the loss of imports from Iran.
- 1981 - Nominal tax rates on oil increased to 15%
 - Tax on oil production beginning after 6/30/81 remained 12.25% for the first five years of production
 - Oil ELF equal to 1 if calculated to be greater than 0.7 during first 10 years of production
 - Kuparuk field production began

OIL & GAS PRODUCTION TAX
(FY 1977-87)

— ACTUALS
--- PROJECTIONS



OIL & GAS PRODUCTION TAX

CODES 065 & 068

<u>Fiscal Year Ended</u>	<u>Net Collections</u>	<u>\$ Increase Over Prior Fiscal Year</u>	<u>% Increase Over Prior Fiscal Year</u>	<u>% of Estimate Realized</u>
6-30-84	\$1,392,302,205.76	\$(101,025,121.56)	(6.77)	101.86
6-30-83	1,493,327,327.32	(87,782,646.75)	(5.55)	98.65
6-30-82	1,581,109,974.07	411,232,234.21	35.15	100.00
6-30-81	1,169,877,739.86	663,716,104.67	131.13	98.70
6-30-80	506,161,635.19	332,580,692.53	191.60	101.03
6-30-79	173,580,942.66	65,980,455.42	61.32	104.32
6-30-78	107,600,487.24	83,948,336.98	354.93	101.32
6-30-77	23,652,150.35	Base Year	Base Year	87.25

STATE OF ALASKA
OFFICE OF THE COMMISSIONER

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF REVENUE

OFFICE OF THE COMMISSIONER

POUCH 5
JUNEAU, ALASKA 99811
PHONE: (907) 465-2300

April 27, 1983

Mr. David Teal
Issues Analyst
House Research
Pouch Y
Juneau, AK 99811

Re: Reduction in revenues attributable to FCCS SB524, Ch. 116 SLA 1981

Dear Mr. Teal:

You have requested that this department prepare an estimate of the effects of the enactment of Ch. 116, SLA 1981, which amended the oil and gas corporate income tax and the oil and gas severance tax. Those amendments can be summarized as follows:

1. AS 43.55, prior to the amendments, provided for a tax on oil production amounting to 12.25 percent of the gross value at the point of production modified by an economic limit factor (ELF) set forth in AS 43.55.013. The ELF factor on Prudhoe Bay production during FY 1982 was approximately .9249 which led to an effective rate of 11.33 percent. This rate would decline as production at Prudhoe Bay became more marginal. The ELF on Cook Inlet production in FY 1982 averaged approximately .2864 which led to an effective rate of 3.51 percent. The tax rate on gas was 10 percent of the gross value at the point of production modified by an ELF factor.

2. Ch. 116 SLA 1981 increased the rate of tax to 15 percent on oil production (except that for fields commencing commercial production after June 30, 1981, the rate would be 12.25 percent for the first five years) times the ELF factor which was equal to one as long as it exceeded .7 during the first ten years of production. See AS 43.55.011(b) and AS 43.55.013(b)(4). Thus the rate on Prudhoe Bay production is currently $15\% \times 1 = 15\%$, Kuparuk is $12.25\% \times 1 = 12.25\%$, and Cook Inlet is $15\% \times .2864 = 4.30\%$. The gas severance tax rate was unchanged although the gas ELF factor calculation was modified. See AS 43.55.013(g). The increased severance tax rates were made effective July 1, 1981, or at the outset of FY 82.

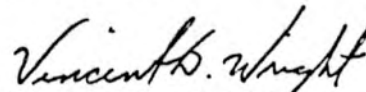
David Teal
April 27, 1983
Page 2

3. The oil and gas corporate income tax method set forth in AS 43.21 known as separate accounting was repealed and a new modified apportionment scheme was enacted effective January 1, 1982, which is contained in the new AS 43.20.072. This new method for attributing oil and gas income to the state combined with the introduction of a graduated rate structure set forth in AS 43.20.011(e) which decreased revenues from the overall corporate income tax.

In our view, the best way to illustrate the comparative revenues of the previous oil and gas tax structure with the structure put in place by the 1981 amendments is to compare the revenues which would be derived by both methods under the pricing assumptions contained in our March 1983 revenue forecast. The attached Table I should demonstrate the relationship.

It should be noted that the positive result in FY 82 was due to the early effective date of the severance tax increase and the fact that AS 43.21 remained in effect during the first half of FY 82. It should also be noted that, beginning with FY 84, estimates are consistently based on the department's more conservative 30 percent case, not the mean case generated by the Pet Rev model. However, this should not impact significantly the relationship of total revenues being compared.

Sincerely,



Vincent D. Wright
Chief of Research

VDW:jas

Enclosures

Table I
Change in Petroleum Corporate Income Tax and
Oil and Gas Severance Tax Due to Enactment of SB 524
FY 82-90 - March 1983 Forecast Assumptions
(millions \$)

Old Law

<u>FY</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Total</u>
82	1158.96	968.82	2127.78
83	1104.72	933.91	2038.63
84	814.87	753.47	1568.34
85	805.93	699.32	1505.25
86	844.18	726.56	1570.74
87	882.56	757.50	1640.06
88	910.19	762.58	1672.77
89	980.54	798.68	1779.22
90	950.18	769.37	1719.55

New Law

<u>FY</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Total</u>
82	1581.10	668.90	2250.00
83	1479.59	235.00	1714.59
84	1111.15	243.00	1354.15
85	1116.56	255.00	1371.56
86	1184.07	273.00	1457.07
87	1227.58	285.00	1512.58
88	1291.67	300.00	1591.67
89	1157.41	324.00	1481.41
90	1083.98	308.00	1391.98

Change Due to New Law - New Law less Old Law

<u>FY</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Total</u>
82	+422.14	-299.92	+122.22
83	+374.87	-698.91	-324.04
84	+296.28	-510.47	-214.19
85	+310.63	-444.32	-133.69
86	+339.89	-453.56	-113.67
87	+345.02	-472.50	-127.48
88	+381.48	-462.58	-81.10
89	+176.87	-474.68	-297.81
90	+133.80	-461.37	-327.57

Table 1
Change in Petroleum Corporate Income Tax and
Oil and Gas Severance Tax Due to Enactment of SB 524
FY 82-90 - June 1983 Forecast Assumption--30% Case FY 84-90
(million \$)

<u>Old Law</u>			
<u>FY</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Total</u>
82	1157.10		
83	1109.73	968.08	2125.18
84	919.01	944.81	2054.54
85	947.43	836.75	1755.76
86	995.92	805.76	1753.19
87	1044.93	841.43	1837.36
88	1077.71	867.18	1912.11
89	1135.33	882.82	1960.53
90	1091.80	923.68	2059.01
		867.79	1959.09

<u>New Law</u>			
<u>FY</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Total</u>
82	1581.10		
83	1493.70	668.90	2250.00
84	1279.24	236.20	1729.90
85	1308.64	250.00	1529.24
86	1409.66	282.00	1590.64
87	1474.31	312.00	1721.66
88	1292.36	363.00	1837.31
89	1365.47	399.00	1691.36
90	1271.20	421.00	1786.47
		446.00	1717.20

Change Due to New Law - New Law less Old Law

<u>FY</u>	<u>Severance Tax</u>	<u>Income Tax</u>	<u>Total</u>
82	+424.00		
83	+383.97	-299.18	+124.82
84	+360.23	-708.61	-324.64
85	+361.21	-586.75	-226.52
86	+413.74	-523.76	-162.55
87	+429.38	-529.44	-115.70
88	+214.65	-504.18	-74.79
89	+230.14	-483.82	-269.17
90	+179.40	-502.68	-272.54
		-421.29	-241.89

IN THE SUPREME COURT FOR THE STATE OF ALASKA

ATLANTIC RICHFIELD COMPANY; ARCO
PIPE LINE COMPANY; BP ALASKA,
INC.; EXXON CORPORATION; EXXON
PIPELINE COMPANY; SOHIO ALASKA
PETROLEUM COMPANY; and SOHIO
PIPE LINE COMPANY.

Appellants,

VS.

STATE OF ALASKA; ALASKA DEPARTMENT OF REVENUE; ALASKA DEPARTMENT OF ADMINISTRATION; COMMISSIONER OF REVENUE ROBERT D. HEATH, and COMMISSIONER OF ADMINISTRATION LISA RUDD,

Appellees.

Supreme Court
No. S-52

Superior Court Nos.
3AN-79-1903 Civil
3AN-80-1542 Civil

AFFIDAVIT OF ROBERT D. HEATH

STATE OF ALASKA)
FIRST JUDICIAL DISTRICT) ss.

I, ROBERT D. HEATH, being first duly sworn declare:

1. I am Commissioner of the Department of Revenue for the State of Alaska and have held that post since January 21, 1983.

2. I directed my staff to prepare the following estimates based on information from department collection records, tax returns, taxpayer financial reports and other sources.

3. The figures for AS 43.21 earnings and tax liability are based upon initial collections less refunds and credits plus audit assessments collected. Because AS 43.21 tax returns are still being audited, the figures below are not final

collections. Moreover, certain retroactive refunds and credits for AS 43.21 tax years are still being processed.

4. Estimates of AS 43.20 taxes under a modified approach are based upon best available information.

5. The figures below reflect the most current information on the earnings and taxes collected by the State of Alaska under AS 43.21 and my best judgment on what would have accrued had AS 43.20, as presently amended, been in effect during the same period. These figures pertain only to the appellants in the above-captioned action, and do not consider either the AS 43.21 or possible AS 43.20 liability of other taxpayers.

6. The figures below are expressed in millions of current dollars and have been rounded to the nearest \$1 million.

7. Total net income subject to tax under AS 43.21 is:

<u>YEAR</u>	<u>AS 43.21 EARNINGS TAXED</u>
1978	\$ 1,588,000,000
1979	4,125,000,000
1980	7,637,000,000
1981	<u>7,617,000,000</u>
TOTAL	\$20,967,000,000

8. Total AS 43.21 net collections to date:

<u>YEAR</u>	<u>AS 43.21 NET COLLECTIONS</u>
1978	\$ 148,000,000
1979	387,000,000
1980	648,000,000
1981	<u>838,000,000</u>
TOTAL	\$2,021,000,000

9. Estimated alternate tax liability under the AS 43.20 modified formula apportionment approach would be:

<u>YEAR</u>	<u>AS 43.20 ESTIMATED ALTERNATE TAX</u>
1978	\$ 66,000,000
1979	165,000,000
1980	216,000,000
1981	<u>176,000,000</u>
TOTAL	\$ 623,000,000

10. The net tax difference between AS 43.21 tax liabilities and estimated AS 43.20 tax liabilities is:

<u>YEAR</u>	<u>DIFFERENCE BETWEEN AS 43.21 AND AS 43.20 TAX LIABILITY</u>
1978	\$ 82,000,000
1979	222,000,000
1980	432,000,000
1981	<u>662,000,000</u>
TOTAL	\$1,398,000,000

11. The estimated interest that would be payable on a refund of the difference between AS 43.21 and AS 43.20 tax liabilities:

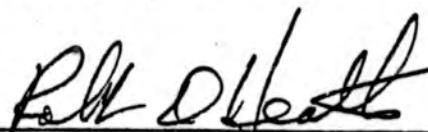
<u>YEAR</u>	<u>INTEREST ON ESTIMATED REFUND*</u>
1978	\$ 40,000,000
1979	89,000,000
1980	138,000,000
1981	<u>159,000,000</u>
TOTAL	\$426,000,000

*Interest through 4/27/84

12. The estimated total refund liability of the State is:

<u>YEAR</u>	<u>ESTIMATED TOTAL REFUND LIABILITY</u>
1978	\$ 122,000,000
1979	311,000,000
1980	570,000,000
1981	<u>821,000,000</u>
TOTAL	\$1,824,000,000

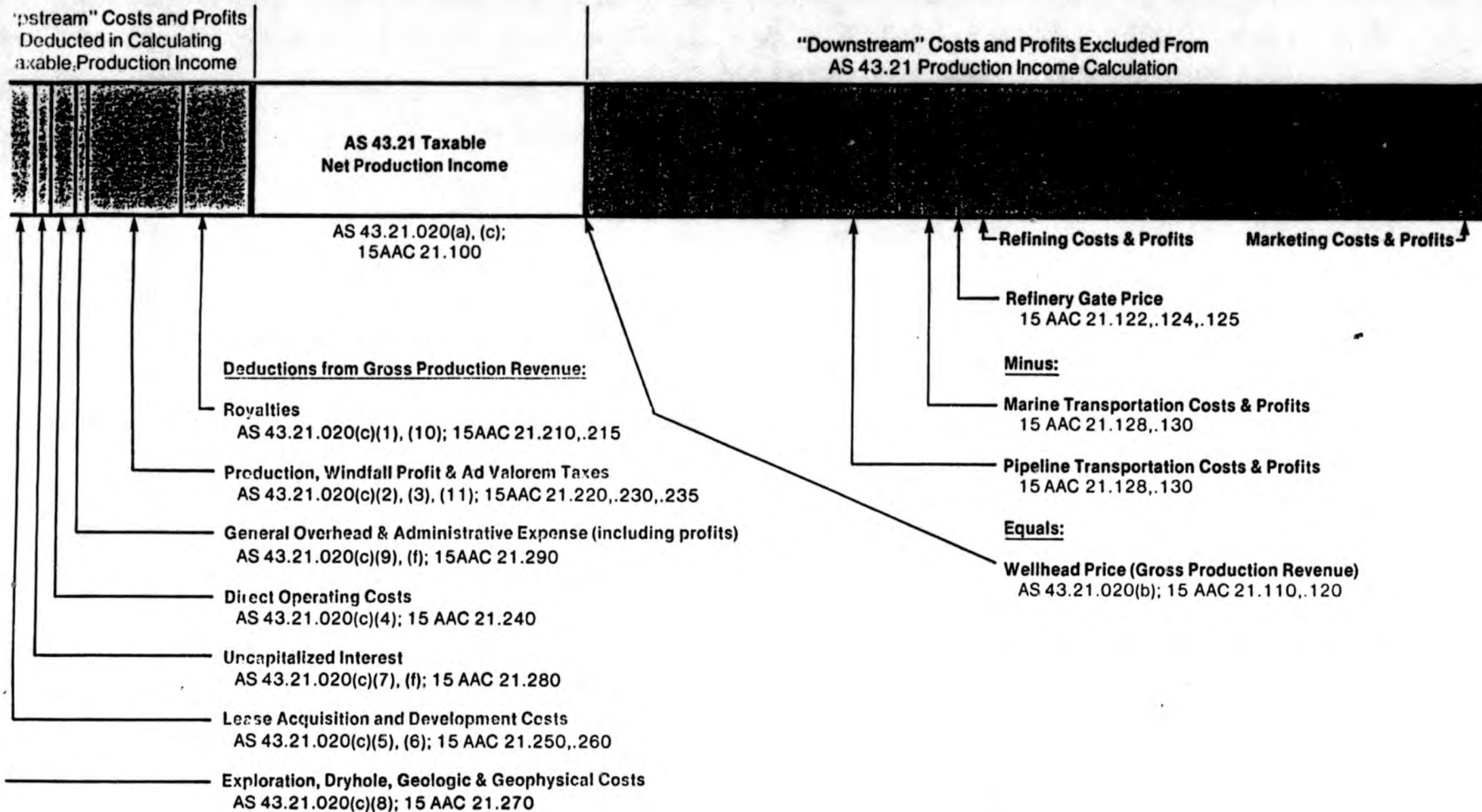
Further your affiant saith naught.


Robert D. Heath, Commissioner
Department of Revenue

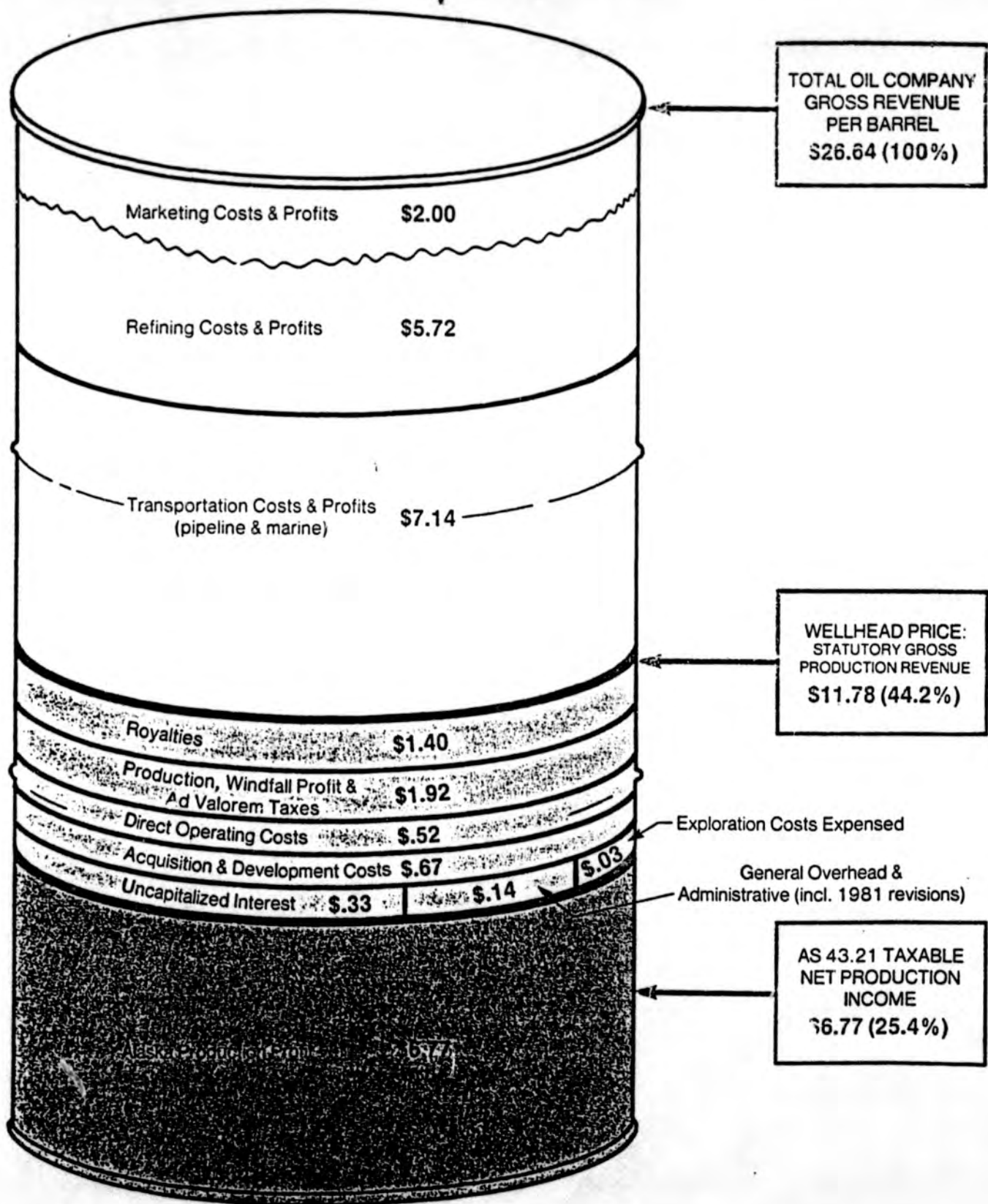
SUBSCRIBED AND SWORN TO before me this 27th day of April, 1984.


Notary Public, State of Alaska
My commission expires: 12/9/84

AS 43.21 TAXABLE NET PRODUCTION INCOME CALCULATION
EXCLUDES ALL COSTS AND PROFITS OF UPSTREAM AND DOWNSTREAM ACTIVITIES



**ESTIMATED REVENUES AND COSTS
PER BARREL OF ALASKAN CRUDE OIL
1978 - 1980**



SOURCE: Deakin 2d Supplemental Affidavit ¶ 15.



Alaska State Legislature

Representative Mike Davis

Pouch V
Juneau, Alaska 99811
(907) 465-4930/4941

Interim Office:
P.O. Box 81435
Fairbanks, Alaska 99708

TO: All Representatives
FROM: Rep. Mike Davis
DATE: March 4, 1986
RE: Oil Company Taxation

I am passing along a packet of newspaper articles given to me by one of my constituents. He wanted legislators to be aware of the events surrounding the switch from separate accounting to modified apportionment in 1981.

5/20/81

They should have listened

The oil companies keep chipping away at the Legislature with expensive lobbying and advertising campaigns in an attempt to reduce the amount of taxes they pay our state. They've been unsuccessful so far and we hope that situation remains unchanged.

Big oil companies claim Alaska is taxing their incomes unfairly, that they ought to be taxed just like every other Alaskan business rather than in a way they say makes them pay a higher effective rate.

They say the Alaskan tax setup results in double taxation of some of their income. That's true to a degree: the federal windfall profits tax, which was passed after we Alaskans passed our oil tax law, does result in some instances of double taxation. The law also taxes the companies on part of their income for which they might also be liable for taxes in other states.

It's important to keep in mind, though, that this law was passed to keep the companies from claiming that most of their income came from outside Alaska and therefore was not subject to Alaskan taxes even though much of their income was drawn from Alaskan oil.

All in all, what we have now is not a bad system. Our state, owner of the oil at Prudhoe Bay, gets about a third of the income from that oil; the oil companies, who put up the money to develop and run the field get about a third; and the federal government, which has done just about nothing but collect taxes from Prudhoe Bay, gets a third.

Certainly our state leaders were correct earlier this year when they said that, while they would consider adjustments in the tax laws, they would not consider getting less money from the oil. The oil companies could have saved themselves considerable money by paying attention to that clear statement.

5/21/81

Don't settle for less

We're glad to see our state's political leaders moving to make sure we continue to get a fair share of the income from our North Slope oil. Under consideration before the Legislature is a bill that would provide a backup tax that would take effect only if the oil companies are successful in their lawsuit to overturn the present state income tax they pay.

Big Oil has mounted an advertising and lobbying campaign to get the state to repeal the special income tax and put oil companies back under our state's regular business income tax. To do so would cost the state a considerable amount of income and state leaders have been wise to resist those efforts.

The backup tax would be a 25-mill levy on producing oil reserves and is estimated to bring the state almost exactly the same amount of money as we're getting now under the income tax. This bill might even win oil company approval because it also would end the double taxation caused by the federal windfall profits tax.

The oil companies have said they're being taxed unfairly in Alaska. This bill should put an end to that complaint and if it is to be passed, we'd like to see the companies pledge to drop their tax lawsuit.

But the companies also have claimed they're being taxed too heavily. That, however, is a claim that the state rightly disputes. The oil at Prudhoe Bay, after all, belonged to our state and we're getting a third of the money it generates.

Given the massive needs of Alaskans and their communities, we don't think that's an unreasonable share.

Editorial Opinion and Comment of

FAIRBANKS 6/13/81

Daily News-Miner

"Independent in All Things — Neutral in None"

Other opinions expressed on this page do not necessarily reflect those of the Daily News-Miner.

Legislative vandalism

If we didn't know better we'd think it was still April—April 1, to be precise—because the goings-on in the state House of Representatives Thursday night and Friday certainly have every mark of being a massive joke. Unfortunately, it's a joke at the expense of the rest of us who live in this state.

What happened was fairly, simply. Egged on by Republican Senate leaders (who ought to know better), the two minority parties in the House revolted against the Democratic majority. The 16 Republicans and two Libertarians finally succeeded in breaking the shaky 22-vote Democratic majority and electing a different Speaker in a move the losers angrily denounced as, among other things, illegal.

One would presume that on Monday when the House is to reconvene the joke will be over, all the players returned to their previous positions and some legislative business conducted. There are, after all, a few little things remaining to be done before this record-long session can adjourn—little things like our state's operating budget for the new fiscal year that begins in 2½ weeks, \$750 million worth of capital improvements, an appropriation to bring cheap hydroelectric power to most Alaskans.

We're not saying that the majority in the House has done such a hot job so far. It hasn't. That's partly the fault of the majority Democrats themselves because their organization has been weak, faltering and fragmented all session. And it's partly the fault of the minority Republicans and Libertarians, who have taken every opportunity to obstruct and delay business.

But we have trouble seeing how any new leadership in the House at this late date is going to have a positive effect. A change cannot help but delay the already long and tedious session. Two top items, the budgets for state operations and capital improvements, had been pretty well settled earlier this week. If it stands, the new leadership certainly will want to reopen those budgets, and probably many other items as well.

Meanwhile, Alaskans continue spending nearly \$40,000 a day for this sort of legislative vandalism. Is there not leadership enough in Juneau to put a merciful and swift end to this sorry show?

Daily News - Miner

"Independent in All Things — Neutral in None"

Other opinions expressed on this page do not necessarily reflect those of the Daily News-Miner.

6-10-81

Keep oil taxes up

Negotiating an out-of court settlement to the lawsuit the Prudhoe Bay oil producers have filed over Alaska's income tax would be a good solution to a hard problem—but not if it means giving up a substantial part of our state's income.

That's why we're glad to see the Legislature keeping the pressure on. The state House Tuesday passed a bill providing a backup tax that would take effect if the state loses the lawsuit. The Senate is likely to reject the bill and send it to a conference committee where the proposed settlement being discussed can be considered.

That's not to be interpreted as Senate opposition to the backup tax; it's merely a tactical maneuver. Senate leaders say that if no compromise can be reached they probably will pass the new tax legislation.

At stake is the amount of money we Alaskans will continue to receive for our North Slope oil. At present we're getting about 32 per cent, the oil companies are getting almost the same amount and the federal government is getting about 36 per cent through its tax system.

The oil companies are making two claims: that we're taxing them unfairly and that we're making them pay too much. Thirty per cent would be about the right amount for Alaskans to get, they say. That would mean \$1.4 billion less for us through 1985. Legislative leaders and the governor have stood united on this issue. We might make some changes in the tax law but we won't accept less money for our oil.

It may be that developments after we passed the oil income tax in 1978—namely the federal windfall profits tax—have caused the Alaskan tax system to become unfair. And our leaders have said they'd be willing to correct that problem. But there's a big difference between taxes that are unfair and taxes that are too high.

Certainly our taxes on Big Oil are not too high. The oil was ours in the first place and Alaskans are entitled to a fair amount of money for it. So, if we can negotiate an end to the oil companies' lawsuit, let's do it—but let's also not give up any of our badly needed oil income.

Don't pay the ransom 6-18-81

Big Oil & Co. seem to be rubbing their hands in anticipation and licking their chops over the turn-about in leadership in the state House of Representatives. By various accounts, the Republican-led coalition that upset the shaky Democratic House leadership last week means that chances will improve for reaching an out-of-court settlement in the lawsuit the Prudhoe Bay oil companies have filed against our state's income tax.

We hope that's a mistaken assessment because we can see not the least reason for the people of this state to give up half a billion dollars a year in income from their North Slope oil. That's the ransom the oil companies are demanding for dropping their lawsuit against our state's special oil and gas income tax.

Earlier this legislative session, the governor and leaders of the Legislature agreed to consider changing some of the provisions of the oil tax law that result in unfair double taxation. But they were emphatic that the state would not allow any significant cut in our total income from the oil.

We thought that was a reasonable proposal then and we still do. Unfortunately, some of the new House leaders have other ideas. Rather than passing the backup tax—which would protect our income in the event we lost the lawsuit—they prefer the out-of-court settlement the oil companies are offering. It escapes us how our new legislative leaders can even consider the oil companies' proposal that we give up \$500 million a year from a resource that belongs to the people of Alaska.

We're getting a little less than a third of the Prudhoe Bay income now. The oil companies are getting almost a third and the federal government is getting the rest. Why should we receive less?

Perhaps Gov. Jay Hammond, who agreed to the earlier idea of taking no less money for our oil, while perhaps removing unfair aspects from the tax law, ought to take a walk down one flight of stairs in the Capitol and have a talk with our new legislative leaders about that issue.

The conversation ought to be an interesting one in light of the fact that unless the governor changes his mind, any deal the new legislative leaders try to make with the oil industry will be worthless. Gov. Hammond already has said we Alaskans won't take less money for our oil. And he has ample means to back up that position.

State roundup

Backup oil tax

faces House vote

JUNEAU—A new "backup" oil tax—intended to protect Alaska from the risk of losing a multibillion-dollar lawsuit pending over the state's oil and gas corporate income tax—was slated for a House vote today.

The tax won a strong endorsement from the House Finance Committee on Sunday, but is expected to spark some opposition on the floor. House Speaker Jim Duncan, D-Juneau, predicted the Democrats have the 21 votes needed to pass the measure, but there was an indication Sunday that some members of the bush caucus might withdraw their support.

The Finance Committee agreed to tack the tax onto a Senate-passed bill that would increase the maximum investment credit that corporations can claim against the state's corporate income tax from \$9,000 to \$360,000.

The proposed new oil tax would be a 25-mill (2.5 per cent) levy on the value of producing oil reserves, with the levy set at 30 mills for the first year only. The tax would take effect in July, but the oil companies would be allowed to credit their payments made under the challenged income tax against the new reserves tax.

Revenue Commissioner Tom Williams estimates the net result of the new tax would be a slight reduction in taxes for the oil industry.

After the oil and gas income tax was enacted in 1978, the three major Prudhoe Bay producers—Exxon, Arco and Sohio—filed suit challenging its constitutionality. The companies are paying the tax under protest, but state officials estimate that if the state loses the suit, the state could be forced to repay \$8 billion to \$9 billion.

The potential loss of revenue prompted House and Senate leaders, and Gov. Jay Hammond, to draft a backup tax.

Poll finds support for move bill veto

ANCHORAGE—A poll commissioned by a group of Gov. Jay Hammond's supporters indicates most Alaskans support his veto of a bill that would have amended the FRANK initiative on capital move costs, an Anchorage newspaper reported today.

The Anchorage Daily News reported the poll was commissioned by the Governor's Club and was conducted by Ditman Research Associates.

Hammond last week vetoed the bill amending the initiative and putting it on the 1982 ballot because he said it did not reflect the full costs of a capital move.

The newspaper reported that the poll showed 51 per cent of those surveyed agreed Hammond should veto any measure not giving voters a chance to vote on the move's full costs. It said the poll showed 42 per cent opposed to such a veto.

Thirty-seven per cent of the 482 respondents statewide indicated the cost of maintaining the existing capital in Juneau should be subtracted from move costs when determining the full costs of a new capital.

Fisherman charged with illegal catch, sale

ANCHORAGE (AP)—An Anchorage commercial fisherman has been charged with illegally catching, possessing and selling salmon.

Fish and Wildlife protection officers from Soldotna and Anchorage arrested Charles Davis last week, following a three-year investigation of his activities.

Fish and Wildlife Lt. Steve Reynolds said Davis is charged with taking king salmon from a beach site on the west side of Cook Inlet and selling those fish in Anchorage for \$4 a pound.

Dissidents plotting coup against House leadership

— By JEAN KIZER —
Associated Press Writer

JUNEAU—Dissident House lawmakers were plotting today to overthrow House Speaker Jim Duncan and other Democratic leaders and stage a coup that would put a coalition leadership in power, lawmakers confirmed this morning.

"It could happen. I've seen a list that had 25 votes on it (to overthrow). But whether it actually happens is anybody's guess," said one House Republican who asked to remain anonymous.

But several other lawmakers predicted the ouster would occur as soon as the House floor session convened. Democrats were huddled in a hastily called party caucus this morning, and the floor session was delayed indefinitely.

Under one interpretation of the Legislature's rules, it would take 21 votes to oust Duncan. The list of lawmakers backing the coalition was rumored to include most or all members of the 18-member minority, which includes 16 Republicans and two Libertarians, and a handful of dissident Democrats.

Never before in the history of the Alaska Legislature has a presiding officer of either chamber been deposed, or an organization overthrown.

Sources said the new leadership slate

—under consideration calls for veteran Ketchikan Democrat Oral Freeman to take over as speaker, with GOP leader Rep. Joe Hayes, R-Anchorage, as Rules Committee chairman and Rep. Russ Meekins, D-Anchorage, as chairman of the Finance Committee. Freeman and Meekins joined a coalition leadership a few years ago.

Hayes confirmed the rumored slate was "very possible" but he declined further comment except to say a chance definitely exists that a reorganization could occur.

An angry Duncan, D-Juneau, and a core of other House Democrats were scrambling this morning to derail the threat of a coup—which has been rumored all session, but not taken seriously until recently, when the pressure of a long session began to build.

When asked if the ouster appeared possible, Duncan snapped, "I don't know anything about it." However, he had just emerged from a meeting of top Democrats, who were called in hastily to discuss ways to thwart the possibility of an overthrow.

One aide close to a key House Democrat said the push for reorganization was sparked on Thursday, when Duncan told fellow Democrats during a leadership caucus that he expected the session to last for at least another two weeks. Duncan has

said publicly that he thought the session could end by this weekend.

Several House lawmakers—mostly Republicans, but also some Democrats—have said during recent weeks that they are unhappy about what they consider lack of direction and leadership in the House.

GOP lawmakers have made repeated attempts since the session began to forge a coalition leadership, but their efforts apparently gained a burst of momentum in recent days when some disgruntled members of the House bush caucus and a handful of other Democrats began talking seriously about joining a coalition.

After a bitter, 22-day organization fight in January, Duncan was put in the speaker's chair with the shaky backing of the 22-member Democratic caucus—including a core of about eight bush lawmakers who originally were among Duncan's strongest supporters.

But in recent weeks there have been indications that some members of the bush caucus were unhappy with their treatment by the House leadership.

Sen. Frank Ferguson, D-Kotzebue, said today that Rep. Al Adams, D-Kotzebue, is spear-heading the reorganization. Adams declined to comment. Ferguson predicted the overthrow definitely would happen and said it would "speed up the session and the bush will be treated more fairly."

Rumors fly in Juneau on reasons for coup

By DAVID RAMSEUR
News-Miner Bureau

JUNEAU—While his colleagues scurried about the capitol building after Monday's House coup, Rep. Al Adams was quietly studying the state budget in a third floor conference room.

Helping the freshman Kotzebue Democrat with his cram session were two aides. One was Adams' regular staffer, and the other was an aide to Sen. Frank Ferguson, also a Kotzebue Democrat.

The halls of the capitol have been filled with rumors that the last three days of upheaval in the Legislature were orchestrated by lobbyists and senators.

Some observers, including Democrats who were unseated over the weekend, have suggested the coup was designed to aid the oil companies, telecommunications industry or the pockets of members of the new ruling junta.

Adams' instructors on the budget Monday afternoon may lend weight to that theory for some observers.

Adams is slated to chair the powerful Finance Committee. He and Ferguson are long-time friends and political allies, and Ferguson, a member of the Senate finance panel, wields considerable power in the Senate.

But Adams, a former Fairbanksan who once worked at the satellite tracking station in Fox, adamantly denies any collusion.

"No lobbyist or anyone at all had anything to do with it," Adams said in his small, fifth floor office Monday afternoon.

Other lawmakers including Ferguson, and lobbyists for a variety of interests deny the charges. Anchorage Republican Sen. Ed Dankworth went so far as to deny any involvement in the House shake-up on the Senate floor Monday.

But the reasons for the coup are still unclear. Dissident Democrats say they left their party for the initial overthrow Friday afternoon because the House organization under Speaker Jim Duncan wasn't working.

House members complained their bills weren't getting passed, deals hadn't been fulfilled and there was no end to the session on the horizon. Bush members complained the \$107 million allocated them in the capital budget was nearly \$100 million short of what they were promised.

But others say the overthrow is the beginning of something deeper than achieving short-term political goals. Some lawmakers and other legislative observers say the unusual pact between Libertarians, bush Democrats and Republicans, who are largely from Anchorage, is the beginning of a new political era.

The nation and Alaska have recently taken a swing to the right. The reign of liberal Democrats, who have ruled the Alaska House the past seven years, was expected to end in the 1982 election.

Under the reapportionment plan being reviewed by Gov. Jay Hammond, that seems even more likely. Now, many of the Democrats expected to return to the House in 1982 are from the bush, whose districts have not been substantially reworked by the Reapportionment Board.

At the same time, life in the bush has changed over the past couple of years. According to Native lawmaker Adams, the social programs such as rural education have had an effect in the bush.

"The trend toward the cash economy has changed the bush way of life," Adams said.

Now, rural Native residents demand industries to provide jobs, and bush legislators are expected to "bring home the bacon" in even greater quantities to provide those jobs.

"There's no question in my mind that the attitude of these bush people is 100 per cent opposite from last year's bush caucus," said two-term Rep. Bob Bettisworth, R-Fairbanks.

"This group doesn't want to see their people benevolent to the Legislature."

Ferguson may have suggested as much when he proposed three separate Alaskan states earlier in the session, one of which would include just the bush.

That change may account for the recent alignment between Chamber of Commerce Republicans and bush Democrats.

The Republicans in the new coalition are expected to rework the state's operating and capital budgets to give more to Anchorage.

The bush, which traditionally doesn't get a big share of the operating budget because it lacks large numbers of state employees, will probably push for increases in the capital budget.

Substantial changes promised

Adjournment House's top goal

By DAVID RANSEUR
News-Miner Bureau

JUNEAU—When Rep. Sally Smith assumed control of House employees and office space as head of the Rules Committee back in February, one of her first official acts was to remove a row of chairs from the second floor hallway leading into the House chambers.

That action by the Fairbanks Democrat was roundly criticized by Republicans who complained women and elderly tourists would be deprived of a place to rest.

Smith, whose office door opens onto that hallway, said people sitting there made it too noisy.

Wednesday morning when lawmakers and lobbyists arrived at the Capitol they found the chairs back in their old place.

That's just one of the changes under way by the Republican-dominated coalition that took control of the House Tuesday. Other changes, promise coalition leaders, will be more substantial than moving chairs around.

According to the new ruling group in the House, the top priority and one of the main reasons for the coup is a quick adjournment. June 23 has been targeted as the adjournment date, which would set a record for the longest legislative session in state history.

Before that happens, House leaders say they have a number of changes they want to make and a number of measures they want to pass. The extent of those changes is still tentative.

"If we start messing around with things much, we'll be here half the summer," said Rep. Dick Randolph, L-Fairbanks.

The coalition's policy committee is drawing up a list of priorities to exchange with the Senate, said committee member Randolph. That list is expected to include:

- A hydroelectric bill that would include a commitment for financing for the proposed Susitna dams and others throughout the state. The measure being considered is similar to a Senate version and doesn't include several changes added by House Democrats.

- A municipal assistance measure providing communities with \$1,000 per capita this year, rather than over two years as had been worked out by Democrats.

- Changes in the operating and capital budgets. Coalition leaders say there will be few major changes in the operating budget because it's too late in the session but the capital budget will

likely be considerably altered.

At the urging of Randolph and other Fairbanks coalition members, Rep. Brian Rogers, D-Fairbanks, will retain his seat on the budget free conference committee. Rogers, who was opposed by other coalition members, will stay to protect Fairbanks interests, Randolph said.

- A settlement with the oil companies on the proposed "backstop" tax. House Democrats and Gov. Jay Hammond had been pushing for the tax in case the state loses its court battle with the oil industry but Republicans favor settling out of court on the issue.

That settlement could include a significant reduction in oil revenues to the state and a change in the current tax laws.

Fairbanks coalition members say a number of bills of special interest to the interior, many of which have been stuck in committees dominated by Democrats, will now be considered. They include:

- A bill extending the life of the state Guide Licensing and Control Board. The board was slated to go out of existence this year but it will probably be extended one year, said Libertarian Rep. Ken Fanning, co-chairman of the Resources Committee under the coalition.

- The lands bill abolishing the 100,000-acre-a-year quota may receive more attention. The bill has been in the Senate Finance Committee at least a month and Fanning said he will renew the push to get the bill passed.

But finance panel Chairman Sen. Don Bennett, R-Fairbanks, has indicated he wants changes in that measure, so its future is still indefinite.

- The Alaska Energy Center, a Fairbanks-based group established at the urging of Rogers, may be abolished, Randolph said. The Senate already wants to kill the center and the House is likely to concur.

- A mining loan bill, a top priority of Rep. Bob Bettisworth, R-Fairbanks, but which has been stuck in committee, may be approved.

- Funding for the Big Dipper is as likely under the new as old House organization. Several Fairbanks lawmakers have lobbied to have Dipper funding included in the capital budget but Hammond opposes anything other than the traditional road and bridge projects in that budget.

Local delegation agrees to disagree

News-Miner Bureau

JUNEAU—Fairbanks' nine legislators routinely boast about the cohesiveness and good relations among themselves, even though the delegation includes three philosophically diverse parties.

But when it comes to sitting down to work, it hasn't always been so smooth.

Earlier this legislative session, for example, the delegation split while trying to compile a list of local priorities and hasn't met in a working session since.

"The rhetoric is for public consumption, but basically it just doesn't work that way," said Libertarian Rep. Dick Randolph.

That state of affairs, say Fairbanks lawmakers, won't change under the new House organization. The delegation, they say, will continue to attempt to work together, and probably continue to disagree.

"I don't think it's going to make a significant difference," said Democratic Sen. Charlie Parr.

For several years, this one included, the delegation has been dominated by Democrats. According to Republican Rep. Bob Bettisworth, that has meant Democratic priorities have been the ones to receive legislative attention.

Under the new House coalition however, Republicans and Libertarians are running the House and Fairbanks'

three Democratic House members find themselves in the minority.

But they say they've tried to keep the delegation nonpartisan in the past and hope to maintain that when working for Fairbanks issues.

"We know how to get along personally to get anything done," said Democratic Rep. Fred Brown.

Several unlikely alignments will result from the House shake-up. For example, Libertarian Rep. Ken Fanning, slated to co-chair the House Resources Committee, will probably work closely with Democratic Sen. Bettye Fahrenkamp, who chairs the same panel in the Senate.

Bettisworth, who gets a seat on the powerful House Finance Committee, is already being tutored by Democratic Rep. Brian Rogers, a former member of that panel.

The Democrats say they don't resent their hometown colleagues being at the top because they didn't orchestrate the take-over that toppled the Democratic organization earlier this week.

"They were not leaders of the illegal coup," Rogers said.

And the Democrats promise to work with the Republicans and Libertarians to achieve ends beneficial to Fairbanks.

Says Fahrenkamp: "If the delegation is not together, we're in trouble."

22 cast votes for Speaker Hayes

JUNEAU AP—A three-party coalition elected Anchorage Republican Joe Hayes as speaker of the House Tuesday on a 22-0 vote that Democrats challenged as illegal. The lawmakers who voted for Hayes include:

Republicans (15)

Mitch Abouf of Anchorage; Ramona Barnes of Anchorage; Bob Bettisworth of Fairbanks; Mike Beirne of Anchorage; Bernie Bylsma of Anchorage; Dave Cuddy of Anchorage; Rick Halford of Chugiak; Ernie Haugen of Petersburg; Hayes; Terry Martin of Anchorage; Ray Metcalfe of Anchorage; Joe Montgomery of An-

chorage; Pat O'Connell of Soldotna; Randy Phillips of Eagle River; Eric Sutcliffe of Unalaska.

Democrats (5)

Al Adams of Kotzebue; Bette Cato of Valdez; Joe Chuckwuk of Dillingham; Jack Fuller of Nome; Vern Hurlbert of Sleetmute.

Libertarians (2)

Ken Fanning of Fairbanks; Dick Randolph of Fairbanks.

Rep. Charles Anderson, R-Anchorage, also is a member of the coalition, but was absent for the vote. Most Democrats were present, but refused to vote because they said the floor session was illegal.

Legislators struggle over oil tax

6/23/81

By The Associated Press

JUNEAU—The 1981 Legislature, the longest in Alaska history, entered its 163rd day today with House-Senate negotiators still struggling to reach an elusive agreement on two major issues—oil taxes and a constitutional limit on state spending.

The oil tax issue loomed as the key roadblock to a Wednesday night adjournment goal set by leaders from both chambers.

But Senate Finance Co-Chairman Ed Dankworth, R-Anchorage, said he thinks the House-Senate free conference committee that's trying to resolve the issue will accept a proposal he laid on the table Monday.

However, several House lawmakers don't like the approach, and Gov. Jay Hammond is still pushing to put the issue before voters—a suggestion labeled a "cop out" Monday by a top Exxon official.

Lawmakers are trying to devise a way to protect the state from the potential loss of several billion dollars in revenue that are at stake in a pending lawsuit filed by the three major Prudhoe Bay oil producers against Alaska's corporate oil and gas income tax.

Under Dankworth's proposal, the state would repeal the income tax law and replace it with an income tax that is figured on an apportionment formula based on the companies' federal taxable income. Dankworth's proposal also calls for the state's severance production tax to be hiked to an effective rate of 15 per cent, with some other modifications made to it.

According to Revenue Commissioner Tom Williams, the result would be an estimated loss of about \$141 million in state revenue through 1985—or an average loss of \$35 million per year. However, the annual loss would increase significantly after 1987, according to Mark Wilton, an aide to the House-Senate special oil and gas committee.

If Dankworth's proposal is adopted, it would not halt litigation over the \$1.5 billion the state already has received under the challenged income tax, which was enacted in 1978. Industry spokesmen made it clear Monday that even if the tax is repealed, they will continue to fight in court for the money already paid.

Monte Taylor, Exxon's manager of Alaska operations, called Dankworth's proposal "a grab bag of bills floating around" and said it would do "nothing to settle the lawsuit."

Taylor and other industry officials also made it clear the companies likely would file suit against the new tax, and also working on a challenge to the state's entire oil tax structure.

Meanwhile, Hammond is continuing to push for the issue to go before voters, but Taylor called that idea a "cop out."

Hammond has proposed passage of a so-called "backup" tax, which was approved by the House. The backup tax, a 25-cent tax on producing oil reserves, would take effect this year. However, the payments made under the oil income tax could be credited against the new tax, resulting in little net change in the amount the oil companies pay.

6/19/81

State oil revenue audit chiefs to resign

JUNEAU—Department of Revenue Commissioner Tom Williams announced that two department directors are resigning—Robert Johnson, director of the state's petroleum revenue division, and Gary Jenkins, chief of the audit division.

Williams said Johnson has administered the state's petroleum tax laws for nearly seven years, and has played a major role in starting programs to audit oil and gas corporate income tax collections and royalty oil receipts.

Johnson said he is leaving his two-year post with department on June 30 to practice law. Johnson, who lives in Anchorage, formerly was a state assistant attorney general.

Jenkins has directed the audit division for nearly seven years, and is leaving his post July 6 to run a private consulting firm in Juneau.

He has been responsible for the overall management of the state's individual, corporate and business tax programs. For more than two years, he also has headed the Child Support Enforcement Agency, which collects child support payments.

Williams has not named replacements to fill the jobs.

June 24, 1981

HOUSE JOURNAL

2615

House Passage Last Day of Session

FCCSSB 524 continued

FCCSSB 524 EFDS

Yeas: 23 Abood, Adams, Anderson, Barnes,
Beirne, Bettisworth, Bylama, Cato,
Chuckvuk, Cotten, Cuddy, Fanning,
Fuller, Halford, Hayes, Huribert,
Martin, Metcalfe, Montgomery,
O'Connell, Phillips, Randolph,
Sutcliffe

Nays: 14 Brown, Buchholdt, Carney, Clocksin,
Duncan, Freeman, Grussendorf, Malone,
Meekins, Miller, Moss, Rogers, Smith,
Vaaka

Not
Voting: 3 Gardiner, Haugen, Zharoff

Representative Meekins changed his vote from "yea" to "nay."

Representative Freeman changed his vote from "yea" to "nay."

Representative Carney changed his vote from "yea" to "nay."

And so, the effective date clauses were not adopted.

FCCSSB 524(efd failed H)

FCCSSB 524(efd failed H) was referred to the Chief Clerk for return to the Senate.

CSSHB 50(Fin)(efd failed)

Representative Brown withdrew his motion with regard to the adoption of FCCSHB 50 (page 2603 of the journal). There being no objection, it was so ordered.

1746

SENATE JOURNAL

June 24, 1981

Senate Passage

SB 524 cont'd

The question being: "Shall FREE CONFERENCE CS FOR SENATE BILL NO. 524 (relating to taxes; eff. date) pass the Senate?" The roll was taken with the following result:

FCCS SB 524

Yeas: 17 Bennett, Bradley, Colletta,
Dankworth, Eliason, Ferguson,
Fischer, Gilman, Hohman, Kelly,
Kerttula, Mulcahy, Ray, Rodey,
Sackett, Sturgulewski, Ziegler

Nays: 2 Parr, Stinson

Excused: 1 Fahrenkamp

Senator Kerttula changed his nay vote to yea.
Senator Rodey changed his nay vote to yea.

and so, FREE CONFERENCE CS FOR SENATE BILL NO. 524 passed the Senate.

A letter from the Governor on FREE CONFERENCE CS FOR SENATE BILL NO. 524 and a new fiscal note appear in Senate Supplement No. 65 to today's journal.

The Secretary was requested to notify the House.

SB 50

The 2d Free Conference Committee report concerning CS FOR SENATE BILL NO. 50 (L&C) and HOUSE CS FOR CS FOR SENATE BILL NO. 50 (RLS) (page 1729) was before the Senate at this time.

Senator Rodey moved that the Senate adopt the Free Conference Committee Report.

The question being: "Shall FREE CONFERENCE CS FOR SENATE BILL NO. 50 (relating to unemployment insurance; eff. date) pass the Senate?" The roll was taken with the following result:

Foes call newest oil tax 'worst appr

JUNEAU (AP)—In the waning hours of the session, lawmakers narrowly approved a major revision of state oil tax laws that opponents blasted as a "fundamental mistake" that may cost the state \$400 million per year by the end of the decade.

But the chief proponents of the legislation, Sen. Ed Dankworth, R-Anchorage and state Revenue Commissioner Tom Williams, pushed for passage, saying the bill would ease some of the risk facing the state because of a multi-billion dollar lawsuit

pending against Alaska's corporate oil and gas income tax.

Rep. Hugh Malone, D-Kenai, disagreed, saying the revised tax "will have very different effects on different companies" and will "invite further litigation." He also said it will hike natural gas prices in Anchorage and southern Alaska, resulting in an estimated \$30 to \$40 increase in the average consumer's yearly bill.

During testimony on Dankworth's bill, several oil industry officials

predicted lawsuits would be filed over the tax.

"This probably represents the worst approach to solving the problem the state faces," Malone said. "The bill passed on a 21-17 vote in the House, while the Senate ballot was 17-2."

The problem the state faces is a lawsuit filed by the major Prudhoe Bay oil producers against Alaska's corporate oil and gas income tax, which was enacted in 1978. State officials say a final decision in the case probably would come by 1985, at which time the state could be forced to repay an estimated \$7 billion if the companies prevail.

Worried about the potential risk, a House-Senate free conference committee agreed Wednesday to adopt a little-discussed bill crafted by Dankworth.

The bill calls for the challenged income tax to be repealed. It would be replaced with a new income tax that is based on a completely different approach, and brings in substantially less revenue. To help make up the revenue loss, the bill calls for the state's severance (production) tax to be raised

from 12½ per cent to 15 per cent.

Besides dealing with oil taxes, the bill calls for a tax cut for small corporations who pay state income tax.

Williams said the state would lose an estimated \$141 million in revenue through 1985 if the new tax is signed into law.

But Reps. Terry Gardiner, D-Ketchikan, and Malone, two of the Legislature's most experienced members on oil and gas issues, said the new tax would result in a revenue loss of more than \$800 million per year by the end of the decade.

Gardiner said revenue analysts project the loss in revenue during the three-year period after 1987 at about \$1.8 billion.

During testimony before the free conference committee, Williams said he could not dispute the figures, but he added that it is very difficult to project revenues that far in the future because there are so many unknown factors.

If the projected revenue loss proves true, Williams said the Legislature would have the option of hiking taxes.

Halford argued that while the "the bill doesn't settle the lawsuit, it makes

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It was a \$6.3 billion spend

JUNEAU (AP)—If the 1981 Legislature is remembered for anything, it may be for lawmakers' inability to close the gates to the gold mine.

When the chaos settled after today's early-morning adjournment rush, lawmakers had divvied up nearly \$6.3 billion—despite only having an estimated \$5.7 billion available for spending.

Veteran observers of the Legislature said the 1981 session marked the first time in state history that Alaska lawmakers have appropriated more than Revenue Department officials said was available for spending.

But lawmakers took care of the problem by voting at the last minute before adjournment to delay spending about \$600 million worth of already approved appropriations until the 1982-83 budget year.

The quick bookkeeping chore had the effect of "balancing the budget," although lawmakers essentially borrowed from the money next year's Legislature will be able to spend.

The bulk of the \$6.3 billion—which is the equivalent of \$15,500 for every Alaskan—was earmarked for one of three major purposes: to fuel the state bureaucracy, to build hundreds of capital projects such as roads, dams and harbors, and to sock away in the Permanent Fund, the state's nest egg savings account.

Here is a brief overview of the way the state's money was spent, and a summary of the major legislation passed during the record 165-day session:

• **Hydroelectric development.** Lawmakers passed a massive hydro financing plan that appropriates \$535 million for dams and other power

projects and energy programs, and lays the foundation for a \$5 billion appropriation for power projects by 1986.

• **Savings.** The Legislature, at the urging of House Democrats and Gov. Jay Hammond, voted to sock away \$1.8 billion in the Permanent Fund over the next two years. At least \$1.4 billion is to be deposited this year.

• **Capital construction.** A record capital budget of \$765 million won approval, despite objections from some lawmakers who said so many capital projects already have been funded but not yet built, that many of the projects in this year's budget won't be constructed for years.

• **Local projects.** For the first time, lawmakers approved \$405 million to be doled out in per-capita payments to local municipalities and unorganized areas. The money is to be used for capital projects, social service programs, and—in communities of less than 1,000 people—for operating costs.

• **Tax relief.** Although a \$100-million property relief plan backed by most House Democrats did not get far, the Legislature approved \$64 million in state aid to municipalities. Several communities have opted to use the money to provide property and sales tax relief.

• **Capital move.** After months of debate, opponents and supporters of the capital move struck a compromise on a bill that paves the way for another vote in 1982 on the cost of moving the capital to Willow.

• **Student loans.** College students seeking money under the state's student loan program will be able to borrow up to \$6,000 per year and \$7,000 for graduate students if Hammond signs a bill passed earlier this week.

Malone urges Hammond veto oil tax

JUNEAU (AP)—One of the Legislature's chief spokesmen on oil tax issues has written Gov. Jay Hammond urging him to veto an oil tax bill that's estimated to result in a \$2.8 billion loss of state revenue over the next 10 years.

In a strongly worded letter to Hammond, Rep. Hugh Malone, D-Kenai, said the new tax would weaken the state's legal position, would invite expanded court challenges by the oil industry and would drop the state's share of Prudhoe Bay income below 30 percent—something Hammond and legislative leaders have said they oppose.

"You find on your desk a bill drafted secretly, circulated quietly and passed with only cursory testimony before the Legislature. It is a bill that has received

scant analysis and even less debate. I strongly urge you to veto" the bill, Malone said.

The compromise bill won approval from a free conference committee and passed both chambers moments before the Legislature adjourned.

Because the bill was drafted quickly, Malone said he is concerned that the Department of Revenue's projections of financial impact were not reviewed by any independent source.

According to the Revenue Department, the new tax would result in a loss of about \$140 million to the state through 1985. But based on estimates by the department and the Legislative Finance Division, Malone said the average loss per year would exceed \$500 million by 1988, resulting in an

estimated total loss of \$2.8 billion by 1991.

The legislation essentially revamps the state's oil tax structure by increasing the severance tax to 15 percent and repealing Alaska's oil and gas corporate income tax, which was enacted in 1978 and is under legal challenge by the major Prudhoe Bay oil producers.

In place of the challenged tax, the bill calls for a new income tax that's based on a different method of calculating tax liability.

While the challenged tax would be repealed, the \$1.5 billion already collected under it would remain in jeopardy, Malone said.

"The bill will greatly weaken the state's legal position with respect to the \$1.5 billion already at risk. Although the bill includes helpful technical amendments, the proposed switch (from one kind of income tax to another) in midstream...will hardly reassure the courts of the soundness of the past three years' collections" under the challenged tax, Malone told Hammond.

7/15/81

Williams urges oil tax bill be signed

JUNEAU—Revenue Commissioner Tom Williams said Tuesday he's encouraging Gov. Jay Hammond to sign a bill revising state oil tax laws, although a consultant has told Hammond the change could mean a \$2 billion loss of state revenue over the next decade.

ALASKA STATE AFL-CIO

2501 Commercial Dr.
Anchorage, Alaska 99510
907-338-6284

819 11th Ave.
Fairbanks, Alaska 99701
907-456-2030



*separate
accounting
file*

April 4, 1986

Dear Representative,

Contrary to rumors that have been spread by the Oil Industry the latest OMB analysis states that separate accounting is the best method of taxation for the benefit of the people of Alaska, even at todays low oil prices.

Sincerely,

Mano Frey

Mano Frey
Executive President
Alaska State AFL-CIO

MEMORANDUM

Division of Strategic Planning
Office of Management and Budget
MS 0164

TO: Gordon Harrison
Associate Director

FROM: Tom Chester *TC*
Senior Economist
Gregg Erickson *GE*
Senior Economist
Richard Fineberg
Policy Analyst

SUBJECT: Revenue From Separate Accounting

You asked us to determine the changes in revenue that would result from a return to the separate accounting method of calculating corporate petroleum income taxes. Using the March 1986 mean forecast case, additional revenue for FY 86-87 would be \$483 million. At the 30 percent level the expected increase is \$359 million. If separate accounting were adopted beginning in FY 87, the gains would be \$319 million at the mean and \$62 million at the 30 percent level for FY 87-88.

We assume that separate accounting would apply to income earned after the July 1 preceding adoption. The Department of Law informally advises that this would be constitutional, but a formal legal opinion should be requested if this option is pursued.

Calculations, attached in Tables 1-4, show that under the FY 1988 30 percent case assumptions, separate accounting produces less revenue for the state when compared to the forecast of revenue under present law. This result is an artifact of the methodology DOR uses to forecast revenue under modified apportionment. Currently, DOR provides only single point estimates for the modified apportionment tax. If the wellhead price falls to \$7.75 per barrel as assumed in the 30 percent case, revenue under modified apportionment will also fall. (Projected FY 87 modified apportionment revenue fell 24 percent between the January and March forecasts, from \$236.4 million to \$180 million.)

In our opinion, separate accounting will produce more revenue than the present system within the range of prices and production levels described in the March forecast for FY 86-88. Note, however, that revenue gains will be reduced significantly if separate accounting is made effective only for years after FY '86, and if oil prices continue to be depressed.

enclosures: Tables 1-4

cc: Ray Gillespie, Chief of Staff, OOG
Jim Ayers, Legislative Assistant, OOG
Jay Hogan, Associate Director
Deborah Vogt, Assistant Attorney General

TABLE 1

REVENUE UNDER CURRENT INCOME TAX AND UNDER SEPARATE ACCOUNTING
(millions, based on March 1986 forecast)

Fiscal Year	State Tax Under Current Law*	MEAN CASE		30 PERCENT CASE	
		State Tax Under Separate Accounting†	Gain (Loss) Due To Separate Accounting	State Tax Under Separate Accounting†	Gain (Loss) Due To Separate Accounting
1986	\$200	\$469	\$269	\$469	\$269
1987	\$180	\$393	\$213	\$270	\$90
1988	\$170	\$276	\$106	\$142	(\$28)

*Official DOR March 1986 forecast value; DOR provides only single point projections for the corporate income tax.

†Tax applied to income earned after June 30, 1985.

TABLE 2
TRANS-ALASKA PIPELINE SYSTEM
ALASKA OIL AND GAS CORPORATE INCOME TAX PAYMENTS UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pipe- line Thru- put (MM/D)	Estimated Tariff (\$/B)	Total Rev- enue	Prop- erty Tax	Oper- ating Costs	Amort- ization & Depre- ciation	Uncapi- talized Interest	Net Income	In- come Tax
FISCAL YEAR									
1986	1.80	4.71	3,093	156	211	269	410	2,047	192
1987	1.80	4.56	2,995	145	232	269	382	1,967	185
1988	1.59	4.90	2,842	136	242	269	352	1,843	173

Notes:

Column 1: DOR March 1986 Revenue Forecast, memorandum from M. Nordale, March 12, 1986, Table II.

Column 2: (column 3)/(column 1)/365.

Column 3: net operating revenue requirement under TAPS settlement (projected by T. Horst, consultant to the Dept. of Law, March 24, 1986, adjusted by OMB to fiscal year basis), plus property tax and operating costs.

Columns 4-7: V. Wright, memorandum to Nordale, Oct. 31, 1985, Table 5 (FY '87-'88 property tax adjusted by OMB for effects of TAPS settlement).

Column 8: column 3-(sum of columns 4-7)

Column 9: (.094)*(column 8).

TABLE 3
PRODUCING FIELDS-MEAN CASE:
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

FISCAL YEAR	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) Revenue at Well- head	(4) State Royalty	(5) Produc- tion & Conser. Tax	(6) Prop- erty Tax	(7) Oper- ating Costs	(8) Depre- ciated Dev. Costs
1986	12.93	1.80	8,495	1,140	1,115	265	1,267	955
1987	11.65	1.80	7,654	973	986	316	1,367	1,173
1988	11.15	1.59	6,471	929	747	358	1,403	1,315
FISCAL YEAR	(9) Amort. Of Acqui. Costs	(10) Federal Wind- fall Profits Tax	(11) Interest Expense	(12) Explor- ation Expense	(13) Adminis- trative Costs	(14) Other Deduc- tions	(15) Net Alaska Produc- tion Income	(16) Alaska Produc- tion Income Tax
1986	1	40	132	221	292	124	2,944	277
1987	8	0	136	103	307	118	2,218	208
1988	25	0	139	27	322	114	1,092	103

Notes:

Columns 1-2: DOR March 1986 Revenue Forecast, memorandum from M. Nordale, March 12, 1986, Table II.

Column 3: (365 days)*(column 1)*(column 2).

Column 4: for 1986, forecast value in Nordale memorandum adjusted for perm. fund contributions (value/.75); for 1987-8, DOR, C. Logsdon, March 13, 1986.

Column 5: for 1986, forecast value in Nordale memorandum; for 1987-8, Logsdon to Chester, March 13, 1986.

Column 6-9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985.

Column 10: OMB estimates.

Column 11: Wright, op. cit.

Column 12: OMB projections, reduced from figures in Wright by 10 %, 60 %, and 90 % in 1986-8 respectively.

Columns 13-14: Wright, op. cit.

Column 15: (column 3)-(sum of columns 4-14).

Column 16: (.094)*(column 15).

TABLE 4
PRODUCING FIELDS-30 PERCENT CASE*
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

FISCAL YEAR	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) Revenue at Well- head	(4) State Royalty	(5) Produc- tion & Conser. Tax	(6) Prop- erty Tax	(7) Oper- ating Costs	(8) Depre- ciated Dev. Costs
1986	12.93	1.80	8,495	1,140	1,115	265	1,267	955
1987	9.02	1.80	5,926	799	771	316	1,367	1,173
1988	7.75	1.59	4,498	620	534	358	1,403	1,315
FISCAL YEAR	(9) Amort. Of Acqui. Costs	(10) Federal Wind- fall Profits Tax	(11) Interest Expense	(12) Explor- ation Expense	(13) Adminis- trative Costs	(14) Other Deduc- tions	(15) Net Alaska Produc- tion Income	(16) Alaska Produc- tion Income Tax
1986	1	40	132	221	292	124	2,944	277
1987	8	0	136	26	307	118	906	85
1988	25	0	139	0	322	114	(332)	(31)

*Mean case for fiscal 1986.

Notes:

Columns 1-2: DOR March 1986 Revenue Forecast, memorandum from M. Nordale, March 12, 1986, Table II.

Column 3: (365 days)*(column 1)*(column 2).

Column 4: for 1986, forecast value in Nordale memorandum adjusted for perm. fund contributions (value/.75); for 1987-8, DOR, C. Logsdon, March 13, 1986.

Column 5: for 1986, forecast value in Nordale memorandum; for 1987-8, Logsdon to Chester, March 13, 1986.

Column 6-9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985.

Column 10: OMB estimates.

Column 11: Wright, op. cit.

Column 12: OMB projections, reduced from figures in Wright by 10 %, 90 %, and 100 % in 1986-8 respectively

Columns 13-14: Wright, op. cit.

Column 15: (column 3)-(sum of columns 4-14).

Column 16: (.094)*(column 15).

OIL TAXES

The battle of separate accounting may be over for 1986, but the war has only begun

BY CHUCK KLEESCHULTE

THE BATTLE OVER raising oil taxes this year was over long before the first shot was fired.

Last summer it appeared a major issue when lawmakers convened in Juneau this year would be a move to change the state's corporate oil and gas tax, shifting back to a system that had been in effect as recently as 1981. But even before the gavel came down on the final session of the 14th Alaska Legislature in 1985, it was crystal clear the oil industry had secured more than enough support to make a tax change impossible in this election year.

"It might make sense to change tax structures, but politically any bill to do so is dead. It doesn't have a chance in hell of being approved this year," says Rep. Al Adams, D-Kotzebue, chairman of the House Finance Committee and a leading proponent of separate accounting.

At issue is whether Alaska should return to its controversial petroleum tax law first approved in 1978 but repealed three years later out of fear it would be overturned by the U.S. Supreme Court. That tax, upheld by the high court earlier this year, could have forced the state to repay more than \$1.82 billion in back taxes to the oil companies had the U.S. Supreme Court ruling gone the other way.

Repeal of the act in 1981 did end the state's liability for repaying an additional \$6.5 billion to \$8 billion the tax might have earned Alaska before its constitutionality was determined by the federal court.



Adams: Tax change might make sense

The repeal and a hike in state severance taxes to offset the loss were expected to cost the state \$140 million in its first three years. Instead, because of miscalculations and the drop in world oil prices, state revenues through mid-1985 fell by about \$400 million, according to a Department of Revenue study completed in November.

The revenue drop, paired with the new Supreme Court decision, has prompted many lawmakers, especially in the House, to push for reinstitution of the old tax.

Before 1978, Alaska used the traditional method of taxing oil company profits, the so-called apportionment method. Under that system the state considered a company's worldwide earnings and figured its Alaska tax as a portion of the whole.

Legislators, however, decided since refining and marketing are much less profitable than production, the state's share of oil company profits should be based on the value of oil produced from the state. The concept created a system requiring so-called separate accounting.

In 1980 the U.S. Supreme Court in cases involving Wisconsin and Vermont rendered decisions that some

Duncan: New system result of 'bad information'



legal experts said implied the court would not favor separate accounting. Facing suit by the oil companies, lawmakers curbed their outstanding liability by repealing separate accounting and hiking the state's severance tax to 15 from 12-1/4 percent to make up most of the expected loss.

In 1984, however, the U.S. Supreme Court shifted directions, and in a California case sent out new signals implying greater latitude by states to use either tax system.

"The case was not right on point, but it was extremely useful to our legal position," says state Assistant Attorney General Deborah Vogt.

Last summer the Alaska Supreme Court, picking up on the new high court direction, upheld the constitutionality of the state act, directing the case toward the U.S. Supreme Court and giving additional momentum to lawmakers to return to separate accounting.

"I think there is a general view that we acted upon bad information when we repealed the old tax in 1981," says Rep. Jim Duncan, D-Juneau, a member of the House Finance Committee and a lawmaker leaning toward return to the old law.

Duncan says lawmakers were given faulty estimates of how much the new tax would cost the state and also



Gov. Bill Sheffield is applauded following a 1985 address to the Alaska Legislature. Legislators are (left to right) Sen. Bill Ray, D-Juneau; Sen. Arliss Sturgulewski, R-Anchorage; Senate President Don Bennett, R-Fairbanks; Rep. Sam Cotten, D-Eagle River; House Speaker Ben Grussendorf, D-Sitka, and Senate Majority Leader Rick Haford, R-Chugiak.

inaccurate legal assessments of the chances of the state losing in future court cases.

Rep. Sam Cotten, D-Eagle River, the leading proponent of a return to the old tax, argues it is a better way for Alaska to get its "fair share" of the value of the oil owned by the state at Prudhoe Bay.

"Modified apportionment dilutes the companies' Alaska profitability because it gives the state a percentage of a company's worldwide income. If a company has a loss abroad, that loss is reflected in Alaska's tax share regardless of how profitable the company's in-state operations are," Cotten maintains.

Alaska Public Interest Research Group last summer said a study of the industry showed the state's share of total oil income fell 2 percent to 27 percent after the tax change, to \$3.3 billion from \$4.5 billion. The group also argues the oil industry is still so profitable in Alaska that a change in taxation will not discourage investment here.

MAJOR OIL COMPANIES, HOWEVER, have strongly objected to a return to separate accounting. They argue that the state's income is down not because of faulty tax estimates, but simply because no one predicted in 1981 that world oil prices would stop rising, much less plummet.

The industry argues the tax change is a tax hike—one coming at exactly the worst time, a time when prices and profits are down and investment capital for new Alaska exploration and development is becoming increasingly scarce.

Harold Heinze, president of ARCO Alaska, says a tax hike will dampen chances for massive new investment in Alaska, investment needed to tap oil from marginal North Slope fields like the West Sak Sands.

"Expensive long-term Alaskan projects must compete for increasingly limited capital with shorter-term, less costly projects elsewhere in the world. In the time of uncertainty over oil prices, to add the additional uncertainty of increased taxation (is a mistake)," Heinze said in House testimony last year.

"This state should have a stable tax policy," adds Mike Abbott, special projects coordinator for the Resource Development Council in Anchorage. "We have seen a massive influx of oil-related capital over the past three years. To throw a monkey wrench into the issue now doesn't make sense."

Cotten, however, argues that after separate accounting went into effect in 1978 the oil industry continued to do well here. Citing ARCO Alaska annual reports, he says the industry made the decision to proceed with development of the smaller Kuparuk oilfield despite separate accounting.

"Some oil companies would like us to believe they make their investment decisions based on taxes alone and that any tax changes will discourage exploration and development. Any businessman knows that is but one of a whole range of factors; the main issue is the rate of return," he says.

"What will have an adverse effect on exploration and development of marginal fields is falling oil prices, and unfortunately, neither the state nor Alaska producers have

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control over the price of oil."

He also argues that a return to the old tax would actually help the oil industry to invest in marginal fields since the new bill would roll back severance taxes and prevent the imposition of taxes on the less-profitable marginal fields until they are producing.

ADAMS ALSO DISMISSES industry arguments that changing taxes will harm the stability of the state's tax structure and thus drive off investment. "We've changed taxes nine times on the industry since statehood. Back in 1978 we thought we were creating the tax structure that would be the stable tax structure for decades--the tax to end all changes. But the industry didn't mind when we changed the rates in 1981," Adams says.

Regardless of the rhetoric, all sides agree the tax change never really had a chance this session.

The administration of Democratic Gov. Bill Sheffield, reading the handwriting early, sent out signals that Sheffield had no plans to support or push for the change.

The governor's reluctance may have been heightened in November when the Revenue Department released a new study saying that a change back to separate accounting over the next 20 years might actually cost the state long-term revenues. While separate accounting would earn the state more money over the next several years as the productivity of North Slope wells remains high, the study says, a "cross-over point" would be achieved in the mid-1990s when the present tax would earn the state more money from declining production.

Sheffield, a likely candidate for a second term, also may have read the public's pulse—one all legislative observers believe is strongly supportive of oil industry arguments against tax hikes on the industry that is accounting for more than 80 percent of the state's revenues.

Supporters of separate accounting tried hard to paint the tax change not as a hike, but as a return to original state policy. "I don't consider this a tax increase, not unless you consider the 1981 bill a tax decrease," Duncan said last year.

The oil industry, however, through testimony, company statements, television commercials and assistance from support industries, was quick to paint the tax change as a hike. And by

opinion polls, their view was the one that colored the electorate's attitudes.

According to a Louis Harris & Associates and Dittman Research poll taken in November on behalf of the Alaska Oil & Gas Association, nearly 70 percent of Alaskans prefer a cut in state spending to raising taxes to offset the state's revenue decline.

Nearly 75 percent said natural resource development is the key to state economic growth—a finding the industry used to suggest the electorate would not look favorably on lawmakers who discouraged oil industry growth by backing higher taxes.

The success of the industry's counterattack was not lost on lawmakers. House Speaker Ben Grussendorf, D-Sitka, days before the session started, confirmed that even in the House chances for passage of the bill were nil. And Sen. Frank Ferguson, D-Kotzebue, one senator who traditionally might have supported the hike, pre-filed legislation in January proposing a long-range study of state taxation policy, saying lawmakers would never pass any kind of tax hike in the election year.

DUE TO A DELIBERATE quirk in the proposed tax change, the state would have gained an immediate \$200 million to \$300 million windfall since the effective date for cutting the severance tax was delayed into next year to allow the state to recoup some of its recent losses. Even the possibility of extra revenue that could have gone toward capital projects in an election year hasn't helped supporters garner legislative support.

The oil industry looks like it has little to fear in the way of higher taxes from this session. It will hear much from legislators posturing to pressure the industry to settle up on a multimillion-dollar back tax bill, though ARCO Alaska may have defused some of the rhetoric by settling its portion of the bill with a payment of \$243 million on the eve of the opening of the session. "The real push this year is going to come in attempting to collect those back taxes," vows Duncan.

Adams says lawmakers who favor separate accounting should spend the year attempting to "educate the public" on the fairness and the need for the state to return to the old tax. So the issue is not dead, especially when next year's revenue estimates presently are much worse than even this year's gloomy predictions. □

MEMORANDUM

*Division of Strategic Planning
Office of Management and Budget
MS 0164*

TO: Vince Wright
Chief, Research Section
Dept. of Revenue

DATE: 14 Oct. 1986

FROM: Gregg Erickson
Senior Economist

SUBJECT: Separate Accounting Update

As you know, FCCSSB 524 (Chapter 116 SLA 1981) amended the Oil and Gas Corporate Income Tax (AS 43.21), and made other changes to Alaska's oil tax structure. As long as you are updating your October 31, 1985 memorandum on the fiscal effects of this legislation you might want to note that AS 43.21 as it existed before passage of FCCSSB 524 did not allow the deduction of federal windfall profits taxes imposed under section 4986 of the U.S. Internal Revenue Code. The 1981 legislation changed the law by allowing the deduction of such payments. (See *Sec. 7, on p. 11 of the bill, attached.) These deductions were allowed prospectively and retroactively (*Sec. 20, on p. 20.), but calculation of the post-1981 fiscal effects of ch. 116 should reflect the fact that if the Act had not passed, the deduction would not have been allowed.

Section 4986 taxes are no longer being collected on Alaska production, so the above point is academic as far as current calculations are concerned. On the other hand, should you reissue or update the historical data for 1981-1986, the "Pre-SB 524" column in Table 1 and the calculations in the associated tables will require correction to reflect that the pre-FCCSSB 524 regime did not allow the windfall deduction. In addition, the text of the October 31 memorandum would need to be revised on pages 5, 11, and 22.

Enclosure: FCCSSB 524

EXXON COMPANY, U.S.A.

P.O. BOX 196601 • ANCHORAGE, ALASKA 99519-6601 • (907) 564-3770

ALASKA OPERATIONS
WESTERN DIVISION

LARRY M. SMEDLEY
AREA MANAGER

April 7, 1986

Representative John Sund
Pouch V (MS3100)
Juneau, Alaska 99811

Dear Representative Sund:

Exxon is currently running a series of advertisements in newspapers throughout the state to explain the oil and gas tax issue. We are trying to present the information in a factual, non-threatening manner with emphasis on the need for cooperation between the state and the oil industry. Attached for your reference is a copy of the entire ad series.

You will notice the ads emphasize the need for stable tax policy to encourage additional investment. It would be helpful for our elected officials to state their belief in such a policy.

We hope you will find this information useful. Please call if you have any questions regarding the ads.

Sincerely,



LMS1/3831:dag
Enclosure

Straight Talk:

As oil prices fall, Alaska and its oil industry share some tough problems. Exxon has prepared a series of messages to discuss how increased oil taxes will affect us both.

Understanding is Everything

Exxon has been an Alaskan company for 32 years. The first 23 were spent exploring and then preparing to bring what we found to market. We spent 3 billion dollars before receiving a single dollar of income from Alaskan discoveries.

Since North Slope production began in 1977, Exxon has invested an additional 4 billion dollars to increase recovery from existing fields, develop other reserves and explore for more oil and gas onshore and offshore. Exxon is committed to Alaska.

Almost 90 percent of the State's current income is derived from oil. Like Exxon, Alaska is very dependent on oil. Our fates, in many ways, are tied together.

Over the next few weeks a critical issue affecting our industry and Alaska needs to be discussed. The issue centers on increased State taxation for Alaskan oil companies. We know this is a difficult and controversial subject.

Each of this series of newspaper messages will focus on a specific aspect of the oil tax issue. We hope you'll stay with us over the series. The more we understand each other, the better chance we have of working together to solve our common problems.



Straight Talk:

First in a Series

New legislation would increase taxes on Alaska's oil industry. A short-term benefit for the State . . . but we all lose in the long run.

Alaska Is An Oil State

Since the discovery of North Slope oil, Alaska has been the fastest growing state in the nation. Change has come rapidly. Many find it difficult to think in terms of Alaska being an "oil state." However, it is . . . because almost 90 percent of the State's revenue comes from oil.

Oil has always been Exxon's business. Today, the State of Alaska is in the same business. For the foreseeable future, Alaska and the oil industry must face the uncertainties of the business together.

Alaska is now among the top 3 oil producing states in the nation. It has the greatest potential for future growth. Unfortunately, Alaska also has the highest oil taxes of any major producing state.

Proposed legislation would raise Alaska's oil taxes even higher. Additional taxes would reduce future oil and gas investments and cost Alaska both jobs and income.

We would all lose in the long run.



Straight Talk:

Second in a Series

Profits for Tomorrow



Future investments depend upon today's profits.

Exxon invested more than 3 billion dollars in Alaska before receiving any income from oil discoveries. These dollars invested in Alaska came from our earnings outside Alaska.

Although we are a major owner in the Prudhoe Bay field and the developing Endicott and Lisburne projects, Exxon has invested more exploring and developing in Alaska than we have made in profits to date from these efforts.

We expect long-term earnings to justify the commitments we have made. However, many exploration efforts do not pay back the investments.

To support the continued search for new oil reserves and the development of existing fields for maximum recovery, it is necessary for companies like Exxon to earn reasonable profits from the fields which are producing.

Increased oil taxes would reduce the earnings available for future investments.

A stable tax policy will encourage the investments required for developing additional resources in Alaska.

Straight Talk:

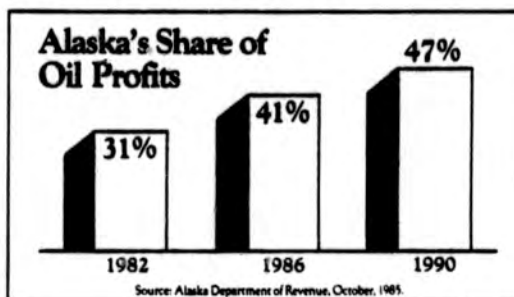
Third in a Series

How Much is Enough?

The State's share of oil profits is increasing under existing tax laws.

When Alaska's oil tax law was last changed, the State's share of oil production profits was approximately 30 percent with the Federal government receiving about half the remainder. At that time, State officials indicated that 30 percent was a fair share for Alaska.

Department of Revenue studies show that the State's share has now grown to 41 percent and under existing laws will increase to 47 percent by 1990.



Some have suggested that pipeline income should be combined with production income to determine the State's share. Because royalty and severance taxes do not apply to pipelines, the 30 percent yardstick would not be appropriate. Even under this new method, however, the State's share is growing.

Proposed legislation to raise oil taxes would further increase the State's share. However, additional taxes would result in less future investments, thereby reducing total income for both the State and the oil industry.

Stable tax policy will encourage development and benefit all Alaskans.

EXXON

Straight Talk:

Fourth in a Series

Marginal Fields, Marginal Projects



Stable tax policy helps marginal fields and projects.

Much of Alaska's future oil development will depend upon production from smaller fields and new recovery techniques applied to existing fields.

Many of the smaller oilfields currently being evaluated on the North Slope are faced with high costs and economics that are at best barely profitable. These are known as marginal fields.

Similarly, new techniques which can recover additional oil from existing fields are also being evaluated. Like the smaller oilfields, the economics of these projects are often marginal.

At Prudhoe Bay alone, more than 10 billion barrels of oil will be left unless future marginal projects can recover additional oil.

Stable oil taxes are needed to encourage development of the marginal fields and marginal projects which are so important to Alaska's future.

Straight Talk:

Fifth in a Series

Oil is a Long-Term Business

Stable tax policy encourages development.

Oil development in Alaska takes a long time. Ten years or more may be required from the time leases are purchased until oil production can be started—assuming a discovery is made. Another 20 or more years will likely be required to fully develop and produce the field.



Exploration and development decisions are based upon projections of economics many years into the future. In these decisions, we face risks and uncertainties such as future oil prices and future tax policy.

Since the discovery of oil at Prudhoe Bay, Alaska has changed its oil tax laws more than a dozen times. Continually changing tax laws increases uncertainty and adds risk to long-term investment decisions. This can tip the scales against some marginal projects.

Since 1982, Alaska's tax laws haven't changed. Maintaining a stable tax policy encourages additional investment and resource development in Alaska.



TABLE 1

REVENUE UNDER CURRENT INCOME TAX AND UNDER SEPARATE ACCOUNTING
(millions, based on Sept 1986 forecast)

Fiscal Year	State Tax Under Current Law*	MEAN CASE		30 PERCENT CASE	
		State Tax Under Separate Accounting**	Gain (Loss) Due To Separate Accounting	State Tax Under Separate Accounting†	Gain (Loss) Due To Separate Accounting
1987	\$130	\$261	\$131	\$214	\$84
1988	\$110	\$310	\$200	\$222	\$112

*Official DOR Sept. 1986 forecast value; DOR provides only single point projections for the corporate income tax.

**From Tables 2 & 3.

†From Tables 2 & 4.

DRAFT-Division of Strategic Planning, OMB, 11/2/86.

ALT
COST FIENDS

IN THE
Supreme Court of the United States

October Term, 1985

ATLANTIC RICHFIELD COMPANY; ARCO PIPE LINE COMPANY; EXXON CORPORATION; EXXON PIPELINE COMPANY; BP ALASKA, INC.; SOHIO ALASKA PETROLEUM COMPANY; and SOHIO PIPE LINE COMPANY,

Appellants,

VS.

STATE OF ALASKA, *et al.*,

Appellees.

On Appeal From the Supreme Court of Alaska

JURISDICTIONAL STATEMENT

WILLIAM B. ROZELL
JOHN F. CLOUGH, III
FAULKNER, BANFIELD,
DOOGAN & HOLMES
302 Gold Street
Juneau, Alaska 99801

and

J. W. BULLION
RALPH I. MILLER
THOMPSON & KNIGHT
3300 First City Center
Dallas, Texas 75201

*Counsel for Appellants Atlantic
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QUESTIONS PRESENTED

1. In light of this Court's decision in *Exxon v. Wisconsin*, 447 U.S. 207 (1980), that separate accounting may not be used to assign the production income of a unitary oil business to the state of production, but that such income is properly subject to apportionment among all states where the unitary business operates, may Alaska attribute all of such production income to itself without violating the Commerce and Due Process Clauses?

2. In light of *J.D. Adams Mfg. Co. v. Storen*, 304 U.S. 307 (1938), *Evco v. Jones*, 409 U.S. 91 (1972), and other decisions of this Court holding that a state may not, without apportionment, levy a tax on 100% of the income resulting from interstate sales, do the Commerce and Due Process Clauses permit Alaska to attribute to itself for taxation, without apportionment, 100% of the income appellants earn by selling crude oil from Alaska in other states?

3. In light of this Court's decisions in *Hans Rees' Sons, Inc. v. North Carolina*, 283 U.S. 123 (1931), and later cases that a state may not tax income out of all appropriate proportion to the business transacted in the state, did the Alaska court err in ignoring appellants' evidence of disproportionate taxation, including a showing that appellants were overtaxed in amounts ranging from 279% to 804%?

4. Is the Oil Tax permissible in light of this Court's decision in *Moorman Mfg. Co. v. Bair*, 437 U.S. 267 (1978), given that the Oil Tax produces multiple taxation and that the multiple taxation is the constitutional fault of Alaska because: (a) the Oil Tax is unapportioned; (b) the Oil Tax is tailored to interstate commerce; and (c) Alaska's taxes fail the constitutional requirement of internal consistency?

5. Is the measure of Alaska's Oil Tax reasonably related to a taxpayer's contacts with the state, as required by this Court's decision in *Commonwealth Edison Co. v. Montana*, 453 U.S. 609 (1981), where the tax is measured by income,

but the amount of tax does not vary as income-earning activities are shifted into or out of Alaska?

6. Does Alaska's Oil Tax discriminate against interstate commerce by conferring a direct commercial advantage on residents of Alaska, or deprive appellants of the equal protection of the laws, because the Oil Tax (a) enables Alaska to collect 95% of its revenues from one interstate business while freeing Alaska's citizens from any direct monetary contribution to their government; (b) gives Alaska firms a continuing tax advantage over non-Alaska firms; and (c) artificially channels oil exploration into Alaska by imposing a tax penalty on firms that choose to drill in other states?

PARTIES

The Alaska Department of Revenue, the Alaska Commissioner of Revenue, and the Alaska Commissioner of Administration were parties in the court below. A list of appellants' subsidiaries and affiliates is given in the Appendix.

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In the
Supreme Court of the United States

October Term, 1985

ATLANTIC RICHFIELD COMPANY, *et al.*,

Appellants,

VS.

STATE OF ALASKA, *et al.*,

Appellees.

On Appeal From the Supreme Court of Alaska

This appeal is from the final judgment of the Supreme Court of Alaska, dated August 16, 1985, upholding Alaska's Oil & Gas Corporate Income Tax, AS 43.21 ("the Oil Tax"), as against appellants' claims that as applied to them the Oil Tax is (1) repugnant to the Commerce Clause of the United States Constitution, and (2) deprives them of due process of law and of the equal protection of the laws.

OPINIONS BELOW

The opinion of the Supreme Court of Alaska, App. 2a, is reported at 705 P.2d 418 (1985). The opinion of the Alaska Superior Court is not reported. App. 45a.

JURISDICTION

The final judgment of the Supreme Court of Alaska, rejecting appellants' claims that the Oil Tax was unconstitutional, was entered on August 16, 1985. App. 2a. Notice of Appeal to this Court was duly filed in the Supreme Court of Alaska on November 6, 1985. App. 49a. This appeal is being docketed within 90 days from the entry of judgment below. Jurisdiction of this Court rests on 28 U.S.C. § 1257(2).

CONSTITUTIONAL AND STATUTORY PROVISIONS

U.S. Const., Art. I, § 8, cl. 3:

"The Congress shall have Power . . . to regulate Commerce . . . among the several States . . ."

U.S. Const., Amend. XIV, § 1:

"nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."

Oil & Gas Corporate Income Tax Act, AS 43.21:

The text of the Oil Tax is set forth in the Appendix, together with the relevant Regulations (15 AAC 21).

STATEMENT OF THE CASE

Appellants are the principal owners of the Prudhoe Bay oil field on the North Slope of Alaska, and of the Trans Alaska Pipeline. Oil was first discovered at Prudhoe Bay in 1968. From 1968 to 1978, appellants spent in excess of \$15 billion to build the pipeline and develop the oil field. R. 13369, 14163-64.*

While appellants were incurring these huge expenses in Alaska, and before any oil flowed from the North Slope, Alaska taxed the income of all corporations, including appellants, by the method used by most states — three-factor apportionment. R. 12844-88; 13749-53. The effect of Alaska's pre-1978 apportioned tax system was to attribute substantial profits to Alaska for taxation, although any focus on appellants' activities in Alaska alone would have shown

*The facts in this section are taken from the more than 4000 pages of affidavits and exhibits appellants filed in the Alaska Superior Court. Since this is an appeal from the grant of summary judgment, the facts set out in those affidavits must be taken as true under Alaskan (as under federal) law. *Braund, Inc. v. White*, 486 P.2d 50, 54 (Alaska 1971).

Emphasis is supplied throughout except where otherwise indicated. The operation of the Oil Tax is generally described in the present tense although, as discussed *infra*, it was repealed in 1981.

heavy losses. R. 253, 292, 12697. Throughout the period when apportionment worked to Alaska's advantage, Alaska insisted on taxing oil companies by apportionment. *State v. Amoco Production Co.*, 676 P.2d 595 (Alaska 1984).

Things changed in 1977 when oil began to flow from the North Slope and through the Trans Alaska Pipeline. Effective January 1, 1978, Alaska enacted Alaska Statute ("AS") 43.21, the Oil and Gas Corporate Income Tax ("the Oil Tax"), and changed its tax system as applied to appellants. Unsurprisingly, the new system produced vastly larger revenues for Alaska than would have been generated by the pre-1978 system of taxation by apportionment.

During the four years in issue here (1978-81), the Oil Tax resulted in payments to Alaska by these taxpayers of approximately \$2 billion. R. 16153. By 1981, 95% of Alaska's revenues came from the oil industry, and 83% from these taxpayers *alone*.¹ Passage of the Oil Tax allowed Alaska to repeal its personal income tax, repeal its school tax, repeal its gross receipts tax, reduce the tax rates on local businesses, and adopt a program to pay each resident a cash dividend every year, starting at \$1,000 per person. R. 12919. As Alaska noted in its 1981 Financial Report, "the citizens of Alaska no longer make a direct monetary contribution to the cost of state government." R. 13126.

The Oil Tax has three main features.

First, the Oil Tax attributes to Alaska 100% of appellants' interstate *production income*. AS 43.21.020. This is the net income appellants earn by selling, in the Lower 48 states, crude oil that comes from Alaskan wells. The catch is that appellants' income from selling that oil is also subject to tax, and is taxed, in the Lower 48 states as well. R. 13448-49,

¹App. 182a. When it enacted the Oil Tax, Alaska projected that in 20 years its oil taxes would result in a state surplus, over and above all projected expenditures, of \$184 billion — a jackpot of \$450,000 each for every man, woman, and child in Alaska. Alaska Executive Budget (Operating), FY 1981, at 14, Col. 7, line 20. Amassing that sum would have involved a transfer of wealth from the Lower 48 to Alaska equal to \$1,000 for every American. The truly remarkable fiscal and economic consequences of Alaska's overreaching oil tax policy are described in detail in the Mieszkowski Affidavit, App. 172a.

13744, 14247-48. Alaska's attribution of 100% of that income to itself thus inevitably produces double taxation.

Second, the Oil Tax attributes to Alaska 100% of appellants' *pipeline income*. AS 43.21.030. This is the net income appellants' earn from pipeline transportation of Alaskan oil. The Oil Tax also results in double taxation of pipeline income, since appellants are unitary businesses and pipeline income is subject to tax, and is taxed, in the Lower 48 states as well as in Alaska.²

Third, in contrast to its treatment of production and pipeline income, the Oil Tax retains three-factor apportionment in order to attribute to Alaska a share of all of appellants' *other income*. AS 43.21.040. This income is primarily from refining and marketing operations. Since appellants have neither refineries nor retail gas stations in Alaska, this branch of the Oil Tax snares for Alaska taxation profits that have no connection to Alaska other than the fact that appellants are unitary businesses.

The production and pipeline income that Alaska taxes is the result of activities in all states, not only Alaska. Approximately 90% of the crude oil from Alaskan wells is sold, not in Alaska, but in the Lower 48. App. 294a, 335a; R. 13225, 13414, 12692-93. The capital to develop the Prudhoe Bay field and build the pipeline came almost exclusively from outside Alaska. R. 13369-75, 13670-75, 14164-70. The technology that made possible production of oil under Arctic conditions was developed outside Alaska. R. 13559-67. Operation and management of the Prudhoe Bay oilfield and the pipeline is the responsibility of thousands of appellants' employees, some of whom are located in Alaska but many more of whom work in California, Ohio, Texas, and elsewhere. R. 13219-14202; see App. 291a-367a. The record includes an estimate that no less than 80% of the expenses

²Since the issues as to pipeline income are generally similar to those affecting production income, for convenience this Jurisdictional Statement analyses the issues in terms of production income. See App. 6a.

necessary to earn production income from Alaskan oil were incurred *outside* Alaska. App. 285a.

Despite the out-of-state contributions that make possible the earning of production income, the philosophy of the Oil Tax is to attribute to Alaska all production income appellants earn by selling crude oil from Alaskan wells. The Oil Tax does this by defining "net production income" as equal to the sales price of crude oil at the refinery inlet in the Lower 48, less the costs of extracting that oil and the costs of shipping it from the North Slope to the point of sale.³ All net production income is attributed to Alaska by the Oil Tax. App. 5a-6a. The Oil Tax makes no effort to ascertain what part of that net production income is attributable to the contributions of Alaska, as the state of origin, and what

³The Regulations take a fairly circuitous route to accomplish this result. "Taxable production income" is defined as "gross production revenue" less "deductions under 15 AAC 21.200-15 AAC 21.290." 15 AAC 21.100. "Gross production revenue," in turn, is defined as "value at the point of production" of the oil produced, 15 AAC 21.110, and "value at the point of production," in turn, is defined as the "sales price" less "reasonable costs of transportation" from the "point of production to [the] sales delivery point." 15 AAC 21.120.

"Sales price" is defined in 15 AAC 21.122. In general, the sales price is the "cash value of the full consideration being given in receipt for that oil." 15 AAC 21.122(a). If the oil is sold to an affiliate of the taxpayer, or if it is transferred from one division to another, the transfer price shown on the taxpayer's books is treated as the sales price. 15 AAC 21.122(b), (c). (Since the Oil Tax treats as sales transfers of oil from one division of a taxpayer to another, such transfers are included as "sales" herein.) From the sale price of the oil, "reasonable costs of transportation" are deducted in order to arrive at gross production revenue. 15 AAC 21.110, 21.120. Transportation costs are to be calculated "from the point of production to the sales delivery point." 15 AAC 21.130(a). The Oil Tax also permits deduction of certain other costs from gross production revenue in arriving at net production revenue. 15 AAC 21.200.

It is of interest to notice that although the term "value at the point of production" is used in the Oil Tax Act and the Regulations, in the practical operation of the Oil Tax it represents (as the Alaska Court conceded, App. 6a) nothing more than the mathematical result of subtracting transportation costs from the Lower 48 sales price. 15 AAC 21.120. The record shows without dispute that there is not a market for crude oil on the North Slope, and therefore that there can be no market price at the wellhead. App. 264a-265a, 308a. "Value at the point of production" is thus merely a construct. It has no role to play in the statutory scheme except to obscure momentarily the fact that Alaska's calculation of "taxable production income" actually begins with the price for which the crude oil is sold in the Lower 48.

part is attributable to the contributions of the states of sale and of the other states where the activities took place that made possible the extraction of Prudhoe Bay oil. The Oil Tax makes no effort to divide net production income among those states; it asserts that *all* of it belongs to Alaska.⁴

In this context it is important to notice that the deductions allowed by the Oil Tax are deductions only for *costs*. Despite the suggestion to the contrary in the opinion of the Alaska court, App. 10a-11a, this does not mean that the tax is in any way apportioned. It means only that the Oil Tax is a tax on net income, not on gross receipts. *By definition*, a net income tax allows deductions for costs; the relevant point is that the Oil Tax makes no effective allowance for the fact that some of the profits — i.e., the *net* income — it taxes are earned outside Alaska. Whether profits from the production and sale of crude oil originating in Alaska are earned inside Alaska or outside, they are treated as “Alaska” income and attributed 100% to Alaska.⁵

⁴Because appellants, as the Alaska court found, App. 15a, are functionally integrated unitary businesses, it is difficult or impossible to measure with confidence the exact contributions of the various states. That is why apportionment formulas are used to tax unitary business income. See, e.g., *Mobil v. Vermont*, 445 U.S. 425, 438 (1980); *F. W. Woolworth Co. v. Taxation and Revenue Dept.*, 458 U.S. 354, 364 (1982). The record, however, includes a number of dramatic examples of how the Oil Tax has attributed to Alaska substantial income that manifestly was earned outside the state. For example, Sohio's marketing department, operating from Cleveland, was able to secure a Virgin Islands refiner as a customer for millions of barrels of Alaskan oil. Because the Jones Act does not apply to shipments to the Virgin Islands, Sohio's transportation costs for this oil were \$2 per barrel less than if the oil had been shipped by American flag tanker; Sohio's income was correspondingly greater. R. 13417-18. This additional \$2 per barrel has absolutely nothing to do with Alaska, but the Oil Tax attributes 100% of it to Alaska. Or again, Arco, operating from California and Texas, carried out a project to reverse the so-called “Line 90” pipeline that had been built to carry oil from New Mexico to California, thus reducing the cost of transporting Alaska crude to refineries in the mid-continent states. This decrease in Arco's cost of transportation was made possible solely by a pipeline in the Southwestern Desert. Yet the Oil Tax treats that decrease as income and allocates every penny of the additional profit to Alaska. R. 13075, 13637-38.

⁵To this rule there is only one exception, and it is apparent rather than real. In 1982, the Department of Revenue issued a regulation that pretended to allow deduction of profits on overhead. The regulation, however, was designed so no taxpayer could take advantage of it. See pp. 16-17, *infra*.

The Oil Tax was in effect for only four years. Following the institution of this litigation, and based on the legal advice it was given, the Alaska Legislature recognized that appellants' challenges to the Oil Tax were substantial. R. 10539-40. In 1981, accordingly, it repealed the Oil Tax and replaced it with a modified apportionment formula. 1981 SLA Ch. 116. Despite the repeal, the Legislature is actively considering a bill to reimpose the tax, or something very similar, if it is not ruled unconstitutional. House Bill 353.

HOW THE FEDERAL QUESTIONS WERE RAISED

Appellants raised each of the questions presented (except Question 6(c)) in their amended complaints and counterclaim, R. 241, 273, 12690,⁶ in their memoranda in opposition to Alaska's successful motion for summary judgment, R. 12718-839, 17150-70, and at pages 19-76 of their brief in the Alaska Supreme Court. Question 6(c) was raised at pages 59-62 of appellants' Reply Brief in the Alaska Supreme Court, filed July 13, 1984. It could not have been raised earlier, because it depends on an interpretation of Alaska law first announced by the Department of Revenue on April 27, 1984. App. 420a-421a.

THE QUESTIONS ARE SUBSTANTIAL

This case involves Alaska's attempt to arrogate to itself *all* the net income that results when crude oil from Alaskan wells is sold in the Lower 48 states, even though that income results entirely from interstate sales and is subject to tax, and is taxed, by many states besides Alaska. Although Alaska concedes that appellants are unitary businesses, App. 15a, R. 14836, Alaska has abandoned the method — apportionment — that virtually all states use to tax unitary businesses, R. 13213, and has adopted a tax system tailored

⁶This litigation was commenced on March 22, 1979 by the filing of a complaint by Arco and Sohio challenging the Oil Tax on the grounds that it was repugnant to the Commerce, Due Process, Equal Protection, and Contract Clauses. R. 196. Alaska later sued Exxon, praying for a declaration that the Oil Tax was constitutional. R. 1. In 1980, the cases were consolidated, Arco and Sohio filed amended complaints, and Exxon filed a counterclaim. R. 241, 273, 12690.

to maximize revenue from Alaska's principal export, and to enrich Alaska at the expense of the rest of the country.

The legal questions presented in this case are undoubtedly substantial. The Oil Tax violates each of the tests this Court has set forth to detect impermissible overreaching by a state: it is unapportioned; it causes multiple taxation; it discriminates against interstate commerce; it taxes extraterritorially; and it is internally inconsistent. The judgment below is inconsistent with *Exxon v. Wisconsin*, 447 U.S. 207 (1980), *Mobil v. Vermont*, 445 U.S. 425 (1980), *Japan Line, Ltd. v. County of Los Angeles*, 441 U.S. 434 (1979), and *J.D. Adams Mfg. Co. v. Storen*, 304 U.S. 307 (1938). It is also contrary to principles to which this Court has adhered for eighty years which forbid unapportioned taxes and prevent multiple taxation of interstate commerce.

The questions in this case are also of great public importance because they involve the constitutional limits on Alaska's taxation of income earned from crude oil produced on the North Slope of Alaska. That oil, this Court has already said, is a "resource of profound national importance." *Hicklin v. Orbeck*, 437 U.S. 518, 533-34 (1978). Oil production at Prudhoe Bay is almost exclusively the product of interstate commerce. For 150 years, this Court has interpreted the Commerce Clause as prohibiting states from imposing taxes that disproportionately burden interstate commerce. Alaska, however, has succumbed to the temptation of shifting to interstate commerce almost the entire burden of supporting state government.⁷

Finally, the questions in this case are substantial because of the danger to interstate commerce that the decision below represents. The decision of the Alaska court is an open invitation to all exporting states, and especially to other

⁷And Alaska's tax policy is only the latest in the long series of protectionist measures by which Alaska has sought to ensure that no Americans but Alaskans may share fairly in gains related to the resources that Providence has placed in Alaska, even though those gains arise not only from Alaska's resources but from the skills and labor of citizens of all the states. See, e.g., *South-Central Timber Development, Inc. v. Wunnicke*, 467 U.S. 82 (1984); *Zobel v. Williams*, 457 U.S. 55 (1982); *Hicklin v. Orbeck*, 437 U.S. 518 (1978).

resource-rich states, to follow Alaska's example. It gives carte blanche to states to tailor their taxes to impose unapportioned levies on income from the state's principal export, even though interstate businesses must pay taxes on that same income to the state of sale as well. Unless this Court intervenes, the consequence of the Alaska court's decision will be multiplication of taxes on interstate commerce, and an increasing threat to the historic Commerce Clause policy of free interstate trade.

I. THE OIL TAX IS INVALID BECAUSE PRODUCTION INCOME OF APPELLANTS' UNITARY OIL BUSINESSES IS PROPERLY SUBJECT TO APPORTIONMENT AMONG MANY STATES AND MAY NOT BE ATTRIBUTED ENTIRELY TO ALASKA.

The broad purpose of the Commerce Clause is to make sure that interstate commerce is not penalized merely because it is interstate. An enterprise doing business in only one state necessarily exposes no more than 100% of its income to taxation. In comparison to such an intrastate enterprise, an enterprise doing business in two or more states will be disfavored economically if the states in which the enterprise does business become entitled collectively to tax more than 100% of its income. This Court has historically recognized that a state tax is unconstitutional as an undue burden on interstate commerce if it causes the taxpayer to be subjected to multiple taxation.⁸

The danger of multiple taxation in this case is not merely theoretical. The Oil Tax is contrary to the method of taxing oil production income by apportionment which this Court endorsed in *Exxon v. Wisconsin*, 447 U.S. 207 (1980). The result, as might be expected, is actual double taxation of appellants' production income, as well as a direct conflict with the settled law of this Court that a state may not

⁸*Japan Line, Ltd. v. County of Los Angeles*, 441 U.S. 434, 446-47 (1979); *Evco v. Jones*, 409 U.S. 91, 93-94 (1972); *Northwestern States Portland Cement Co. v. Minnesota*, 358 U.S. 450, 462-63 (1959); *Michigan-Wisconsin Pipe Line Co. v. Calvert*, 347 U.S. 157, 170 (1954); *J.D. Adams Mfg. Co. v. Storen*, 304 U.S. 307, 311-12 (1938); *Western Live Stock v. Bureau of Revenue*, 303 U.S. 250, 255-56 (1938).

attribute to itself for taxation 100% of something other states are entitled to tax by apportionment.⁹

A. The Oil Tax Is Inconsistent with This Court's Decision in *Exxon v. Wisconsin*.

In *Exxon v. Wisconsin*, 447 U.S. 207 (1980), Justice Marshall held for a unanimous Court that the production income of a unitary oil business was subject to taxation by apportionment in all states where the corporate taxpayer operated. This Court rejected the contention that because a "separate accounting" approach might assign all production income to the state where the wells were located, that state had an exclusive right to tax production income from those wells. On the contrary, said this Court, when more than one state has a nexus to production income, such income must be apportioned among all states with the requisite nexus:

"[T]here is nothing 'talismanic' about the concept of situs for income from exploration and production of crude oil and gas. . . . Presumably, the States in which appellant's crude oil and gas production is located are permitted to tax in some manner the income derived from that production, there being an obvious nexus between the taxpayer and those States. However, 'there is no reason in theory why that power should be exclusive when the [exploration and production income as distinguished through separate functional accounting] reflect[s] income from a unitary business, part of which is conducted in other States. In that situation, the income bears relation to benefits and privileges conferred by several States. These are the circumstances in which apportionment is ordinarily the accepted method.'

"...The geographic location of...raw materials does not alter the fact that such income is part of the unitary business of the interstate enterprise and is

⁹Appellants do not contend that three-factor apportionment, or any other particular formula, is constitutionally required. The space the Alaska court devotes to the supposed deficiencies of the UDITPA formula is knocking down a strawman. App. 15a-20a. The problem is not that Alaska fails to use standard three-factor apportionment, but that it does not apportion at all.

subject to fair apportionment among all States to which there is a sufficient nexus with the interstate activities of the business." 447 U.S. at 229-30. (Brackets and internal quotes in original.)

Alaska concedes, and its Supreme Court found, that each of the appellants is a unitary business. R. 14836; App. 15a. This case is thus the converse of *Exxon v. Wisconsin*. Wisconsin, a state with no producing wells, sought to apportion to itself a slice of Exxon's production income attributable to wells in other states; Alaska, where producing wells are located, seeks to keep for itself all of the production income from those wells. In *Exxon v. Wisconsin*, this Court upheld Wisconsin's claim to a fairly apportioned share of the taxpayers' production income from wells in other states; the decision in *Exxon*, as the Court has said, "required an apportionment of the tax based on the portion of the activity properly viewed as occurring within each relevant state." *Merrion v. Jicarilla Apache Tribe*, 455 U.S. 130, 158 n.26 (1982). Alaska and Wisconsin cannot both be right. Given the right of Wisconsin and other states to tax a share of appellants' production income from Alaskan wells, Alaska's claim to all of it must be rejected.

B. The Oil Tax Results in Actual Double Taxation of Interstate Commerce.

Since appellants are unitary businesses, the decision in *Exxon v. Wisconsin* gives all states where appellants operate the right to tax a share of their production income from selling oil from Alaskan wells in the Lower 48 states. Not surprisingly, most states do so, and the Oil Tax thus causes actual multiple taxation.¹⁰

¹⁰In the case of *Exxon*, for example, the record shows that not only Wisconsin but 42 other states actually tax a share of Exxon's production income from Alaskan oil: those states treat a total of 30% of that income as "their" income, in addition to the 100% that Alaska says is "its" income. App. 406a-407a. The result is that 130% of Exxon's production income from Alaskan crude (or 30% more than Exxon's actual earnings) is being taxed somewhere. The same is true for the other appellants. App. 381a, 370a.

Multiple taxation of production income from Alaskan oil may also be measured in a somewhat different manner. Sohio, the smallest and least complex of appellants, conducted an elaborate study that demonstrated that

The kind of double taxation found in this case is particularly dangerous to interstate commerce since Alaska's tax is carefully tailored to its principal export, oil. If Alaska may attribute to itself for taxation 100% of the income resulting from sale in other states of oil extracted in Alaska, every other state may do the same for its favorite export. Michigan may allocate to itself 100% of income from the manufacture and interstate sale of automobiles. California may claim 100% of the income from the production and interstate sale of wine. Pennsylvania may do the same for steel; Florida for oranges; West Virginia for coal; Kansas for wheat; Oregon for lumber; and so forth. Yet the other states, the states of sale, will also be entitled to levy taxes by apportionment and thus to tax a share of that same income. Adoption by all 50 states of Alaska's notion that a state has a right to tax 100% of the income from production and interstate sale of its principal export, even though other states tax that same income by apportionment, would necessarily result in the multiple taxation of interstate commerce. The principle of Alaska's tax thus cannot be sustained without violating the fundamental policy of the Commerce Clause.

C. The Long-Established Law of This Court Recognizes That Where One State Is Entitled to Tax by Apportionment, No Other State May Tax by Allocating 100% of the Activity to Itself.

For over eighty years, this Court has recognized that a state may not tax 100% of something that other states are entitled to tax by apportionment, and has regularly invalidated state taxes that contravene that principle.¹¹ The his-

Sohio was actually taxed in all states on 120% of its Alaska-taxed income in 1978, 123% in 1979 and 111% in 1980, and that, if all states in which Sohio was taxable had exercised their full taxing power, all states would have taxed between 149% and 171% of Sohio's Alaska-taxed income. The results of this study were submitted to the Alaska courts in the affidavit of E. Wayne Tanner, which is set forth in full at p. 380a of the Appendix.

¹¹Japan Line, Ltd. v. County of Los Angeles, 441 U.S. 434, 446-47 (1979); Standard Oil Co. v. Peck, 342 U.S. 382, 384 (1952); Central R. Co. v. Pennsylvania, 370 U.S. 607, 613-14 (1962); J.D. Adams Mfg. Co. v. Storen, 304 U.S. 307, 311-12 (1938); Union Refrigerator Transit Co. v. Kentucky, 199 U.S. 194, 210-11 (1905).

toric rule applicable to this case was stated clearly by Justice Blackmun for the Court in *Japan Line*:

"In order to prevent multiple taxation of interstate commerce, this Court has required that taxes be apportioned among taxing jurisdictions, so that no instrumentality of commerce is subjected to more than one tax on its full value. The corollary of the apportionment principle, of course, is that no jurisdiction may tax the instrumentality in full. 'The rule which permits taxation by two or more states on an apportionment basis precludes taxation of all of the property by the state of the domicile. . . . Otherwise there would be multiple taxation of interstate operations.' The basis for this Court's approval of apportioned property taxation, in other words, has been its ability to enforce full apportionment by all potential taxing bodies." 441 U.S. at 446-47 (citations omitted).

Again, in *Mobil v. Vermont*, 445 U.S. 425 (1980), this Court reiterated that "taxation by apportionment and taxation by allocation to a single situs are *theoretically incommensurate*, and if the latter method is constitutionally preferred, a tax based on the former cannot be sustained." 445 U.S. at 444-45. In that case, this Court based its decision allowing apportioned taxation of dividend income on the conclusion that the state of commercial domicile could not validly assert the right to tax 100% of that income.

Recognizing the overriding dangers of multiple taxation, moreover, this Court has been careful throughout its history to balance its gradual expansion of the power of states to tax by apportionment with corresponding restrictions on the power of other states to make multiple taxation inevitable by taxing 100% of something this Court has said is subject to taxation by apportionment.¹² Recognition of the right of

¹²E.g., compare *Pullman's Palace Car Co. v. Pennsylvania*, 141 U.S. 18 (1891) (allowing property tax on apportioned fraction of railroad cars running through Pennsylvania) with *Union Refrigerator Transit Co. v. Kentucky*, 19 U.S. 194 (1905) (forbidding tax by Kentucky on 100% of value); compare *Ott v. Mississippi Valley Barge Line Co.*, 336 U.S. 169 (1949) (allowing for the first time apportioned taxation of vessels) with *Standard Oil Co. v. Peck*, 342 U.S. 382 (1952) (forbidding states, despite

nonproducing states to tax production income by apportionment, upheld in *Exxon v. Wisconsin*, necessarily implies a limitation on the claim of a producing state to tax all of it.

D. The Oil Tax Cannot Be Justified By The Alaska Court's Spurious Distinction Between "Separate Accounting" And "Specific Allocation."

The Alaska court in effect conceded that after *Exxon v. Wisconsin* Alaska could not validly allocate to itself 100% of appellants' production income from Alaskan oil. App. 35a. The court nevertheless purported to justify the Oil Tax on the basis that Alaska's tax was "separate accounting," not "specific allocation," and that the constitutional rules set out in *Exxon v. Wisconsin*, *Mobil v. Vermont*, and *Japan Line* did not apply to "separate accounting." App. 35a.

With all respect to the Alaska court, its notion that *Exxon v. Wisconsin* did not involve "separate accounting" is exceedingly eccentric. This Court's opinion made plain that the income at issue was Exxon's "exploration and production income as distinguished through separate functional accounting," 447 U.S. at 229; the claim this Court rejected was precisely that "separate accounting" should be used to attribute all production income to the states where the wells were located.¹³ See 447 U.S. at 218-19, 222-23, 223 n.7, 226, 229-30; see also *Wisconsin Dep't of Revenue v. Exxon Corp.*, 281 N.W.2d 94, 107-109 (Wis. 1979).

More fundamentally, the Alaska court's purported distinction is without constitutional substance. To accept it would trivialize the Commerce Clause and reduce to a game of labels the historic policy favoring free interstate trade.

prior contrary law, from taxing 100% of value of vessels domiciled there); compare *Standard Pressed Steel Co. v. Washington Department of Revenue*, 419 U.S. 560 (1975) (allowing tax on interstate sales if "apportioned exactly to the activities taxed") with *J.D. Adams Mfg. Co. v. Storen*, 304 U.S. 307 (1938) (unapportioned tax on interstate sales impermissible); see also *Braniff Airways, Inc. v. Nebraska State Board*, 347 U.S. 590 (1954) (limiting unapportioned taxation of air commerce to situations where no state has a right to tax by apportionment).

¹³Alaska's lawyers acknowledged this point unequivocally when they withdrew Alaska as amicus curiae on a brief filed with this Court in support of *Wisconsin*. R. 16549.

This Court has repeatedly held that constitutional inquiry under the Commerce Clause must be directed not to the label given by the state, but to the "practical effect" of the tax. *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274, 279 (1977). The Alaska court, however, did not look at the facts. It treated the issue as purely one of law, as to which the label given by the Legislature was controlling. It ignored entirely the taxpayers' careful factual showing that the Oil Tax in fact attributed to Alaska all of the taxpayers' interstate oil production income, and that the result was actual multiple taxation.

The failure of the Alaska court to consider the way in which the Oil Tax actually works is especially astonishing since the supposed distinction the Alaska court was making — that between "separate accounting" and "specific allocation" — is, at best, a very fine one.¹⁴ Despite the constitutional significance it attached to the distinction, the Alaska court was forced to concede that what it called "the separate accounting methodology" was "very similar" to the "specific allocation approach." App. 8a-9a. Indeed, the court's opinion was at several points self-contradictory,¹⁵ and reflected the Alaska court's inability to explain consistently the crucial distinction it said it was making.

¹⁴Neither the Alaska Attorney General nor the Alaska Department of Revenue believes in the distinction their Supreme Court drew between separate accounting and allocation. On March 3, 1981, the Attorney General told Governor Hammond that "[d]irect allocation — sometimes called separate accounting — is a method by which specific items of income . . . are attributed to specific states." R. 16191. The Department recently acknowledged that "Allocation is the term generally used to describe the direct assignment of income or expense unrelated to the corporation's regular business to the state within which the income or expense has its source. This is commonly called the separate accounting method." Alaska Department of Revenue, Alaska Taxation — Policy and Structure 25 (1985).

¹⁵Thus, at App. 9a, the court said that separate accounting "looks to the activities in the state and seeks to determine the income related to that activity," while specific allocation "attributes income according to situs, or some other specific characteristic of the business enterprise, rather than on the basis of where the income itself was earned." At App. 28a, however, the court says that "under the separate accounting approach, income is viewed as earned when and where the principal operating activity occurs," and that "[s]upport activities are universally accounted for only as expenses, whether they occur in or outside the income-producing state."

The Alaska court itself exposed the fallacy of its approach at the only point where it dealt with the facts. In holding that the Oil Tax was "separate accounting," the court relied principally on its assertion that "the Oil Tax does not attribute income from the production of oil in its entirety to Alaska." App. 10a. But the list the court gave of the deductions that Alaska allowed, App. 10a, n. 16, is precisely to the contrary, and shows just what the taxpayers claim — namely that under the Oil Tax *all* net income from production of oil from Alaskan wells is attributed to Alaska.¹⁶ Even under the Alaska court's definition, that makes the Oil Tax "situs allocation," not "separate accounting," and invalid.

Equally remarkable was the Alaska court's attempt to save the Oil Tax by proposing that the appellants should do what the federal securities laws forbid. In March, 1982, nine months after the Oil Tax had been repealed, the Department of Revenue made an effort to pretend that a small portion of interstate oil production income had been excluded from Alaska's tax. The Department did so by issuing a regulation that purported to allow, as part of a deduction for general and administrative costs, "a reasonable amount of profit, if

¹⁶Thus the court noted that refining and marketing income are omitted in calculating production income under the Oil Tax. This is beside the point, since the question the court claimed to be addressing was whether the Oil Tax attributes all interstate oil *production* income to Alaska, App. 10a, and since production income *by definition* does not include refining and marketing income. (Although the court's statement that refining and marketing income are not included as *production income* under the Oil Tax is literally true, the Court omits to add that the Oil Tax also taxes, by apportionment, appellants' worldwide refining and marketing income. AS 43.21.040.) The court also listed a number of *costs* that are deductible. App. 10a, n. 16. This, too, proves nothing. No one contends that the Oil Tax is a tax on gross receipts. On the contrary, it is a *net income* tax. Costs are therefore deductible — again, *by definition*. The only relevant question is whether, after deduction of costs, the Oil Tax attributes 100% of the *net* production income to Alaska. The court's own calculation shows that it does.

The Alaska court's contrast of the figure of \$26.64 in "total revenue" and \$6.77 in "net production profit" shows the same confusion. App. 5a, 10a. The first figure represents gross receipts (and includes refining and marketing income to boot); the latter is *net* production income. The court's example thus concedes what appellants assert — that their net production income is 100% attributed to Alaska.

any, that is *actually allocated* to general overhead and administrative activities *for purposes of reporting that year's earnings and profits to stockholders.*" 15 AAC 21.290(b). The new regulation was, of course, quite limited in scope; it did not even purport to allow attribution of profit to sales outside Alaska, to operating costs incurred in other states, to development expenses incurred in other states, or to anything other than general overhead expenses. Even as to overhead, moreover, the new regulation was a sham. It was carefully designed so that no taxpayer could take advantage of it. First, although the Department's new regulation applied only if the taxpayers had attributed profits to overhead in making their annual reports to shareholders, the regulation was issued *only after* annual reports for all the tax years in issue had already been sent.¹⁷ Second, generally accepted accounting principles ("GAAP") do not allow the attribution of profit to overhead, App. 154a n.2, App. 282a, and appellants, as public companies, are required to prepare their annual reports in accordance with GAAP. 17 C.F.R. § 210.4-01(a)(1). It would thus have been legally improper for appellants to report to their shareholders in the way the new regulation suggested.¹⁸

¹⁷The Alaska court's response to this problem, its suggestion that since the regulation was "retroactive" appellants could amend "their tax reports and returns," App. 12a, simply missed the point. Amending the tax return is not the difficulty; the difficulty is that the regulation allows a deduction only if profits *were actually allocated* to overhead on appellants' annual reports. Those reports, as Alaska well knew, *had already been issued* when the regulation was promulgated. The regulation in force prior to that time, like the Oil Tax itself, allowed deduction only of general overhead *expenses*, not of any profit attributable thereto. AS 43.21.020(c)(9); compare Register 69, April 1979, 15 AAC 12.290(b) with Register 81, April 1982, 15 AAC 21.290(b); App. 282a-283a.

¹⁸The Alaska court's discussion of this issue, App. 11a, suffered from its failure to deal with the most relevant SEC materials. These provide that financial statements not prepared in accordance with GAAP are "presumed to be misleading or inaccurate." 17 C.F.R. § 210.4-01(a)(1). This regulation, in varying forms, has been in existence since 1938. See Accounting Series Release No. 4, 11 F.R. 10913 (April 25, 1938), Accounting Series Release No. 150 (December 20, 1973), Accounting Series Release No. 280 (September 2, 1980). The Alaska court chose instead to discuss the "other criteria" language of 15 U.S.C. § 78m(b)(2)(B)(ii), and to imply that this language permitted the filing of annual reports not in accordance with GAAP. The

The Alaska court simply failed to come to grips with the central facts of this case. Appellants are unitary businesses; as Justice O'Connor has observed, "The net income of an organic, unitary business . . . is indivisible." *ASARCO, Inc. v. Idaho State Tax Commission*, 458 U.S. 307, 333 n.1 (1982) (dissent). Crude oil from Prudhoe Bay is sold in the Lower 48, and activities in the Lower 48, as well as in Alaska, are required in order for the crude oil to be produced. The net income from production and sale of Alaskan crude oil is necessarily attributable, in part, to *all* of those states, as the unitary business concept recognizes.¹⁹ The Oil Tax, however, refuses to attribute any part of the income to any state other than Alaska, and thereby inevitably produces double taxation. Loose talk about "separate accounting" or "specific allocation" cannot change how the Oil Tax works or remove the double taxation it causes. Labels do not alter facts.

II. THE OIL TAX IS INVALID BECAUSE IT TAXES VALUES EARNED OUTSIDE ALASKA.

A second basic constitutional principle applicable to interstate taxation is that a state may not impose a tax on "values earned outside its borders." *Container Corp. v. Franchise Tax Board*, 463 U.S. 159, 164 (1983); *ASARCO, Inc. v. Idaho State Tax Commission*, 458 U.S. 307, 315

cited section, however, was enacted in 1977 as part of the Foreign Corrupt Practices Act; its point was not, as the Alaska court mistakenly thought, to allow deviations from GAAP in reporting to shareholders, but to require *additional* internal auditing controls to make sure that financial statements prepared in accordance with GAAP accurately reflect a company's operations. See S.Rep.No. 95-114 (95th Cong., 1st Sess.) at 7-8; 1977 U.S. Cong. & Adm. News 4104-05 (1978).

¹⁹Alaska understands this concept well enough when it is in Alaska's interest to do so. In cases where production is primarily from wells outside Alaska, the state has repeatedly argued, and the Alaska Supreme Court has held, that production income cannot be separately accounted for by multi-state oil companies because it forms an integral part of their unitary income. See *State v. Amoco Production Co.*, 676 P.2d 595, 599-600 (Alaska 1984); *Earth Resources Co. v. State*, 665 P.2d 960, 968 (Alaska 1983); R. 12836-38. In *Sjong v. State*, 622 P.2d 967 (Alaska 1981), Alaska identified the contributions of the state of sale as the most important factor in apportioning 92% of a Washington-based crab fisherman's income to Alaska, when the only contact with Alaska was delivery of his catch to Alaskan ports.

(1982); *Connecticut General Life Ins. Co. v. Johnson*, 303 U.S. 77, 80-81 (1938). The Oil Tax violates this principle as well.

A. The Oil Tax Is an Unapportioned Tax on Interstate Sales.

Appellants' net production income is derived virtually in its entirety from interstate sales of crude oil: it represents the difference between the sales price received for the crude oil in the Lower 48 states, and the costs — incurred both in Alaska and elsewhere — of producing that oil and transporting it to the refinery where it is sold. A state, of course, may levy a tax on such sales; it may do so, however, only if the tax is "fairly apportioned." *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274, 279 (1977); *Evco v. Jones*, 409 U.S. 91, 93-94 (1972). Alaska has failed to apportion.

In *J. D. Adams Mfg. Co. v. Storen*, 304 U.S. 307 (1938), an unapportioned tax indistinguishable from Alaska's was ruled unconstitutional as applied to interstate sales. That case involved a tax on gross income received by Indiana businesses.²⁰ The taxpayer manufactured road machinery in Indiana for sale to customers throughout the United States and abroad; 80% of its production was sold to customers outside of Indiana. This Court held that the tax was unconstitutional as applied to income from interstate sales.²¹ To

²⁰It is now settled that there is no difference for constitutional purposes between gross income and net income taxes. *Moorman Mfg. Co. v. Bair*, 437 U.S. 267, 280-81 (1978); *Armco Inc. v. Hardesty*, 52 U.S.L.W. 4787 (June 12, 1984). Nor has the distinction made in some of the early cases between gross receipts taxes and income taxes survived the demise of the distinction between direct and indirect taxes on interstate commerce. See *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274 (1977); *Washington Dep't of Revenue v. Ass'n of Washington Stevedoring Cos.*, 435 U.S. 734 (1978).

²¹"The vice of the statute as applied to receipts from interstate sales," the Court said, "is that the tax includes in its measure, without apportionment, receipts derived from activities in interstate commerce; and that the exaction is of such a character that if lawful it may in substance be laid to the fullest extent by States in which the goods are sold as well as those in which they are manufactured. Interstate commerce would thus be subjected to the risk of a double tax burden to which intrastate commerce is not exposed, and which the commerce clause forbids. We have repeatedly held that such a tax is a regulation of, and a burden upon, interstate commerce prohibited by Article I, § 8 of the Constitution." 304 U.S. at 311-12.

the same effect are *Gwin, White & Prince, Inc. v. Henneford*, 305 U.S. 434 (1939), *Michigan-Wisconsin Pipe Line Co. v. Calvert*, 347 U.S. 157, 170 (1954), *Evco v. Jones*, 409 U.S. 91 (1972), and *Washington Dep't of Revenue v. Ass'n of Washington Stevedoring Cos.*, 435 U.S. 734, 749 n.18 (1978).

To be sure, this Court has sometimes allowed a destination state to impose a tax on income from interstate sales, on the theory that the tax was in fact apportioned to the commerce taxed. Never, however, has this Court allowed an origin state, like Alaska, to impose an unapportioned tax on interstate sales. For constitutional purposes, crude oil is plainly no different from the road machinery involved in *J.D. Adams* or the apples involved in *Gwin, White & Prince v. Henneford*. The Oil Tax makes no more effort at apportionment of income from interstate sales than did Indiana in *Adams* or Washington in *Gwin*. What is relevant is that the taxpayers' interstate production income comes from interstate sales of crude oil and that Alaska, an origin state, purports to tax all of it without apportionment. This Court has forbidden taxes of that sort for forty years.

B. There Is No Proportion Between the Oil Tax's Measure of Taxable Production Income and Appellants' Contacts with Alaska.

Even if the Oil Tax were apportioned, this Court's cases require that an apportioned tax "actually reflect a reasonable sense of how income is generated," *Container Corp. v. Franchise Tax Board*, 463 U.S. 159, 169 (1983), so that the income attributed to the state is not "out of all appropriate proportion" to the taxpayer's in-state activities. *Hans Rees' Sons, Inc. v. North Carolina*, 283 U.S. 123 (1931).²²

²² As the Court said in the *Hans Rees* case:

"[The] decisions are not authority for the conclusion that where a corporation manufactures in one State and sells in another, the net profits of the entire transaction, as a unitary enterprise, may be attributed, regardless of evidence, to either State. In [*Underwood Typewriter Co. v. Chamberlain*, 254 U.S. 113 (1920)], it was not decided that the entire net profits of the total business were to be allocated to Connecticut because that was the place of manufacture, or, in [*Bass, Ratcliff & Gretton, Ltd. v. State Tax Commission*, 266 U.S. 271 (1923)], that the

The extent of the disproportion created by Alaska's decision to attribute to itself all interstate oil production income from Alaskan wells may readily be seen by comparing Alaska's taxes with the standard three-factor formula. The latter has become, as this Court has said, "something of a benchmark against which other apportionment formulas are judged" because "payroll, property, and sales appear in common to reflect a very large share of the activities by which value is generated." *Container Corp. v. Franchise Tax Board*, 463 U.S. 159, 170, 183 (1983). By that standard, overtaxation here ranges from 279% to 804%²³ as compared with the overtaxation of 250% found to be "out of all appropriate proportion" in *Hans Rees*, or the overtaxation of between 162% and 205% that was sufficient to invalidate the apportionment formula in *Norfolk & Western Ry. Co. v. Missouri State Tax Comm'n*, 390 U.S. 317 (1968).²⁴

entire net profits were to be allocated to New York because that was the place where sales were made." 283 U.S. at 132-33.

The effect of the Oil Tax is to attribute to Alaska the "net profits of the entire transaction" — the taxpayers' entire income from pumping oil from the ground in Alaska and selling it in other states. That is just what this Court, in *Hans Rees*, said cannot be done. Yet the Alaska court upheld that attribution not only "without evidence" but in the teeth of the evidence presented in this record, which showed that 90% of the sales and 80% of the expenses that generated the production income occurred outside Alaska. App. 294a, 335a, 285a.

²³The three-factor formula would have attributed to Alaska only 9.4% of Arco's income, R. 12699; the Oil Tax thus resulted in an overtaxation of Arco's income of 804% on a federal taxable basis and 389% on a book basis. That is, the percentage of Arco's income actually taxed (an average of 85% on a federal taxable basis, R. 13744-46) was 904% of the 9.4% properly taxable under the benchmark formula, or 804% greater than it should have been. The same is true for the calculation on a book basis; both calculations correspond to the method of measuring overtaxation used in *Container*, 463 U.S. at 184. Comparable calculations for Sohio show that the Oil Tax resulted in an overtaxation of Sohio's income of 279% to 342%. R. 13450-51, 13459. Substitution of the Oil Tax for the standard three-factor formula increased Exxon's tax by 326%. R. 293.

²⁴The enormous variance between the Oil Tax and the three-factor formula confirms, moreover, that the Oil Tax cannot stand after *Exxon v. Wisconsin*. The two methods of taxation unquestionably produce results out of all appropriate proportion to each other. It follows that either Wisconsin was wrong in using the three-factor formula to tax production income, or Alaska is wrong in using the Oil Tax. Since the first alternative is foreclosed by *Exxon v. Wisconsin*, it is Alaska's tax that must give way.

Alaska's own studies confirm that no reasonable apportionment formula could come anywhere near assigning to Alaska the amount of income allocated to Alaska by the Oil Tax. Alaska's Commissioner of Revenue testified that his department did its best to devise an apportionment formula that would generate as much money for the state as the Oil Tax did.²⁵ Despite the Department's best efforts, it failed. No "reasonable" formula it could devise could produce more than 50% of the income generated by the Oil Tax. Williams Deposition at 57-58; also R. 16187-88. It would be difficult to imagine more dramatic proof that the Oil Tax was out of all proportion to any income properly taxable by Alaska.

III. MULTIPLE TAXATION IS PRESENT HERE AND IS THE CONSTITUTIONAL FAULT OF ALASKA.

A. Decisions Approving Apportionment Do Not Justify the Oil Tax.

The Alaska court attempted to justify the Oil Tax on the basis of this Court's decisions in *Moorman Mfg. Co. v. Bair*, 437 U.S. 267 (1978), and *Container Corp. v. Franchise Tax Board*, 463 U.S. 159 (1983). Both of those decisions, however, upheld *apportionment*, not *separate accounting*. Neither can justify Alaska's insistence on attributing to itself 100% of interstate oil production income properly subject to apportionment among many states. Indeed, this Court said in *Container* that when a unitary business has contact with more than one state, each taxing state "must then apply a formula apportioning the income of that business within and without the State." 463 U.S. at 169. Alaska has not apportioned here.²⁶

²⁵Williams Deposition at 52-61 and Exhibits 87, 94; also R. 16187-88. In *Container Corp. v. Franchise Tax Board*, 463 U.S. 159, 183, this Court explained that the showing of disproportion in *Hans Rees* was based on comparison with an "analysis purposely skewed to resolve all doubts in favor of the State." Appellants have made an equally compelling showing of disproportion by comparing the Oil Tax with the apportionment formula that the Alaska Department of Revenue itself had designed to be "skewed . . . in favor of the State."

²⁶Particularly wide of the mark was the Alaska court's reading of *Container*, a case having to do with the intersection of domestic and foreign taxation, as justifying unapportioned taxation by an American state. The

The Alaska court was equally wrong in believing that *Moorman* controlled this case. *Moorman* dealt with a situation where the state effected an apportionment and where there was no proof of *actual* double taxation. 437 U.S. at 276. In that context, the case held that the mere *risk* of multiple taxation caused by one state's use of an apportionment formula different from another state's formula was not sufficient to invalidate either formula. 437 U.S. at 277. *Moorman* has nothing to do with this case, since the record here shows *actual* double taxation. See pp.11-12, *supra*.

Even if the analysis of *Moorman* were applicable, moreover, *Moorman* makes clear that a state's method of apportionment will only be upheld, even assuming no actual double taxation, if the *risk* of double taxation is "not the fault, in the constitutional sense" of the taxing state. The Alaska court paid its respects to this rule by acknowledging that the validity of the Oil Tax depended on a finding that the double taxation caused by the Oil Tax was not constitutionally "the fault" of Alaska. App. 41a. But the court below ignored the evidence showing that Alaska is indeed at fault.

B. Multiple Taxation Is the "Fault" of Alaska Because the Oil Tax Is Unapportioned, Is Tailored to Interstate Commerce, And Is Internally Inconsistent.

In the first place, it is clear that an unapportioned tax renders a state at "fault." The practical basis of *Moorman* is the fact that "rough approximation" is inherent in the

Commerce Clause, of course, does not apply abroad. When this Court is faced with an unapportioned foreign tax that causes double taxation, as happened in both *Japan Line* and *Container*, it cannot invalidate the foreign tax, as it would a similar state tax. This Court can do one of only two things: either it can restrict the ordinary right of American states to tax by apportionment, or it can tolerate some double taxation. In *Japan Line*, the Court did the former, in *Container* the latter. And in *Container* the Court explained the difference between the two cases by saying that "the reasons for allocation to a single situs that often apply in the case of property taxation 'carry little force' in the case of income taxation," 463 U.S. at 188. Apportionment, in other words, is *more* favored in income tax than in property tax situations, and unapportioned taxes less so. In *Japan Line*, however, it was conceded that the unapportioned foreign tax would have been invalid if levied by an American state. *Container* necessarily implies that Alaska's unapportioned Oil Tax, being on income, is even *more* vulnerable to constitutional challenge than the *concededly* invalid property tax levied by Japan.

concept of apportionment. 437 U.S. at 273. This Court made clear in *Japan Line, Ltd. v. County of Los Angeles*, 441 U.S. 434, 455 (1979), that in *Moorman* "the problem arose, not from lack of apportionment, but from mathematical imprecision in apportionment formulae." *Moorman* has no application, as Justice Blackmun said for the Court, "where true apportionment does not exist." 441 U.S. at 455.²⁷

Second, the apportionment formula upheld in *Moorman* was one of general applicability, which covered all, or virtually all, taxpayers in the state. When an apportionment formula is generally applicable, this Court can have some confidence that the normal pull and haul of the political process will result in rough justice for everyone, that the formula involves no discrimination against interstate commerce as such, and that the formula responds only to the inevitable difficulties of trying to divide the essentially indivisible income of a unitary business.

Not so here. The Oil Tax is not a generally applicable enactment. It falls only on interstate businesses, and only on Alaska's principal export. For all practical purposes it is a special levy on the three appellants in this case. As this Court said in *Complete Auto Transit*, "A tailored tax, how-

²⁷Considerations of a proper federalism reinforce this conclusion. If the legislature of a state has recognized, by enacting an apportionment formula, that it must share a particular subject of taxation with other states also entitled to tax that subject, it is hard for a court to articulate and apply a standard for saying that one apportionment formula is better than another. Even if the simultaneous existence of conflicting formulas creates some possibility of multiple taxation, the difficulty of finding a neutral basis for preferring one formula to another means that a court cannot easily determine which of the conflicting formulas is "at fault." 437 U.S. at 277.

None of these considerations applies, however, when a state seeks, like Alaska, to levy a tax on 100% of a subject matter that other states are entitled to and do tax. Not only is double taxation certain in such a case, but there is no difficulty in ascertaining, in a perfectly neutral fashion, which of the states is at fault: obviously it is the state that has made double taxation certain by trying, despite the rights of other states, to allocate a taxable subject matter exclusively to itself. Little deference is appropriate for a state that refuses to share. On the contrary, the mutual accommodation among states that lies at the heart of American federalism is strengthened by enforcing a rule that requires states to take account, in designing their tax systems, of the legitimate and competing rights of other states.

ever accomplished, must receive the careful scrutiny of the courts to determine whether it produces a forbidden effect" 430 U.S. at 289 n.15. Whatever judicial deference may ordinarily be afforded to an apportionment formula, deference is inappropriate when a state has tailored its tax to raise revenue from a specific interstate business or a specific group of interstate taxpayers. In that situation careful scrutiny, not deference, is required. *Ibid.*

Finally, this Court pointed out in *Moorman*, that the risk of double taxation was not inherent in either apportionment formula; it could "be avoided by the adoption of any uniform rule." 437 U.S. at 277 n.12. While the Oil Tax was in place, Alaska's tax system was different: even if it had been adopted by all 50 states, it would have produced double taxation by subjecting appellants' *total* income to more than 100% taxation. Alaska thus violated the constitutional requirement of "internal consistency": the requirement that a tax "must be such that, if applied by every jurisdiction, it would result in no more than all of the unitary business income being taxed." *Container Corp. v. Franchise Tax Board*, 463 U.S. 159, 169 (1983); *Armco Inc. v. Hardesty*, 52 U.S.L.W. 4787 (June 12, 1984).²⁸

There can be no dispute in this record that, throughout the period the Oil Tax was in force, Alaska's tax laws were

²⁸ Affidavits filed in the Superior Court showed that if all states adopted Alaska's laws, more than 100% of the total book income of each taxpayer would have been taxed in each year in issue — e.g., in 1980, the states would have taxed 160% of Exxon's total income, 116% of Arco's, and 162% of Sohio's. R. 13455, 13746, 14207. The reason that Alaska's tax system, if applied by all 50 states, would inevitably have produced more-than-100% taxation is readily understood. If a taxpayer had wells in Alaska, under the Oil Tax Alaska taxed 100% of the taxpayer's production income from Alaskan oil, as well as an apportioned share of the taxpayer's refining, marketing, and other income. AS 43.21.040. If, however, a taxpayer had no producing wells in Alaska, Alaska applied apportionment to the taxpayer's *total* income, including not only refining, marketing, and other income but *also* oil production income arising from wells in states other than Alaska. AS 43.20; App. 408a. If all states had used the Alaska system, the production states together would have taxed 100% of production income. The other states where a taxpayer operated would also have taxed, by apportionment, a share of that same production income. And all states would have used apportionment to divide up refining and marketing income. The necessary result would have been more-than-100% taxation of total income.

applied in exactly this manner. The Director of the Division of Audit of the Alaska Department of Revenue, the responsible state official, so testified. App. 408a. The double taxation of appellants caused by the Oil Tax in those years was unmistakably the result of a tax system that was internally inconsistent, and therefore "at fault" under *Moorman*.²⁹

IV. THE MEASURE OF ALASKA'S TAX IS NOT REASONABLY RELATED TO APPELLANTS' CONTACTS WITH ALASKA.

In *Commonwealth Edison Co. v. Montana*, 453 U.S. 609 (1981), this Court considered the claim that Montana's severance tax on coal violated the Commerce Clause because the amount of the tax was not reasonably related to the value of the services provided by the state. The Court rejected the taxpayer's claim of invalidity, holding that the question was not whether the *amount* of the tax is reasonably related to the services provided by the taxing state, but whether the *measure* of the tax is reasonably related to the taxpayer's contacts with the state. 453 U.S. at 626.

²⁹ After the repeal of the Oil Tax and the close of all the tax years in issue, and following the filing of appellants' papers in the Superior Court which showed that Alaska's tax laws were internally inconsistent, Alaska unveiled a "Tax Ruling" that purported to modify retroactively the way Alaska taxed companies, unlike appellants, that did *not* have wells in Alaska. Alaska chose, in effect, to pretend that it had applied its tax laws differently than was in fact the case. This "ruling" was transparently no more than a piece of litigation strategy, intended to defeat the internal inconsistency argument and save the Oil Tax by giving small refunds under a different tax. This disingenuous administrative afterthought cannot, however, defeat appellants' constitutional claims. Those claims are based on the double taxation that was caused by the Oil Tax between 1978 and 1981; the relevance of the internal consistency test is to help this Court determine whether Alaska, or some other state, was responsible for the double taxation occurring in those years. Alaska's tax system, as it applied in the years when the double taxation occurred, did not and could not meet the internal consistency test. It follows that Alaska, not the other states, was responsible for the double taxation, and that Alaska, not the other states, was "at fault."

In any case, the internal consistency test would lose much of its practical meaning if it assumed that all states will adopt Alaska's priorities by abandoning the use of apportionment to tax oil production income. They plainly will not. Rather, they will conform their own versions of the Oil Tax to whatever is *their* principal export and tax other industries, such as oil, by apportionment. See p. 12, *supra*.

Montana's was a severance tax. The "operating incidence" of that tax, this Court held, was "on the mining of coal within Montana," 453 U.S. 626. The "operating incidence" of Alaska's tax, however, is not on the extraction of oil, but on the earning of income, and specifically on the earning of income from the sale in other states of oil from Alaskan wells. The activities that result in that income take place in many states, and the income is subject to tax in many states.

The measure of Alaska's tax, however, is not related to the income-producing activities that take place in Alaska. It makes no difference if a taxpayer alters its business so that more, or less, of that business is done in Alaska.³⁰ However the taxpayer's business may be organized in fact, the Act allocates to Alaska 100% of the taxpayer's production income from Alaskan oil. The measure of the tax is not proportioned in any way to the quantity of business that is done in Alaska, and the Oil Tax cannot pass muster under *Commonwealth Edison*.

V. THE OIL TAX IMPROPERLY DISCRIMINATES AGAINST APPELLANTS AND PROVIDES A DIRECT COMMERCIAL ADVANTAGE TO LOCAL ALASKA INTERESTS.

There is no room for dispute as to what the Oil Tax does on its face: it singles out a handful of interstate oil companies for significantly different and more burdensome treatment than that accorded all other corporate taxpayers. As Alaska's Governor acknowledged in his first Budget Message after the Oil Tax Act was passed, "there is no question but that oil has been taxed unequally compared to other resources." R. 15010. In recent years, this Court has been especially vigilant to protect interstate commerce against taxes that involve economic protectionism and unfair treat-

³⁰The Appendix contains a careful analysis, by Sidney Davidson, Arthur Young Professor of Accounting and former Dean of the Business School at the University of Chicago, of the consequences of a taxpayer's altering its business operations to shift activities into or out of Alaska. App. 158a.

ment of out-of-state business.³¹ Examination of the Oil Tax shows plainly that it has forbidden effects.

To start with, there is the obvious fact that the Oil Tax provides a direct commercial advantage to local interests by throwing on interstate commerce alone the task of satisfying Alaska's appetite for funds, and freeing Alaska's citizens from the responsibility of paying for the services they enjoy. The facts on this point are set out in the Statement of the Case, are examined in detail in the Mieszkowski Affidavit, App. 172a, and need not be repeated again here.

In addition, the effect of the Oil Tax is to subject interstate business to a discriminatory burden of double taxation. An oil company with all its operations in Alaska will pay tax on the basis of 100% of its production income at most. A company operating in more than one state must pay taxes on 100% of its production income to Alaska, and must pay additional taxes on that same income to other states. Once again, the relevant facts have been set out above. They are discussed in detail by Professor Davidson, who shows that the Oil Tax results in a *continuing* tax advantage for local firms. App. 164a.

Finally, the Oil Tax operates to penalize exploration outside Alaska.³² Alaska has thus used its "power to tax an

³¹Such taxes may offend both the Commerce Clause and the Equal Protection Clause. *Bacchus Imports, Ltd. v. Dias*, 52 U.S.L.W. 4979 (June 29, 1984); *Armeo Inc. v. Hardesty*, 52 U.S.L.W. 4787 (June 12, 1984); *Westinghouse Electric Corp. v. Tully*, 466 U.S. —, 52 U.S.L.W. 4485 (April 24, 1984); *Metropolitan Life Insurance Co. v. Ward*, 53 U.S.L.W. 4399 (March 26, 1985).

³²A firm subject to the Oil Tax that drills a well outside Alaska may not deduct the cost of doing so on its Alaska return. If the well is drilled in Alaska, however, the cost of drilling it is deductible. 15 AAC 21.270. Alaska's tax thus creates a penalty if a taxpayer subject to the Oil Tax Act drills a well in any state other than Alaska. If, on the other hand, a taxpayer is not subject to the Oil Tax (because it has no producing wells in Alaska) and its income is taxed by three-factor apportionment, Alaska interprets the Oil Tax as requiring the exclusion of all exploration losses from the apportionable base. App. 411a, 412a, 420a. The effect of these provisions can easily be seen to be discriminatory if one follows this Court's teaching by applying the internal consistency test of *Armeo Inc. v. Hardesty*, 52 U.S.L.W. 4787 (June 12, 1984), to Alaska's tax laws. If all states enacted Alaska's laws, each state where a taxpayer has production income would tax under the Oil Tax and

in-state operation as a means of 'requiring other business operations to be performed in the home State.'" *Boston Stock Exchange v. State Tax Comm'n*, 429 U.S. 318, 336 (1977). Like the tax in *Westinghouse Electric Corp. v. Tully*, 466 U.S. —, 52 U.S.L.W. 4485 (April 24, 1984), the Oil Tax violates "the prohibition . . . against using discriminatory state taxes to burden commerce in other states in an attempt to induce 'business operations to be performed in the home state that could more efficiently be performed elsewhere' and to 'impose an artificial rigidity on the pattern of an industry.'" 52 U.S.L.W. at 4490.

CONCLUSION

This is an important case which raises substantial federal questions. The Court should note probable jurisdiction and set the matter for full briefing and argument.

November 13, 1985

Respectfully submitted,

[Counsel Listed on Following Page]

would allow deduction only of exploration losses in that state; states where the taxpayer has no production income would tax by apportionment and would allow no deductions for exploration losses at all. The effect of universal application of Alaska's laws therefore is to make the cost of drilling a well in a state where a taxpayer has no producing wells more expensive than the cost of drilling in a state where a taxpayer has production. The obvious consequence is to channel exploration activities into states that already have oil, and away from states that might compete with them if oil were found.

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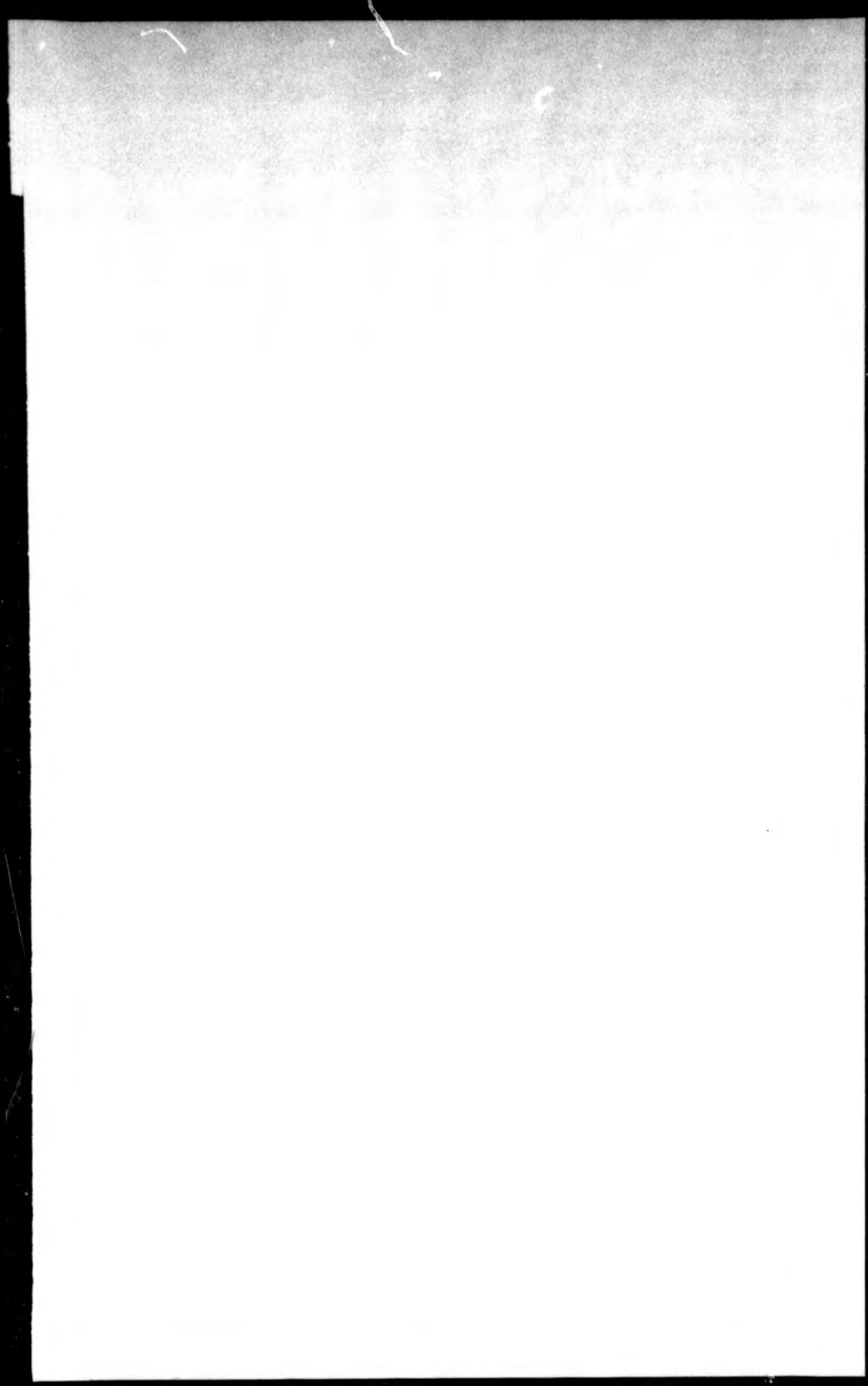
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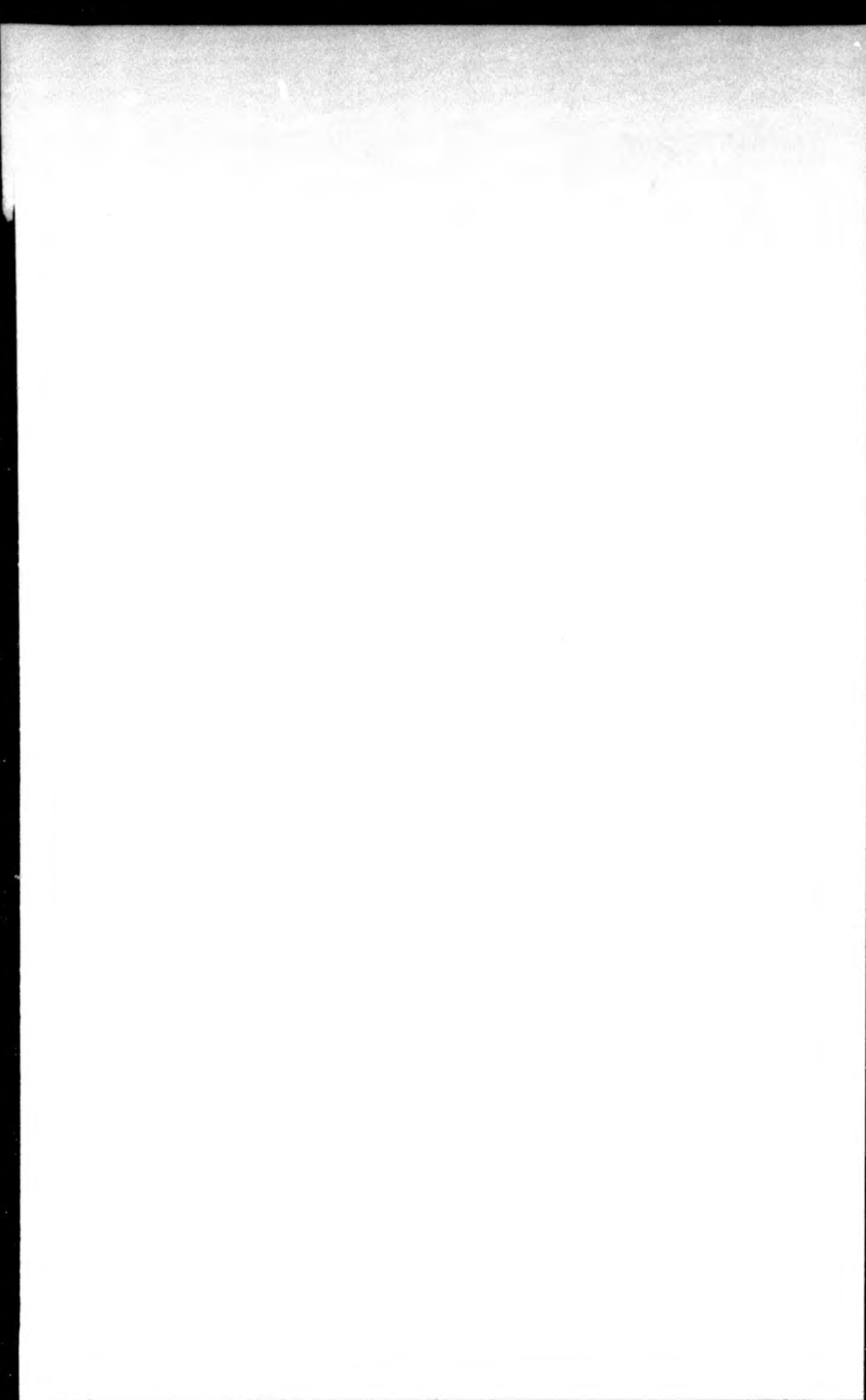
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IN THE
Supreme Court of the United States
OCTOBER TERM, 1985

ATLANTIC RICHFIELD COMPANY; ARCO PIPELINE COMPANY; EXXON CORPORATION; EXXON PIPELINE COMPANY; BP ALASKA INC.; SOHIO ALASKA PETROLEUM COMPANY; and SOHIO PIPE LINE COMPANY,
Appellants,

v.

STATE OF ALASKA, *et al.*,
Appellees.

On Appeal from the Supreme Court of Alaska

MOTION TO DISMISS OR AFFIRM

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MOTION TO DISMISS OR AFFIRM

The State of Alaska respectfully moves this Court to dismiss this appeal on the ground that the appeal does not present a substantial federal question, or, in the alternative, to summarily affirm the judgment below.

INTRODUCTION

The State of Alaska imposes on every corporation a 9.4% tax on net income derived from sources within the State. This tax applies uniformly to multistate corporations and to those doing business only in Alaska, but it is levied only on the portion of a multistate corporation's income earned within the State.

For most industries, Alaska uses the standard three-factor apportionment formula to estimate the income earned in the State by a multistate taxpayer. In 1978, when oil production became Alaska's predominant economic activity, the Alaska Legislature determined that continued use of a formula unsuited to oil production would attribute to Alaska only about one-quarter of the oil production income actually earned in the State. The Legislature found that as a result, oil producers would pay an effective tax rate on Alaskan income of only 2 to 3%, far below the statutory 9.4% uniform rate. To equalize effective tax rates for all corporate taxpayers, the Legislature enacted the Oil and Gas Corporate Income Tax, Alaska Stat. §§ 43.21.010-.120 (1978) [hereinafter "AS 43.21"]. Instead of a formula, AS 43.21 used the division-of-income method widely recognized to be the most accurate for oil production income: arm's length geographical separate accounting.¹

In an attempt to mislead this Court into believing a substantial issue is presented here, appellants [herein-

¹ See pp. 7-8 *infra*. AS 43.21 also applies separate accounting to determine the income generated by natural gas production and by pipeline transportation of oil or gas within the State. For simplicity, however, we refer only to "oil production income."

after "taxpayers"] portray Alaska's adoption of traditional separate accounting as an aberrational overreaching of the State's legitimate taxing authority. This position is wholly disingenuous. The majority of major oil-producing States require use of separate accounting to divide the oil production income of multistate companies,² as does the Internal Revenue Code for determining the U.S. oil production income of multinational corporations that produce oil in this country for sale abroad.³ Tax conventions and treaties to which the United States is a party also require separate accounting.⁴ Alaska's separate accounting statute is *identical* to these other separate accounting laws in all material respects.

The leading experts in state taxation acknowledge that separate accounting, not formula apportionment, is "the prevailing method . . . for reporting income from oil production."⁵ In the most comprehensive federal study of state taxation in several decades, the Comptroller General of the United States explained that oil-producing States generally require separate accounting for oil production

² Of the five largest oil producing States, three (Oklahoma, Louisiana, and Alaska) require separate accounting. See Appendix to Jurisdictional Statement 17a n.25 [hereinafter "App."] and notes 13 & 16, *infra*. Texas does not have a corporate income tax. Only California requires formula apportionment. See *Statistical Abstract of the United States* 730 (103d ed. 1982-83).

³ 26 U.S.C. §§ 861-64; Treas. Reg. §§ 1.861-8(a)(1), 1.863-1(b)(1), -1(c); Treas. Reg. §§ 1.482-2(b)(1), (3), (6), and -2(e)(1)(ii). The foreign tax credit provisions of the Code also employ separate accounting for oil and gas production. Compare 26 U.S.C. § 907(d) with AS 43.21.020.

⁴ OECD Model Convention for the Avoidance of Double Taxation with Respect to Taxes on Income and Capital, *reprinted in* 1 Tax Treaties (CCH) ¶ 151; U.S. Treasury Dep't Draft Model Income Tax Treaty, June 16, 1981, *reprinted in* 1 Tax Treaties (CCH) ¶ 158.

⁵ Rudolph, *State Taxation of Interstate Business: The Unitary Business Concept and Affiliated Corporate Groups*, 25 Tax L. Rev. 171, 191 (1970); see J. Hellerstein, *State Taxation: Corporate Income and Franchise Taxes* 396 n.309 (1983), quoted *infra* p. 6.

income because it "conforms more to [oil production companies'] financial accounting practices and, for these specific situations, *more accurately reflects income than formula apportionment.*"⁶

There is also unanimity among the courts. Every court that has considered the constitutionality of separate accounting for oil production income has not only upheld its use, but has found that it is a *more accurate* method of attributing oil production income than formula apportionment.⁷

The central issue actually presented by this appeal is whether the Constitution prohibits Alaska from using traditional arm's-length separate accounting, and instead requires formula apportionment. That issue was foreclosed by this Court's decision just two years ago in *Container Corp. of America v. Franchise Tax Board*, 463 U.S. 159 (1983). To avoid the clear controlling force of that precedent, taxpayers distort the facts and mischaracterize this Court's recent key decisions on state taxation. Their arguments reduce to two simple—but clearly erroneous—propositions, neither of which merits plenary review.

Taxpayers' first claim is that AS 43.21 is an "un-apportioned" tax which taxes "100% of something that other states are entitled to tax by apportionment." Jurisdictional Statement at 9, 12 [hereinafter "J.S."]. This argument is based on a conceptual trick: the false notion that other States' formula apportionment laws entitle them to reach into Alaska and tax a share of the same income Alaska taxes. This Court has already seen through and soundly rejected an identical mischaracteri-

⁶ U.S. General Accounting Office, *Key Issues Affecting State Taxation Of Multi-Jurisdictional Corporate Income Need Resolving* 3 (1982) (emphasis added) [hereinafter "GAO Report: Key Issues"].

⁷ *Webb Resources v. McCoy*, 194 Kan. 758, 401 P.2d 879, 889 (1965); *Texas Co. v. Cooper*, 236 La. 380, 107 So.2d 676, 690 (1958); *Magnolia Petroleum v. Oklahoma Tax Comm'n*, 190 Okla. 172, 121 P.2d 1008, 1011-13 (1941).

zation of the purpose and operation of separate accounting and formula apportionment in *Container Corp.*

Second, based solely upon this conceptual error, taxpayers argue that use of separate accounting and formula apportionment by different States inevitably causes multiple taxation; and that since most States use formula apportionment, the Commerce Clause should now be interpreted to forbid other States' use of separate accounting. This misguided argument was squarely rejected in *Container Corp.* This Court's holding there that the concurrent use of separate accounting and formula apportionment is perfectly acceptable, 463 U.S. at 188, 195, is fully controlling here.

Container Corp. reaffirmed this Court's long tolerance of different methods of income allocation, as long as such methods do not result in a grossly disproportionate attribution of a multistate taxpayer's income to the taxing State. As the Court there said, "we have long held that the Constitution imposes no single formula on the States." 463 U.S. at 164. For that reason, the Court has consistently imposed upon a taxpayer "the 'distinct burden,'" *id.* at 164 (citations omitted), of proving "by 'clear and cogent evidence' that the income attributed to the [taxing] State is in fact 'out of all appropriate proportions to the business transacted . . . in that State,' or has 'led to a grossly distorted result.'" *Id.* at 170 (emphasis added) (quoting, *inter alia*, *Moorman Manufacturing Co. v. Bair*, 437 U.S. 267, 274 (1978)).

Taxpayers in this case made a deliberate, strategic judgment below not even to try to adduce such evidence. Instead, taxpayers litigated this case as a *per se* attack on separate accounting. But as the court below recognized, *Container Corp.* has flatly foreclosed that approach. Taxpayers offer no reason why just two years later this Court should reconsider *Container Corp.*, abandon its longstanding deference to the States in the field of taxation, or invalidate a division-of-income method favored by the United States, by international

treaty and practice, and by the majority of major oil-producing States.

STATEMENT OF THE CASE

At Statehood in 1959, Alaska became the first State to adopt the Uniform Division of Income for Tax Purposes Act [hereinafter "UDITPA"], now used by many States. In general, UDITPA (and the Multistate Tax Compact, which incorporates UDITPA) estimates the in-state income of a multistate company by use of a mathematical formula incorporating certain indicators of business activity within the State. The formula averages the fractions (or percentages) of the taxpayer's nationwide property, sales, and payroll that are found within the taxing State, and then multiplies the resulting average percentage by the taxpayer's nationwide income.⁸

UDITPA's formula assumes that for most mercantile and manufacturing industries, income is generated in equal proportions by these three "factors" or sources of profit, and therefore uses them to approximate roughly the income earned in the taxing State. It has long been recognized, however, that the "three-factor" formula is the product of political compromise,⁹ and that for some industries it does not produce a fair estimate of in-state income.¹⁰ UDITPA therefore permits a State to require "in respect to all or any part of the taxpayer's business activity" reasonable alternative methods of income allocation—including separate accounting. UDITPA § 18. Most States have, in fact, enacted exceptions to the three-factor formula for various industries, including natural

⁸ Thus, for example, if 2% of a company's nationwide property, 3% of its nationwide sales, and 7% of its nationwide payroll are located in Wisconsin, then under UDITPA's formula, Wisconsin would be entitled to assume that 4% of the company's nationwide income was earned in Wisconsin, and levy a tax on that amount.

⁹ See Pierce, *The Uniform Division of Income for State Tax Purposes*, 35 *Taxes* 747, 750 (1957).

¹⁰ J. Hellerstein, *State Taxation*, *supra* n.5, at 689; see App. 16a.

resource extraction, financial organizations, utilities, construction, and transportation.¹¹

Most major oil-producing States have chosen separate accounting for oil production income because the UDITPA formula grossly *underattributes* the in-state income of a producing company. As the leading academic commentator in the field of state taxation has observed, "[t]he three-factor formula may be inappropriate to such industries as petroleum . . . in failing to give adequate weight to the State of origin of the natural resource on which the industry is based, and which is basic to the profit of the enterprise." J. Hellerstein, *State Taxation*, *supra* n.5, at 396 n.309.

This underattribution is the result of the fact that none of the three UDITPA factors measures the major source of oil production profits, the value of the crude oil itself. The property factor grossly undervalues an oil-producing company's in-state assets because, under oil industry accounting practices only lease acquisition costs—and not the value of the oil reserves themselves—are carried on the taxpayers' books as "property". Thus there is no dispute, as the court below found, that "the Prudhoe Bay field is valued [in the UDITPA property factor] at about *one percent* of its actual worth." App. 17a (emphasis added). The payroll factor also underrepresents oil production activities, because oil production is not labor-intensive. And the sales factor severely underattributes income to an oil-producing State like Alaska, which has little market for the resource it produces.

When oil began to dominate the Alaskan economy it was imperative that Alaskan oil production income be determined accurately. The Alaska Legislature responded to the formula's defects by enacting an exception to UDITPA, AS 43.21, that required use of separate accounting to calculate the portion of a company's oil pro-

¹¹ See Appendix for a partial listing of more than sixty such industry-specific allocation rules.

duction income earned in the State. Under separate accounting, a taxpayer's gross income from oil production is the value of the oil produced in the State, before it leaves the State's borders. In other words, under AS 43.21, Alaskan *gross* oil production income equals the number of barrels of crude oil produced in the State multiplied by the wellhead value of each barrel, *i.e.*, the crude oil's market value at the point of production.¹² This concept of gross oil production income is the same as that used by other oil-producing States that require separate accounting,¹³ and in various provisions of the Internal Revenue Code and U.S. Treasury Regulations.¹⁴ Contrary to taxpayers' misleading innuendos, by using the in-state market value of the crude oil, *separate accounting completely excludes from taxation all profits earned by taxpayers from all activities occurring "downstream" from the wellhead, i.e., transportation profits, profits from refining the crude oil, and profits from distributing and marketing retail products.*¹⁵

¹² AS 43.21.020(b). When the oil is sold in Alaska, that sale price is used to determine wellhead value. When there is no such sale—for example, when taxpayers transfer the crude oil from their production departments to their own refining departments, and “deem” the transfer to have taken place outside Alaska—the in-state market value of the oil must be derived. This is done by taking the closest available out-of-state market price, and deducting all costs of transporting the crude oil from the wellhead to that point (including the transporter's profit). ¹⁵ Alaska Admin. Code § 21.130(b) [hereinafter “AAC”]. This “net-back” approach has traditionally been used throughout the oil industry for purposes such as calculating windfall profit taxes, royalty payments, and severance taxes. See, *e.g.*, U.S. General Accounting Office, *Response to Questions About the Windfall Profit Tax on Alaskan North Slope Crude Oil*, 1 & appendix 10 (1984).

¹³ La. Admin. Code art. 47:244.3.B.1.b (1975); Miss. Code Ann. § 27-7-23(c)(2)(B)(iii) (7 Supp. 1985); Okla. Stat. Ann. tit. 68, § 2358, A.4.a. (West Supp. 1984).

¹⁴ 26 U.S.C. §§ 861-64; Treas. Reg. § 1.863-1(b)(1).

¹⁵ Under AS 43.21.040, the in-state *refining* and *marketing* income of oil companies is separated out from production income and deter-

To arrive at net (taxable) income, separate accounting deducts from gross income *all* of the direct and indirect costs of producing Alaskan oil, whether they are incurred in or out of the State. Deductible costs include all direct operating costs, all taxes (including federal windfall profit taxes, severance taxes, conservation and property taxes), royalties, current amortization, unsuccessful exploration costs, lease acquisition costs, and capitalized interest. AS 43.21.020(c). General corporate overhead and administrative expenses attributable to the production of Alaskan oil are also deducted. AS 43.21.020(c)(9). The expenses and deductions permitted by Alaska's separate accounting statute are substantially identical to those permitted by the separate accounting laws of other oil-producing States, and by the Internal Revenue Code.¹⁶

Alaska's separate accounting law was in effect from 1978 through 1981. During that period, these taxpayers earned over \$21 billion in profits from the production of oil in Alaska, and paid approximately \$2 billion in corporate income taxes to the State. In light of taxpayers' contention that Alaska has singled them out for "burdensome" taxation, it is important to recognize that these taxpayers paid a large amount of taxes for no other reason than that, because of an unanticipated *four-fold in-*

mined by an apportionment formula that *excludes* all oil production income, and all the payroll, property and sales associated with oil production. Since these taxpayers have no refineries in Alaska, and sell virtually no refined products there, Alaska taxes only a negligible fraction of taxpayers' worldwide refining and marketing income, corresponding to the refining and marketing factors found in the State. See pp. 23-24 *infra*.

¹⁶ La. Admin. Code art. 47:244.3.A, B.3 (1975); Miss. Code Ann. § 27-7-23(c)(2)(B) (7 Supp. 1985); Okla. Stat. Ann. tit. 68, § 2358, A.4.a (West Supp. 1984); Miss. Admin. Reg. 1.27-7-23(7)(c)(2) (1979); Treas. Reg. §§ 1.863-1(c), 1.861-8(a)(1), -8(b)(3) and -8(c)(1).

crease in world crude oil prices,¹⁷ they realized a phenomenal increase in oil production profits in the late 1970's and early '80's.

Although the State was not required to do so, it introduced in the court below substantial evidence showing that the income *taxpayers themselves* attributed to Alaskan oil production—in their own annual reports, in reports to federal agencies (including the SEC and the Department of Energy), and in income tax returns filed with other States—was equal to or greater than their Alaskan income as determined by AS 43.21. R. 16912-17. That evidence confirmed that the Alaska Legislature was right on the mark in finding that separate accounting is a far more accurate division-of-income system for oil production than formula apportionment.

It is also essential to realize that taxpayers paid, and would pay under any division-of-income method, a very high percentage of all Alaskan corporate income taxes simply because their profits dwarf all other corporate earnings in Alaska. Alaska is not blessed with a diverse economy. Prior to the first production of oil from Prudhoe Bay in 1977, Alaska's economy was that of a struggling frontier. When oil production began, it virtually eclipsed all other economic activity in the State.¹⁸ Thus,

¹⁷ In 1976, before Prudhoe Bay production began, American crude oil had an average wellhead value of \$8.19 a barrel. In 1978, when AS 43.21 was enacted, oil was at \$9.00 a barrel. By 1981, domestic crude had risen to \$31.77 a barrel, with no commensurate increase in the *cost* of producing this oil. See U.S. Energy Information Administration, *Monthly Energy Review* 86 (Sept. 1983).

When the *increase* in crude oil prices over the four tax years is multiplied by the prevailing rate of North Slope production—approximately 1.6 million barrels per day—the *additional profit bonanza* realized by all North Slope producers *attributable to skyrocketing oil prices alone* was over \$24 billion.

¹⁸ An "essentially complete" description of the manufacturing sector in the State is: two pulp mills, three small refineries, two natural gas plants, and several seafood processing plants. R. 16970. Alaska's only significant corporate tax base is the harvesting of natural

even if taxpayers' Alaskan income had been estimated by the three-factor formula, these three taxpayers would *still* have paid approximately 83% of *all* the income taxes collected by the State.¹⁹

In this litigation, despite an ample opportunity to do so, taxpayers never submitted evidence of any kind from which the trial court could reasonably have found that AS 43.21 attributed income to Alaska that was in any way different from what taxpayers actually earned there—much less “out of all appropriate proportion” to it. Taxpayers were thus left with an entirely theoretical challenge to separate accounting, a challenge now completely foreclosed by the recent *Container Corp.* decision. Recognizing this, the Alaska Supreme Court affirmed the trial court's order granting summary judgment to the State.

THE QUESTIONS PRESENTED ARE INSUBSTANTIAL

I. THE CENTRAL QUESTION PRESENTED—WHETHER SEPARATE ACCOUNTING MAY CONSTITUTIONALLY CO-EXIST WITH FORMULA APPORTIONMENT—WAS ANSWERED BY THIS COURT IN THE AFFIRMATIVE IN *CONTAINER CORP.*

The cornerstone of taxpayers' appeal is their assertion that the use of separate accounting (or the “arm's-length

resources. *Id.* The impact of oil production activity on Alaska's otherwise marginal economy can be appreciated by comparing it with the State's next most valuable resource, seafood. In 1981, the gross value of fish harvested in Alaska waters was approximately *one-twentieth* of the wellhead value of oil produced in that year. Dep't of Education, *Alaska Blue Book* 275 (1985).

¹⁹ Taxpayers claim that under AS 43.21 the oil industry paid 95% of the income taxes in Alaska, J.S. at 3, and under UDITPA they would have paid about one-quarter of that amount, App. 181a. If, out of \$100 of total State income tax revenue, oil companies paid \$95 under AS 43.21, they would pay only \$23.75 (one-quarter) under UDITPA. That would be 83% of the sum of \$23.75 and \$5 (non-oil income tax revenue).

method") by one State combined with the use of formula apportionment by other States inevitably leads to multiple taxation. But that precise contention was expressly rejected by this Court in *Container Corp.*:

Here . . . we are faced with two distinct methods of allocating the income of a multinational enterprise. The "arm's-length" approach divides the pie on the basis of formal accounting principles. The formula apportionment method divides the same pie on the basis of a mathematical generalization. Whether the combination of the two methods results in the same income being taxed twice or in some portion of income not being taxed at all is dependent solely on the facts of the individual case.

463 U.S. at 188 (footnote omitted). This holding—that the two methods are not inherently incompatible, and, in the Court's words, do not "create an automatic 'asymmetry'"—controls this case. *Id.* at 194-95.

Ignoring *Container Corp.*, taxpayers repeatedly assert that "a state may not attribute to itself for taxation 100% of something other states are entitled to tax by apportionment," J.S. at 9-10 (footnote omitted); see J.S. at 12, 13, 13-14, and that, in using formulas, other States tax "a share" of that "something". J.S. at 11, 12; see J.S. at 13, 13-14.

This argument is nothing but a conceptual trick. Quite simply, neither apportionment formulas nor separate accounting are intended to—or do in fact—operate the way taxpayers contend.

A. Taxpayers' Arguments Are Based On A Conceptual Trick.

1. It Is Perfectly Proper For Alaska To Levy A Tax On 100% Of Income Earned In The State.

There is absolutely nothing wrong with Alaska applying its 9.4% tax rate to 100% of the income that its division-of-income rule reasonably attributes to the State. Every State, no matter what method it uses to divide

income, levies a tax on *all* of the income it estimates was generated within its borders. Thus, taxpayers' litany that "Alaska taxes 100%" is true only in the same sense that California, Oklahoma, and Wisconsin also tax "100%" of California-, Oklahoma-, and Wisconsin-generated income, respectively. Each taxes 100% of the *portion* of a taxpayer's multistate net income that the State's division-of-income rules attribute to that State.

Taxpayers also mischaracterize the nature of the portion that Alaska taxes. AS 43.21 does *not*, as taxpayers allege, tax "all the net income that results when crude oil from Alaskan wells is sold in the Lower 48 States." J.S. at 7. Rather, it defines oil production gross income as the market value of the crude oil at the wellhead. It thereby excludes *all* income derived from the subsequent transportation, refining, distribution, marketing and final sales of Alaskan crude oil and its products. All production costs are then deducted. The remainder is clearly *not* all of the income taxpayers ultimately derive from Alaskan oil. As demonstrated in the oil barrel chart set out in the opinion below, App. 5a n.6, the total revenue taxpayers derived from the sale of a barrel of Alaskan crude oil was \$26.64. Alaska levied its tax on only \$6.77 of this amount, the net profits derived solely from the production of oil in Alaska.²⁰

²⁰ Taxpayers would like this Court to believe that AS 43.21 is flawed because most of the oil produced in Alaska is not "sold" in the State. It is not clear, however, what this purported flaw is. First, most Alaskan crude is not *sold* at all—it is transferred to the taxpayers' self-owned refineries in the lower 48 States. R. 12692, App. 296a. Second, AS 43.21 is not a forbidden unapportioned gross receipts tax levied by the origin state "on" interstate sales. It is a *net* income tax that sometimes must use an out-of-state value (refinery gate price) in deriving the market price of crude oil before it leaves the State. See *Texas Co. v. Cooper*, 107 So. 2d at 687. A *net* income tax may use an origin-state sales factor (*Moorman*, 437 U.S. at 278 n.13), or may ignore the contribution of sales to income entirely. *Underwood Typewriter v. Chamberlain*, 254 U.S. 113, 118 (1920).

2. *No Other State Is Entitled To "Tax A Share" Of Oil Production Income Earned In Alaska.*

Contrary to taxpayers' misleading contention, States that use formulas do not—and may not—tax a share of the income generated by taxpayers' activities in Alaska. An apportionment formula is not a license to engage in extraterritorial taxation. Rather, it is a method that a State constitutionally may use to estimate (albeit roughly) the income earned by activities *within* the State.

The common three-factor formula estimates a State's tax base by assuming that a State's percentage of a business's total net income is roughly equal to the average of the fractions of its total payroll, property, and sales that are located in the State. *Container Corp.*, 463 U.S. at 170, 183. The sole purpose of the formula, however, is to arrive at "a rough approximation of a corporation's income . . . *within the taxing State*," *Moorman*, 437 U.S. at 273 (emphasis added), not to tax a share of the income it earns in every other State.²¹

Taxpayers claim to have proved "actual" double taxation in this case because, in their words, "42 other states actually tax a share of Exxon's production income from Alaskan oil: those states treat a total of 30% of that income as 'their' income, in addition to the 100% that Alaska says is 'its' income," J.S. at 11 n.10 and 11-12. This 30% figure is nothing more than

²¹ If Wisconsin averages the fractions of Exxon's property, sales and payroll found in Wisconsin and arrives at an apportionment fraction of 2%, which it then multiplies by Exxon's income earned in all fifty States, Wisconsin is still only estimating and taxing—indeed, is constitutionally *bound* only to tax—income earned in Wisconsin. It is *not* taxing 2% of Exxon's income earned in Alaska, as appellants claim, any more than it is taxing 2% of Exxon's income earned in California (which also uses a formula), in Texas (which has no income tax), or in Oklahoma (which, like Alaska, separately accounts). Rather, if 2% of Exxon's factors are in Wisconsin, then Wisconsin may constitutionally assume for tax purposes that income follows those factors in rough proportion, and may therefore levy a tax on 2% of Exxon's nationwide income.

the sum of the apportionment percentages calculated by the 42 States that use formula apportionment. App. 407a. In other words, the 42 formula States attribute to themselves (and thus tax) 30% of Exxon's nationwide production, refining and retailing income. Alaska, of course, does not tax 100% of Exxon's nationwide income; rather, it levies its tax on 100% of the *portion* of Exxon's *production income* that it determines was *earned in Alaska*. It is thus a trick and a deception to claim the 130% "double taxation" taxpayers claim here by adding together the 30% of Exxon's *total nationwide income* that formula States tax and the 100% of *Alaskan production income* that Alaska taxes. The two are simply apples and oranges.

That 42 formula States collectively levy taxes on 30% of Exxon's nationwide income says nothing about whether Exxon is subjected to actual multiple taxation. In fact, based upon appellants' 1978 to 1980 tax returns in all the States, including Alaska, it is undisputed that during these years Exxon was actually taxed on only 51.4% of its total nationwide income, R. 16923, and therefore benefited from remarkable *undertaxation*. Similarly, ARCO was taxed on only 63.0% of its total income by all the States. *Id.*²²

B. The *Container Corp.* Decision Controls This Case.

Two years ago, in *Container Corp.*, this Court was confronted with the same erroneous argument made by taxpayers here: that formula apportionment and separate accounting are constitutionally incompatible and necessarily generate double taxation because California's formula taxed a portion of income that was taxed in full by other countries' separate accounting.²³

²² Although Sohio's complicated corporate structure makes a similar straightforward calculation difficult, it appears that Sohio was taxed by all the States on about 95% of its total nationwide income during 1978-80. R. 16925.

²³ See Appellant's Brief On The Merits at 9, *Container Corp. v. Franchise Tax Bd.*, No. 81-523 (U.S. July 30, 1982); Brief for Gulf

Applying the "additional scrutiny required by the Foreign Commerce Clause," the Court declined to hold that one division-of-income method is constitutionally preferred. 463 U.S. at 185. Noting that both separate accounting and formula apportionment are "imperfect proxies for an ideal which is not only difficult to achieve in practice, but also difficult to describe in theory," 463 U.S. at 182, the Court concluded, "[W]e have seen no evidence demonstrating that the margin of error (systematic or not) inherent in the three-factor formula is greater than the margin of error (systematic or not) inherent in . . . separate accounting" *Id.* 183-84.

The Court categorically rejected the contention that the combination of separate accounting and formula apportionment inevitably results in multiple taxation. "Whether the combination of the two methods results in the same income being taxed twice or in some portion not being taxed at all is dependent solely on the facts of the individual case." *Id.* at 188 (footnote omitted). Thus, even though the parties in *Container Corp.* did not dispute that *actual* double taxation had occurred on the particular facts of that case, *id.* at 187 n.22, the Court concluded that "it would be perverse" to hold that the Constitution forbids the use of either method. *Id.* at 193.

C. Taxpayers Misrepresent This Court's Decision In *Exxon v. Wisconsin* And Misapply Cases Dealing With Gross Receipts And Property Taxes.

It is ironic that in attempting to avoid *Container Corp.*, taxpayers rely almost entirely on the decision in *Exxon Corp. v. Wisconsin Department of Revenue*, 447 U.S. 207 (1980). See J.S. at i, 10, 11. There, one of these same taxpayers attempted unsuccessfully to persuade this Court that separate accounting for oil production income was constitutionally *required*. Having failed in that attempt, taxpayers here contend that the same method is constitutionally *forbidden*.

Oil Corporation as Amicus Curiae at 5, 17; Brief of Phillips Petroleum Company as Amicus Curiae at 3.

In that case, Exxon argued that because its internal accounting system could separately account for oil production income with accuracy, Wisconsin was constitutionally required to exclude that income from the total income pie against which the State applied its apportionment fraction. In rejecting that contention, the Court reaffirmed a long line of precedents granting wide latitude to the States in their choice of division-of-income methods. 447 U.S. at 219-23; see *Container Corp.*, 463 U.S. at 164.

In upholding Wisconsin's particular application of formula apportionment, the Court recognized that Wisconsin was not attempting to tax a portion of Exxon's production income in Alaska or elsewhere; the Court simply upheld Wisconsin's use of Exxon's nationwide income as the total income pie to which Wisconsin applied an apportionment fraction in order to arrive at an estimate of Wisconsin income. 447 U.S. at 226-27. Thus, the Court did not hold, nor in any way suggest, as taxpayers claim, that "separate accounting may not be used" by some States when other States are constitutionally permitted to use formula apportionment.²⁴ J.S. at i.

Taxpayers' heavy reliance on property tax cases and gross receipts tax cases²⁵ is also entirely misplaced. In

²⁴ Neither does the holding of *Mobil Oil Corp. v. Comm'r of Taxes*, 445 U.S. 425 (1980), support the taxpayers' argument. In *Mobil*, the exclusion sought by the taxpayer was premised on the legal fiction that dividend income could be taxed only by the State of commercial domicile. Mobil accordingly argued that Vermont was required to exclude from its apportionable base all dividend income from foreign subsidiaries received by the parent company, which was domiciled in New York. The Court's rejection of this attempt to erode the unitary theory on the basis of a legal fiction was predictable, and, as the dissent noted, makes that holding rather "unexceptional." *Id.* at 450 (Stevens, J., dissenting). *Mobil*, then, had nothing to do with separate accounting.

²⁵ J.S. at 12-14, 19-20 & nn.11-12, citing, e.g., *Japan Line v. County of Los Angeles*, 441 U.S. 434 (1979); *Standard Oil v. Peck*, 342 U.S. 382 (1952); *J.D. Adams Mfg. v. Storen*, 304 U.S. 307 (1938); *Evco v. Jones*, 409 U.S. 91 (1972).

those cases, unlike in net income tax cases, one taxing jurisdiction taxed the whole pie while another taxed a slice, a situation inevitably producing double taxation.

The property tax cases are exemplified by *Japan Line v. County of Los Angeles*, 441 U.S. 434 (1979). In that case, Japan taxed the full value of cargo containers used in international trade, while California taxed a part of the value of those same containers. The result was inevitable double taxation. However, in *Container Corp.*, this Court distinguished the overlapping property taxes found in *Japan Line* from the compatibility of separate accounting and formula apportionment of net income:

In *Japan Line*, we relied strongly on the fact that one taxing jurisdiction claimed the right to tax a given value in full, and another taxing jurisdiction claimed the right to tax the same entity in part—a combination resulting necessarily in double taxation. . . . Here, by contrast, we are faced with two distinct methods of allocating the income of a multinational enterprise. . . . Whether the combination of the two methods results in the same income being taxed twice or in some portion of income not being taxed at all is dependent solely on the facts of the individual case.

463 U.S. at 188 (citations and footnote omitted).²⁶

²⁶ Similarly, a gross receipts tax is levied on the total gross proceeds from sale of an article. If a manufacturing State taxes the total gross receipts from out-of-state sales, and a retail-sales State also taxes those total proceeds, multiple taxation is inevitable. This Court has resolved that overlap by permitting the destination State to tax all the gross proceeds, but prohibiting the production or manufacturing States from taxing gross receipts at all. As we have seen, there is no equivalent double taxation when *net* income is divided by separate accounting and by formulas. "The court has almost always been of the opinion that the difference between a tax on gross income and a tax on net income derived from multistate business required a different result when resisted on commerce clause grounds." P. Hartman, *Federal Limitations on State and Local Taxation* § 8:1 (1981).

II. THIS COURT SHOULD DISMISS TAXPAYERS' APPEAL BECAUSE THEY DID NOT EVEN ATTEMPT TO SHOW THAT AS 43.21 DISPROPORTIONATELY ATTRIBUTES INCOME TO THE STATE.

This Court has long recognized that there is a "substantial margin of error inherent in any method of attributing income among the components of a unitary business." *Container Corp.*, 463 U.S. at 184. See, e.g., *Underwood Typewriter Co. v. Chamberlain*, 254 U.S. 113, 121 (1920). "[A]rriving at precise territorial allocations of 'value' is often an elusive goal, both in theory and in practice," and it is "[f]or this reason" that this Court "ha[s] long held that the Constitution imposes no single formula on the States." *Container Corp.*, 463 U.S. at 164 (citing *Wisconsin v. J.C. Penney Co.*, 311 U.S. 435, 445 (1940)).

Thus, a State's determination that a particular methodology accurately allocates the income of a multistate business must be given considerable deference. See, e.g., *Container Corp.*, 463 U.S. at 176; *Moorman*, 437 U.S. at 274. The Constitution does not invalidate an apportionment method "whenever it may result in taxation of some income that did not have its source in the taxing State." *Container Corp.*, 463 U.S. at 169-70 (emphasis in original; quoting *Moorman*, 437 U.S. at 272). Instead, the taxpayer must prove, "by 'clear and cogent evidence' that the income attributed to the State is in fact 'out of all appropriate proportions to the business transacted . . . in that State,' or has 'led to a grossly distorted result.'" *Id.* at 170.²⁷ Absent such evidence, no substantial constitutional question is presented.

²⁷ Quoting *Moorman*, 437 U.S. at 274, quoting in turn *Hans Rees' Sons v. North Carolina ex rel. Maxwell*, 283 U.S. 123, 135 (1931) and *Norfolk & W. Ry. v. Missouri State Tax Comm'n*, 390 U.S. 317, 326 (1968).

A. Taxpayers Have Presented No Evidence Showing That Alaska's Separate Accounting Method Disproportionately Attributes Income To The State.

In the trial court, taxpayers resolutely refused to offer any evidence showing that AS 43.21 attributed to Alaska more oil production income than they in fact earned in the State. The sole "evidence" of disproportionality relied upon by taxpayers here is their calculation of the difference between the taxable income that UDITPA's three-factor formula would have attributed to Alaska, and their taxable income as measured by AS 43.21. Based on this calculation they allege "overtaxation . . . rang[ing] from 279% to 804%." J.S. at 21.

There is absolutely no dispute between the parties that the UDITPA formula would attribute to the State only a fraction of the oil production income measured by separate accounting. Indeed, it was precisely because the Alaska Legislature found that the formula would grossly *underattribute* oil production income to the State, and taxpayers would thus pay only a 2-3% effective tax rate, that it enacted AS 43.21.

As the court below found, the disparity between the results reached by the two income-division methods is caused by marked deficiencies in the accuracy of the three-factor formula when applied to oil production—not by any failing in the separate accounting traditionally favored by major oil-producing States. App. 15a-20a. The Alaska court broke no new ground with that conclusion. All the highest State courts that have considered the question have reached the same conclusion.²⁸ Alaska has shown (and taxpayers have never disputed) that the

²⁸ See n.7 *supra*. Those courts found underattribution by the formula comparable to that found here. *E.g.*, *Texas Co. v. Cooper*, 107 So. 2d at 690 (UDITPA income: \$1.5 million; separate accounting income: \$13 million); *Webb Resources v. McCoy*, 401 P.2d at 890-91 (UDITPA income: \$40,000; separate accounting income: \$157,000).

formula's assumptions break down when used to attribute oil production income. Taxpayers' inference that UDITPA income is their "actual" Alaska income is, then, no evidence at all.

Taxpayers presented no evidence of what they actually earned in Alaska because they litigated this case as a *per se* attack on separate accounting. As they told the trial court, their theory of the case "requires no elaborate showing that [the tax] is disproportionate to the taxpayer's business within the jurisdiction." R. 12763.

To the contrary, this Court has repeatedly held that a detailed showing of taxpayers' actual in-state income is *exactly* what taxpayers must offer if they are to discharge their burden of showing by "clear and cogent" evidence that a State's method has produced a "grossly distorted result."²⁹ Indeed, in the only two cases in which this Court has invalidated a State attribution method, the taxpayer used a detailed *separate accounting* analysis to prove overattribution by the formula.³⁰ Here, however, as in *Moorman*,

"[The taxpayer] did not attempt to prove the amount of its actual net income from [in-state] activities. . . . In this era of sophisticated accounting techniques, it should not be impossible for a unitary corporation to prove its actual income from activities in a particular state. However, [taxpayer] showed only that its tax liability would be substantially less if [the State] employed a three-factor apportionment formula. We have no basis to assume

²⁹ *Butler Bros. v. McCollan*, 315 U.S. 501, 509 (1942); *Underwood Typewriter v. Chamberlain*, 254 U.S. 113, 121 (1920); *Norfolk & W. Ry. v. North Carolina ex rel. Maxwell*, 297 U.S. 682, 690 (1936); *Bass, Ratcliff & Gretton, Ltd. v. State Tax Comm'n*, 266 U.S. 271, 283 (1924).

³⁰ *Hans Rees' Sons, Inc. v. North Carolina ex rel. Maxwell*, 283 U.S. 123, 134-35 (1931); *Norfolk & W. Ry. v. Missouri State Tax Comm'n*, 390 U.S. 317, 321-22 (1968).

that the three-factor formula produced a result equivalent to the corporation's actual [in-state] income. . . ."

437 U.S. at 275 n.9 (emphasis added) (quoting with approval *Moorman Manufacturing v. Bair*, 254 N.W. 2d 737, 757 (Iowa 1977) (McCormick, J., concurring)). Thus, taxpayers here simply declined to shoulder the burden of proof placed upon them by this Court's precedents.

D. AS 43.21 Properly Accounts For Out-of-State Contributing Activities.

Instead of proving their actual Alaskan income, taxpayers cite examples of managerial and support activities that take place outside the State. J.S. at 4-6 & n.4, 20 n.22. They then assert that AS 43.21 is invalid because it does not permit a deduction for some unspecified amount of profit allegedly earned by these activities. This argument fails for two reasons.

First, the Constitution simply does not require an income allocation system to account for each and every activity or factor that a taxpayer's choice of economic theories says contributes to net income. In *Moorman*, this Court upheld a single factor sales formula that ignored entirely the contributions to income of both *labor* (the payroll factor) and *capital* (the property factor) outside the State:

Whatever merit [the assumption that at least some portion of the income from Iowa sales was generated by Illinois activities] might have from the standpoint of economic theory or legislative policy, it cannot support a claim . . . that Iowa in fact taxed profits not attributable to activities within the State [E]ven were we to assume that the Illinois [manufacturing] activities made some contribution to the profitability of the Iowa sales, appellant's claim that the Constitution invalidates an apportionment formula whenever it may result in taxation of some income that did not have its source in the taxing State is incorrect.

Moorman, 437 U.S. at 272; accord, *Underwood Typewriter v. Chamberlain*, 254 U.S. at 120.

Container Corp. confirmed that no income allocation system can take into account all arguable contributions to income. "[E]ven the three-factor formula is necessarily imperfect." 463 U.S. at 182-83 & n.20. Indeed, in the instant case, the three factors ignore entirely the value of the oil, the predominant source of an oil company's production profits. See pp. 5-6, *supra*.

Similarly, as the Court said in *Container Corp.*, separate accounting "often ignores or captures inadequately the many subtle and largely unquantifiable transfers of value that take place among the components of a single enterprise." 463 U.S. at 164-65. Indeed, no separate accounting law—including those of other oil-producing States and the federal tax code³¹—attributes profit to such activities as research and development, management, and accounting that are ordinarily treated in taxpayers' own books as "cost centers" rather than "profit centers." R. 1527-28.

Here, as in *Moorman*, taxpayers have produced no separate accounting analysis or *any* quantified assessment of the profit, if any, assignable to outside contributing activities under their economic theory.³² Absent any such

³¹ La. Admin. Code art. 47:244.3.A, B.3 (1975); Miss. Code Ann. § 27-7-23(c)(2)(B) (7 Supr. 1985); Miss. Admin. Reg. 1.27-7-23 (7)(c)(2) (1979); Okla. Stat. Ann. tit. 68, § 2358, A.4.a (West Supp. 1984); see *Magnolia Petroleum Co. v. Oklahoma Tax Comm'n*, 121 P.2d at 1101. See Treas. Reg. § 1.482-2(c)(1), (3), (7).

³² Only one item of "proof" merits discussion. The taxpayers repeatedly assert that the record contains evidence that "80% of the expenses necessary to earn production income from Alaskan oil were incurred *outside* Alaska." J.S. at 4-5, 20-21 n.22 (emphasis in original). This assertion is based solely on one conclusory paragraph in an affidavit submitted by the taxpayers. App. 285a. Their affiant, however, confused the cost of *producing* Alaskan oil with the post-production cost of *transporting* the oil to refineries. Of the \$380 million he assigned out of the State (his "80%"), fully \$350 million were tanker charges incurred in transporting the oil from Alaska to refineries.

showing, taxpayers' anecdotes cannot raise a substantial question as to the constitutionality of AS 43.21.

Second, despite their protests to the contrary, taxpayers *can* deduct such outside profits as they report to their own shareholders.³³ 15 AAC 21.290(b). In allowing such a deduction, AS 43.21 goes beyond traditional separate accounting and far beyond what *Moorman* and *Container Corp.* require—in taxpayer's favor. Taxpayers claim, however, that SEC regulations forbid them to allocate oil production profits to out-of-state support activities in their shareholder reports because it would be "misleading or inaccurate" to do so. J.S. at 17 n.18. In essence, then, taxpayers assert that the Constitution requires Alaska to permit an attribution of profits to outside support activities that taxpayers themselves contend is "misleading or inaccurate." That is absurd.

In sum, taxpayers did not attempt an actual accounting of just how much they *did* earn in Alaska. Because they failed even to try to make the required showing of gross overattribution of income, their appeal does not raise a substantial federal question.

III. NONE OF TAXPAYERS' OTHER POINTS IS SUBSTANTIAL.

A. Alaska's Corporate Income Tax Statute Is Internally Consistent.

Every State's income tax law must have "internal consistency"—that is, "if [the State's law were] applied by every jurisdiction, it would result in no more than all of the unitary business' income being taxed." *Container Corp.*, 463 U.S. at 169.

³³ On this matter of state law, the decision of the Alaska Supreme Court is conclusive and unreviewable. Taxpayers

may amend their tax reports and returns to deduct any outside-generated profits attributable to general overhead and administrative activities associated with Alaskan oil production not previously deducted.

App. 12a.

AS 43.21 met this test. It divided a taxpayer's income into two categories. First, oil production income was determined by separate accounting. Obviously, if every State used the same separate accounting method for oil production income, each taxpayer would be taxed on exactly 100% of its nationwide production income.

Second, Alaskan income from other activities was estimated by an apportionment formula in which (1) *worldwide* oil production income was *excluded* from the apportionable base; (2) all sales, property and payroll associated with oil production in Alaska were *excluded* from the in-state factors in the formula (*i.e.*, the numerators); and (3) all sales, property and payroll associated with oil production *outside* Alaska were *included* in the *worldwide* factors contained in the formula's denominators. AS 43.21.040. The effect of the formula used by Alaska to estimate taxpayers' non-production income was thus to slightly underestimate non-production income. If all States used this system, it is mathematically inevitable that *less than 100%* of a corporation's non-production income would be subject to tax. Consequently, AS 43.21 more than satisfied the "internal consistency" test.³⁴

B. Alaska's Division-of-Income Method Does Not Discriminate Against Interstate Commerce.

Alaska's 9.4% corporate income tax applies uniformly to the Alaskan income of every corporation doing business in the State, regardless of where the company is headquartered, or whether it is a domestic or an interstate business. Thus, in contrast to the laws at issue in the cases relied on by taxpayers,³⁵ Alaska has treated in-

³⁴ Incomprehensibly, taxpayers' argument to the contrary—and the affidavits cited in support of it—explicitly assume that other States would *not* apply exactly the same rules as Alaska's. J.S. at 25-26 & n.29. The internal consistency test articulated by this Court, however, is designed to determine what happens when the taxing State's rules *are* identically applied by all States.

³⁵ *Metropolitan Life Ins. Co. v. Ward*, 105 S. Ct. 1676 (1985) (statute imposed lower gross premiums tax rate on domestic insur-

state and out-of-state taxpayers in an identical fashion.³⁴

In *Container Corp.* this Court recognized that if a facially-neutral tax law like AS 43.21 fairly apportions income, that is, does not produce a "grossly distorted result," 463 U.S. at 169-70, the law does not violate the Commerce Clause's anti-discrimination principle.

Aside from forbidding the obvious types of discrimination against interstate or foreign commerce, [the anti-discrimination] principle might have been construed to require that a state apportionment formula not differ so substantially from methods of allocation used by other jurisdictions in which the taxpayer is subject to taxation so as to produce double taxation of the same income, and a resultant tax burden higher than the taxpayer would incur if its business were limited to any one jurisdiction. At least in the interstate commerce context, however, the anti-discrimination principle has not in practice required much in addition to the requirement of fair apportionment.

Id. at 170-71. The Court thus reaffirmed the conclusion it had earlier reached in *Moorman*—that to eliminate "all overlapping taxation would require this Court to establish not only a single constitutionally mandated method of taxation, but also rules regarding the application of that method in particular cases." *Id.* at 171 (citing *Moorman*, 437 U.S. at 278-80). Because that

ance companies); *Armco, Inc. v. Hardesty*, 104 S. Ct. 2620 (1984) (wholesale gross receipts tax exempted local manufacturers); *Westinghouse Elec. Corp. v. Tully*, 104 S. Ct. 1856, 1860 (1984) (tax credit limited to products shipped from the State); *Boston Stock Exch. v. State Tax Comm'n*, 429 U.S. 318 (1977) (transfer tax taxed out-of-state securities transactions more heavily).

³⁶ Taxpayers make the baseless allegation that enactment of AS 43.21 "allowed Alaska to . . . reduce the tax rates on local businesses." J.S. at 3. This grave charge is absolutely false: Alaska does not impose different tax rates on local businesses. There is no basis in fact for taxpayers' allegations, and the part of the record cited by taxpayers does not offer even the slightest support for their charge.

function is constitutionally reserved to Congress, the Court expressly declined to undertake it. *Id.*

Taxpayers assert that the Commerce Clause forbids a State to "tailor" a tax by using a different division-of-income method for one industry than it uses for other industries. But as set forth above, UDITPA expressly contemplates that States will modify their prevailing division-of-income method where that method does not "fairly represent the extent of [a] taxpayer's activity in [the] State." See pp. 5-6, *supra*. The vast majority of States *do* use special division-of-income methods, including separate accounting, to determine the in-state income of businesses in a broad variety of industries. See Appendix, listing a sampling of more than sixty industry-specific division-of-income rules used by the States.

The necessary result of the argument proposed by taxpayers would be to require every State to use a single division-of-income system for all industries, and thus hold unconstitutional *all* of these provisions. That result is flatly inconsistent with this Court's refusal in *Container Corp.* and *Moorman* to mandate uniform division-of-income rules, out of deference to the proper role of the States, and to Congress. See *Container Corp.*, 463 U.S. at 171; *Moorman*, 437 U.S. at 278.

C. The Measure Of Alaska's Income Tax Is Reasonably Related To Taxpayers' Alaskan Activities.

In *Commonwealth Edison Co. v. Montana*, 453 U.S. 609, 628-29 (1981), this Court held that Montana's coal severance tax satisfied the Commerce Clause because the measure, or incidence, of the tax was reasonably related to the taxpayer's coal-mining activities, or presence, in the State as measured by the number of tons of coal produced.³⁷ Thus, because Alaska's tax is reasonably re-

³⁷ Both the majority and the dissenters in *Commonwealth Edison* agreed that a general revenue measure—such as a corporate income tax—necessarily satisfies this requirement. See 453 U.S. at 622 (majority opinion) and *id.* at 651 (Blackmun, J., dissenting).

lated to appellants' oil production activities in the State, as measured by the amount and value of oil produced, it fully satisfies the *Commonwealth Edison* standard.

Taxpayers' argument to the contrary rests on the assertion that Alaska's use of separate accounting is unconstitutional because a taxpayer's Alaskan oil production income may remain the same regardless of whether certain support services take place in or out of the State. But as stated above, the *Moorman* decision explicitly recognized that a division-of-income method need not take into account all factors that may contribute to the earning of income, so long as the method does not lead to a grossly distorted result.³⁸ 437 U.S. at 273. Because Alaska's separate accounting reasonably estimates taxpayers' Alaskan income, the measure of Alaska's tax is reasonably related to in-state activities.³⁹

³⁸ Indeed, the one-factor sales apportionment formula upheld in *Moorman* necessarily attributed the same income to Iowa regardless of whether all or none of the taxpayer's payroll and property were located in the State.

³⁹ There is no truth whatsoever to taxpayers' intimation that by using separate accounting, Alaska is taking anything from other States, or imposing a tax on a national resource that will somehow be exported to consumers in other States. No other formula apportionment State's tax calculation is affected by whether Alaska uses separate accounting or a formula. And since the price of crude oil is determined by the world market, taxpayers cannot and do not "export" the income tax they pay to out-of-state consumers. If this Court were to hold that Alaska was constitutionally required to use formula apportionment for oil production income, the only results would be an additional windfall of \$2 billion to these three oil companies, and a devastating blow to the State.

Finally, taxpayers' claim that "[w]hen it enacted the Oil Tax, Alaska projected that in 20 years its oil taxes would result in" an alleged "transfer of wealth from the Lower 48 to Alaska equal to \$1,000 for every American," J.S. at 3 n.1, is also completely false. The budget projection to which taxpayers refer was made in 1981, when AS 43.21 was *repealed*, not when it was enacted. The projection was for increases in Alaska's Permanent Fund, which derives from *royalty* receipts, and interest on those receipts, not

IV. PRUDENTIAL CONSIDERATIONS OFFER ADDITIONAL REASONS FOR NOT GIVING PLENARY REVIEW TO THIS APPEAL.

In addition to the insubstantiality of the questions presented, significant prudential factors—the unbroken line of court decisions upholding the constitutionality of separate accounting; the constitutional allocation of primary responsibility for regulating interstate commerce to Congress; the broad discretion afforded States in matters of taxation; and the pendency of presidential and congressional initiatives to limit the use of worldwide formula apportionment—counsel against giving plenary consideration to this appeal.

Separate accounting has long been the prevailing method oil-producing States have used to determine in-state oil production income. Yet *every* court that has considered the constitutionality of using separate accounting to determine oil production income has upheld its use.⁴⁰ Indeed, as the Supreme Courts of Kansas and Oklahoma both found, “[W]here the direct method of income allocation [separate accounting] can be employed, all suspicion of unconstitutional taxation is dispelled.” *Webb Resources v. McCoy*, 401 P.2d at 889; *Magnolia Petroleum v. Oklahoma Tax Commission*, 121 P.2d at 1011. In light of the lower courts’ unanimity on the question presented by this appeal, plenary review is unnecessary.

In *Moorman*, this Court recognized that the development of uniform rules for dividing the income of multi-state businesses “would require a policy decision based on

from corporate income or other tax revenues. AS 37.13.010(a). At that time, oil prices were expected to continue to rise. Royalties are due the State because the oil is produced from State land. None of this relates to income taxes, and in any event, not a penny of “wealth” would have been “transferred” from the lower 48.

⁴⁰ See *Texas Co. v. Cooper*, 107 So. 2d at 688; *Magnolia Petroleum v. Oklahoma Tax Comm’n*, 121 P.2d at 1011-12; *Webb Resources v. McCoy*, 401 P.2d at 889-91.

political and economic considerations that vary from State to State. . . . *It is to [Congress], and not this Court, that the Constitution has committed such policy decisions.*" 437 U.S. at 279-80 (emphasis added). "Congress has long debated, but has not enacted, legislation designed to regulate state taxation of income." *Container Corp.*, 463 U.S. at 196-97 (quoting *Mobil Oil Corp. v. Commissioner of Taxes*, 445 U.S. 425, 448 (1980)).

This Court has repeatedly recognized that in the absence of congressional action, the States must be given broad discretion in matters of taxation.⁴¹ In their appeal, taxpayers would have this Court drastically constrict the States' traditionally broad taxing power by imposing a uniform division-of-income method, even though Congress has refused to do so. In the face of Congress' persistent refusal to require States to use formula apportionment, this Court should not give plenary consideration to an appeal requesting such a result.

While Congress has not adopted legislation requiring the States to use uniform division-of-income methods, recent developments suggest that some limitations on the use of worldwide formula apportionment may soon be enacted. On November 8, 1985, the President announced his support for prohibiting the States from applying formula apportionment to the worldwide income of a taxpayer who operates both in a State and abroad, thereby requiring the use of separate accounting to divide a taxpayer's foreign income from its U.S. income. In so doing, he instructed "the Secretary of the Treasury to initiate the process of crafting Federal legislation to incorporate these principles into law and to work with the Congress for passage."⁴² Congress currently has pending before it

⁴¹ See, e.g., *Wisconsin v. J.C. Penney Co.*, 311 U.S. 435, 445 (1940); *Norfolk & W. Ry. v. Missouri State Tax Comm'n*, 390 U.S. 317, 326 (1968).

⁴² Statement by the President, *State Taxation of Multinational Corps.*, 21 Weekly Comp. Pres. Doc. 1368 (Nov. 8, 1985).

legislation introduced earlier this year that would essentially adopt those principles. S. 1113, 99th Cong., 1st Sess. (1985).

Plenary consideration of taxpayers' wholesale attack on separate accounting would be particularly unfortunate at this time because it would cast a cloud of constitutional uncertainty over the current climate of active presidential and congressional initiatives to restrict the use of formula apportionment.

CONCLUSION

For the reasons stated above, this Court should dismiss this appeal or summarily affirm the judgment below.

Respectfully submitted,

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APPENDIX

**Examples of State Statutes and Regulations Embodying
Division-of-Income Rules Different From UDITPA
Formula Apportionment**

Construction: Miss. Admin. Reg. 1.27-7-23(7) (m) (1979) (separate accounting); [Oregon] St. & Loc. Tax Serv. (P-H) ¶ 65,325.10 (Aug. 11, 1943), ¶ 65,330.20 (Dec. 14, 1955) (separate accounting); Va. Code § 58.1-419 (1984).

Mining and Natural Resource Production: La. Admin. Code art. 47:244.3.B(1975) (separate accounting); 1985 Minn. Sess. Law Serv. art. 1 § 45 (West) (amending Minn. Stat. Ann. § 290.19 (West Supp. 1985)); Miss. Admin. Reg. 1.27-7-23(7) (o) (1979) (separate accounting); Okla. Stat. Ann. tit. 68, § 2358, A.4.a (West Supp. 1984) (separate accounting).

Realty Management: [Oregon] St. & Loc. Tax Serv. (P-H) ¶ 65,330.30 (Nov. 1, 1960) (separate accounting).

Financial Organizations: Ill. Ann. Stat. ch. 120, § 3-304 (c) (Smith-Hurd Supp. 1985); 1985 Ky. Rev. Stat. & R. Serv. § 141.120(10) (Baldwin); La. Rev. Stat. Ann. § 47:245(E) (West 1970); Mich. Stat. Ann. § 7.558(65) (Callaghan 1984); N.D. Corp. Income Tax Return, [1985] St. Corp. Income Tax Forms (CCH), at 17,102 (1984); Or. Admin. R. 150-314.280-(E) (1977); Va. Code § 58.1-418 (1984); Wis. Admin. Code § [Dept. of Rev.] 2.49 (1973).

Insurance: Conn. Gen. Stat. Ann. § 12-218a (West 1983); Fla. Stat. Ann. § 214.72(1)(a) (West Supp. 1985); Ill. Ann. Stat. ch. 120, § 3-304(b) (Smith-Hurd Supp. 1985); Mich. Stat. Ann. § 7.558(62) (Callaghan 1984); Or. Admin. R. 150-314.280-(E) (1977).

Public Utilities: 1985 Ky. Rev. Stat. & R. Serv. 141.120 (10) (Baldwin); Miss. Admin. Reg. 1.27-7-23(7) (l) (1979); Mo. Ann. Stat. § 143.451(6) (Vernon 1976);

N.C. Gen. Stat. §§ 105.130.4(n),(q),(r) (1979); N.D. Cent. Code § 57-38-13(8) (1983); Or. Admin. R. 150-314-280-(E) (1977); S.C. Code Ann. § 12-7-640 (Law. Co-op. Supp. 1985); Wis. Admin. Code § [Dep't of Rev.] 2.50 (1973).

Transportation (general): Fla. Stat. Ann. § 214.72(2) (West Supp. 1985); Ill. Ann. Stat. ch. 120, § 3-304(d) (1) (Smith-Hurd Supp. 1985); La. Rev. Stat. Ann. § 47:245 (C) (West 1970); Mich. Stat. Ann. § 7.558(57) (Callaghan 1984); Or. Admin. R. 150-314.280-(G) (1983); Pa. Cons. Stat. Ann. § 7401(3)(2)(b) (Purdon Supp. 1985).

Air Carriers: Cal. Rev. & Tax Code § 25101.3 (West 1979); Conn. Gen. Stat. Ann. § 12-244 (West 1983); La. Rev. Stat. Ann. § 47:245(A) (West 1970); Miss. Admin. Reg. 1.27-7-23(7)(j) (1979); Wis. Admin. Code § [Dep't of Rev.] 2.46 (1973).

Motor Carriers: Conn. Gen. Stat. Ann. § 12-218(c) (West 1983); Kan. Stat. Ann. § 79-3279 (1984); Miss. Admin. Reg. 1.27-7-23(7)(k) (1979); N.C. Gen. Stat. § 105-130.4(o) (1979); Va. Code § 58.1-417 (1984); Wis. Admin. Code § [Dep't of Rev.] 2.47 (1973).

Pipelines: Ill. Ann. Stat. ch. 120, § 3-304(d)(2) (Smith-Hurd Supp. 1985); La. Rev. Stat. Ann. § 47:245 (B) (West 1970); Mich. Stat. Ann. § 7.558(58) (Callaghan 1984); Miss. Admin. Reg. 1.27-7-23(7)(i) (1979); Pa. Cons. Stat. Ann. § 7401(3)(2)(c) (Purdon Supp. 1985); Wis. Admin. Code § [Dep't of Rev.] 2.48 (1973).

Railroads: Kan. Stat. Ann. § 79-3279 (1984); Miss. Admin. Reg. 1.27-7-23(7)(l) (1979); Mo. Ann. Stat. § 143.451(4) (Vernon 1976); N.C. Gen. Stat. § 105-130.4(m) (1979); Va. Code § 58.1-420 (1984).

Water Transportation: Or. Admin. R. 150-314.280-(H) (1984), (J) (1973).

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Passenger Carriers: Mo. Ann. Stat. § 143.451(3)
(Vernon 1976); N.C. Gen. Stat. § 105-130.4(p) (1979).

Service Enterprises: La. Rev. Stat. Ann. § 47:245(D)
(West 1970).

(16) [Effective February 1, 1981] Repealed by § 11 ch 1 SSSLA 1980.

(17) [Effective February 1, 1981] Repealed by § 11 ch 1 SSSLA 1980.

(am § 11 ch 1 SSSLA 1980)

Effect of amendment.

The 1980 amendment effective February 1, 1981, repealed paragraphs (4), (7), (13), (14), (16) and (17), which define "fiduciary," "individual," "domicile," "nonresident," "residence," and "resident," respectively.

Editor's note. — For legislative findings and purpose of the 1980 amendment, see § 1, ch. 1, SSSLA 1980, in the 1980 Temporary and Special Acts and Resolves.

Chapter 21. Oil and Gas Corporate Income Tax.

Section

10. Application
20. Determination of taxable income from oil and gas production
30. Determination of income from oil and gas pipeline transportation
40. Determination of income from activities other than oil and gas production or pipeline transportation

Section

50. Assessment of income and tax
60. Returns
70. Payment of tax
80. Transitional rules
90. Regulations
100. Penalties
110. Public reporting
120. Definitions

Editor's note. — As to legislative findings and intent, see § 1, ch. 110, SLA 1978, in the 1978 Temporary and Special Acts and Resolves.

Section 4, ch. 110, SLA 1978, provides: "This Act applies to taxable income earned or received after December 31, 1977."

Sec. 43.21.010. Application. This chapter applies to every corporation doing business in the state which derives income from the production of oil or gas from a lease or property in the state or from the pipeline transportation of oil or gas in the state. The tax calculated under this chapter is measured by the total taxable income of the corporation as defined in AS 43.21.020 — 43.21.040 and is determined at the rates established under AS 43.20.011(e). (§ 3 ch 110 SLA 1978; am § 28 ch 113 SLA 1980)

calculated

during the tax period

Effect of amendment. — The 1980 amendment, effective June 21, 1980, and retroactive to January 1, 1978, deleted "or directly associated with" following "a lease or property in" near the middle of the first sentence.

Editor's note. — Section 50, ch. 113, SLA 1980, effective June 21, 1980, makes this section applicable to tax years beginning after December 31, 1977.

Sec. 43.21.020. Determination of taxable income from oil and gas production. (a) The taxable income of a corporation from the

production of oil and gas from a lease or property in the state shall be the corporation's net income as calculated by the department in accordance with this section.

(b) Gross income of a corporation from oil and gas production shall be the gross value at the point of production of oil or gas produced from a lease or property in the state. The department shall by regulation determine a uniform method of establishing the gross value at the point of production. In making its determination the department may use the actual prices or values received for the oil or gas, the posted prices for the oil or gas in the same field, or the prevailing prices or values of oil or gas in the same field. In addition, in its determination of gross value at the point of production of oil or gas produced from a lease or property, the department shall determine the reasonable costs of transportation from the point of sale to the point of production of the oil or gas. Transportation costs set by a tariff properly on file with the Alaska Pipeline Commission or other regulatory agency shall be considered prima facie reasonable, but if a tariff properly on file with a regulatory agency is subsequently amended, changed, or overturned retroactively, the reasonable costs of transportation shall be recomputed for that period using the newly determined tariff.

(c) Net income from oil and gas production shall be determined by the department by deducting from gross income the following:

(1) royalties paid in kind or in value;

(2) taxes imposed under AS 43.55 and AS 43.57 which are actually paid by the corporation on the production from a lease or property in the state;

or incurred
(3) taxes imposed under AS 43.56 and AS 29.53 which are actually paid by the corporation on property used directly in the production of oil or gas from a lease or property in the state, including property used in production, gathering, treatment, or preparation of the oil or gas for pipeline transportation, but only if those property tax payments were due and payable only after the date of commercial production from the lease or property with which the property was associated;

(4) the direct costs incurred by or for the corporation in operating the lease or property, including the direct costs of producing, gathering, treating, or preparing the oil or gas for pipeline transportation, but not of any payments received for those activities and not including any indirect cost or overhead expense;

(5) depreciation (using the unit of production method or such other reasonable methods as the department may by regulation establish) on property used directly in the production, gathering, treatment or preparation of the oil or gas for pipeline transportation including amortization of capitalized interest for investments in this property at a rate not to exceed the average cost of borrowed capital to the taxpayer during the year in which it is capitalized;

(6) the amortization of lease acquisition payments and taxes paid *or incurred* under AS 43.56 and AS 29.53 (including capitalized interest on both) for or on producing properties before the commencement of commercial production from the lease or property for which the property is being used;

(7) interest expense of the corporation, not capitalized during construction, that was paid or incurred in connection with property in Alaska; however, unless (f) of this section applies, the interest expense may [TO THE EXTENT THAT IT DOES] not exceed that portion of the total interest paid by the consolidated business of which the corporation is a part, determined by multiplying the total interest [(REDUCED BY INTERCOMPANY TRANSACTIONS WITHIN THE CONSOLIDATED BUSINESS)] by a fraction, the numerator of which is the value of the corporation's real and tangible personal property used directly in the production of oil or gas from a lease or property in the state and the denominator of which is the value of all real and tangible personal property of the consolidated business; in this subsection, "total interest paid by the consolidated business" does not include interest expense arising from intercompany obligations within the consolidated business except to the extent that the interest expense reflects a pass-through of interest on a third-party borrowing by the parent or other member of the consolidated business with the purpose, expressed at the time of the third-party borrowing, of financing Alaska business activity of the taxpayer corporation;

(8) expenses incurred by the corporation after December 31, 1977, of unsuccessful exploration of oil or gas in the state including the acquisition costs of abandoned properties, dry hole costs, and the costs of geologic and geophysical exploration related to those abandoned properties;

(9) general overhead or administrative expense incurred by the corporation attributable to deriving income from the production of oil or gas from a lease or property in the state to the extent, except as provided in (f) of this section, that it does not exceed [THE LESSER OF:

(A)) that portion of the total general overhead or administrative expense incurred by the consolidated business of which the corporation is a part, determined by multiplying the total general overhead or administrative expense by a fraction, the numerator of which is the value of the corporation's real and tangible personal property used directly in the production of oil or gas from a lease or property in the state and the denominator of which is the value of all real and tangible personal property of the consolidated business;

(11) the tax imposed by sec. 4986 of the Internal Revenue Code that is paid or incurred by the taxpayer for oil production from leases or properties in the state (OR,

(e) Where a corporation subject to this chapter shares the production or proceeds of the production from a lease or property through a working interest, royalty interest, overriding royalty interest, production payment, net profit interest, joint venture or other agreement, the department shall allocate the deductions from gross income between the corporation and the persons with whom it has such an agreement in accordance with the terms of the agreement. (§ 3 ch 110 SLA 1978; am § 29 ch 113 SLA 1980)

(f) If a corporation demonstrates to the satisfaction of the department that it paid or incurred actual expenses for interest or for general overhead or administration attributable to deriving income from the production of oil or gas from a lease or property, in the state in an amount greater than the amount determined under (c)(7) or (c)(9) of this section, the department may allow the corporation to deduct the greater amount.

Effect of amendment. — The 1980 amendment, effective June 21, 1980, and retroactive to January 1, 1980, in paragraph (7) of subsection (c), inserted "of the corporation" and substituted "during construction" for "of the corporation", both

near the beginning of the paragraph.

Editor's note. — Section 52, ch. 113, SLA 1980, effective June 21, 1980, makes this section applicable to tax years beginning after December 31, 1979.

Sec. 43.21.030. Determination of income from oil and gas pipeline transportation. (a) Except as provided in (c) of this section, taxable income attributable to the transportation of oil in a pipeline engaged in interstate commerce in Alaska shall be determined by the department and shall be the amount reported or that would be required to be reported to the Federal Energy Regulatory Commission or its successors as net operating income, less those portions of interest and general administrative expense attributable to the pipeline transportation of oil in the state, except that taxable income shall also include taxes on or measured by income. The department shall establish regulations governing the determination of interest and general administrative expense attributable to pipeline transportation of oil in the state.

(b) Except as provided in (c) of this section, taxable income attributable to the transportation of natural gas in a pipeline engaged in interstate commerce in Alaska shall be determined by the department and shall be the amount reported or that would be required to be reported to the Federal Energy Regulatory Commission as net operating income less that portion of interest and general administrative expense attributable to pipeline transportation in the state, except that the taxable income shall also include taxes on or measured by income. The department shall establish regulations governing the determination of interest and general administrative expense attributable to pipeline transportation of natural gas in the state.

(c) Taxable income attributable to the transportation of oil or natural gas in Alaska of any corporation not under the Federal Energy Regulatory Commission jurisdiction, or of a corporation under the jurisdiction of the Federal Energy Regulatory Commission but not reporting the operation of pipelines in Alaska separately from the operation of pipelines elsewhere, shall be determined by the department and shall be based upon an amount equal to that which would have been reported to the Federal Energy Regulatory Commission under (a) of this section in the case of oil pipelines, or (b) of this section in the case of natural gas pipelines, had the corporation been, in fact, under Federal Energy Regulatory Commission jurisdiction for the taxable year and required to report on the operation of Alaska pipelines separately from the operation of pipelines elsewhere. (§ 3 ch 110 SLA 1978)

Sec. 43.21.040. Determination of income from activities other than oil and gas production or pipeline transportation. (a) Taxable income of a corporation subject to this chapter from activities in this state other than the production of oil or gas from a lease or property in the state or the pipeline transportation of oil or gas in the state shall be determined in accordance with the method established in art. IV of AS 43.19.010 and in AS 43.20.071, as modified by (b) — (f) of this section.

(b) The total taxable income of the consolidated business is its entire income less the portion of that entire income attributable to worldwide production and pipeline transportation of oil and gas. In this section,

(1) for a member of a consolidated business who is required to file under the Internal Revenue Code, "entire income" means taxable income under Subtitle F and chapter 1 of Subtitle A of the Internal Revenue Code of 1954, as amended, except that those provisions adopted after December 31, 1975, which change or modify exemptions from tax are not adopted by reference as a part of this section until the second January 1 following the effective date of the federal law;

(2) for a member of a consolidated business who is not required to file under the Internal Revenue Code, "entire income" means book income, except that a taxpayer may elect to report his income as the income would be determined under (1) of this subsection.

(c) The numerator and denominator of the property factor, of the payroll factor and of the sales factor shall be calculated without reference to that portion of property, payroll or sales directly related to the production of oil or gas from a lease of property in the state or the pipeline transportation of oil or gas in the state.

(d) Compensation earned by employees of the consolidated business who are employed in the United States but not in any state shall be included in the numerator of the payroll factor if the employees are directly supplied from a base of operations maintained in this state.

(e) The value of oil or gas production facilities or other properties of the consolidated business which are located in the United States but not in any state shall be included in the numerator of the property factor if the property is serviced or supplied from a base of operations maintained in the state or if that property relies on onshore facilities in this state for storage of the oil or gas produced.

(f) The value attributed to vessels transporting Alaskan oil or gas of the consolidated business which are not owned or effectively owned by the consolidated business shall be excluded from the property factor. (§ 3 ch 110 SLA 1978; am §§ 30 — 32 ch 113 SLA 1980)

repealed

Sec. 43.21.050. Assessment of income and tax. (a) The department shall assess taxable income and the amount of tax payable on that taxable income.

(b) On or before August 15 of each year the department shall send to every corporation taxable under this chapter a notice of assessment showing the amount of income taxable under this chapter for the previous year and the amount of tax payable on that taxable income.

(c) For purposes of this chapter the department may combine taxable incomes of corporations subject to tax under this chapter who are part of the same consolidated business. (§ 3 ch 110 SLA 1978)

(d) If the methods of allocation and apportionment provided in this chapter do not fairly represent the extent of a corporation's business activity in the state, the corporation may petition for or the department may require, in respect to all or any part of the corporation's business activity, if reasonable, the employment of any method authorized under art. IV, sec. 18, of the Multistate Tax Compact (AS 43.19.010) to effectuate an equitable allocation and apportionment of the corporation's income. The commissioner shall include in his annual report required in AS 43.21.110 a report on all relief granted under this subsection, including for each case a statement of the changes in tax liability resulting from the granting of relief, the tax years involved, and a description of the method of determining taxable income that was substituted for those provided in this chapter.

Sec. 43.21.060. Returns. On or before April 15 of each year, a corporation subject to tax under this chapter shall submit a return in a form prescribed by the department setting out information required by the department to determine taxable income. For purposes of this chapter, the department may require corporations subject to tax under this chapter who are part of the same consolidated business to file a single return. (§ 3 ch 110 SLA 1978)

Sec. 43.21.070. PAYMENT OF TAX. The tax levied under this chapter is payable to the department on or before September 30 of each year or in installments, including prepayments of estimated tax, at the times and under the conditions the department may by regulation require. This tax is payable on the due date set out in this section even though the assessment is under appeal or the validity, enforceability or application of this chapter or any provision of this chapter is challenged before the department or in the courts.

Sec. 43.21.080. Transitional rules. The department shall provide by regulation transition rules for corporations subject to tax under ch. 20 of this title before July 9, 1978 to avoid double taxation of the same income or double deduction of the same expense of those corporations as a result of becoming subject to tax under this chapter. (§ 3 ch 110 SLA 1978)

Sec. 43.21.090. Regulations. The department may adopt regulations in accordance with the Administrative Procedure Act (AS 44.62) as appropriate to administer and enforce this chapter. (§ 3 ch 110 SLA 1978)

Sec. 43.21.100. Penalties. The penalties established in ch. 20 of this title apply to this chapter. (§ 3 ch 110 SLA 1978)

Sec. 43.21.110. Public reporting. (a) The commissioner of revenue shall compile and transmit to the legislature an annual consolidated report of state revenues and taxation policies under this chapter. This report shall include total aggregate income tax paid by corporations covered under this chapter and aggregate income and deductions by category, so classified as to prevent the identification of particular returns or reports.

(b) The legislative auditor shall transmit to the legislature an annual report reviewing the actions of the department in administering this chapter. (§ 3 ch 110 SLA 1978)

Sec. 43.21.120. Definitions. Unless the context requires otherwise the definitions contained in AS 43.55.140 are applicable to this chapter. In addition, in this chapter

(1) "base of operations" means the closest point on land to the offshore oil or gas production operations from which goods, services and supplies flow to those offshore oil or gas production operations;

(2) "consolidated business" means a corporation or group of corporations having more than 50 percent common ownership direct or indirect, or a group of corporations in which there is common control either direct or indirect as evidenced by any arrangement, contract or agreement. (§ 3 ch 110 SLA 1978; am § 33 ch 113 SLA 1980)

IN THE
Supreme Court of the United States

October Term, 1985

ATLANTIC RICHFIELD COMPANY; ARCO PIPE LINE COMPANY; EXXON CORPORATION; EXXON PIPELINE COMPANY; BP ALASKA INC.; SOHIO ALASKA PETROLEUM COMPANY; and SOHIO PIPE LINE COMPANY,

Appellants,

VS.

STATE OF ALASKA, *et al.*,

Appellees.

On Appeal From the Supreme Court of Alaska

**BRIEF IN OPPOSITION
TO MOTION TO DISMISS**

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BRIEF IN OPPOSITION TO MOTION TO DISMISS

Alaska's Motion to Dismiss or Affirm ("M.D.") shows that it will not address and cannot avoid the issue that makes this case unmistakably worthy of the Court's plenary consideration: the consequences for the historic free trade policy of the Commerce Clause of accepting Alaska's rationale for its Oil Tax. Alaska's arguments confirm that it claims the right to arrogate to itself for income taxation all the profit that results when crude oil originating in Alaska is sold in other states — even though that same profit is properly subject to tax, and is taxed, in other states as well. If Alaska may do that, every state may similarly tailor its taxes, similarly burden its principal export, and similarly enrich itself.¹

I. ALASKA'S ARGUMENTS IGNORE THE COMPETING RIGHTS OF OTHER STATES TO TAX A SHARE OF APPELLANTS' PRODUCTION INCOME.

The Supreme Court of Alaska knew that Alaska could not properly tax 100% of interstate production income that other states are entitled to tax by apportionment, and sought to save the Oil Tax by denying that Alaska was taxing 100%. App. 35a. Appellants' Jurisdictional Statement showed that this reasoning was an evasion of the issue and could not be sustained. J.S. 14-18. Implicitly conceding that appellants were right, and that the judgment of the Alaska Supreme Court cannot be defended on the basis of what that court said, Alaska now boldly takes the position that it does not matter if Alaska takes for itself 100% of

¹ Alaska indignantly denies that it has been enriched, and asserts that the \$184 billion surplus which it projected from its taxes was "for increases in Alaska's Permanent Fund which derives from royalty receipts." M.D. 27 n.38. This is untrue, as can be seen from the projection itself, a copy of which is included as Exhibit A. As correctly stated in the Jurisdictional Statement, column 7 shows a balance of \$184 billion in the General Fund. The balance in the Permanent Fund is shown in Column 8: it is an *additional* \$13 billion. The projection was made in late 1979 or early 1980 for Fiscal Year 1981 (which ran from July 1980 to June 1981), again contrary to Alaska's indignant protestation. Equally false is Alaska's denial that it reduced tax rates on local businesses. M.D. 25 n.36. Compare 1975 SLA Ch. 70, § 1 with 1981 SLA Ch. 116, § 3-4. And Alaska's suggestion that, even without the Oil Tax, appellants would have paid a high share of Alaska's taxes, M.D. 10 n.19, assumes implausibly that without the Oil Tax Alaska would still have repealed its personal income tax, school tax, and business license tax.

production income from wells in Alaska. M.D. 11-13. On the contrary, the State now says, the Constitution allows Alaska to take 100%, even though other states also have the right to tax and even though the inevitable consequence is multiple taxation.²

Alaska argues that it may tax 100% of appellants' production income on the ground that all of the income, as a matter of law, was "earned in Alaska." M.D. 7, 11, 13. The obvious question is — Why? Why is income that results from crude oil sales in California and Texas earned, entirely, in Alaska? Why is income from crude oil that would never have been produced except for the skill and labor of appellants' employees throughout the country earned, entirely, in Alaska? Why is income from the sale in California of crude oil that would have had no value but for the existence of a market outside Alaska earned, entirely, in Alaska? And why is the answer to these questions so clear that Alaska is entitled to prevail on them as a matter of law and the taxpayers are not even entitled to a trial?

² It is worth stating again exactly what production income is, and how the Oil Tax works. Take the case of Sohio, which has over half of appellants' Prudhoe Bay production. Only 1.6% of Sohio's oil is sold for consumption in Alaska; the rest is sold or exchanged, as crude oil, to third parties in California and in other Lower 48 states. R. 13414-15. The Sohio employees responsible for marketing the crude oil, like many of those responsible for operating the Prudhoe Bay field, are located in California. R. 13410. Sohio's profit is the difference between the sales price of the crude oil, on the one hand, and the cost of extracting the oil and shipping it to the point of sale, on the other. This profit is Sohio's "production income." If Sohio's profit from a sale in California is \$1 million, it will have Alaska taxable income from the transaction of \$1 million, California taxable income of at least \$333,000 (since the sale and at least some of Sohio's property and payroll are in California), and additional taxable income in other states as well. Over 133% of its real income from the transaction will be taxable somewhere. Multiple taxation is real and obvious.

Alaska's statement that "most" Prudhoe Bay oil is transferred to appellants' own refineries, M.D. 12 n.20, is false. Most of the oil is in fact sold or exchanged to third parties in the Lower 48. R. 13410, 13415, 12692, 12736-37. All transfers to appellants' refineries, moreover, are at market prices, and are treated by the Oil Tax as sales. 15 AAC 21.122(b), (c). Alaska can hardly treat the transfers as sales for purposes of the Oil Tax and then deny the constitutional consequences of doing so.

Alaska's principal (and only honest) answer is: "Because we say so." Most of Alaska's argument begs the question. It simply assumes, without discussion and without evidence, that production income is earned entirely in Alaska. Alaska proclaims that "it is perfectly proper for Alaska to levy a tax on 100% of income earned in the state." M.D. 11. And so it is. But the question to be decided is whether the production income Alaska taxes — income resulting from the sale in California and other states of crude oil from wells in Alaska, oil produced by virtue of activities that take place in many states — can constitutionally be said to be earned in Alaska *alone*. About that question, Alaska's papers have nothing to say.

Only this calculated refusal to face the issue of where production income is earned allows Alaska to deny that the Oil Tax inevitably results in multiple taxation. Contrary to Alaska's argument, however, California's use of an apportionment formula to tax production income does not mean that California is taxing a share of income "earned in Alaska"; it means only that California has concluded (correctly) that production income is earned in part by activities in California, and that California may therefore attribute a share of that income to California. *Sjong v. State*, 622 P.2d 967, 972 (Alaska 1981). Similarly, when this Court allowed Wisconsin to tax a share of Exxon's production income, it did so on the ground that since Exxon is a unitary business Exxon's activities in Wisconsin contribute to the earning of production income. 447 U.S. at 224-26. Wisconsin and 41 other states tax an apportioned share of Exxon's production income because they believe (correctly, this Court has held) that the income is earned, in part, by activities in those states.³ Only Alaska refuses to recognize the contributions of other states, or to apportion.

³ Alaska's treatment of the facts as to double taxation is notably disingenuous. M.D. 14. First, Alaska entirely ignores the Tanner Affidavit, obviously for the reason that Alaska cannot rebut its showing that Sohio is double-taxed. App. 380a. Second, Alaska says, quite falsely, that Exxon is adding together shares of production income and shares of total income to arrive at 130%; the figure of 130% reflects rather the 100% of *production* income that Alaska takes, and the 30% of *production* income that their formulas attribute to other states. And Alaska appears to argue that all states may tax whatever

As for Alaska's suggestion that it reaches no interstate values because it taxes only "value at the wellhead," that argument is little better than a play on words. The record shows without dispute that there is no market for crude oil at the wellhead at the North Slope and therefore no market price at the wellhead. See J.S. 5 n.3. What Alaska calls "value at the wellhead" is merely the mathematical result of subtracting, from the sales price of crude oil in the Lower 48, the cost of transporting the oil from the North Slope to the place where it is sold. J.S. 5 n.3. Alaska's tax therefore reaches every bit of the value created up through the time the crude oil is sold outside Alaska — value resulting, not only from the sale of the crude in the Lower 48, but also from the fact that the crude has been transported to California or Texas (where there is a market for it) from Alaska's North Slope — where there is not.⁴

Alaska tries, finally, to defend itself by claiming that the Oil Tax is "identical" to methods used in international taxation. This is simply not so.⁵ And Alaska's purported state court authority is, if anything, slighter. It comprises only three cases,

they want until such time as more than 100% of total income has been taxed somewhere. Why should Texas' lack of an income tax give Alaska the right to tax more than its share?

⁴ Alaska only underlines this point when it complains that appellants count the cost of transporting crude oil to the Lower 48 as part of the costs of earning production income. M.D. 22 n.32. Transporting crude oil from the North Slope of Alaska to refineries in the Lower 48 required building and running an enormously expensive pipeline and a tanker fleet; without them, no one would have profited from Prudhoe Bay oil, which would have been almost worthless if left on the North Slope.

⁵ Alaska relies, for example, on the OECD Model Convention for Avoidance of Double Taxation. Although Alaska does not bother to cite the portion of the Convention it relies on, in the Alaska Supreme Court it cited Art. 7 ¶ 2:

"Subject to the provisions of paragraph 3, where an enterprise of a Contracting State carries on business in the other Contracting State through a permanent establishment situated therein, there shall in each Contracting State be attributed to that permanent establishment the profits which it might be expected to make if it were a distinct and separate enterprise engaged in the same or similar activities under the same or similar conditions and dealing wholly independently with the enterprise of which it is a permanent establishment."

although Alaska cites them over and over again. M.D. 3 n.7, 12, 19, 22, 28. One of them does not even involve a state seeking to impose separate accounting.⁶ The other two both depend on factual findings that the taxpayers were not unitary, and that operations in the taxing state were separate and distinct from operations in other states.⁷ Under such circumstances, of course,

Unlike the Oil Tax, this language clearly requires the attribution of market profits to each of the taxpayers' facilities outside Alaska. If it were applied to the taxpayers' production income, some profits would be attributed to each of the states where the taxpayers maintained a "permanent establishment." Under the Oil Tax, Alaska takes all of the production income for itself.

This method of dividing income is sometimes called the "hypothetical subentity" or "arm's length" approach. See *Container Corp. v. Franchise Tax Board*, 463 U.S. 159, 184-85 (1983). The Affidavit of William J. Baumol, Professor of Economics at Princeton and NYU, and formerly President of the American Economics Association, discusses this approach in detail, considers its defects as compared with apportionment, and shows that the Oil Tax indefensibly contravenes the "arm's length" approach by engaging in a "profit assignment procedure with no basis in logic . . . which is inherently biased toward over-assignment of profit toward Alaska." App. 216a, 218a-222a, 223a-235a.

⁶ *Magnolia Petroleum Co. v. Oklahoma State Tax Comm'n*, 121 P.2d 1008 (Okla. 1941) did not hold that separate accounting was proper or that apportionment was improper. It held that the Oklahoma Tax Commission had failed to follow Oklahoma's statute by trying to apportion the income of a single department of the taxpayer's business, rather than its entire income. 121 P.2d at 1012-13.

⁷ *Texas Co. v. Cooper*, 107 So.2d 676, 681-83 (La. 1958); *Webb Resources, Inc. v. McCoy*, 401 P.2d 879, 890 (Kan. 1965). Alaska fails to report that the *Webb Resources* case is no longer good law in Kansas, which uses apportionment to tax oil production income. *Amoco Production Co. v. Arnold*, 518 P.2d 453 (Kan. 1974). It is also unlikely that *Texas Co. v. Cooper* has survived this Court's decisions in *Exxon v. Wisconsin* and *Mobil v. Vermont*, since the result depended heavily on the Louisiana court's 1958 view that no decisions could be found "holding that corporations engaged in the petroleum industry are unitary in character." 107 So.2d at 681.

What is most remarkable about Alaska's effort to show that separate accounting is widespread is the paucity of the examples Alaska can find. Apart from Oklahoma, Louisiana, and Kansas, where the cases Alaska cites have already been discussed, the long list in Alaska's Appendix includes a grand total of *four* instances in two states that Alaska can claim as separate accounting. Two involve Oregon; Alaska has failed to notice that Oregon repealed the statutes in question twenty years ago and replaced them with

no other state would have the right to tax income from in-state operations, and the problem of double taxation present here could not arise. By contrast, in this case Alaska stipulated, and its Supreme Court found, that the taxpayers were unitary. R. 14836; App. 15a. The cases Alaska cites, by their terms, would have been decided differently on the factual record present here.*

II. ALASKA DISTORTS THE CASES IT CITES.

A. The Container Decision Does Not Support Alaska.

Despite what Alaska says, the rationale of *Container* is not that states have free rein to cause whatever double taxation they please. *Container* did not, as Alaska's arguments necessarily imply, wipe out at one blow the constitutional rules that for 80 years have forbidden unapportioned taxes and have avoided double taxation by denying states the right to tax 100% of something held by this Court to be properly subject to taxation by apportionment elsewhere.

Container reflects instead the Court's judgment that, despite the double taxation that sometimes arose because of the conflict between California's worldwide unitary apportionment system and taxes levied abroad, California had no reasonable alternative available to it that would have removed double taxation. The Court noted that, unlike the Oil Tax, California's tax system did not "inevitably" produce double taxation,⁹ and that

apportionment. See *Donald M. Drake Co. v. Dep't of Revenue*, 500 P.2d 1041 (Ore. 1972).

* Few words are necessary about Alaska's analogies to calculations used for severance taxes, royalty payments, the Windfall Profit Tax, and the like. A severance tax can be imposed by only one state; no double taxation is possible and therefore no issue as to apportionment can arise. *Commonwealth Edison Co. v. Montana*, 453 U.S. 609, 617 (1981). Nor must the United States apportion the taxes it levies on Windfall Profit or anything else. The fact that the Oil Tax makes calculations similar to those of these concededly unapportioned taxes merely confirms that the Oil Tax is unapportioned.

⁹ Since the Oil Tax taxes 100% of production income from Alaskan wells, double taxation of production income is inevitable if any state exercises, as almost all do, its constitutional right to tax that production income by apportionment. Under California's apportioned tax, however, foreign-source

the myriad of foreign tax systems made deference to them on a case-by-case basis administratively unworkable. The holding of *Container* is that the Constitution "does not require [of California] forbearance so extreme or so one-sided." 463 U.S. at 193. Nothing like that is required of Alaska here. Alaska need do nothing more than apportion its tax.¹⁰

B. The Requirement of Apportionment Applies to Net Income Taxes as Well as to Other Taxes.

Appellants' Jurisdictional Statement cites a long line of cases for the twin propositions that a state may not tax extraterritorial values and that a state may not tax 100% of a value that other states are entitled to tax by apportionment. J.S. 12-14. Alaska's sole answer to these cases is to shrug them off with the comment that they are gross income tax cases or property tax cases, while the Oil Tax is levied on net income. M.D. 16-17. The inconsequence of this response betrays Alaska's inability to find any meaningful ground for distinguishing the cases. For it is indisputable that no modern case from this Court has ever suggested

income was not subjected to any California tax (let alone *double* taxed) unless the addition of foreign-source income to the domestic apportionable base outweighed the effect of including foreign property, payroll, and sales in the denominator of the formula. As Justice Brennan pointed out, the taxpayer in a companion case to *Container* paid less under a worldwide than a domestic apportionment. 463 U.S. at 188 n.25. Whether California's tax resulted in double taxation of foreign source income thus depended on the facts of the individual case. That is not true of Alaska's taxation of production income.

¹⁰ As Alaska has since 1982. Alaska now uses a modified apportionment formula designed to cure the defects Alaska saw in UDITPA. (These are largely illusory: despite Alaska's trumpeting of the supposed "2-3% effective tax rate," Commissioner of Revenue Gallagher told the Legislature before the Oil Tax was passed that the oil industry was "meeting its fair share of taxes" and that its effective tax rate was "very close to 9%." R. 6962, 12907.) The Legislature also provided that if the Oil Tax is declared unconstitutional, modified apportionment will apply for the tax years 1978-81 as well. This legislation disposes of Alaska's scare tactic of claiming that invalidating the Oil Tax would be a "devastating blow" to Alaska. On the contrary, Alaska carefully arranged the repeal of the Oil Tax so that, as the State has said, its exposure in this litigation would be limited to a sum it "could afford without disastrous financial consequences." R. 16153. If Alaska prevails, on the other hand, it can seek to reimpose the Oil Tax.

that the requirement of apportionment is limited to property or gross receipts taxes.¹¹

On the contrary, in *Moorman Mfg. Co. v. Bair*, 437 U.S. 267 (1978), Justice Stevens' opinion for the Court held that to draw a distinction between gross income and net income taxes would be "an exercise in formalism." 437 U.S. at 280-81. "[F]or purposes of constitutional review," as Justice Brennan said agreeing with the Court, "there is no distinction between a corporate income tax and a gross receipts tax." 437 U.S. at 281. Alaska's position to the contrary is indefensible.¹²

C. The Oil Tax Involves Disproportionate Taxation.

Alaska astonishingly argues that this appeal should be dismissed because "in the trial court, taxpayers resolutely refused to offer any evidence" that the Oil Tax disproportionately taxes their income. Alaska conveniently ignores the fact that its own Revenue Department could concoct no apportionment formula

¹¹ The Court regularly cites gross receipts and property tax cases as stating principles applicable to net income taxes. See, e.g., *ASARCO, Inc. v. Idaho State Tax Comm'n*, 458 U.S. 307, 316 (1982); *Merrion v. Jicarilla Apache Tribe*, 455 U.S. 130, 158 n.26 (1982); *Mobil v. Vermont*, 445 U.S. 425, 443-46 (1980); *Northwestern States Portland Cement Co. v. Minnesota*, 358 U.S. 450, 462 (1959). Alaska cites Professor Hartman for the proposition that the Court "has almost always been of the opinion" that there is a difference between gross income and net income taxes. Alaska fails to reveal that the quotation comes from a section of Professor Hartman's treatise entitled "Early Development," and that he is discussing the historical development of the law, *prior to 1938*. M.D. 17 n.26.

¹² Alaska also pretends to discuss the internal consistency test, but what it says is entirely beside the point. M.D. 23-24. As the Jurisdictional Statement points out clearly, Alaska's tax system was internally inconsistent while the Oil Tax was in place because under its ordinary apportionment law (AS 43.20) Alaska applied apportionment to the total income (including production income) of a taxpayer with *no* wells in Alaska, while using the Oil Tax (AS 43.21) to capture 100% of the production income of a taxpayer *with* wells in Alaska. See J.S. 25 n.28. Alaska's "response" to this point entirely omits any reference to Alaska's ordinary apportionment law — the combination of which with the Oil Tax is the source of the problem. Alaska discusses only AS 43.21, and thus pretends the problem is non-existent. This cannot have been accidental: the issue of internal consistency was canvassed extensively in the briefs before the Alaska Supreme Court. Alaska simply preferred not to address it.

that raised half what the Oil Tax did. J.S. 22. And Alaska forgets that appellants were precluded from offering evidence in the trial court only by Alaska's own successful summary judgment motion. Even more fundamentally, Alaska's argument rests on a clear mistake of law. It reduces to the proposition that the *only* way a tax may be invalidated on grounds of duplicative or extraterritorial taxation is by quantitative proof that the income taxed is "out of all appropriate proportion" to income actually earned in the taxing state.¹³

Contrary to Alaska's argument, the cases hold that a state tax is invalid if a taxpayer proves either (1) that it necessarily involves taxation of extraterritorial values¹⁴ or (2) that it inevitably causes duplicative taxation that is the taxing state's fault.¹⁵ In these situations the Court does not require the quantitative showing that Alaska says is absolutely essential;¹⁶ if the

¹³ The State purports to derive this sweeping test from the decisions in *Hans Rees' Sons Inc. v. North Carolina*, 283 U.S. 123 (1931), and *Moorman Mfg. Co. v. Bair*, 437 U.S. 267 (1978). Those cases, however, dealt with the question of the standard of proof required to show that an apportionment formula was invalid. Alaska cites no case — and could cite none — that has ever applied the test outside the context of a challenge to an apportionment formula.

¹⁴ *ASARCO, Inc. v. Idaho State Tax Comm'n*, 458 U.S. 307 (1982); *F.W. Woolworth Co. v. Taxation & Revenue Dep't*, 458 U.S. 354 (1982). These cases are particularly instructive since, if Alaska's theory were correct, the only relevant question in *ASARCO*, for example, would have been whether the total income taxed by Idaho (including a share of dividend income) was "out of all appropriate proportion" to the income earned by *ASARCO* in Idaho, and *ASARCO* could have prevailed only by offering proof of *ASARCO*'s actual earnings in Idaho. *ASARCO* did nothing of the sort. And the Court invalidated Idaho's tax based on no proof other than a showing that extraterritorial value was being taxed.

¹⁵ *J.D. Adams Mfg. Co. v. Storen*, 304 U.S. 307 (1938); *Gwin, White & Prince, Inc. v. Henneford*, 305 U.S. 434 (1939); *Standard Oil Co. v. Peck*, 342 U.S. 382 (1952); *Michigan-Wisconsin Pipe Line Co. v. Calvert*, 347 U.S. 157 (1954); *Central R. Co. v. Pennsylvania*, 370 U.S. 607 (1962); *Evco v. Jones*, 409 U.S. 91 (1972).

¹⁶ It is easy to see why no court has ever accepted Alaska's argument that a quantitative showing of disproportionality is the only basis for invalidating a state tax. Assume, for example, that the Oil Tax were amended so that it attributed to Alaska not only 100% of net production income from the

State's argument were correct, each of the cases cited in notes 14 and 15 would have to be overruled.¹⁷

III. CONCLUSION

For the reasons given here and in appellants' Jurisdictional Statement, the Court should note probable jurisdiction and set this matter for full briefing and argument.

DATED: December 26, 1985

Respectfully submitted,

taxpayers' wells in Alaska, but 100% of net production income from their wells in Mississippi as well. It is plain that such a tax would be unconstitutional. On the State's theory, however, there would be nothing wrong with it. If net production income from wells in Alaska was \$100 million, and net production income from wells in Mississippi was \$1 million, addition of the Mississippi income to the Alaska pool would raise total taxable income only by 1%, plainly not enough to render it "out of all appropriate proportion" to Alaska income. While such a hypothetical is not this case, it shows that the principle on which the State purports to rely is mischievous and wrong. Quantitative proof of overtaxation is not the only way to invalidate a tax.

¹⁷ Alaska's suggestion that the Court refuse plenary consideration to this appeal because Congress may take some unspecified action in the future is baseless. The only bill Alaska cites as evidence of "active congressional initiatives," S.1113, is Senator Mathias's bill to restrict apportionment. He has introduced a similar bill, with no success whatever, in every Congress since 1965. As for President Reagan's proposals, they address solely whether states may use worldwide apportionment, an issue that is not remotely present in this case. The President's proposals would leave apportionment of *domestic* income entirely unaffected. Moreover, Alaska's reference to such "prudential considerations" overlooks the fact that this is an appeal, not a petition for certiorari.

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EXHIBIT A

alaska

EXECUTIVE BUDGET

BOOK 1 - OPERATING BUDGET

FISCAL 198

**JAY S. HAMMOND
GOVERNOR**

General Assumptions: Inflation of 9% in early years, dropping to 7% long term.
 Rate of interest on both funds: rate of inflation plus 1%.
 Petroleum revenues include Beaufort bonus, include gas pipeline.

Specific Assumptions: Growth rate of real, per capita appropriations is 0%.
 Growth rate of real, per capita sustainable revenue is 1%.
 Permanent Fund contribution rate is 25%.

Note: All values are expressed in nominal dollars.
 Figures are expressed in millions (e.g. 100.0 = \$100,000,000)

Year	Total State GF Revenues	Sustainable Revenues	Interest Revenues	Petroleum Revenues	State GF Expenditures	GF Balance	PF Balance
1981	3563.35	353.499	139.395	3067.73	1200.64	3535.72	788.515
1982	5303.07	398.947	416.915	4480.54	1341.58	7016.18	1272.21
1983	6373.65	455.603	752.586	5159.36	1516.94	11310.7	1834.42
1984	7327.37	506.321	1193.58	5622.57	1669.11	16349.0	2454.33
1985	8437.51	545.653	1631.38	6259.38	1780.96	22310.0	3149.92
1986	9405.37	597.166	2054.61	6753.79	1929.80	29028.8	3906.71
1987	10628.6	658.707	2657.89	7313.16	2107.60	36727.5	4728.92
1988	11838.6	726.759	3345.54	7768.39	2302.31	45388.9	5603.82
1989	13149.4	801.757	4115.11	8235.74	2514.75	55094.5	6532.84
1990	14306.0	884.407	4973.33	8452.60	2746.52	65698.3	7488.62
1991	15400.9	976.219	5906.18	8523.66	3001.63	77130.7	8455.39
1992	15933.7	1077.44	6906.80	7955.81	3280.05	88876.5	9363.37
1993	15731.5	1189.88	7927.95	6620.90	3586.50	100256.	10129.2
1994	16017.1	1315.78	8908.06	5801.55	3926.70	111666.	10808.9
1995	16475.8	1454.74	9883.75	5146.67	4298.42	123239.	11413.1
1996	16931.8	1608.10	10866.5	4467.58	4704.52	134936.	11943.7
1997	17499.6	1778.54	11853.2	3879.24	5151.65	146818.	12409.6
1998	18180.4	1966.70	12849.7	3376.36	5640.25	158948.	12819.6
1999	18962.5	2175.80	13861.7	2938.40	6178.15	171372.	13180.5
2000	19841.8	2406.68	14893.4	2556.19	6766.05	184130.	13498.1

ATLANTIC RICHFIELD COMPANY;
Arco Pipe Line Company; BP Alaska,
Inc.; Exxon Corporation; Exxon Pipe-
line Company; and Sohio Pipe Line
Company, Appellants,

v.

STATE of Alaska; Alaska Department of
Revenue; Alaska Department of Ad-
ministration; Commissioner of Reve-
nue Robert D. Heath, and Commis-
sioner of Administration Lisa Rudd, Appel-
lees.

No. S-52.

Supreme Court of Alaska.

Aug. 16, 1985.

Taxpayers challenged constitutionality of oil and gas corporation income tax and sought refunds of taxes paid. The Superior Court, Anchorage, Victor D. Carlson, J., granted summary judgment in favor of State, and taxpayers appealed. The Supreme Court, Burke, C.J., held that: (1) the tax did not deny taxpayers due process of law on ground that it taxed extraterritorial values; (2) the tax comported with requirements of United States Supreme Court's *Complete Auto Transit* test and created no impermissible burden on interstate commerce; and (3) the tax did not violate state and federal equal protection nor did it impair State's lease contracts with taxpayers.

Affirmed.

1. Taxation ⚡1076

Oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), used separate accounting method for dividing income, distinct from both the specific allocation by situs and formula apportionment methods.

2. Taxation ⚡956

Separate accounting method employed in oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), more accurately attributed income generated from Alaskan oil than did traditional formula apportionment, and thus was proper.

3. Trial ⚡136(1)

Characterization of oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), was, at most, a "legislative fact" which was not the type of factual issue for which trial is necessary.

4. Taxation ⚡956

An income attribution method, be it a single-factor or three-factor formula apportionment or separate accounting, is not constitutionally invalid merely because it may result in taxation of some income that did not have its source in the state.

5. Constitutional Law ⚡280

Any attempt to tax extraterritorial values would be an unconstitutional taking of property by state under due process clause of Federal Constitution, U.S.C.A. Const. Amend. 14, § 1.

6. Constitutional Law ⚡285.2

Due process imposes two requirements before a state may tax income generated in interstate commerce: first, a minimal connection must exist between interstate activities and taxing state; second, income attributed to taxing state must bear rational relationship to intrastate values of the enterprise. U.S.C.A. Const. Amend. 14.

7. Constitutional Law ⚡281.5

Due process requirement of minimal connection between interstate activities and taxing state is established if corporation avails itself of substantial privilege of carrying on business within the state. U.S. C.A. Const. Amend. 14.

8. Constitutional Law ⚡285.2

Taxation ⚡956

Oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), did not deny taxpayers due process of law on ground that it taxed extraterritorial values, as clear nexus existed between oil production and transportation activities of taxpayers and state of Alaska, and as tax made a reasonable attempt to attribute only that income to Alaska that was generated in Alaska, while excluding expenses and prof-

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its generated beyond Alaska's borders. U.S.C.A. Const.Amend. 14.

9. Commerce §62.70

If state tax is applied to activity with substantial nexus with taxing state, is fairly apportioned, does not discriminate against interstate commerce, and is fairly related to services provided by state, there is no impermissible burden on interstate commerce. U.S.C.A. Const. Art. 1, § 8, cl.

10. Commerce §74.15

Taxation §956

Oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), did not violate federal commerce clause on ground that it inevitably resulted in overlapping or duplicative taxation, thus discriminating against businesses engaged in interstate commerce, as the separate accounting division-of-income method employed by the tax did not automatically conflict with an apportionment method and result in double taxation. U.S.C.A. Const. Art. 1, § 8, cl. 3.

11. Commerce §74.15

Taxation §956

Oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), comported with requirements of United States Supreme Court's *Complete Auto Transit* test and created no impermissible burden on interstate commerce, as location of oil fields in Prudhoe Bay created substantial nexus between taxpayers' activities and state of Alaska, as the tax was fairly apportioned to represent only that part of taxpayers' income generated from its Alaskan activities, namely, oil and gas production and transportation, and as the tax did not inevitably result in multiple taxation. U.S.C.A. Const. Art. 1, § 8, cl. 3.

12. Constitutional Law §229.2

Taxation §956

Oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), did not violate state and federal equal protection on ground that it arbitrarily and rationally subjected a special group of taxpayers to

treatment not accorded taxpayers at large. U.S.C.A. Const.Amend. 14.

13. Constitutional Law §121(1)

Taxation §956

Oil and gas corporation income tax, AS 43.21.010 et seq. (Repealed), was not invalid on ground that it impaired obligation of State's lease contracts with taxpayers, as no lease provision had been impaired, and as, by entering into the leases, state could not, and did not, contract away its power as a sovereign to tax income earned in state. U.S.C.A. Const. Art. 1, § 10, cl. 1; AS 38.05.005 et seq.

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Robert H. Carpenter, Jr., Asst. Atty. Gen., William J. Guste, Jr., Atty. Gen. of La., Baton Rouge, La., for amicus curiae State of La.

Bobby R. Long, Jackson, Miss., for amicus curiae Mississippi State Tax Comm.

Before BURKE, C.J., and RABINOWITZ, MATTHEWS and MOORE, JJ.

OPINION

BURKE, Chief Justice.

This is an appeal brought by several major oil producing companies in Alaska¹ challenging the constitutionality of the Oil and Gas Corporate Income Tax, Former AS 43.21 (repealed 1982) ("the Oil Tax").² The issue is whether the State of Alaska must, as a matter of constitutional law, use the formula apportionment method to determine the portion of each corporation's worldwide oil production and pipeline transportation income that can be attributed to Alaska. During the tax years 1978 to 1981 the state used separate accounting, instead of formula apportionment, to determine taxable production and pipeline transportation income.

Various actions challenging the constitutionality of the Oil Tax were consolidated on August 27, 1980, in the superior court.³ Appellants ARCO, Exxon, and Sohio argued below that the Oil Tax violated the commerce, due process, contract, and equal protection clauses of the United States

Constitution, as well as the equal protection clause of the Alaska Constitution and the state constitutional and statutory provisions against retroactivity. They sought a refund of taxes paid under the Oil Tax.

On November 12, 1981, the state moved for summary judgment seeking a declaration that the Oil and Gas Corporate Income Tax Act is constitutional. The trial court rejected the oil companies' claims of unconstitutionality and granted the state's motion for summary judgment. We affirm.

I. THE OIL TAX

In 1959, Alaska adopted the three-factor apportionment formula of the Uniform Division of Income for Tax Purposes Act (UDITPA) to determine the share of income of an integrated (unitary) interstate business subject to Alaska income taxation. AS 43.20.130 (repealed 1975).⁴ The apportionment formula relies on three indicators of business activity—payroll, property and sales—to compute Alaska's share of taxable income. *Id.* The value of property, payroll and sales in Alaska is compared to the value of property, payroll and sales of the corporation worldwide. The resulting ratio is then multiplied by the corporation's apportionable net income worldwide to arrive at an approximation of Alaska's share of taxable income.

Prior to the enactment of the Oil Tax in 1978, all of the income tax liability of oil companies was determined under the formula apportionment method. Under the Oil Tax, a different methodology, separate

1. Atlantic Richfield Company and ARCO Pipeline Company (collectively "ARCO"), Exxon Corporation and Exxon Pipeline Company (collectively "Exxon"), and BP Alaska, Inc. and Sohio Pipe Line Company (collectively "Sohio").

2. AS 43.21 (Ch. 110, § 3, SLA 1978; am. ch. 113, §§ 28-32, SLA 1980; am. ch. 116, §§ 6-11, § 17 SLA 1981) was repealed effective January 1, 1982. Ch. 116, § 19, SLA 1981. For convenience, we refer to the Oil Tax by the former statutory section numbers throughout this opinion. See Appendix 1 for the full text of AS 43.21.

3. Other oil companies were also involved initially in the litigation, but were dismissed upon agreeing to defer their constitutional claims pending resolution of this case.

4. In 1970, Alaska adopted the Multistate Tax Compact, enacted as AS 43.19.010. It is basically a restatement of UDITPA with a few minor changes. The three-factor apportionment formula is now described at AS 43.19.010, art. IV, §§ 9-15.

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accounting,⁵ was implemented to calculate the production and pipeline transportation income subject to Alaska taxation. The goal of the separate accounting method was to determine that portion of the value of a barrel of oil attributable to the oil being produced, i.e., taken from the ground. AS 43.21.020.

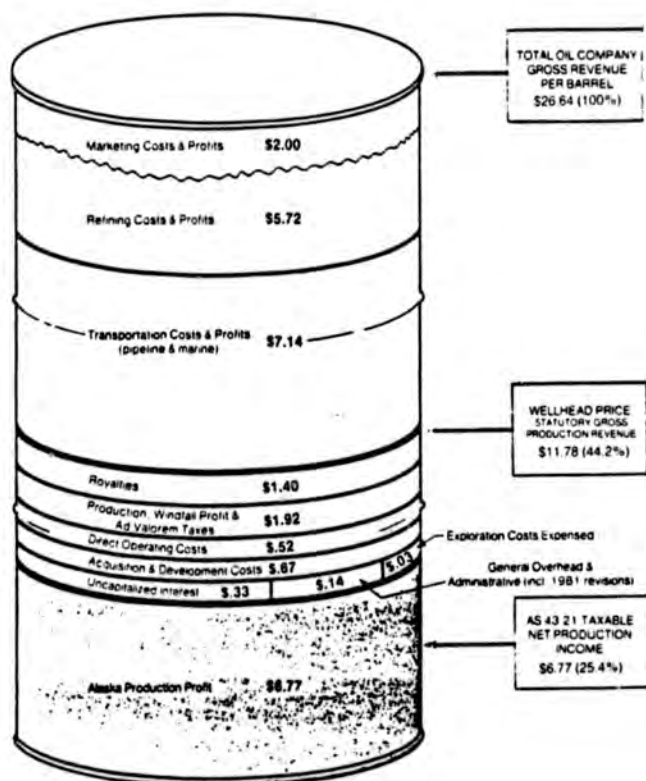
The separate accounting of oil production income began with the determination of gross production revenue or "gross income."⁶ The Oil Tax defined gross income as the value of the oil at the point of production, i.e., the well-head price. AS 43.21.020(b). Essentially, gross income equalled the price at which the oil was sold, or could be sold, to a refinery less transpor-

tation expenses. AS 43.21.020(b). The price at which oil was sold, or could be sold, to a refinery obviously did not include refining and marketing costs and profits. These costs and profits were thus excluded in determining the gross income figure for Alaskan oil. In addition, a number of other costs were deducted from gross income. "Upstream" costs, such as exploration expenses, royalties, lease acquisition and development costs, and general overhead and administrative expenses, and "downstream" costs, such as transportation and marketing costs were deducted from gross income. AS 43.21.020(c). The end result was net production income, which was

5. The oil companies dispute whether the methodology of the Oil Tax is in fact "true" separate accounting. See *infra* section II.B.

6. The following graph, submitted by the State of Alaska, illustrates the estimated revenues, costs

and profits contained in each barrel of Alaskan oil during the years 1978-80:



SOURCE: DASH-20 Supplemental Affidavit 1, 15 R 18817, 18826.

CHART 1

taxed at the 9.4% rate applicable to all other corporate income at that time. Former AS 43.20.011 (amended, repealed and reenacted 1981).

The Oil Tax used a similar methodology to tax income from the pipeline transportation of oil and gas in Alaska. The items of income and expense related to Alaska pipeline transportation were keyed to the amount reported by the oil companies to the Federal Energy Regulatory Commission as net operating income. AS 43.21.030. The validity of this portion of the Oil Tax is also at issue in this case, though the parties focus primarily on the taxation of production income.

Under AS 43.21.040, all other income of the oil companies continued to be taxed under the UDITPA formula apportionment method. Such other income was primarily from marketing and refining operations. In computing this income, worldwide oil production and pipeline transportation income was subtracted from the total amount of income subject to apportionment by Alaska. Then the three-factor formula was applied, again with the production and pipeline income in Alaska deleted. The result attributed to Alaska a portion of worldwide refining and marketing income of the oil company approximating the share of such activities occurring in Alaska. This income, like the production and pipeline income, was taxed at the rate of 9.4%. Former AS 43.20.011 (amended, repealed and reenacted 1981).

The Oil Tax was repealed effective January 1, 1982. Ch. 116, § 19, SLA 1981. It was replaced with a modified apportionment formula for the ensuing tax years. AS 43.20.072. The legislature took this step primarily to avoid a further increase in the possible \$1.8 billion liability caused by this litigation.

7. See generally J. Hellerstein, *State Taxation: Corporate Income and Franchise Taxes* ¶ 8.3, at 323-327 (1983).

8. P. Hartman, *Federal Limitations on State and Local Taxation* § 9.17, at 522 (1981).

II. THE OIL TAX IS "TRUE" SEPARATE ACCOUNTING

There are three basic methods by which the income of a multistate enterprise can be divided among the states entitled to tax the enterprise's income: separate accounting, specific allocation by situs and formula apportionment. The state claims the Oil Tax is true separate accounting, while the oil companies contend it is specific allocation by situs.

A. *The Three Methods For Division Of Income*

1. *Separate Accounting*

Separate accounting attempts to carve out of the taxpayer's overall business the income derived from sources within a single state, and by accounting analysis, to determine the profits attributable to that portion of the business.⁷ Income within the state is determined without reference to the success or failure of the taxpayer's activities in other states.⁸ In the case of goods (such as crude oil) sent to another state for processing, separate accounting values these goods at the price which could be obtained for them in their unprocessed form when leaving their state of origin.⁹ In other words, separate accounting recognizes that crude oil has a marketable value before it is refined.

2. *Specific Allocation by Situs*

Specific allocation by situs refers to the method of dividing a tax measure (in whole or in part) by tracing particular property, receipts, or income to their source state, and attributing the item *in its entirety* to that state.¹⁰ This method is troublesome because more than one state is likely to have a legitimate basis for taxing the same item, especially when the tax is one measured by income.¹¹ The specific allocation

9. G. Altman & F. Keesling, *Allocation of Income in State Taxation* 38 (2d ed. 1950).

10. J. Hellerstein, *supra* note 7, ¶ 8.4, at 328.

11. *Id.*

method has been used commonly with "non-business" income such as income from dividends, patent and copyright royalties, and gains or losses from the sale of capital assets.¹² Under UDITPA, some non-business income of this nature is allocated in its entirety to the situs state. See AS 43.19.010, art. IV, §§ 5-8.

Confusion may arise because the separate accounting methodology is very similar to the specific allocation approach. Both methods attempt to trace income to an identifiable source. The primary difference in the two methods is that separate accounting looks to the activities in the state and seeks to determine the income related to that activity. Specific allocation attributes income according to situs, or some other specific characteristic of the business enterprise, rather than on the basis of where the income itself was earned. Moreover, specific allocation results in *all* of a specified type of income and *all* associated profits being allocated to one state. Separate accounting, on the other hand, attempts to segregate out *only* those profits attributable to activities within the state for taxation by that state.

3. Formula Apportionment

Formula apportionment is the method commonly used to divide the income of a unitary business¹³ among various jurisdictions in which the business operates. The formula method, "unlike separate accounting, does not purport to identify the precise geographical source of a corporation's profits; rather, it is employed as a rough approximation of a corporation's income that is reasonably related to the activities con-

ducted within the taxing State."¹⁴ The formula method assumes that the total income of a business enterprise results from certain income producing factors—typically property, payroll and sales. The value of the corporation's property, payroll and sales within the taxing state is compared with the value of these factors outside the taxing state. The resulting ratio is then multiplied by the total apportionable net income worldwide of the multi-state corporation.¹⁵

B. The Oil Tax Is Separate Accounting

The oil companies equate the Oil Tax with the specific allocation by situs method. They contend that the Oil Tax attributes *all* of the income and profits from oil production and transportation to Alaska. Their argument ignores the difference between the Oil Tax and the specific allocation method. The Oil Tax does not attribute income from the production of oil *in its entirety* to Alaska, the source state. Instead, it attempts to tax only that portion of income from the oil which is fairly related to Alaskan production activities. While total revenue for a barrel of oil during 1978-80 was approximately \$26.64, only \$6.77 was deemed production income attributable to Alaskan activities and subject to the Oil Tax.¹⁶ In segregating from total income a portion related only to activities in the state, the Oil Tax operates as a separate accounting system.

The companies argue that the Oil Tax is not true separate accounting because it fails to take into account the profit-producing nature of activities occurring outside

12. *Id.* at 329.

13. "[A] unitary business may be defined simply as any business which is carried on partly within and partly [outside] the taxing jurisdiction." Keesling & Warren, *The Unitary Concept In the Allocation of Income*, 12 Hastings L.J. 42, 46 (1960).

14. *Moorman Mfg. v. Bair*, 437 U.S. 267, 273, 98 S.Ct. 2340, 2344, 57 L.Ed.2d 197, 204 (1978).

15. P. Hartman, *supra* note 8, § 9.18, at 523-524.

16. The wellhead price did not include refining and marketing costs and profits. The following deductions were also taken from the wellhead price: royalties, native corporation revenue sharing, production, *ad valorem* and windfall profit taxes, direct operating expenses, exploration, acquisition, and development costs, uncapitalized interest and general overhead and administrative expenses inside and outside Alaska (including a reasonable profit). AS 4 11.020(c); 15 AAC 21.200 (Eff. 2/22/79). See graph *supra* note 6.

Alaska. For example, the geological and geophysical analysis of the Prudhoe Bay area was conducted primarily outside Alaska. The companies argue that only the expenses associated with these outside activities are deductible in computing income subject to the Oil Tax. Thus, in their view, the Oil Tax taxes profits earned outside Alaska.

The state contends that oil companies can deduct profits attributable to general overhead or administrative activities outside of Alaska. Under Department of Revenue regulations, profits associated with such activities could be deducted if the taxpayer in fact considered them profit generally and reported them as such to the stockholders. 15 AAC 21.290(b) (Eff. 2/22/79, am. 3/26/82). The oil companies claim that the Security Exchange Commission prohibits the allocation of profits in this manner, citing 15 U.S.C. § 78m(b)(2)(B)(ii) (1982). This section provides that every issuer of a security subject to the provision must have an internal accounting system that permits preparation of financial statements "in conformity with generally accepted accounting principles or any other criteria applicable to such statements." The parties' experts disagree on the acceptability, under general accounting principles, of allocating profits to general overhead and administrative activities. Even if we assume that the allocation of profits to these activities is not generally

accepted, 15 U.S.C. § 78m(b)(2)(B)(ii) allows the use of "other criteria" in financial statements. If, as the oil companies claim, profits exist that are actually attributable to general overhead and administrative activities outside of Alaska, the Securities Exchange Act does not prevent them from reporting such profits to their shareholders, and then deducting them from their Alaska income tax.

Although amended after the repeal of the Oil Tax in 1982, 15 AAC 21.290(b) (Eff. 2/22/79, am. 3/26/82) operates retroactively.¹⁷ The oil companies, therefore, may amend their tax reports and returns to deduct any outside-generated profits attributable to general overhead and administrative activities associated with Alaskan oil production not previously deducted in computing Alaskan taxable income.

The companies also assert that the Oil Tax is an inappropriate methodology because it presumes that crude oil has a value, i.e., that income has been generated when the oil is merely brought out of the ground. The oil companies argue that oil has no value whatsoever until it is sold.

The oil companies cite our decision in *Sjong v. State, Department of Revenue*, 622 P.2d 967 (Alaska 1981), *appeal dismissed*, 451 U.S. 1131, 102 S.Ct. 986, 71 L.Ed.2d 284 (1982), for the proposition that the oil has no value until it is sold. We find their reliance misplaced. In *Sjong*, we upheld an apportioned net income tax as-

17. The only logical interpretation of the 1982 amendment to 15 AAC 21.290(b) is that it operates retroactively for the tax years 1978-81. It cannot be meaningfully applied prospectively because it was adopted after the Oil Tax was no longer in effect. We must assume that the process of amending 15 AAC 21.290(b) was intended to be operative. We cannot imagine that the Department of Revenue ("Department") would engage in a futile act. See 2A C. Sands, *Sutherland Statutory Construction* § 45.12, at 54 (4th ed. 1984).

The retroactivity of the Department's regulations is governed by the Alaska Administrative Procedure Act, AS 44.62.240. Under this statute, an "interpretative regulation," such as 15 AAC 21.290(b), may be retroactive only if the agency "has adopted no earlier inconsistent regulation and has followed no earlier course of conduct inconsistent with the regulation." The

Department's earlier omission of a deduction for outside-generated profits attributable to general overhead and administration associated with Alaskan oil production could be construed as inconsistent conduct with the 1982 amendment to 15 AAC 21.290(b). AS 44.62.240, however, is concerned with the issues of fairness and notice. See, e.g., AS 43.21.050(d) (authorizing Department to fashion an equitable tax if relief from an unfair allocation is required). In this case, a retroactive interpretation of the 1982 amendment confers a benefit on the oil companies by allowing an additional tax deduction not previously available. Unlike many retroactive enactments, 15 AAC 21.290(b), as amended, does not create a harsh or unfair result for the affected parties. Therefore, the 1982 amendment to 15 AAC 21.290(b) operates retroactively for the tax years 1978-81.

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essed against a nonresident crab fisherman, who fished exclusively in the international waters surrounding Alaska and sold his catch only to Alaska processors and canneries. Sjong claimed that no taxable income could be attributed to the state because he caught the crabs in international waters. We responded that "the process of fishing results in no profits until the catch is sold to processors in Alaska." 622 P.2d at 972 (footnote omitted). Obviously, profits do not result from crab fishing or oil production until the product is sold. This does not negate the fact that profits generated by the sale are partly attributable to the inherent value of the crab or oil at its point of production.

In the state's view, the extraction of a natural resource, in and of itself, generates income. Thus, it argues that it is reasonable to attribute the income identified with the extraction of oil, measured in terms of "well-head value," to the state in which the oil was extracted. The state is joined in this position by Amicus Curiae, the states of Louisiana, Mississippi and Oklahoma, all which have long employed separate accounting to tax oil production income.¹⁸

The United States Supreme Court has likewise recognized the inherent value generated by the extraction of natural resources. In upholding the constitutionality of Montana's severance tax on coal mined in the state, the Court reasoned that "[t]he

entire value of the coal, before transportation, originates in . . . [Montana], and mining of the coal depletes the resource base and wealth of the State, thereby diminishing a future source of taxes and economic activity." *Commonwealth Edison v. Montana*, 453 U.S. 609, 624, 101 S.Ct. 2946, 2957, 69 L.Ed.2d 884, 898 (1981) (footnote omitted). Before it is transported for sale, oil, like coal, has inherent value, to which profits and income can properly be attributed.¹⁹

[1] We hold that the Oil Tax is fundamentally a separate accounting method for dividing income, distinct from both the specific allocation by situs and formula apportionment methods.

C. *Separate Accounting More Accurately Attributes Income Generated from Alaskan Oil Than Does Formula Apportionment*

The use of separate accounting to apportion the income of a unitary business, such as each of the companies in this litigation, has been roundly criticized.²⁰ The United States Supreme Court has noted:

The problem with this method is that formal accounting is subject to manipulation and imprecision, and often ignores or captures inadequately the many subtle and largely unquantifiable transfers of

testified that the posted field price was also accepted by the accounting profession as a reliable, independent measure of the value of crude oil at the wellhead. Using this value, . . . the net income earned by exploration and production could be and is accurately measured. This is in accordance with generally accepted accounting principles, because crude oil has a known, realizable value.

Id. at 26.

18. See also *Texas Co. v. Cooper*, 236 La. 380, 107 So.2d 676, 687-91 (1958) (rejected argument that production of oil in absence of sale, does not result in taxable income); *Magnolia Petroleum v. Oklahoma Tax Comm'n*, 190 Okl. 172, 121 P.2d 1008, 1013 (1941) ("[O]il produced in the state had an easily ascertainable market price that would represent the value of the product attributable wholly to Oklahoma.").

19. While party to a tax suit in South Carolina, Exxon recognized the existence of oil's wellhead value. In its brief, Exxon asserted that "E & P [exploration and production] income is fully earned at the wellhead, and . . . [is] functionally independent of . . . refining and marketing operations." Appellant's Opening Brief at 19, *Exxon v. South Carolina Tax Comm'n*, 273 S.C. 594, 258 S.E.2d 93 (1979), appeal dismissed, 447 U.S. 917, 100 S.Ct. 3005, 65 L.Ed.2d 1109 (1980). Exxon went on to note that their witness

20. See, e.g., G. Altman & F. Keesling, *supra* note 9, at 38 ("It is obvious, however, that a separate accounting, no matter how detailed, is basically false if the business done in more than one state is of a unitary character, . . ."); Dexter, *The Unitary Concept in State Income Taxation of Multistate—Multinational Businesses*, 10 Urb. Lawyer 181, 207 (1978) ("[T]he use of separate accounting to attribute unitary income to a taxing jurisdiction is conceptually inconsistent.").

value that take place among the components of a single enterprise.

Container Corp. of America v. Franchise Tax Board, 463 U.S. 159, 164-65, 103 S.Ct. 2933, 2940, 77 L.Ed.2d 545, 553 (1983) (citation omitted). For instance,

while it [separate accounting] purports to isolate portions of income received in various States, [it] may fail to account for contributions to income resulting from functional integration, centralization of management, and economies of scale. Because these factors of profitability arise from the operation of the business as a whole, it becomes misleading to characterize the income of the business as having a single identifiable "source." Although separate geographical accounting may be useful for internal auditing, for purposes of state taxation it is not constitutionally required.

Mobil Oil v. Commissioner of Taxes, 445 U.S. 425, 438, 100 S.Ct. 1223, 1232, 63 L.Ed.2d 510, 521 (1980) (emphasis added; citations omitted).

These criticisms, however, are inapplicable to the oil and gas industry. The standard three-factor formula apportionment method was "developed and designed to meet the needs of manufacturing and mercantile industries, and [is] poorly adapted to a good many other businesses."²¹ The United States Supreme Court has noted that the three-factor formula is "necessarily imperfect":

First, the one-third-each weight given to the three factors is essentially arbitrary. Second, payroll, property, and sales still do not exhaust the entire set of factors arguably relevant to the production of income.

Container Corp. of America v. Franchise Tax Board, 463 U.S. at 183 n. 20, 103 S.Ct. at 2949 n. 20, 77 L.Ed.2d at 565 n. 20

21. J. Hellerstein, *supra* note 7, ¶ 10.9, at 689.

22. A. Cohen, *Apportionment and Allocation Formulae and Factors Used by States in Levying Taxes Based on or Measured by Net Income of Manufacturing, Distributive and Extractive Corporations* 14 (1954). [Record 1561]

23. *Id.*

(emphasis added). An assumption made in the use of formula apportionment is that "major income-producing elements can be identified and that these major elements contribute the largest portion of the unitary income of the taxpayer."²²

A unique characteristic of unitary oil and gas businesses is that the major income-producing element is the value of the oil and gas reserves in the ground. While this element can be readily identified, it is not recognized under traditional formula apportionment methods.²³ Instead, the typical factors used are property, payroll and sales, none of which accurately reflects the oil and gas corporations' activities in Alaska. The property factor includes only the original cost of the wells and the lease, which do not necessarily represent the value of the oil reserves themselves. See AS 43.19.010, art. IV, § 11. As a result, the Prudhoe Bay field is valued at about one percent of its actual worth.²⁴ Under UDITPA, the payroll factor includes only wages paid to employees based in the state. AS 43.19.010, art. IV, §§ 13-14. Oil production, however, is not a labor-intensive industry. Moreover, much of the production work is done by employees based in other states, or by independent contractors, whose earnings do not appear in the payroll factor. Finally, and most importantly, the sales receipts under UDITPA are credited solely to the destination state. AS 43.19.010, art. IV, § 16. The oil companies and the state agree that only a "tiny fraction" of the oil produced in Alaska is actually sold within the state.

For all of the above reasons, separate accounting, not formula apportionment, is the prevailing method throughout the United States for reporting income from oil production.²⁵ The Comptroller General's

24. See B. Sorensen, Memorandum to the Honorable Nels A. Anderson, Jr. (May 27, 1976) (discussing state corporate income tax).

25. Rudolph, *State Taxation of Interstate Business: The Unitary Business Concept and Affiliated Groups*, 25 Tax L.Rev. 171, 191 (1970). Of the top five producing states, three—Alaska, Louisiana and Oklahoma—require the use of

report explains that states use separate accounting to determine the income division for unitary oil and gas businesses "because it conforms more to [the businesses'] financial accounting procedures and ... more accurately reflects income than formula apportionment."²⁶

Alaska has not employed separate accounting to divide the income of all unitary businesses. According to the state, the Alaska legislature turned to separate accounting for oil producing businesses only after it determined that the use of formula apportionment to compute Alaska's share of oil production income would seriously underestimate the production income that was rightly subject to taxation by this state.²⁷

The oil companies cite portions of legislative history to show that the Oil Tax was imposed in an effort to unilaterally effect a renegotiation of oil leases so as to shift the cost of Alaska's government to the oil industry. The legislature, however, formally declared that the income tax of corporations engaged in oil production or pipeline transportation would be computed under the Oil Tax because the formula apportionment method did not fairly represent the extent of those corporations' oil production and transportation activities in Alaska. Ch. 110, § 1, SLA 1978. To look beyond

this articulated basis would lead to a "parade of legislators' affidavits containing their perceptions" of the Oil Tax's purpose. *Alaska Public Employees Association v. State*, 525 P.2d 12, 16 (Alaska 1984). We have recently disapproved of such inquiries. *Id.* The United States Supreme Court has also declined to search for the "real" motive beyond the legislature's expressed purposes when adjudicating equal protection and commerce clause challenges. In *Minnesota v. Clover Leaf Creamery*, 449 U.S. 456, 101 S.Ct. 715, 66 L.Ed.2d 659 (1981) the Court stated that it would

assume that the objectives articulated by the legislature are actual purposes of the statute, unless an examination of the circumstances forces us to conclude that they "could not have been a goal of the legislation."

449 U.S. at 463 n. 7, 101 S.Ct. at 723 n. 7, 66 L.Ed.2d at 668 n. 7 (quoting *Weinberger v. Wiesenfeld*, 420 U.S. 636, 648 n. 16, 95 S.Ct. 1225, 1233 n. 16, 43 L.Ed.2d 514, 525 n. 16 (1975)). Nothing in the record leads us to conclude that accurate and fair allocation could not have been the legislature's goal in enacting the Oil Tax.²⁸

[2] The fact that the traditional formula apportionment method inaccurately reflects the oil companies' income and profits derived from Alaskan production activities is

separate accounting to determine income attributable to oil production. Texas imposes no corporate income tax, and California requires formula apportionment. Statistical Abstract of the United States at 730 (1983). But see Cal.Rev. & Tax Code Ann. § 25137 (West 1979) (allowing separate accounting, or other alternative methods of apportionment, when total formula apportionment does "not fairly represent the extent of the taxpayer's business activity in this state.").

26. GAO Report to the Chairman, House Committee on Ways and Means: Key Issues Affecting State Taxation of Multijurisdictional Corporate Income Need Resolving 3 (1982). [Record 17,023].

27. The Oil Tax was enacted only after it was considered by two legislatures over a four year period. Sixty-three hearings were held and dozens of studies and reports were made.

28. See, e.g., Minutes of Senate Finance Committee (May 21, 1977): "[T]he income tax is not

designed to pick up additional money but to try to establish equal treatment between companies operating within the state." (Statement of Senator Chancy Croft) [Record 4759]; Minutes of Senate Resource Committee (February 22, 1978): "If we're seeking to raise money—I think the most effective way is through a severance tax." (Statement of Commissioner Sterling Gallagher [Record 1704]); Office Memo to Senator Rader from Kay Brown (December 22, 1977): "[S]eparate accounting [is the] most equitable method because under it every corporation pays [the] same effective tax rate." (Statement of Senator Chancy Croft) [Record 1661]; Testimony Before House/Senate Resources Committees (January 25, 1978): "[T]he purpose [of separate accounting] is not to get higher taxation, but it gives you a direct fix on what the profitability of the industry's operations are." (Statement of consultant Milton Lipton) [Record 1941]

illustrated in the case of Sohio. The oil companies maintain that during 1978-80, when the Oil Tax was in effect, an average of only 10% of Sohio's payroll, 12% of its sales and 50% of its property were in Alaska. At the same time, Sohio indicated in its 1980 annual report that over 90% of its total oil production derived from the reserves in Alaska. [Record 1559] A media report offered by the state, with which the oil companies did not take issue, indicated that Alaskan oil had elevated Sohio from seventeenth to seventh in earnings in the oil industry:

Once severely short of crude, Sohio's bonanza from its huge reserves of Alaskan oil skyrocketed 1979 profits to \$1.2 billion, a phenomenal 2,200% blast in just one decade.²⁹

Clearly the traditional formula apportionment method would inadequately reflect the phenomenal value of the companies' oil reserves in Alaska.

III. SUMMARY JUDGMENT WAS PROPER

[3] The oil companies argue that there are numerous disputed issues of fact which preclude summary judgment for the state. Several of the alleged disputed issues of fact are irrelevant to the constitutional challenge and do not preclude summary judgment.³⁰ Other claims by the oil companies reduce to the assertion that the characterization of the Oil Tax as a separate accounting methodology is a disputed issue of fact. The state argues that the question as to whether the Oil Tax is a form of separate accounting is a question of law. We agree with the state that a trial is not required in this case. The characterization of the Oil Tax is at most a "legislative fact" which is not the type of factual issue for which trial is necessary. See *State v.*

Erickson, 574 P.2d 1, 4-6 (Alaska 1978). As the trial court held, "the asserted issues of material fact do not preclude summary judgment in any event because they are facts only in the sense that they provide premises in the process of legal reasoning. They are not that type of fact for which a trial is mandated."

[4] Finally, the oil companies claim that it is a disputed issue of fact whether the Oil Tax results in double taxation because it reaches income earned outside Alaska. An income attribution method, be it single-factor or three-factor formula apportionment or separate accounting, is not constitutionally invalid merely because it may result in taxation of some income that did not have its source in the state. See *Moorman Manufacturing v. Bair*, 437 U.S. 267, 272, 98 S.Ct. 2340, 2344, 57 L.Ed.2d 197, 204 (1978). Even if facts demonstrate that the Oil Tax reaches income earned outside Alaska, as alleged by the oil companies, the statute will be stricken only upon "clear and cogent evidence" that the income Alaska attributes to itself is "out of all appropriate proportions to the business transacted in [the] State," or has "led to a grossly distorted result." *Container Corp. of America v. Franchise Tax Board*, 463 U.S. at 170, 103 S.Ct. at 2942, 77 L.Ed.2d at 556 (citations omitted). Nothing in the record demonstrates that the Oil Tax led to a "grossly distorted result" or that it is "out of all appropriate proportions" to the business of extracting billions of barrels of oil from reserves located within Alaska.

Disposition by summary judgment was appropriate in this case because no issue of material fact remained. The record provided the trial judge with a sufficient background to reach a decision.³¹ See *Kelly v.*

29. *Investing a Mountain of Cash Before the Oil Runs Out: An Oil Giant's Dilemma*, Bus. Wk. 60 (August 25, 1980). [Record 684]

30. For example, whether the oil companies had, themselves, measured their income by methods similar to those used by the Oil Tax is irrelevant.

31. An extensive record was developed, which is divisible into three categories. First, the bulk of the record consists of the legislative history of the Oil Tax. Second, competing affidavits from various economists and accountants present divergent economic theories on how oil production income is generated, and how, as a matter of policy, it should be divided among the states for taxation purposes. Finally, a large number

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Zamarello, 486 P.2d 906, 914 (Alaska 1971); cf. *Ault v. Alaska State Mortgage Association*, 387 P.2d 698, 701-02 (Alaska 1963).

IV. CONSTITUTIONAL CHALLENGES TO THE OIL TAX

A. Background

When state corporate income taxes were first adopted,³² separate accounting was regarded as the most precise method for dividing the income of a multistate corporation for taxation purposes.³³ Although apportionment formulas were employed by states and their use approved by the United States Supreme Court,³⁴ separate accounting was initially viewed as a benchmark by which to judge the reasonableness of state apportionment formulas. Thus, in *Hans Rees' Sons, Inc. v. North Carolina*, 283 U.S. 123, 128, 51 S.Ct. 385, 387, 75 L.Ed. 879, 905 (1931), the Supreme Court invalidated a state's apportionment formula under federal due process because the taxpayer showed that under separate accounting only 17% of the income was attributable to the state, whereas under the apportionment formula used, the state taxed from 66% to 85% of the corporation's income.

The use of separate accounting as a basis for challenging state formula apportionment methods was eventually rejected in *Butler Brothers v. McColgan*, 315 U.S. 501, 62 S.Ct. 701, 86 L.Ed. 991 (1942). There, the Court acknowledged that an apportionment formula could be invalidated only if the taxpayer established by clear and cogent evidence that the formula taxed extraterritorial values. The Court held that the fact that no net income would be attributable to the state under separate

accounting was insufficient to invalidate an apportionment formula.

It is true that appellant's separate accounting system for its San Francisco branch attributed no net income to California. But ... [that] does not prove appellant's assertion that extraterritorial values are being taxed.

315 U.S. at 507, 62 S.Ct. at 704, 86 L.Ed. at 996.

The Court developed the doctrine that if a multi-state business is unitary, then the use of a formula apportionment method by the state is presumptively valid.³⁵ In the instant litigation, all of the companies involved are unitary businesses. Thus, it is undisputed that the use of an apportionment formula would have been a permissible means of attributing a portion of the companies' income to Alaska.

This case presents an interesting twist on previous constitutional challenges to state taxation methods by corporate taxpayers.

In the past, apportionability often has been challenged by the contention that income earned in one State may not be taxed in another if the source of the income may be ascertained by separate geographical accounting.

Mobil Oil v. Commissioner of Taxes, 445 U.S. at 438, 100 S.Ct. at 1232, 63 L.Ed.2d at 521. Conversely, in this litigation, the oil companies seek to defeat Alaska's separate accounting method by arguing that formula apportionment is required for unitary businesses. In recent years, the Court's endorsement of formula apportionment as the preferred method to divide income of a unitary business has become increasingly apparent.³⁶ However, we do not interpret

of affidavits submitted by the companies describe the various activities associated with oil production which occur outside Alaska.

32. Wisconsin adopted the first corporate income tax in 1911. J. Hellerstein, *supra* note 7, ¶ 1.2, at 5.

33. *Id.* ¶ 8.3, at 324.

34. *Underwood Typewriter v. Chamberlain*, 254 U.S. 113, 41 S.Ct. 45, 65 L.Ed. 165 (1920).

35. See J. Hellerstein, *supra* note 7, ¶ 8.7, at 338-343.

36. See, e.g., *Exxon v. Wisconsin Dep't of Revenue*, 447 U.S. 207, 229-30, 100 S.Ct. 2109, 2123-2124, 65 L.Ed.2d 66, 85 (1980); *Mobil Oil v. Commissioner of Taxes*, 445 U.S. 425, 446, 100 S.Ct. 1223, 1236, 63 L.Ed.2d 510, 526 (1980).

this preference as being a constitutional ruling that formula apportionment *must* be employed in lieu of separate accounting.

While separate accounting is not constitutionally required,³⁷ and while it may have some weaknesses when applied to some unitary businesses,³⁸ this methodology has not been rejected as unconstitutional. The United States Supreme Court in *Container Corp.* concluded that:

Both geographical accounting and formula apportionment are imperfect proxies for an ideal which is not only difficult to achieve in practice, but difficult to describe in theory....

....
But we see no evidence demonstrating that the margin of error (systematic or not) inherent in the three-factor formula is greater than the margin of error (systematic or not) inherent in ... separate accounting....

463 U.S. at 182, 183-84, 103 S.Ct. at 2949, 2949-2950, 77 L.Ed.2d at 564, 565.

B. Due Process

The oil companies claim that the Oil Tax is unconstitutional because it taxes extraterritorial values. They claim that the state impermissibly taxes all of their production income from Alaska oil, despite the contributions that other states have made to those earnings in terms of research, management and sales.

[5] "As a general principle, a state may not tax value earned outside its borders." *Earth Resources v. State, Department of Revenue*, 665 P.2d 960, 966 (Alaska 1983) (quoting *ASARCO v. Idaho State Tax Commission*, 458 U.S. 307, 315, 102 S.Ct. 3103, 3108, 73 L.Ed.2d 787, 794 (1982)); *Container Corp. of America v. Franchise Tax Board*, 463 U.S. at 164, 103 S.Ct. at

2940, 77 L.Ed.2d at 552. Any attempt to tax extraterritorial values would be an unconstitutional taking of property under the due process clause.³⁹

[6] Due process imposes two requirements before a state may tax income generated in interstate commerce. First, a "minimal connection" must exist between the interstate activities and the taxing state. Second, the income attributed to the taxing state must bear a rational relationship to intrastate values of the enterprise. *Exxon v. Wisconsin Department of Revenue*, 447 U.S. 207, 219-220, 100 S.Ct. 2109, 2118-2119, 65 L.Ed.2d 66, 79 (1980); *Mobil Oil v. Commissioner of Taxes*, 445 U.S. at 436-37, 100 S.Ct. at 1231-1232, 63 L.Ed.2d at 520; *Moorman Manufacturing v. Bair*, 437 U.S. at 272-73, 98 S.Ct. at 2343-2345, 57 L.Ed.2d at 204.

[7] The first requirement—a minimal connection—is established if the corporation "avails itself of the 'substantial privilege of carrying on business' within the State." *Exxon v. Wisconsin Department of Revenue*, 447 U.S. at 220, 100 S.Ct. at 2118, 65 L.Ed.2d at 79 (quoting *Mobil*, 445 U.S. at 437, 100 S.Ct. at 1231, 63 L.Ed.2d at 520, quoting *Wisconsin v. J.C. Penney Co.*, 311 U.S. 435, 444-45, 61 S.Ct. 246, 249-250, 85 L.Ed. 267, 271 (1940)). Clearly, a nexus exists between the oil production and transportation activities of ARCO, Exxon, and Sohio, and the State of Alaska.

As to the second requirement, the United States Supreme Court has not required absolute precision in determining a state's share of interstate income. In *Moorman Manufacturing v. Bair*, 437 U.S. 267, 98 S.Ct. at 2340, 57 L.Ed.2d 197, an animal feed company which manufactured its product in Illinois and sold it in Iowa challenged the constitutionality of Iowa's statu-

37. See *Mobil*, 445 U.S. at 438, 100 S.Ct. at 1232, 63 L.Ed.2d at 521; *Exxon v. Wisconsin Dep't of Revenue*, 447 U.S. at 223, 100 S.Ct. at 2120, 65 L.Ed.2d at 81.

38. See *Mobil*, 445 U.S. at 438, 100 S.Ct. at 1232, 63 L.Ed.2d at 521; *Earth Resources v. State, Dep't of Revenue*, 665 P.2d 960, 966 (Alaska 1983).

39. The due process clause of the fourteenth amendment provides in part:

[N]or shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws. U.S. Const. amend. XIV, § 1.

tory apportionment formula. Instead of the typical three-factor (payroll, property and sales) formula, Iowa used a single-factor formula based exclusively on sales. The corporation argued that this formula resulted in extraterritorial taxation and violated the due process and commerce clauses of the federal Constitution. In addressing the rational relationship requirement, the Supreme Court stated:

States have wide latitude in the selection of apportionment formulas and . . . a formula-produced assessment will only be disturbed when the taxpayer has proved by "clear and cogent evidence" that the income attributed to the State is in fact "out of all appropriate proportion to the business transacted . . . in that State," or has "led to a grossly distorted result." 437 U.S. at 274, 98 S.Ct. at 2345, 57 L.Ed.2d at 205 (citations omitted). The Court found the taxpayer had failed to demonstrate any arbitrary result in its case, and thus the tax survived the due process challenge.

More recently the United States Supreme Court has expressly refused to constitutionally require a particular income attribution method to the exclusion of all others. In *Container Corp. of America v. Franchise Tax Board*, 463 U.S. 159, 103 S.Ct. 2933, 77 L.Ed.2d 545, the Supreme Court upheld California's inclusion of the income of Container Corporation's foreign subsidiaries in the state's apportionment formula. The corporation argued that inclusion of this income violated both the due process and commerce clauses, because the same income California was subjecting to apportionment was taxed by foreign jurisdictions under a separate accounting methodology. In rejecting this argument, the Court noted:

In the case of a more-or-less integrated business enterprise operating in more than one State, . . . arriving at precise territorial allocations of "value" is often an elusive goal, both in theory and in

practice. For this reason and others, we have long held that the Constitution imposes no single formula on the States, and that the taxpayer has the "distinct burden of showing by 'clear and cogent evidence' that [the state tax] results in extraterritorial values being taxed. . . ."

One way of deriving locally taxable income is on the basis of formal geographical or transactional accounting [separate accounting].

463 U.S. at 164, 103 S.Ct. at 2939, 77 L.Ed.2d at 552-53 (citations omitted, emphasis added).

[8] We hold that the Oil Tax satisfies the second requirement of the due process clause. It makes a reasonable attempt to attribute only that income to Alaska that was generated in Alaska, while excluding expenses and profits generated beyond Alaska's borders. Under a separate accounting approach, income is viewed as earned when and where the principal operating activity occurs. Support activities are universally accounted for only as expenses, whether they occur in or outside the income-producing state. As with other states' separate accounting methods, the Oil Tax allows for the deduction of costs and profits from marketing, refining and transportation, and expenses related to other support activities.⁴⁰ Moreover, Alaska's tax is unique in allowing a deduction for out-of-state profits as well as costs of general overhead and administrative activities incident to Alaskan oil production and transportation, if the companies report them as such. See 15 AAC 21.290(b) (Eff. 2/22/79, am. 3/26/82). By allowing all of these deductions, the Oil Tax is intended to tax only those profits associated with the companies' activities within the state. Thus, the Oil Tax taxes only a portion of the companies' income, although by a technique quite different from formula apportionment.⁴¹ Because the Oil Tax operates

40. See La. Income Tax Reg. art. 47:244.A (1985); Miss.Code Ann. § 27-7-23(b)(3) (1983); Okla. Stat. Ann. tit. 68, § 2358, A.4.a, b, c (1985); see

also *Webb Resources v. McCoy*, 194 Kan. 758, 401 P.2d 879, 890 (1965).

41. See *Container Corp.*, 463 U.S. at 188, 103 S.Ct. at 2952, 77 L.Ed.2d at 568 (Formula apportion-

to tax only a portion of the companies' income, we hold that it satisfies the dual requirements of due process.

C. Commerce Clause

[9] We have previously recognized that the commerce clause⁴² "places restraints upon the taxing power of states similar to those of the due process clause. In fact, these two constitutional limits overlap to a great extent." *Sjong v. State, Department of Revenue*, 622 P.2d at 973. Generally, if a state tax "is applied to an activity with a substantial nexus with the taxing State, is fairly apportioned, does not discriminate against interstate commerce and is fairly related to the services provided by the State," there is no impermissible burden on interstate commerce. *Complete Auto Transit v. Brady*, 430 U.S. 274, 279, 97 S.Ct. 1076, 1079, 51 L.Ed.2d 326, 331 (1977). The nexus and fair apportionment factors have been discussed in the previous due process section. We now turn to a consideration of the other two factors of the *Complete Auto Transit* test.

The oil companies contend that the Oil Tax violates the commerce clause because it inevitably results in overlapping or duplicative taxation, thus discriminating against businesses engaged in interstate commerce. They claim that recent United States Supreme Court decisions on the subject of multiple taxation render the Oil Tax unconstitutional, citing *Japan Line v. County of Los Angeles*, 441 U.S. 434, 99 S.Ct. 1813, 60 L.Ed.2d 336 (1979), *Mobil Oil v. Commissioner of Taxes*, 445 U.S. 425, 100 S.Ct. at 1223, 63 L.Ed.2d 510, and *Exxon v. Wisconsin Department of Revenue*, 447 U.S. 207, 100 S.Ct. 2109, 65 L.Ed.2d 66. We disagree.

In *Japan Line*, six Japanese companies challenged a California property tax on shipping containers. The Japanese-owned containers were subject to a property tax

on 100% of their value in their home port of Japan. Under California's tax, all containers in the state on a specified tax day were subject to an apportioned *ad valorem* property tax. The companies contended that California's tax, as applied to their containers, created multiple taxation and violated the commerce clause.

The Court in *Japan Line* assumed that the *Complete Auto Transit* test was met. However, because taxation of instrumentalities of foreign commerce was at issue, the Court found it necessary to inquire whether California's tax, notwithstanding its fair apportionment, created a substantial risk of international multiple taxation. 441 U.S. at 451, 99 S.Ct. at 1823, 60 L.Ed.2d at 349. In this regard, the Court contrasted taxation of interstate instrumentalities with that of international instrumentalities:

In order to prevent multiple taxation of interstate commerce, this Court has required that taxes be apportioned among taxing jurisdictions, so that no instrumentality of commerce is subjected to more than one tax on its full value. The corollary of the apportionment principle, of course, is that no jurisdiction may tax the instrumentality in full. "The rule which permits taxation by two or more states on an apportionment basis precludes taxation of all of the property by the state of the domicile.... Otherwise there would be multiple taxation of interstate operations." The basis for this Court's approval of apportioned property taxation, in other words, has been its ability to enforce full apportionment by all potential taxing bodies.

441 U.S. at 446-47, 99 S.Ct. at 1820-1821, 60 L.Ed.2d at 347 (citations omitted). While the Court could require apportionment among the states for property taxation purposes, it obviously could not prevent Japan from taxing 100% of the value

ment and separate accounting are "two distinct methods of allocating the income of a multinational enterprise.").

42. The commerce clause is set forth in article I, § 8 of the United States Constitution:

The Congress shall have Power To ... regulate Commerce with foreign Nations, and among the several States, and with the Indian tribes; ...

of the containers. The Court held California's nondiscriminatory tax unconstitutional because it resulted in actual multiple taxation of instrumentalities of international commerce.⁴³

[10] The oil companies in the present litigation argue that if Alaska had been the home port instead of Japan in *Japan Line*, the Supreme Court would have invalidated Alaska's 100% *ad valorem* tax. We agree that Alaska would not be entitled to apply a property tax to the full value of instrumentalities of foreign commerce. But the oil companies' attempt to equate a property tax on the full value of goods used in foreign commerce with the Oil Tax is inappropriate. While the single situs property tax may be analogous to the specific allocation by situs method of income taxation, it is a totally different species from separate accounting.⁴⁴ The Oil Tax, as a separate accounting division-of-income method, does not automatically conflict with an apportionment method and result in double taxation.⁴⁵ Because separate accounting and formula apportionment can coexist without overlapping tax bases, *Japan Line* does not require invalidation of the Oil Tax.⁴⁶

In *Mobil Oil v. Commissioner of Taxes*, 445 U.S. 425, 100 S.Ct. 1223, 63 L.Ed.2d 510, the Court upheld the constitutionality of the inclusion of foreign source dividend income in the total income subject to taxation by Vermont. Mobil argued that Vermont could not tax its dividend income because New York, the state of commercial domicile, had the power under the commerce clause to allocate all of the dividend

income to itself. Allowing Vermont to tax a share of the income by apportionment would, therefore, result in double taxation if New York implemented such a tax. In this situation, the Court considered the risk of multiple taxation to be sufficient since the specific allocation by situs method was "theoretically incommensurate" with apportionment.⁴⁷ The Court found that if one method were constitutionally preferable, a tax based on the other method could not be sustained. 445 U.S. at 444-45, 100 S.Ct. at 1235-1236, 63 L.Ed.2d at 525.

Instead of accepting Mobil's argument that specific allocation by situs was preferable, the Court found apportionment to be the better approach. While the Court chose not to rule on the constitutionality of a hypothetical New York tax, the Court stated that in theory New York could not exclusively tax Mobil's dividend income since

the dividends reflect income from a unitary business, part of which is conducted in other states. In that situation, the income bears relation to benefits and privileges conferred by several states. These are the circumstances in which apportionment is *ordinarily* the accepted method.

Id. at 446, 100 S.Ct. at 1236, 63 L.Ed.2d at 526 (emphasis added).

Several months after the *Mobil* case, the Court decided *Exxon v. Wisconsin Department of Revenue*, 447 U.S. 207, 100 S.Ct. 2109, 65 L.Ed.2d 66. *Exxon*, like this litigation, involved state taxation of oil pro-

duced. 441 U.S. at 447, 99 S.Ct. at 1820, 60 L.Ed.2d at 347. However, this statement must be read in context. In the property tax area, separate accounting is not even a viable theory for dividing income. Allocation of the full property to one state or apportionment among several states are the only two options. Since allocation of the full property value to one of several proper taxing jurisdictions is unconstitutional, apportionment is the only permissible means of dividing the value of property used in interstate commerce for property taxation purposes.

43. The Court indicated that it need not decide "under what circumstances the mere risk of multiple taxation would invalidate a state tax, or whether this risk would be evaluated differently in foreign, as opposed to interstate, commerce." 441 U.S. at 452 n. 17, 99 S.Ct. at 1823 n. 17, 60 L.Ed.2d at 350 n. 17 (emphasis in original).

44. See discussion *supra* section II.A.2.

45. *Container Corp.*, 463 U.S. at 194-95, 103 S.Ct. at 2955-2956, 77 L.Ed.2d at 572.

46. There is language in *Japan Line* to the effect that an "unapportioned" tax will not be "us-

47. *Cf. Moorman*, 437 U.S. at 277, 98 S.Ct. at 2346, 57 L.Ed.2d at 207.

duction income. Exxon's activities in Wisconsin were limited to the marketing of petroleum products. Exxon challenged Wisconsin's inclusion of oil production income in the income subject to apportionment by Wisconsin. Exxon argued that production of oil and marketing of oil were two distinct operations. In Exxon's view, since it could illustrate by separate accounting that these two activities were distinct, Wisconsin could not constitutionally include production income in the tax base for apportionment.

Exxon contended that the commerce clause required the allocation of all income derived from exploration and production functions to the situs state, rather than inclusion in the apportionment formula. Exxon asserted that since the producing state was constitutionally entitled to allocate all production income to itself, non-producing states could not tax an apportioned share of this same income.

To this, the Supreme Court replied:

We do not agree. As was the case with income from intangibles, there is nothing "talismanic" about the concept of situs for income from exploration and production of crude oil and gas. Presumably, the States in which appellant's crude oil and gas production is located are permitted to tax in some manner the income derived from that production, there being an obvious nexus between the taxpayer and those States. However, "there is no reason in theory why that power should be exclusive when the [exploration and production income as distinguished through separate functional accounting] reflect[s] income from a unitary business, part of which is conducted in other States. In that situation, the income bears relation to benefits and privileges conferred by several States. These are the circumstances in which

apportionment is ordinarily the accepted method."

In short, the Commerce Clause does not require that any income which a taxpayer is able to separate through accounting methods and attribute to exploration and production of crude oil and gas be allocated to the States in which those production centers are located. *The geographic location of such raw materials does not alter the fact that such income is part of the unitary business of the interstate enterprise and is subject to fair apportionment among all States to which there is a sufficient nexus with the interstate activities of the business.*

447 U.S. at 229-30, 100 S.Ct. at 2123-2124, 65 L.Ed.2d at 85 (emphasis added; citations omitted).

Basically, both the oil companies and the state view *Japan Line*, *Mobil* and *Exxon* as prohibiting allocation of oil production income entirely to the situs state. The debate focuses on whether the Oil Tax allocates all oil production income to Alaska, as the oil companies contend, or is instead a distinct method of dividing the production income, as the state contends. Because we hold that the Oil Tax is a distinct method of dividing oil production income by use of separate accounting, its constitutional validity is not directly determined by these three cases.⁴⁸

While *Mobil* and *Exxon* indicate the Court's strong endorsement of the use of apportionment formulas, the Court clearly implied that the use of separate accounting is constitutionally permissible under the commerce clause.⁴⁹ The constitutional preference for apportionment of "unitary" dividend income in *Mobil* stemmed from the fact that the two competing methods at issue—specific allocation and formula apportionment—were "theoretically incom-

48. See W. Hellerstein, Memorandum to Mr. Milton Barker (April 20, 1981) (discussing proposed Oil Tax). [Record 17,091]

49. In both *Exxon* and *Mobil*, the Court stated that separate accounting "is not constitutionally required." *Exxon*, 447 U.S. at 223, 100 S.Ct. at 2120, 65 L.Ed.2d at 81; *Mobil*, 445 U.S. at 438, 100 S.Ct. at 1232, 63 L.Ed.2d at 521.

mensurate." *Mobil*, 445 U.S. at 444, 100 S.Ct. at 1235, 63 L.Ed.2d at 525.⁵⁰

The type of duplicative taxation found unacceptable in *Japan Line*, *Exxon* and *Mobil* all involved one taxing jurisdiction using the specific allocation by situs method, while another used apportionment. In other words, one taxing jurisdiction taxed the whole pie, while another taxed a slice. In such a situation, double taxation is inevitable, and one method has to be chosen over another. By contrast, in *Moorman Manufacturing v. Bair*, 437 U.S. 267, 98 S.Ct. 2340, 57 L.Ed.2d 197, two jurisdictions used different apportionment formulas. Each took only a slice of the pie, but since they used different formulas to divide the pie, the Court recognized that there was high probability of some overlap. While the potential for overlap existed, it certainly was not inevitable, and the Court upheld Iowa's apportionment method. The Court held that prevention of duplicative taxation should be effected by a national uniform rule for the division of income, but that the "Constitution . . . is neutral with respect to the content of any uniform rule." *Id.* at 279, 98 S.Ct. at 2347, 57 L.Ed.2d at 208. Given the absence of federal legislation, the Court was unwilling to specify that a particular methodology was constitutionally preferable. While acknowledging a clear risk of multiple taxation in a variety of situations due to the divergence in division-of-income techniques employed by the various states, the Court found such risk preferable to choosing one technique as constitutionally superior to another. *Id.* at 278-80, 98 S.Ct. at 2347-2348, 57 L.Ed.2d at 207-09.

The oil companies in the present litigation acknowledge that *Moorman* evidenced the Supreme Court's high degree of tolerance for apportionment formulas. But in their view, this tolerance does not extend beyond the apportionment method. They claim that *Moorman* does not sanction the use of Alaska's Oil Tax because the tax is not apportioned. We disagree. First, as we have previously explained, the Oil Tax

utilizes a division-of-income method. Second, while *Moorman* pertained to the conflict presented when two jurisdictions employ different types of formula apportionment, the principle of the opinion was that non-uniform state taxes are inevitable and constitutionally permissible. Since *Moorman*, the Court has continued to maintain that states enjoy broad leeway in their choice of division-of-income methods. See *Container Co. v. Franchise Tax Board*, 463 U.S. at 164, 103 S.Ct. at 2939, 77 L.Ed.2d at 552.

Container Corp. closely resembles the situation in this case. In *Container Corp.*, California sought to determine its share of total income by use of formulary apportionment, while foreign jurisdictions employed separate accounting.⁵¹ Discussing discrimination against interstate commerce, the Court reiterated its view that the Constitution does not require the elimination of all overlapping taxation on the interstate level. 463 U.S. at 171, 103 S.Ct. at 2943, 77 L.Ed.2d at 557. Thus, if the problem were limited to the interstate level, "the fact that different jurisdictions applied different methods of taxation . . . would probably make little constitutional difference." 463 U.S. at 185, 103 S.Ct. at 2950, 77 L.Ed.2d at 566.

In *Container Corp.*, the Court faced the additional complication of international commerce. Even so, the Court upheld the tax, distinguishing *Japan Line* on the ground that Japan's specific allocation by situs method necessarily resulted in double taxation.

Here, by contrast, we are faced with two distinct methods of allocating the income of a multi-national enterprise. The "arm's-length" approach [i.e., separate accounting] divides the pie on the basis of formal accounting principles. The formula apportionment method divides the same pie on the basis of a mathematical generalization. Whether the combination of the two methods results in the

50. See W. Hellerstein, *supra* note 48, at 2. [Record 17,093]

51. See discussion *supra* section IV.B.

same income being taxed twice or in some portion of income not being taxed at all is dependent solely on the facts of the individual case.

463 U.S. at 188, 103 S.Ct. at 2952, 77 L.Ed.2d at 568 (footnote omitted). The Court held that the two taxing methods do "not create an automatic 'asymmetry'." *Id.* at 194-95, 103 S.Ct. at 2955-2956, 77 L.Ed.2d at 572. "[I]t would be perverse, [therefore,] simply for the sake of avoiding double taxation, to require California to give up one allocation method that sometimes results in double taxation in favor of another allocation method that also sometimes results in double taxation." *Id.* at 193, 103 S.Ct. at 2955, 77 L.Ed.2d at 571. The fact that the Court found the two methods could coexist on the international level, where duplicative taxation is viewed more strictly, makes separate accounting a quite permissible alternative when only interstate commerce is involved, as is the case in the present litigation.

The Supreme Court has repeatedly recognized that neither separate accounting nor formula apportionment will result in the attribution of the exact amount of income earned in the state to that particular state. Some multiple taxation may result when one jurisdiction employs one method and another uses a different approach. This threat is inherent in any system where state attribution methods are nonuniform. But a state does not offend the commerce clause merely because its method of dividing income is different from that of its neighbors. *Moorman Manufacturing v. Bair*, 437 U.S. at 278-80, 98 S.Ct. at 2347-2348, 57 L.Ed.2d at 208-09.

We have already explained that the separate accounting method employed by the State of Alaska does not tax all profits generated from Alaskan oil production and does not impermissibly attribute extraterritorial values to Alaska. Using the leeway it retains absent a federal uniform approach, the Alaska legislature chose a con-

stitutionally permissible method of income division, albeit not the one "ordinarily" employed for most other types of unitary businesses.

[11] We hold that the Oil Tax comports with the requirements of the *Complete Auto Transit* test and creates no impermissible burden on interstate commerce. The location of the oil fields in Prudhoe Bay creates a substantial "nexus" between the oil companies' activities and the State of Alaska.⁵² As discussed above, the Oil Tax is fairly apportioned to represent only that part of the companies' income generated from its Alaskan activities—oil and gas production and transportation. As in *Container Corp.*, the Oil Tax does not inevitably result in multiple taxation. Moreover, any possible overlap created by Alaska's use of separate accounting and other jurisdictions' use of different income division methods is not the fault, in the constitutional sense, of Alaska. Thus, the Oil Tax does not discriminate against interstate commerce. Finally, because the oil companies all benefit from the "substantial privilege" ⁵³ of extracting oil in Alaska, the Oil Tax is fairly related to services provided in the state.

D. Federal and State Equal Protection

The oil companies assert that the Oil Tax violates both state and federal equal protection since it "arbitrarily [and] irrationally subject[s] a special group of taxpayers to treatment not accorded taxpayers at large." They argue, in effect, that using a distinct method of taxation for multistate oil companies, but not for any other unitary businesses, violates equal protection. We reject the oil companies' equal protection challenge.

The analysis under Alaska's equal protection clause involves a three-step process. *Alaska Pacific Assurance v. Brown*, 687 P.2d 264, 269-70 (Alaska 1984) [hereinafter

52. See *Exxon v. Wisconsin Dep't of Revenue*, 447 U.S. at 229, 100 S.Ct. at 2123, 65 L.Ed.2d at 85.

53. See *Commonwealth Edison v. Montana*, 453 U.S. at 628-29, 101 S.Ct. at 2959-2960, 69 L.Ed.2d at 901.

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cited as ALPAC]; *State v. Ostrosky*, 667 P.2d 1184, 1192-94 (Alaska 1983), *appeal dismissed*, — U.S. —, 104 S.Ct. 2379, 81 L.Ed.2d 339 (1984); *State v. Erickson*, 574 P.2d 1, 11-12 (Alaska 1978).⁵⁴ First, in order to ascertain the appropriate level of review, the nature of the constitutional interest affected must be identified. *ALPAC*, 687 P.2d at 269. Next, the validity of the statutes' purpose must be analyzed in light of the interest impinged. *Id.* Lastly, the means chosen must be examined, also in light of the interest, to insure that they are sufficiently related to the goals of the statute. *Id.* at 269-70.

The interest involved here, freedom from disparate taxation, lies at the low end of the continuum of interests protected by the equal protection clause.⁵⁵ Regarding the statute's purpose, the oil companies claim that greed and other improper motives led the Alaska legislature to enact the Oil Tax. The state, however, has adequately established that a primary purpose of the Oil Tax was to rectify a perceived underestimation of oil production and pipeline transportation income that occurred with the application of an apportionment formula. The goal was to insure that the tax rate assessed to the oil companies on this income was commensurate with the rate applicable to the income of other corporations in the state. Ch. 110, § 1, SLA 1978. Taxing the oil companies differently to rectify a perceived inequity was the legislature's attempt to prevent disparate treatment; thus, the validity of this purpose in light of the companies' interest is established. Finally, the means chosen were sufficiently related to the goals of the legislation. The use of separate accounting, rather than formula apportionment, increased the

amount of production and transportation income subject to Alaska taxation and more fairly represented the extent of the business activities of the oil companies in Alaska.

The Oil Tax did not adversely affect any fundamental interest, nor did it contain a suspect classification. Thus, to be upheld under the federal analysis, it need only to have been rationally related to a legitimate state interest. *Exxon v. Eagerton*, 462 U.S. 176, 195-96, 103 S.Ct. 2296, 2307-2309, 76 L.Ed.2d 497, 513 (1983). The rational basis standard is particularly easy to meet in the area of taxation. The United States Supreme Court has stated that "[l]egislatures have especially broad latitude in creating classifications and distinctions in tax statutes." *Regan v. Taxation with Representation of Washington*, 461 U.S. 540, 547, 103 S.Ct. 1997, 2002, 76 L.Ed.2d 129, 138 (1983). The Oil Tax clearly bore a rational relationship to the state's goal of correcting a perceived inequity in the tax structure.

[12] While the oil companies dispute the underlying premise that the Oil Tax rectifies inequities, the legislature could have reasonably concluded that the Oil Tax would more accurately compute the companies' income generated in Alaska. Thus, the Oil Tax survives the equal protection challenge, under both the United States and the Alaska Constitutions.

E. Contract Clause

[13] The oil companies argue that the Oil Tax is invalid because it impairs the obligation of the state's lease contracts with them.⁵⁶ They contend that the tax increases the state's share under the lease

54. In determining questions of equal protection under the Alaska Constitution, we employ a single test. As we stated in *State v. Erickson*, 574 P.2d 1, 12 (Alaska 1978):

Such a test will be flexible and dependent upon the importance of the rights involved. Based on the nature of the right, a greater or lesser burden will be placed on the state to show that the classification has a fair and substantial relation to a legitimate governmental objective.

55. See *Regan v. Taxation with Representation of Washington*, 461 U.S. 540, 547, 103 S.Ct. 1997,

705 P.2d—11

2002, 76 L.Ed.2d 129, 138 (1983). See generally P. Hartman, *supra* note 8, § 3.1, at 131-38.

56. The State of Alaska began issuing oil and gas leases a few months after passage of the Alaska Land Act, as 38.05, in 1959. The first oil and gas leases at Prudhoe Bay were issued in 1964 the state entered into lease contracts with the oil companies, whereby the state sold the companies whatever gas and oil might be found on the leaseholds in exchange for "bonus" payments and royalties of 12½%.

contracts, and that such modification of the terms of the leases violates the contract clause of the United States Constitution.⁵⁷

This argument is without merit. No lease provision has been impaired. In entering into the leases the state could not,⁵⁸ and did not, contract away its power as a sovereign to tax income earned in the state. *Merrion v. Jicarilla Apache Tribe*, 455 U.S. 130, 102 S.Ct. 894, 71 L.Ed.2d 21 (1982) disposes of this issue:

Contractual arrangements remain subject to subsequent legislation by the presiding sovereign. Even where the contract at issue requires payment of a royalty for a license or franchise issued by the governmental entity, the government's power to tax remains unless it "has been specifically surrendered in terms which admit of no other reasonable interpretation." *St. Louis v. United R. Co.*, 210 U.S. 266, 280, 28 S.Ct. 630, 634, 52 L.Ed. 1054, 28 S.Ct. 630 (1908). 455 U.S. at 148, 102 S.Ct. at 907, 71 L.Ed.2d at 36 (citations omitted); see also *Exxon v. Eagerton*, 462 U.S. at 187-94, 103 S.Ct. at 2304-2307, 76 L.Ed.2d at 508-12.

VIII. RETROACTIVITY OF THE OIL TAX

The Oil Tax Act was signed into law on July 8, 1978.⁵⁹ Section 4 of the Act provided that it would apply retroactively to January 1, 1978. Section 5 provided the Act would be "effective" immediately. While the Senate voted 16 to 4 to approve section 5, the entire Oil Tax Act only passed by a vote of 11 to 9. Thus, at no time did more than 11 senators vote to approve section 4.

The companies argue that the Act may not constitutionally be made applicable to income earned prior to July 8, 1978. They

interpret article II, § 18 of the Alaska Constitution⁶⁰ and AS 01.10.070(a)⁶¹ as requiring the approval of two-thirds majority of each house of the legislature to give retroactive effect to a new law. The companies argue that even though a two-thirds vote was attained for an immediate effective date, a two-thirds vote was also required to enact section 4, applying the Act retroactively to January 1, 1978. We disagree.

AS 01.10.090 states that "[n]o statute is retrospective unless expressly declared therein." A two-thirds vote requirement does not appear in that section, nor elsewhere in Alaska law. The legislature, however, has recognized that where retroactive application of a portion or all of a bill is desired, an immediate effective date, which does require a two-thirds vote under article II, § 18 and AS 01.10.070(a), should be used in conjunction with the retroactivity section. Legislative Affairs Agency, *Manual of Legislative Drafting* 11 (1977); Uniform Rules of the Alaska State Legislature, Rule 10 (May 3, 1977). Accordingly, because two-thirds of the legislature voted to make the Oil Tax Act immediately effective, a separate two-thirds vote for the Act to be retroactive was not constitutionally required. The Oil Tax was properly retroactive to January 1, 1978.

The superior court's action in granting the state's motion for summary judgment is AFFIRMED.

COMPTON, J., not participating.

APPENDIX 1

AS 43.21, Oil and Gas Corporate Income Tax provided:

Sec. 43.21.010. Application [Repealed effective January 1, 1982]. AS 43.21.010—

57. "No State shall ... pass any ... Law impairing the Obligation of Contracts..." U.S. Const., art. I, § 10, cl. 1.

58. The Alaska Constitution provides: "The power of taxation ... shall not be ... contracted away, except as provided in this article." Alaska Const. art. IX, § 1.

59. Ch. 110, SLA 1978.

60. Alaska Const. art. II, § 18 provides:

Laws passed by the legislature become effective ninety days after enactment. The legislature may, by concurrence of two-thirds of the membership of each house, provide for another effective date.

61. AS 01.10.070(a) contains language paralleling Alaska Const. art. II, § 18.

APPENDIX 1—Continued

43.21.120 applies to every corporation doing business in the state which derives income from the production of oil or gas from a lease or property in the state or from the pipeline transportation of oil or gas in the state. The tax calculated under AS 43.21.010—43.21.120 is measured by the total taxable income of the corporation during the tax period as determined under AS 43.21.020—43.21.040 and is calculated at the rates established under AS 43.20.011(e).

Sec. 43.21.020. Determination of taxable income from oil and gas production [Repealed effective January 1, 1982]. (a) The taxable income of a corporation from the production of oil and gas from a lease or property in the state shall be the corporation's net income as calculated by the department in accordance with this section.

(b) Gross income of a corporation from oil and gas production shall be the gross value at the point of production of oil or gas produced from a lease or property in the state. The department shall by regulation determine a uniform method of establishing the gross value at the point of production. In making its determination the department may use the actual prices or values received for the oil or gas, the posted prices for the oil or gas in the same field, or the prevailing prices or values of oil or gas in the same field. In addition, in its determination of gross value at the point of production of oil or gas produced from a lease or property, the department shall determine the reasonable costs of transportation from the point of sale to the point of production of the oil or gas. Transportation costs set by a tariff properly on file with the Alaska Pipeline Commission or other regulatory agency shall be considered prima facie reasonable, but if a tariff properly on file with a regulatory agency is subsequently amended, changed, or overturned retroactively, the reasonable costs of transportation shall be recomputed for that period using the newly determined tariff.

(c) Net income from oil and gas production shall be determined by the department

by deducting from gross income the following:

(1) royalties paid in kind or in value;

(2) taxes imposed under AS 43.55.011—43.55.150 and AS 43.57.010 which are actually paid or incurred by the corporation on the production from a lease or property in the state;

(3) taxes imposed under AS 43.56.010—43.56.210 and AS 29.53.010—29.53.460 which are actually paid or incurred by the corporation on property used directly in the production of oil or gas from a lease or property in the state, including property used in production, gathering, treatment, or preparation of the oil or gas for pipeline transportation, but only if those property tax payments were due and payable only after the date of commercial production from the lease or property with which the property was associated;

(4) the direct costs incurred by or for the corporation in operating the lease or property, including the direct costs of producing, gathering, treating, or preparing the oil or gas for pipeline transportation, but not of any payments received for those activities and not including any indirect cost or overhead expense;

(5) depreciation (using the unit of production method or such other reasonable methods as the department may by regulation establish) on property used directly in the production, gathering, treatment, or preparation of the oil or gas for pipeline transportation including amortization of capitalized interest for investments in this property at a rate not to exceed the average cost of borrowed capital to the taxpayer during the year in which it is capitalized;

(6) the amortization of lease acquisition payments and taxes paid or incurred under AS 43.56.010—43.56.210 and AS 29.53.010—29.53.460 (including capitalized interest on both) for or on producing properties before the commencement of commercial production from the lease or property for which the property is being used;

APPENDIX 1—Continued

(7) interest expense of the corporation not capitalized during construction, that was paid or incurred in connection with property in Alaska; however, unless (f) of this section applies, the interest expense may not exceed that portion of the total interest paid by the consolidated business of which the corporation is a part, determined by multiplying the total interest by a fraction, the numerator of which is the value of the corporation's real and tangible personal property used directly in the production of oil or gas from a lease or property in the state and the denominator of which is the value of all real and tangible personal property of the consolidated business; in this subsection, "total interest paid by the consolidated business" does not include interest expense arising from intercompany obligations within the consolidated business except to the extent that the interest expense reflects a pass-through of interest on a third-party borrowing by the parent or other member of the consolidated business with the purpose, expressed at the time of the third-party borrowing, of financing Alaska business activity of the taxpayer corporation;

(8) expenses incurred by the corporation after December 31, 1977, of unsuccessful exploration of oil or gas in the state including the acquisition costs of abandoned properties, dry hole costs, and the costs of geologic and geophysical exploration related to those abandoned properties;

(9) general overhead or administrative expense incurred by the corporation attributable to deriving income from the production of oil or gas from a lease or property in the state to the extent, except as provided in (f) of this section, that it does not exceed that portion of the total general overhead or administrative expense incurred by the consolidated business of which the corporation is a part, determined by multiplying the total general overhead or administrative expense by a fraction, the numerator of which is the value of the corporation's real and tangible personal property used

directly in the production of oil or gas from a lease or property in the state and the denominator of which is the value of all real and tangible personal property of the consolidated business;

(10) the amount of income from the production of oil and gas from a lease or property that is divided among the regional Native corporations under sec. 7(i) of the Alaska Native Claims Settlement Act. (P.L. 92-203);

(11) the tax imposed by sec. 4986 of the Internal Revenue Code that is paid or incurred by the taxpayer for oil production from leases or properties in the state.

(d) Deductions from gross income under this section shall not include expenses previously deducted on a return filed under AS 43.20.011-43.20.350.

(e) Where a corporation subject to AS 43.21.010-43.21.120 shares the production or proceeds of the production from a lease or property through a working interest, royalty interest, overriding royalty interest, production payment, net profit interest, joint venture or other agreement, the department shall allocate the deductions from gross income between the corporation and the persons with whom it has such an agreement in accordance with the terms of the agreement.

(f) If a corporation demonstrates to the satisfaction of the department that it paid or incurred actual expenses for interest or for general overhead or administration attributable to deriving income from the production of oil or gas from a lease or property in the state in an amount greater than the amount determined under (c)(7) or (c)(9) of this section, the department may allow the corporation to deduct the greater amount.

Sec. 43.21.030. Determination of income from oil and gas pipeline transportation [Repealed effective January 1, 1982].

(a) Except as provided in (c) of this section, taxable income attributable to the transportation of oil in a pipeline engaged in interstate commerce in Alaska shall be deter-

APPENDIX 1—Continued

ruined by the department and shall be the amount reported or that would be required to be reported to the Federal Energy Regulatory Commission or its successors as net operating income, less those portions of interest and general administrative expense attributable to the pipeline transportation of oil in the state, except that taxable income shall also include taxes on or measured by income. The department shall establish regulations governing the determination of interest and general administrative expense attributable to pipeline transportation of oil in the state.

(b) Except as provided in (c) of this section, taxable income attributable to the transportation of natural gas in a pipeline engaged in interstate commerce in Alaska shall be determined by the department and shall be the amount reported or that would be required to be reported to the Federal Energy Regulatory Commission as net operating income less that portion of interest and general administrative expense attributable to pipeline transportation in the state, except that the taxable income shall also include taxes on or measured by income. The department shall establish regulations governing the determination of interest and general administrative expense attributable to pipeline transportation of natural gas in the state.

(c) Taxable income attributable to the transportation of oil or natural gas in Alaska of any corporation not under the Federal Energy Regulatory Commission jurisdiction, or of a corporation under the jurisdiction of the Federal Energy Regulatory Commission but not reporting the operation of pipelines in Alaska separately from the operation of pipelines elsewhere, shall be determined by the department and shall be based upon an amount equal to that which would have been reported to the Federal Energy Regulatory Commission under (a) of this section in the case of oil pipelines, or (b) of this section in the case of natural gas pipelines, had the corporation been, in fact, under Federal Energy Regulatory Commission jurisdiction for the taxable year and required to report on the operation of Alas-

ka pipelines separately from the operation of pipelines elsewhere.

Sec. 43.21.040. Determination of income from activities other than oil and gas production or pipeline transportation [Repealed effective January 1, 1982]. (a) Taxable income of a corporation subject to AS 43.21.010–43.21.120 from activities in this state other than the production of oil or gas from a lease or property in the state or the pipeline transportation of oil or gas in the state shall be determined in accordance with the method established in art. IV of AS 43.19.010 and in AS 43.20.071, as modified by (b)–(f) of this section.

(b) The total taxable income of the consolidated business is its entire income less the portion of that entire income attributable to worldwide production and pipeline transportation of oil and gas. In this section,

(1) for a member of a consolidated business who is required to file under the Internal Revenue Code, "entire income" means taxable income under Subtitle F and chapter 1 of Subtitle A of the Internal Revenue Code of 1954, as amended, except that those provisions adopted after December 31, 1975, which change or modify exemptions from tax are not adopted by reference as a part of this section until the second January 1 following the effective date of the federal law;

(2) for a member of a consolidated business who is not required to file under the Internal Revenue Code, "entire income" means book income, except that a taxpayer may elect to report his income as the income would be determined under (1) of this subsection.

(c) The numerator and denominator of the property factor, of the payroll factor and of the sales factor shall be calculated without reference to that portion of property, payroll or sales directly related to the production of oil or gas from a lease of property in the state or the pipeline transportation of oil or gas in the state.

(d) Repealed by § 17 ch. 116, SLA 1981.

(e) Repealed by § 17 ch. 116, SLA 1981.

APPENDIX 1—Continued

(f) The value attributed to vessels transporting Alaskan oil or gas of the consolidated business which are not owned or effectively owned by the consolidated business shall be excluded from the property factor.

Sec. 43.21.050. Assessment of income and tax [Repealed effective January 1, 1982]. (a) The department shall assess taxable income and the amount of tax payable on that taxable income.

(b) On or before August 15 of each year the department shall send to every corporation taxable under AS 43.21.010-43.21.120 a notice of assessment showing the amount of income taxable under AS 43.21.010-43.21.120 for the previous year and the amount of tax payable on that taxable income.

(c) For purposes of AS 43.21.010-43.21.120 the department may combine taxable incomes of corporations subject to tax under AS 43.21.010-43.21.120 who are part of the same consolidated business.

(d) If the methods of allocation and apportionment provided in AS 43.21.010-43.21.120 do not fairly represent the extent of a corporation's business activity in the state, the corporation may petition for or the department may require, in respect to all or any part of the corporation's business activity, if reasonable, the employment of any method authorized under art. IV, sec. 18, of the Multistate Tax Compact (AS 43.19.010) to effectuate an equitable allocation and apportionment of the corporation's income. The commissioner shall include in his annual report required in AS 43.21.110 a report on all relief granted under this subsection, including for each case a statement of the changes in tax liability resulting from the granting of relief, the tax years involved, and a description of the method of determining taxable income that was substituted for those provided in AS 43.21.010-43.21.120.

Sec. 43.21.060. Returns [Repealed effective January 1, 1982]. On or before April 15 of each year, a corporation subject to tax under AS 43.21.010-43.21.120 shall submit a return in a form prescribed by the

department setting out information required by the department to determine taxable income. For purposes of AS 43.21.010-43.21.120, the department may require corporations subject to tax under AS 43.21.010-43.21.120 who are part of the same consolidated business to file a single return.

Sec. 43.21.070. Payment of tax [Repealed effective January 1, 1982]. The tax levied under AS 43.21.010-43.21.120 is payable to the department on or before September 30 of each year or in installments, including prepayments of estimated tax, at the times and under the conditions the department may by regulation require. This tax is payable on the due date set out in this section even though the assessment is under appeal or the validity, enforceability or application of AS 43.21.010-43.21.120 or any provision of AS 43.21.010-43.21.120 is challenged before the department or in the courts.

Sec. 43.21.080. Transitional rules [Repealed effective January 1, 1982]. The department shall provide by regulation transition rules for corporations subject to tax under AS 43.20.011-43.20.350 before July 9, 1978 to avoid double taxation of the same income or double deduction of the same expense of those corporations as a result of becoming subject to tax under AS 43.21.010-43.21.120.

Sec. 43.21.090. Regulations [Repealed effective January 1, 1982]. The department may adopt regulations in accordance with the Administrative Procedure Act (AS 44.62.010-44.62.650) as appropriate to administer and enforce AS 43.21.010-43.21.120.

Sec. 43.21.100. Penalties [Repealed effective January 1, 1982]. The penalties established in AS 43.20.011-43.20.350 apply to AS 43.21.010-43.21.120.

Sec. 43.21.110. Public reporting [Repealed effective January 1, 1982]. (a) The commissioner of revenue shall compile and transmit to the legislature an annual consolidated report of state revenues and taxation policies under AS 43.21.010-43.21.120.

APPENDIX 1—Continued

This report shall include total aggregate income tax paid by corporations covered under AS 43.21.010-43.21.120 and aggregate income and deductions by category, so classified as to prevent the identification of particular returns or reports.

(b) The legislative auditor shall transmit to the legislature an annual report reviewing the actions of the department in administering AS 43.21.010-43.21.120.

Sec. 43.21.120. Definitions [Repealed effective January 1, 1982]. Unless the context requires otherwise the definitions contained in AS 43.55.140 are applicable to AS 43.21.010-43.21.120. In addition, in AS 43.21.010-43.21.120.

(1) "base of operations" means the closest point on land to the offshore oil or gas production operations from which goods, services and supplies flow to those offshore oil or gas production operations;

(2) "consolidated business" means a corporation or group of corporations having more than 50 per cent common ownership direct or indirect, or a group of corporations in which there is common control either direct or indirect as evidenced by any arrangement, contract or agreement.



Ralph R. STEFANO, C. Harold Gillam,
and Estate of Robert L. Crow,
Appellants,

v.

Patricia M. COPPOCK, Appellee.

No. S-453.

Supreme Court of Alaska.

Aug. 23, 1985.

Minority shareholder brought action against controlling shareholder-directors of closely held corporation. Following re-

mand, 621 P.2d 270, the Superior Court, Third Judicial District, Anchorage, Seaborn, J. Buckalew, Jr., J., ordered defendants to buy out minority shareholder, and they appealed. The Supreme Court, Moore, J., held that: (1) evidence warranted forced buy out; (2) prior Supreme Court opinion did not preclude Superior Court from ordering buy out at equitable price; (3) ordering buy out as remedy for fraudulent or oppressive acts, rather than liquidation, was not abuse of discretion; and (4) prejudgment interest award was not abuse of discretion.

Affirmed in part; reversed in part; remanded.

1. Corporations ⇐182.4(5)

Evidence that majority shareholder-directors did not provide minority shareholder with notice of several meetings and did not respond to her attorney's second letter demanding inspection of corporate records on her behalf supported findings of oppressive or fraudulent conduct sufficient to warrant remedy of forced buy out of her shares.

2. Appeal and Error ⇐1194(1)

Prior Supreme Court opinion, which stated that in order for minority shareholder to warrant forced buy out of her shares, she must establish on remand that actions of controlling shareholders were illegal, oppressive, or fraudulent, or, alternatively, constituted waste or misapplication of corporate assets, did not preclude superior court from ordering on remand that controlling shareholders buy out minority shareholder's shares at equitable price, where trial court had not reached that issue at time of that Supreme Court opinion. AS 10.05.540(2).

3. Corporations ⇐614(2)

AS 10.05.540, permitting liquidation of assets and business of corporation as remedy in shareholder's action based on illegal, oppressive, or fraudulent acts of directors or those in control of corporation, is remedial statute and does not deprive superior