

Severance

Tax

MEMORANDUM

State of Alaska

TO: Tax Policy Committee

DATE: September 16, 1986

FILE NO.:

THRU:

TELEPHONE NO.: 465-2302

SUBJECT: Severance Tax (AS 43.55)

FROM: 
Richard D. Monkman
Deputy Commissioner, Taxation

Attached is a memorandum which discusses some policy considerations behind the severance tax, written several years ago by former Assistant Attorney General Jon K. Tillinghast. Of particular interest is the memorandum's historical perspective on resource development in Alaska.

RDM:mkw

Attachment

cc: Royce Weller

ALASKA OIL SEVERANCE TAX POLICY
Alaska Department of Law: Juneau, Alaska
Jon K. Tillinghast, Asst. Atty. Gen.

Each day, some 1.57 million barrels of oil are drawn from the Sadlerochit and Kuparuk reservoirs which underly Alaska's Arctic coast. The oil is passed through the Trans-Alaska pipeline to the port of Valdez, and shipped by tanker to refineries along the Pacific coast and Gulf of Mexico. North Slope oil is the consummate asset in Alaska's economic portfolio. It builds schools in the villages of the Bering Sea: it saves lives in hospitals on the Arctic rim. And, as each tanker departs Alaska's territorial waters, the day when it will be gone draws nearer. In 15 years, North Slope production, including likely new discoveries, will probably be about half of what it is today.

For 250 years, Alaska has known brief and furious interludes of intensive natural resource development. In the main, however, Alaska's history has been one of poverty, stagnation and aftermath. Each profiteer who has dipped into Alaska's resource coffer has paid little for his reward, and has left to those who remained the consequences of his exploitation.

In the beginning, it was the Russian fur merchant. Between 1797 and 1821, the Russian American Co. took of Alaska's waters some 1,3000,000 fur seals and sea otters. Having rendered the sea otter comparantly extinct, the company left as its legacy not only barren waters, but a

diseased Aleut native population which stood at 12,000 in 1780, but numbered 2,200 sixty years hence.

The whalers came next, and after them the miners and fishermen. Each had their golden age--an age about as long as the life of an oil field--and each left behind remains as sad as those bestowed by their Russian predecessors.

Alaska's lot is such that it's economy will always be vulnerable to cycles. It is remote; it is inaccessible; and its weather and its terrain are hostile. For the foreseeable future, the state cannot expect a self-sustaining economy rooted in manufacturing or agriculture. Eight percent of Alaska's work force is involved in manufacturing, most of that being associated with raw processing of fish, timber and oil. The value of agricultural production in Alaska was only \$5.5 million in 1960, and had increased to but \$9 million by 1979.

Recurring and stable economic development in the extraction of Alaska's natural resources is limited by both the carrying capacity of the resource, and the extraordinarily high costs associated with any economic activity in the state. Although Alaska's commercial fisheries have recovered from the aftermath of systematic overfishing in pre-statehood years, that recovery has been achieved only by freezing the level of commercial gear through the state's limited entry legislation, and an aggressive state-funded hatcheries program. Timber

production peaked in Alaska in 1973, when 655 million board feet were harvested from the state's public lands. In 1979, some 493 million board feet were cut.

Alaska's mining industry --for minerals other than oil, gas and gravel--produced \$17 million in minerals in 1959, and essentially the same amount in 1979. In 1976 (the last available data year), the per-square-mile valuation of hard rock mineral production in the eleven contiguous western states was \$5,545. In Alaska it was \$410, and decreased to \$284 in 1979.

Regardless of the growth potential in Alaska's base industries--and in many cases that potential is substantial--the cumulative benefits of all recurring economic activities will not sustain a state which, even during the flush of oil revenue, faired poorly with its sisters in the provision of basic services and facilities. For example, Alaska has less than half the national average of hospital beds per capita. The state has .64 nursing home beds per 100,000, compared to the national average of 4.89. 17 percent of Alaska's homes are substandard or overcrowded, as opposed to a national average of 7.7%. The U.S. Environmental Protection Agency estimated in 1980 that it would require per capita expenditures of \$783 to bring Alaska's publicly owned sewage treatment works to secondary treatment standards. The national average per capita cost was \$128, and no other state had per capita costs over \$300. Alaska shares honors with Mississippi for the fewest

physicians per 100,000 residents--78, compared to the national average of 163. Less than one percent of the state's area is accessible by road.

The modest level of tax revenues capable of being generated by Alaska's base economy is the cause of the state's historical inability to achieve equal footing in the provision of rudimentary services. In 1959, the year of statehood, Alaska's tax revenues totalled \$25 million. The Trans-Alaska Pipeline commenced operation in 1977. Between 1970 and 1976, per capita state expenditures, adjusted for inflation, remained virtually constant. While all corporations in the state are subject to the same income tax rate, in FY 1981 the state collected \$860 million in income taxes from corporate oil producers, and \$35 million in income taxes from all other corporate activity in the state.

Because of the backdrop against which it occurred, and the return of a "bust" period which imprudent fiscal management would ensure, no issue has more consumed the Alaska Legislature over the past decade than the establishment of sound tax policy during the brief, intensive and extraordinarily profitable period of oil production in Alaska. State government cannot alter the variations inherent in an extractive economy. However, no motivation more underlay statehood than did Alaska's need to steward the brief periods of intense wealth generation--largely by non-residents--in order to cushion the inevitable prolonged aftermath which Alaskans alone would be required to suffer.

Possessing the essential attribute of statehood--the power to tax--Alaska would be capable of evening the curves by establishing a tax structure which, among of other legal and policy considerations, was responsive to three fundamental concerns:

(1) "Boom" activities, for two reasons, tended to generate substantial profits which were exported in toto and virutally tax free. First, because of the marginal nature of Alaska's base economy, tax liability was of necessity often low. Of perhaps greater importance, the incidence and measure of taxation in Alaska's laws were drawn from experience with the base economy. The "boom activities" could be of a nature for which the incidence and measure of the tax were inappropriate, resulting in under-taxation. For example, the Alaska Legislature found in the mid-1970's that, largely because of the way that Alaska law measured the income of a multi-state corporation doing business in Alaska, the effective tax rate on a multi-state company producing oil in Alaska was about 2 percent, instead of the 9.4 percent paid by local Alaska companies;

(2) The "boom activity" inevitably aggravated the state's existing fiscal deficiencies through inflation and population increases, and the attendant increased needs for public services. In 1970, Alaska's population stood at 302,000. By the completion of pipeline construction in 1977, the state's population had swelled to 396,000. During the pipeline construction year of 1975, the Consumer Price

Index ("CPI") rose 7 percent nationwide. In Anchorage it rose 11.1 percent--although in the pre-construction years of 1967-73 that city's CPI had risen at substantially lower rates than the nationwide average. In 1981, an average American family of four spent \$72 per week on food. In Fairbanks it spent \$93, and in Barrow \$180. Completion of the pipeline in 1977 also left an inevitably high unemployment rate among an artificially high work force. In 1978, Alaska had an 11 percent unemployment rate (the highest in the nation), against a national average of 6 percent; and

(3) The "boom" participants were not merely earning and exporting returns from Alaska's economic portfolio. They were raiding its corpus. And, with little but speculation as to whether there lay hidden future assets of the magnitude of Prudhoe Bay, it was incumbent upon the Alaska Legislature to ensure that the greatest long-term public value was made of this asset before it so soon and so finally evaporated.

Intensive oil exploration in the state began in 1954, when the Bureau of Land Management awarded 272 oil and gas leases covering some one-half million acres. At the time, any oil production would have been subject to the territory's general mining license tax, which was first enacted in 1913, and which levies a progressive 3-7 percent tax on net income from the mining operation.

The commencement of drilling activities under the 1954 leases elicited the territory's first interest in tax

legislation responsive to oil and gas production activities. In 1955, the legislature adopted Alaska's first oil and gas severance tax. Modelled after Oklahoma's statute, the act imposed a tax of one percent on the gross value of produced oil at the wellhead.

On September 29, 1957, Alaska became an oil producing territory with the discovery of the Swanson River oil field in the Kenai National Moose Range. Two years later, Alaska became a state, and thereafter a series of discoveries in upper Cook Inlet clearly entrenched oil production as a major component of Alaska's base economy. The first offshore discovery was the Middle Ground Shoal field in Cook Inlet in June, 1962, followed by the Trading Bay field (June 1, 1965), the Granite Point field (June 9, 1965) and the McArthur River field (October 24, 1965). Coupled with several gas discoveries during the same period, the value of Alaska oil and gas production rose from \$301,000 in 1959 to \$50.4 million in 1966.

Despite the success of Cook Inlet development-- which was to eventually peak in 1970 with the production of some 81.6 million barrels of oil--the Alaska Legislature remained unwilling to increase the industry's severance tax liability above the conservative one percent rate established two years before oil was discovered. Statehood did not bring a rush to tax for taxation's sake, and the health of Cook Inlet activity did not convince the legislature that

oil development was anything other than another tentative component of Alaska's vulnerable base economy.

In 1967, the state finally increased the severance tax from one to two percent--for reasons hardly of its own making. In that year, the city of Fairbanks was devastated by savage floods, and the legislature was called into special session to provide emergency relief. Some \$9 million in disaster appropriations were necessary. To fund a portion of the deficit, the legislature temporarily increased the severance tax.

Between 1966 and 1968, Cook Inlet production had expanded from 14 million barrels annually to 66 million barrels. Annual production was worth \$187 million in 1968. The 1968 legislature concluded that higher severance tax rates were warranted in light of this swell in industry profitability. The decision was colored by perceived price reporting anomalies by Cook Inlet producers, and the result was an increase in the severance tax rate from one to three percent--plus the one percent disaster severance tax. Severance tax revenues grew the following year from \$1.1 to \$4 million.

By 1968, then, the state's oil severance tax remained at a level comparable to taxes assessed against even marginal components of the state's base economy. In 13 years, the tax had increased 3 percent from the initial hesitant levy on an unproven industry. In early 1968, however, the largest oil field ever found in the United

States was discovered at Prudhoe Bay. It was immediately apparant that the brief window of intensive industrial activity heralded by the discovery would dwarf the booms of the past, and that a tax regime conservatively developed in response to Cook Inlet production would not be sufficient to manage the impacts and significance of Prudhoe Bay.

After nearly two years of study and debate, the legislature in 1970 adopted the state's first progressive severance tax rates--although the 1968 increase had been "progressive" in the sense that it was responsive to substantial increases in profitability in the one region where oil development was occurring. The rates established by the 1970 law were:

<u>Daily Well Production</u>	<u>Rate (%)</u>
Up to 300	3
Next 700	5
Next 1500	6
Above 2500	8

Since the 1967 disaster severance tax was repealed, the law had the effect of reducing the nominal rate on marginal wells. Severance taxes in FY 1971 increased from \$5.9 million to \$9.9.

Severance taxes are based upon value at the well-head--a sum which decreases with any increase in transportation costs to the point of ultimate sale. During the early 1970's, cost estimates for the Trans-Alaska Pipeline grew from \$1.3 to \$3 billion, and the state became concerned that

what the severance tax gaveth, high pipeline tariffs imprudently allowed would taketh away.

The legislature's response in 1972 was to establish a combined floor on state royalty payments and severance taxes. The floor was established by applying the applicable severance tax rate, with a credit for royalties, to a wellhead price of \$2.65/barrel. The law resulted in only a nominal increase in severance tax revenue in FY 1973-- from \$11.4 million to \$12 million.

The concept of a combined "floor" on severance taxes and royalties was an anathema to the oil industry. Royalty payments had been set by lease agreement with the state at 1/8 of the value of production--without a price "floor"--and the industry sued the state over the 1972 law as part of wide-ranging litigation dealing with state regulatory authority over pipeline construction and operation.

In 1973, Governor Egan called a special session of the legislature to attempt to settle the lawsuit. The state agreed to repeal the royalty portion of the "floor", and also agreed to repeal or modify a host of pipeline revenue and regulatory measures which the industry found objectionable, but only after the industry agreed to corresponding increases in the severance tax rate. Industry was willing at the time to sacrifice severance tax advantages for a removal of the royalty floor, together with substantial state

concessions in the area of pipeline regulation. The rates established in the 1973 special session were:

<u>Daily Production</u>	<u>Rate</u>
Up to 300	5
Next 700	6
Over 1000	8

The "floor" on the severance tax was retained, with a cents-per-barrel minimum tax established based on applying the applicable rate to a wellhead value of \$3.375. The floor was to be adjusted, however, both by the API gravity of the oil, and by increases or decreases in the U.S. Bureau of Labor Statistic's Wholesale Price Index for crude oil.

The 1973 "package" was in fact a miscalculation by both sides. Neither side foresaw the Yom Kippur war months hence; the resultant embargo; the quadrupling of OPEC prices; and the imposition of federal price controls. The industry found the cents-per-barrel floor increasing through the WPI while federal price controls capped the value of "old" Cook Inlet oil. The legislature, on the other hand, was faced with potentially skyrocketing Prudhoe Bay profits, with only a 3 percent rate change separating the most profitable Prudhoe Bay operation from the most marginal well in Cook Inlet.

The sessions of the legislature between 1974 and 1978 were consumed with the controversy of oil industry taxation. In-depth studies were undertaken of the likely

profitability of Prudhoe Bay production, with an eye toward equalizing the impact of the severance tax on the state's producing regions, and evening out the boom-bust curve threatened by North Slope production. Information developed for the legislature suggested that Prudhoe Bay production would yield a 35 percent rate of return. The existing severance tax law, in short, was insufficiently progressive.

In 1977, the legislature fundamentally altered the state's severance tax. A single nominal rate of 12.5 percent was established. That rate, however, was reduced by a fraction called the "economic limit factor" ("ELF"). The ELF fraction had the effect of reducing the nominal rate as production from a well decreased, to the point where no tax was imposed when a well operated at its minimum economic limit.

The ELF fraction is a unique feature of Alaska's severance tax, and reflects the legislature's sensitivity to the very different circumstances of northern and southern oil development in the state. Cook Inlet production began to decline after 1970. As a well's productivity declines, the point approaches when production from the well is no longer economically justified. Near that level, even a very small flat rate severance tax will cause the well to be shut-in. The ELF fraction is thus not only consistent with principles of progressive taxation, but as well performs a critical conservation function. In Cook Inlet today, the average "ELF factor" is 30 percent, which means that the

average effective severance tax rate is 5 rather than the current nominal 15 percent. Numerous wells are currently operating at or near their minimum economic limit, which means that the effective tax rate for those wells is at or near zero.

The 1977 law also retained the cents-per-barrel floor, raising it to a base of \$4.90/barrel for "old" oil and \$6.53/barrel for all other oil. The floor was no longer indexed to the WPI.

As discussed previously, the adverse economic impacts and population increases caused by the North Slope boom peaked in the mid-1970's. Alaska's population grew by 10 percent in 1974, and again in 1975, as Trans-Alaska pipeline construction commenced. And even though real state spending per-capita remained virtually constant over that period (see above), the legislature found itself in 1975 with a \$450 million revenue shortfall for the period 1975-77. Although increased demands for government services were substantially attributable to pipeline activity, revenues from North Slope development would not be received until the pipeline was completed. Thus, in 1975, the legislature was compelled to enact a two-year "reserves tax." The tax was levied on the value of the oil in the ground, and the tax paid was subsequently credited against later severance taxes.

The two-year reserves tax generated \$494 million in revenues. It also served to substantially reduce

severance tax payments in fiscal years 1978 and 1979--the first two years of pipeline operation.

The changes made by the Alaska Legislature to the severance tax in the 1970's were the product of a considered effort to make state oil tax policy responsive to the rapidly changing nature, impact and significance of oil production in the state. Although the changes were frequent, they were no more so than the events of the decade which necessitated them. The progressive divergence in the rate of taxation reflected the emergence of Prudhoe Bay as a uniquely profitable enterprise which could in all fairness be subjected to a higher effective severance tax rate with at worst no more severe impact than had been suffered by Cook Inlet operations. The amount of severance taxes imposed on North Slope development was itself influenced by the unquestionably high adverse economic impacts caused by pipeline construction.

The severance tax, however, was not made to pay the price of Prudhoe Bay's role in Alaska's long-term economic goals. To smooth the future economic curve during the brief period of North Slope development, the state, put simply, needed a savings account--a sum above those uncertain revenues which the state's future base economy would yield in order to fund the continuing needs of a population swollen by Prudhoe Bay itself. The state's response was the Permanent Fund--authorized as a constitutional amendment by the voters in 1976, and into

which is placed at least 25 percent of all money received by the state as the lessor of mineral acreage. In Alaska, then, "saving for the future" is a function not of tax policy, but rather of the state's role as proprietor.

In 1981, the state again altered its severance tax laws. As in 1973, it did so in response to oil industry litigation, and the net result was to materially decrease the tax liability on the production industry. As discussed previously, the state's corporate income tax, the fundamentals of which were enacted at the time of statehood, proved an inappropriate measure of a multi-state company's production income attributable to Alaska. In 1978, the legislature amended the income tax to insure that the tax levied on Prudhoe Bay production was at the same rate as that applicable to other taxpayers. The major Prudhoe Bay producers sued the state, seeking to have the income tax declared unconstitutional and some \$1.8 billion (collected between 1978 and 1981) refunded.

In 1981, the legislature altered the income tax in order to reduce the state's exposure in the litigation. The amendments, however, substantially reduced the state's income tax receipts. In order to partially compensate for the lost revenues, the nominal severance tax rate was increased to 15 percent, and the ELF discount was disallowed for the first 10 years of production for highly productive wells.

The net result was a decrease in state severance and income tax revenues of some \$225 million for upcoming FY 1983--although the decrease was not sufficient to induce the company's to dismiss the income tax litigation.

The fiscal impact of the 1981 package is dwarfed, however, by the current \$4-6/barrel drop in world oil prices. Sound fiscal management of Prudhoe Bay must cope not only with the location of the North Slope peak in Alaska's long-term economic continuum, but as well with the yearly and even monthly gyrations in world oil prices. Every \$1 drop in oil prices lowers the state's severance tax by 4.5 percent, and has a similar effect on state royalty payments. The severance tax in turn represents about 30 percent of the state's unrestricted revenues.

Much of the popular criticism of Alaska's treatment of the oil industry flows from the events of FY 1982, when OPEC oil prices completed their two year ascension from \$12 to \$34 per barrel. In FY 1979, with North Slope wellhead values in the \$6 range, the state received \$1.13 billion in total unrestricted revenues. Total unrestricted state revenues for FY 1982-- the year in which oil prices peaked--were estimated in January, 1982 at \$4.13 billion. This year's oil price decreases, however, are now predicted to cause a loss of \$1.68 billion in revenues for the remainder of FY 1982 and for FY 1983. Similar drops are predicted for subsequent fiscal years.

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The results are state revenues for FY 1983 of \$2.74 billion--about the same as the \$2.5 billion received for FY 1980. The state's flush of oil revenues lasted two years, and the state now finds itself in the position of making massive cuts in both its operating and capital budgets. The state's operating budget will not increase over FY 1982, despite inflation. The FY 1983 capital budget will be approximately one-third of the amount authorized in FY 1982.

The response of the legislature has not been to increase oil production taxes. Indeed, with the exception of the 1967 disaster tax, and perhaps the 1975-77 reserves tax, Alaska's policy has been motivated not by monetary reaction, but rather by at least an attempt at principle. Prudhoe Bay is a unique phenomenon played out on an equally unique economic stage. Its astounding magnitude and profitability; its stark contrast in kind and degree to the state's marginal base activities on which Alaska's tax laws are otherwise based; and its fleeting presence on an otherwise depressed frontier, call for the development of tax policies that might seem inappropriate in other times and places. That, however, is the fulcrum of federalism, and it is our federal system which has allowed Alaska to intelligently manage this brief and consequential episode in its very difficult history.

10/7/86

HISTORY OF OIL AND GAS TAX LAW

Severance Taxes

In 1955 the Alaska Legislature enacted two bills which imposed a tax on the production of crude oil and natural gas in the state. One of those measures, which imposed a 1% tax on the gross value of production, was the foundation from which the state's existing oil and gas production properties tax evolved. 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 the production taxes. Then, in 1967, the legislature convened in a special session to provide statutory relief for the victims of the Fairbanks flood. Faced with extraordinary costs associated with the Fairbanks disaster, the legislature enacted an additional one percent disaster severance tax 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 1970, the legislature, by amendment, embodied a progressive or "stairstepped" 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. The committee anticipated that low prices would result from 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 unit of production (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. Litigation concerning the validity of this new tax began on the heels of enactment.

The 1973 Special Session of the Legislature made several changes to the 1972 law. The royalty credit provision was repealed. The effective tax rate that would apply to oil production was increased by increasing the effective floor of the cents-per-barrel tax from \$2.65 to \$3.375. Instead of four "stairsteps" 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 barrel. In addition, the cents-per-barrel amounts increased or decreased by two cents for each degree of API gravity above or below 27 degrees. Thus a complete schedule of three unit-of-production rates (one for each "stairstep") could have been 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". The changes made it clear that value was to be determined by using reasonable costs of transportation to determine the value at the point of production. The legislature found the terms price and value were not necessarily synonymous and that taxable gross value was 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 adopted 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. The nominal tax rate for oil was set at 12.25 percent and 10 percent for gas. However, the effective rate was determined through the use of 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 per mcf floor), 60 cents per

barrel for "old oil" (a \$4.90 per barrel floor) and 80 cents for all other oil (a \$6.53 per barrel 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 per API gravity. There was no automatic escalator for the unit-of-production rates; instead, the Department was to recommend changes to the rates that were 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, and 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 first production tax regulations.

The remaining major amendment to the production tax statute occurred in 1981. 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 on oil produced from a lease or property coming into production after that date was to be 12.25 percent during the first five years of production and 15 percent thereafter. Modifications also were made to the economic limit factors for both oil and gas. 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.

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
9/19/86

1954	BLM ISSUED 272 OIL AND GAS LEASES
1955	ONE PERCENT OIL AND GAS PRODUCTION TAX
1955	CONSERVATION TAX OF FIVE MILLS PER BARREL AND FOR EVERY 50,000 CUBIC FEET OF GAS
1957	SWANSON RIVER OIL FIELD DISCOVERED
1959	KENAI GAS FIELD DISCOVERED
1962	COOK INLET OIL DISCOVERED
1967	ONE PERCENT DISASTER SEVERANCE TAX
1968	OIL AND GAS PRODUCTION TAX INCREASED FROM ONE TO THREE PERCENT
1968	PRUDHOE BAY OIL DISCOVERED
1970	THREE TO EIGHT PERCENT "GRADUATED" PRODUCTION TAX (BASED ON PRODUCTION LEVELS)
1970	CONSERVATION AND DISASTER SEVERANCE TAX REPEALED
1970	GAS PRODUCTION TAX INCREASED TO FOUR PERCENT
1972	CENTS PER BARREL "FLOOR" ON PRODUCTION TAX
1973	20-MILL OIL AND GAS EXPLORATION, PRODUCTION AND PIPELINE TRANSPORTATION PROPERTY TAX
1973	THREE TO EIGHT PERCENT PRODUCTION TAX (BASED ON LOWER OUT-PUT LEVELS) PLUS TIED AN "ESCALATOR" TO THE CENTS PER BARREL FLOOR.
1973	OIL AND GAS REGULATION AND CONSERVATION TAX OF ONE-EIGHTH OF A CENT PER BARREL
1973	OPEC QUADRUPLD WORLD MARKET PRICE FOR CRUDE
1975	20-MILL RESERVES TAX
1977	-NOMINAL 10 PERCENT PRODUCTION TAX ON GAS -NOMINAL 12.25 PERCENT PRODUCTION TAX ON OIL -ADOPTION OF ECONOMIC LIMIT FACTOR (ELF)
1977	20-MILL RESERVES TAX EXPIRES
1977	PRUDHOE BAY OIL BEGAN FLOWING THROUGH TAPS
1978	OIL AND GAS CORPORATE INCOME TAX (SEPARATE ACCOUNTING)

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 -OIL AND GAS CORPORATE INCOME TAX (REPEAL SEPARATE
ACCOUNTING AND ADOPTED MODIFIED APPORTIONMENT)
-15 PERCENT PRODUCTION TAX(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 ON OIL PRODUCED FROM A LEASE OR PROPERTY COMING
INTO PRODUCTION AFTER THAT DATE WAS TO BE 12.25 PERCENT
DURING THE FIRST FIVE YEARS OF PRODUCTION AND 15 PERCENT
THEREAFTER)

History of AS 43.21,
Oil and Gas Corporate Income Tax

1978 - 1981

In 1978, the Legislature enacted the Oil and Gas Corporate Income Tax, AS 43.21. 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. Gross income from the production of oil and gas is basically the gross value at the point of production. There are several ways of determining that value including using actual prices or value received, posted prices in the same field or prevailing prices of oil and gas in the same field. 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 of 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 (only subsequent to abandonment of a lease), and geological and geophysical 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
- windfall profit tax

Interest and overhead 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. A corporation may rebut this presumption by satisfactorily demonstrating 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 (FERC) or that would be reported to that commission in the case of pipelines that are not regulated by FERC. That method 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.

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 is apportioned to the state. The determination starts with the total taxable income and then adding, if appropriate, income of member(s) of the worldwide consolidated business not required to file under the U.S. Internal Revenue Code less that portion of the 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 or the pipeline transportation of oil or gas in the state.

IMPACT OF 1981 SLA, ch. 116 (SB 524)

Chapter 116 of the 1981 Session Laws of Alaska amended the oil and gas corporate income tax and the oil and gas severance tax in the following manner:

1. Prior to the amendments, AS 43.55 provided for a tax on oil production amounting to 12.25 percent of the gross value at the point of production modified by the 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. 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. The new law increased the nominal tax rate 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). The ELF was also modified so that if the actual calculation resulted in an ELF greater than 0.7 a factor

of 1 would be used. See AS 43.55.011(b) and AS 43.55.013(b)(4). Thus the actual tax rate on Prudhoe Bay production became equal to the nominal rate ($15\% \times 1 = 15\%$), the Kuparak rate became 12.25% ($12.25\% \times 1 = 12.25\%$) and Cook Inlet during FY 82 was approximately 4.3% ($15\% \times .2864 = 4.3\%$). 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, the beginning of FY 82.

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. These provisions can be found in AS 43.20.072. The 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) decreased revenues from the overall corporate income tax.

EXPLORATION, PRODUCTION AND PIPELINE
TRANSPORTATION PROPERTY TAXES - AS 43.56

In its First Special Session in 1973, the Eighth Legislature passed the first statewide ad valorem tax on oil and gas properties. The tax as enacted not only established a tax on specified categories of oil and gas property, but also set limitations on the power of the municipalities to impose taxes on oil and gas properties in general.

The property or "hardware" tax is levied at 20 mills against full and true value of the three types of real and personal property: exploration property is to be valued on the basis of what it would bring in an open market between an informed and willing seller and an informed and willing buyer. Production property is valued on the basis of replacement cost less depreciation based on the economic life of the proven reserves. Pipeline property under construction is assessed using its actual incurred or accrued cost as of the date of the assessment, while operating pipelines are ordinarily valued with due regard to their economic value based on the estimated life of the proven reserves then technically, economically, and legally deliverable into the pipeline. If the proven reserves of oil or gas indicate an economic life materially shorter than the pipeline's estimated physical life, then the assessed value is its actual cost with depreciation based on the time since the pipeline began full operations plus the remaining economic life of the deliverable reserves. These assessed values are determined as of January 1 each year by the Department of Revenue.

A few types of oil and gas properties are specifically excluded from the coverage of the tax even though they fall within the definitions of exploration, production, and pipeline transportation. For example, pipelines operated for the retail distribution of natural gas and regulated by the Alaska Public Utilities Commission are exempt.

Municipalities may also levy and collect property taxes on the same properties as the state, although the actual assessment of the properties is made by the Department of Revenue. A municipality choosing to levy taxes on these properties may do so only at the same millage as it taxes other properties in its boundaries. In addition, there are specific limitations that restrict the amount of taxes that a municipality may ordinarily collect.

One limitation provides that a municipality may not levy taxes which will result in its total property tax revenues exceeding \$1,500 per capita for its residents. The second limitation provides that the total assessed value of taxable property in the municipality will not exceed the product of 225 percent of the average per capita assessed full and true value of property in the state multiplied by the number of residents in the municipality. The average per capita assessed full and true value of property in the state is reported by January 15 each year to each municipality by the Department of Revenue. Municipal population is determined by the Department of Community and Regional Affairs.

The municipal tax paid on the oil and gas properties assessed by the state may be claimed as a credit by the taxpayer against the state tax on the same properties. If the municipal tax is not paid until after the due date of the state tax payment (June 30), the taxpayer must pay the full amount of the state tax and may apply for a refund equal to the municipal tax when it has been paid. State property tax bills are mailed to the owner of the taxable property or his authorized agent no later than June 1 of each year.

Both taxpayers and municipalities have the right to appeal the Department's property valuations. A State Assessment Review Board has been established to hear and decide on appeals (AS 43.56.040). The Board consists of five persons appointed by the Governor to serve at his pleasure, each of whom must have knowledge of assessment procedures. An owner or a municipality may appeal to the superior court for, and is entitled to, trial de novo of the board's action.

During the 1980 regular legislative session, aircraft and motor vehicles (except those owned by a person whose principal business in the state is the exploration for, production of, or pipeline transportation of gas or unrefined oil and whose operation of the aircraft directly relates to the conduct of that business) were specifically excluded from the state property tax. Similarly, communication facilities were specifically excluded from state taxes during the 1981 regular legislative session.

OIL AND GAS REGULATION AND CONSERVATION TAX
(AS 43.57)

Enacted during the First Special Session of the Eighth State Legislature in 1973, the Oil and Gas Regulation and Conservation Tax ("conservation tax") is imposed on oil production only. It is a non-escalating tax of one-eighth of a cent per barrel. As with the production tax, production attributable to a royalty interest of the state, the United States or other tax-exempt entity is not taxed.

The payment and administration of the conservation tax are done in the same manner as the production tax.

MEMORANDUM

*Division of Strategic Planning
Office of Management and Budget
MS 0164*

TO: Mary Halloran
Speaker's Office

DATE: 13 Oct. 1986

FROM: Tom Chester *TC*
Senior Economist

SUBJECT: Severance Tax Spreadsheet Update

Enclosed are paper and disk copies of the severance tax spreadsheet, updated with the September forecast assumptions. Note that the exponential constant in the "alternative ELF" is set at 55,500,000, compared with 45,500,000 in the previous update. The higher constant produces a more unabiguous tax reduction on the smaller fields, while still producing greater collections from Prudhoe and Kuparuk. The constant is found in cell A1; users may substitute other numbers if they wish.

cc: Chuck Logsdon

Enclosures: Paper and Disk copies of spreadsheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
	555000003	10/10/86	Alaska North Slope Oil Revenue														
	Fiscal Years																
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
	PRICE/OUTPUT ASSUMPTIONS																
World Oil Price (Mean - Sept. 86)	13.73	15.97	16.95	17.66	18.67	19.42	20.23	21.34	22.62	23.83	24.85	25	25.5	26.49			
Ave. Rate of Inflation (Sept. 86)	2.9	2.83	4.23	4.23	4.23	4.23	4.23	4.89	4.89	4.89	4.89	4.89	5.44	5.44			
Compound Inflation Factor	1.029	1.058121	1.102879	1.149531	1.198156	1.248838	1.301664	1.365315	1.432079	1.502108	1.575561	1.652606	1.742508	1.837300			
World/ANS Qual. & Mktg Dif. (June 86)	2.735	2.811	2.47	2.508	2.71	2.604	2.406	2.228	2.117	1.636	.611	-1.801	-4.339	-6.662			
TransAK Pipeline Tariff (Sept. 86)	4.764	4.554	4.332	3.598	3.966	3.76	3.593	3.627	3.674	3.824	4.003	4.328	5.011	5.794			
Successful Effort Mean Price (PBay)	6.231	8.605	10.148	11.554	11.994	13.056	14.231	15.485	16.829	18.37	20.236	22.473	24.828	27.358			
Success Ratio (Sept. 86)	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
ANS Netback Price PS01 (\$/bbl)	6.114688	8.444373	9.958571	11.33833	11.77011	12.81229	13.96535	15.19595	16.45876	17.6352	18.98137	20.45043	21.94795	23.47316			
Prudhoe Bay Prod. (MMbbl/yr)	535	487	435	412	373	334	355	309	268	296	254	219	188	164			
Prudhoe Bay Price (\$/bbl)	6.114688	8.444373	9.958571	11.33833	11.77011	12.81229	13.96535	15.19595	16.45876	17.6352	18.98137	20.45043	21.94795	23.47316			
Wells (Sept. 86)	519	519	498	493	488	464	445	418	391	371	352	331	311	292			
TOTAL DAILY OUTPUT	1465753.	1334247.	1191781.	1128767.	1021918.	915068.5	972602.7	846575.3	734246.6	610958.9	695890.4	600000	515068.5	449315.1			
TOTAL MONTHLY OUTPUT	44583333.	40583333.	36250000	34333333.	31083333.	27833333.	29583333.	25750000	22333333.	24666667.	21166667.	18250000	15666667.	13666667.			
TOTAL DAILY OUTPUT PER WELL	2824.188	2570.803	2393.134	2289.588	2094.094	1972.130	2185.624	2025.300	1877.868	2185.873	1976.961	1812.689	1656.169	1538.750			
PER	4671000	4671000	4482000	4437000	4392000	4176000	4005000	3762000	3519000	3339000	3168000	2979000	2799000	2628000			
WELL DAYS	15570	15570	14940	14790	14640	13920	13350	12540	11730	11130	10560	9930	9330	8760			
ALTERNATE ELF	.9861283	.9831886	.9797212	.9775752	.9727996	.9676691	.9727101	.9660751	.9577187	.9673642	.9578140	.9465344	.9317488	.9158260			
PRESUMED ELF	.8418148	.8267417	.8143409	.8062613	.7889244	.7764494	.7974112	.7820640	.7657533	.7974334	.7769714	.7577408	.7360732	.7171075			
NOMINAL TAX RATE	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15			
EFFECTIVE TAX RATE CURRENT ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
EFF. TAX CUR. ELF NO 10 YEAR LIMIT	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
EFFECTIVE TAX RATE ALTERNATIVE ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ROYALTY PERCENTAGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
SEVERANCE TAX CURRENT ELF	429	446	463	494	455	436	519	482	443	546	492	445	399	362			
SEVERANCE TAX PER BARREL CUR. LAW	1	1	1	1	1	1	2	2	2	2	2	2	2	3			
SEVERANCE TAX NO ELF	429	540	569	613	576	562	651	616	579	685	633	588	542	505			
CUR SEV. TAX NO ELF ON CENTS/BBL	429	446	463	494	455	436	519	482	443	546	492	445	399	362			
CUR SEV TAX NO 10 YEAR LIMIT	429	540	569	613	576	562	651	616	579	685	633	588	542	505			
SEVERANCE TAX PER BARREL CUR. LAW	.9172032	1.047197	1.216451	1.371248	1.392859	1.492214	1.670420	1.782630	1.890503	2.109435	2.212197	2.324419	2.423295	2.524917			
SEVERANCE TAX ALTERNATIVE ELF	429.3657	530.6798	557.0422	599.3709	560.5471	543.4997	632.9408	595.3830	554.4587	662.7678	606.0964	556.3938	504.6032	462.7301			
SEV TAX ALT ELF NO ELF ON CENTS/BBL	429.3657	530.6798	557.0422	599.3709	560.5471	543.4997	632.9408	595.3830	554.4587	662.7678	606.0964	556.3938	504.6032	462.7301			
CONSERVATION TAX	.5851563	.5326563	.4757813	.450625	.4079688	.3653125	.3882813	.3379688	.293125	.32375	.2778125	.2395313	.205625	.179375			
Gathering & Cleaning Charge	.72611	.7471672	.7683120	.8008116	.8346860	.8699932	.9067939	.9451513	.9913692	1.039847	1.090696	1.144031	1.199974	1.265252			
Royalties if Taken InValue	360.3612	468.5674	499.7203	542.6820	509.8642	498.5908	579.4736	550.4375	518.1577	614.0281	568.0288	528.5127	487.5775	455.2622			
InKind Contracts Longterm																	
MAPCO (18.6667% exhibit B 2003)	67.26754	87.46608	93.28129	101.3008	95.17483	93.07045	108.1686	102.7484	96.72294	114.6188	106.0322	98.65588	91.01463	84.98243			
Tesoro (24.533% in-v+30 '95)	105.2422	130.5925	136.8475	147.0444	138.0641	134.3030	155.3001	146.8376	137.7328								
Tesoro (13.867% in-value + 0.35)	59.95065	74.23802	77.72849	83.47223	78.36245	76.20270	88.08927	83.26609	78.08418								
Chevron (9.6% in-value + 0.30)	41.18230	51.10212	53.54974	57.53988	54.02582	52.55405	60.77041	57.45897	53.89618								
GVEA (2.6667% in-value + 0.30)	11.43967	14.19521	14.87511	15.98350	15.00736	14.59853	16.88088	15.96102	14.97135								
InKind Contracts Shortterm																	
One-year (26.67% bprcr+.84)																	
Six Months																	
Total In-Kind Royalties	285.0824	357.5940	376.2821	405.3408	380.6346	370.7287	429.2092	406.2721	381.4074	114.6188	106.0322	98.65588	91.01463	84.98243			
In-Value Royalties	110.5105	143.6937	153.2472	166.4221	156.3580	152.9008	177.7049	168.8003	158.9013	499.4093	461.9966	429.8568	396.5629	370.2798			
TOTAL ROYALTIES	241	346	529.5293	571.7629	536.9926	523.6296	606.9141	575.0724	540.3088	614.0281	568.0288	528.5127	487.5775	455.2622			
(Estimated InKind Premium MMS)	-119.361	-122.567	29.80902	29.08094	27.12836	25.03875	27.44044	24.63543	22.15113	0	0	0	-5.7e-14	-5.7e-14			
	429	446	463	494	455	436	519	482	443	546	492	445	399				
Kuparuk River Prod. (MMbbl/yr)	91	82	84	84	76	67	60	52	48	41	35	29	24	21			
Kuparuk River Price (\$/bbl)	5.294688	7.624373	9.138571	10.51833	10.95011	11.99229	13.14535	14.37595	15.63876	16.8152	18.16137	19.63043	21.12795	22.65316			
WELLS (Sept. 86)	254	259	278	278	275	275	253	253	219	220	196	177	158	142			
TOTAL DAILY OUTPUT	249315.1	224657.5	230137.0	230137.0	208219.2	183561.6	164383.6	142465.8	131506.8	112328.8	95890.41	79452.05	65753.42	57534.25			
TOTAL MONTHLY OUTPUT	7583333.	6833333.	7000000	7000000	6333333.	5583333.	5000000	4333333.	4000000	3416667.	2916667.	2416667.	2000000	1750000			
TOTAL DAILY OUTPUT PER WELL	981.5554	867.4036	827.8309	827.8309	757.1606	667.4969	649.7374	563.1057	600.4879	510.5853	489.2368	448.8817	416.1609	405.1708			
PER	2286000	2331000	2502000	2502000	2475000	2475000	2277000	2277000	1971000	1980000	1764000	1593000	1422000	1278000			
WELL DAYS	7620	7770	8340	8340	8250	8250	7590	7590	6570	6600	5880	5310	4740	4260			
ALTERNATE ELF	.7662829	.7092353	.7007998	.7007998	.6438262	.5541673	.5046350	.3798567	.3848708	.2400713	.1667803	.0815702	.0304238	.0147940			
PRESUMED ELF	.5716097	.5216301	.5015515	.5015515	.4613367	.4004678	.3868483	.3113840	.3459093	.2571696	.2330669	.1841150	.1413275	.1264336			
NOMINAL TAX RATE	.1363	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15			
EFFECTIVE TAX RATE CURRENT ELF	.0779104	.0782445	.0752327	.0752327	.0692005	.0600702	.0580272	.046707									

	Fiscal Years													
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
98 Milne Point Prod. (MMbbl/d)	7.4	9.05	10.3	9.97	9.97	9.97	9.06	8.03	7.07	5.78	4.35	3.21	2.19	1.37
99 Milne Point Price (\$/bbl)	6.484688	8.014373	10.32857	11.70833	12.14011	13.18229	14.33535	15.56595	16.82876	18.0052	19.35137	20.82043	22.31795	23.04316
100 Wells (Sept. '86)	22	22	30	30	30	30	26	23	19	17	15	14	12	11
101 TOTAL DAILY OUTPUT	20273.97	24794.52	28219.18	27315.07	27315.07	27315.07	24821.92	22000	19369.86	15835.62	11917.81	8794.521	6000	3753.425
102 TOTAL MONTHLY OUTPUT	616666.7	754166.7	858333.3	830833.3	830833.3	830833.3	755000	669166.7	589166.7	481666.7	362500	267500	182500	114166.7
103 TOTAL DAILY OUTPUT PER WELL	921.5442	1127.024	940.6393	910.5023	910.5023	910.5023	954.6891	956.5217	1019.466	931.5068	794.5205	628.1800	500	341.2204
104 PEL	198000	198000	270000	270000	270000	270000	234000	207000	171000	153000	135000	126000	108000	99000
105 WELL DAYS	660	660	900	900	900	900	780	690	570	510	450	420	360	330
106 ALTERNATE ELF	.0291970	.1030736	.0840681	.0698256	.0698256	.0698256	.0629852	.0444999	.0378421	.0115029	.0007232	.0000015	1.01e-12	6.19e-44
107 PRESUMED ELF	.5466796	.6221531	.5549143	.5417807	.5417807	.5417807	.5607889	.5615440	.5860187	.5510128	.4833430	.3695251	.2453729	.0391311
108 NOMINAL TAX RATE	.1225	.1225	.1225	.1225	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
109 EFFECTIVE TAX RATE CURRENT ELF	.0669683	.0762138	.0679770	.0663681	.0812671	.0812671	.0841183	.0842316	.0879028	.0826519	.0725015	.0554288	.0368059	.0058697
110 EFFECTIVE TAX RATE ALTERNATIVE ELF	.0035766	.0126263	.0102983	.0083536	.0104738	.0104738	.0094478	.0066750	.0056763	.0017254	.0001085	.0000002	1.51e-13	9.28e-45
111 ROYALTY PERCENTAGE	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625
112 SEVERANCE TAX CURRENT ELF	2.710437	5.091646	6.056536	6.488351	8.237917	8.945107	9.149811	8.817611	8.759094	7.203831	5.111313	3.102521	1.506611	.1605766
113 SEVERANCE TAX NO ELF	4.958	8.183912	10.91436	11.97597	15.20526	16.51057	16.31596	15.70244	14.94678	13.07380	10.57492	8.395969	6.140087	4.103558
114 SEVERANCE TAX PER BARREL CUR. LAW	.4373437	.6717765	.7021053	.7770597	.9865917	1.071286	1.205866	1.311144	1.479296	1.488164	1.403002	1.154051	.8214332	.1399513
115 CUR SEV. TAX NO ELF ON CENTS/BBL	4.958	6.0635	6.901	6.6799	8.237917	8.945107	9.149811	8.817611	8.759094	7.203831	5.111313	3.102521	1.506611	.9179
116 SEVERANCE TAX ALTERNATIVE ELF	.1447588	.8435449	.9175501	.8362296	1.061717	1.152860	1.027664	.6987571	.5656179	.1503864	.0076483	.0000128	6.18e-12	2.54e-43
117 SEV TAX ALT ELF NO ELF ON CENTS/BBL	4.958	6.0635	6.901	6.6799	6.6799	6.6799	6.0702	5.3801	4.7369	3.8726	2.9145	2.1507	1.4673	.9179
118 CONSERVATION TAX	.0077469	.0094742	.0107828	.0104373	.0104373	.0104373	.0094847	.0084066	.0074014	.0060509	.0045539	.0033605	.0022927	.0014342
119 Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120 ROYALTIES	7.797837	12.96264	17.28745	18.96895	19.66850	21.35695	21.10523	20.31161	19.33414	16.91138	13.67900	10.86046	7.942401	5.308084
121 TOTAL OIL PROD REVENUES	10.50827	18.05428	23.34398	25.45730	27.90642	30.30206	30.25504	29.12923	28.09324	24.11522	18.79031	13.96298	9.449012	5.468661
122														
123 Endicott Prod. (MMbbl/yr)	0	9.57	31.1	30.8	30.8	30.8	30.8	23.7	21.5	16.7	13.04	10.19	7.81	5.73
124 Endicott Price (\$/bbl)	4.994688	7.324373	8.838571	10.21833	10.65011	11.69229	12.84535	14.07595	15.33876	16.5152	17.86137	19.33043	20.82795	22.35316
125 Wells (Sept. '86)	13	34	111	111	111	111	111	100	90	81	73	66	59	53
126 TOTAL DAILY OUTPUT	0	26219.18	85205.48	84383.56	84383.56	84383.56	84383.56	64931.51	58904.11	45753.42	35726.03	27917.81	21397.26	15698.73
127 TOTAL MONTHLY OUTPUT	0	797500	2591667	2566667	2566667	2566667	2566667	1975000	1791667	1391667	1086667	849166.7	650833.3	477500
128 TOTAL DAILY OUTPUT PER WELL	0	771.1523	767.6169	760.2123	760.2123	760.2123	760.2123	649.3151	654.4901	564.8571	489.3976	422.9971	362.6654	296.2006
129 PEL	1170	306000	999000	999000	999000	999000	999000	900000	810000	729000	657000	594000	531000	477000
130 WELL DAYS	3.9	1020	3330	3330	3330	3330	3330	3000	2700	2430	2190	1980	1770	1590
131 ALTERNATE ELF	0	.0328699	.3474449	.3392962	.3392962	.3392962	.3392962	.1767546	.1511323	.0497795	.0081908	.0003466	.0000004	0
132 PRESUMED ELF	0	.4697857	.4676749	.4632013	.4632013	.4632013	.4632013	.3865144	.3905492	.3130736	.2332531	.1504723	.0677438	0
133 NOMINAL TAX RATE	0	.1225	.1225	.1225	.1225	.1225	.15	.15	.15	.15	.15	.15	.15	.15
134 EFFECTIVE TAX RATE CURRENT ELF	0	.0575488	.0572902	.0567422	.0567422	.0567422	.0694802	.0579776	.0585824	.0469610	.0349880	.0225708	.0101616	0
135 EFFECTIVE TAX RATE ALTERNATIVE ELF	0	.0040266	.0425620	.0415638	.0415638	.0415638	.0508944	.0265132	.0226698	.0074669	.0012286	.0000320	.0000001	0
136 ROYALTY PERCENTAGE	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438	.1438
137 SEVERANCE TAX CURRENT ELF	0	3.453771	13.48335	15.29014	15.93625	17.49570	23.53602	16.56004	16.54135	11.08953	6.977282	3.806613	1.415251	0
138 SEVERANCE TAX NO ELF	0	7.351801	28.83063	33.00971	34.40458	37.77127	50.81165	42.84424	42.35408	35.42149	29.91292	25.29777	20.89123	16.44978
139 SEVERANCE TAX PER BARREL CUR. LAW	0	.4215085	.5063633	.5798099	.6043104	.6634457	.8924978	.8160897	.8985813	.7755709	.6249330	.4363042	.2116446	0
140 CUR SEV. TAX NO ELF ON CENTS	0	6.555067	21.30226	21.09677	21.09677	21.09677	23.53602	16.56004	16.54135	11.43883	8.931878	6.979742	5.349538	3.924821
141 SEVERANCE TAX ALTERNATIVE ELF	0	2.2416530	10.01705	11.20007	11.67334	12.81565	17.24020	7.572918	6.401067	1.763262	.2450122	.0087676	.0000092	0
142 SEV TAX ALT ELF NO ELF ON CENTS/BBL	0	6.555067	21.30226	21.09677	21.09677	21.09677	21.09677	16.23355	14.72664	11.43883	8.931878	6.979742	5.349538	3.924821
143 CONSERVATION TAX	0	.0102423	.0332848	.0329637	.0329637	.0329637	.0329637	.0253649	.0230104	.0178732	.0139561	.0109058	.0083587	.0061325
144 Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145 ROYALTIES	0	10.07955	39.52768	45.25737	47.16977	51.78561	56.89259	47.97167	47.42285	39.66059	33.49278	28.32530	23.39141	18.41843
146 TOTAL OIL PROD REVENUES	0	13.53332	53.01103	60.54752	63.10602	69.28131	80.42861	64.53171	63.96420	50.75012	40.47006	32.13192	24.80667	18.41843
147														
148 Lisburne Prod. (MMbbl/yr)	7.01	10.73	14.88	19.03	28.13	28.13	36.46	35.71	35.35	35.04	34.8	26.94	20.92	16.22
149 Lisburne Price (\$/bbl)	5.844688	8.174373	9.688571	11.06833	11.50011	12.54229	13.69535	14.92595	16.18876	17.3652	18.71137	20.18043	21.67795	23.20316
150 Wells (Sept. '86)	13	20	40	60	90	90	115	115	115	115	115	105	94	84
151 TOTAL DAILY OUTPUT	19205.48	29397.26	40767.12	52136.99	77068.49	77068.49	99890.41	97835.62	96849.32	96000	95342.47	73808.22	57315.07	44438.36
152 TOTAL MONTHLY OUTPUT	584166.7	891666.7	1240000	1585833.3	2344167	2344167	3038333.3	2975833.3	2945833.3	2920000	2900000	2245000	1743333.3	1351667
153 TOTAL DAILY OUTPUT PER WELL	1477.345	1469.863	1019.178	868.9498	856.3166	856.3166	868.6123	850.7445	842.1680	834.7826	829.0649	702.9354	609.7348	529.0280
154 PEL	117000	180000	360000	540000	810000	810000	1035000	1035000	1035000	1035000	1035000	945000	846000	756000
155 WELL DAYS	390	600	1200	1800	2700	2700	3450	3450	3450	3450	3450	3150	2820	2520
156 ALTERNATE ELF	.1161464	.2403380	.2109207	.2282847	.3614404	.3614404	.4623819	.4456619	.4374349	.4302455	.4246129	.2542589	.1172261	.0329992
157 PRESUMED ELF	.7060689	.7046652	.5859127	.5223827	.5161648	.5161648	.5222186	.5133720	.5090118	.5051960	.5022022	.4760149	.3539724	.2770107
158 NOMINAL TAX RATE	.1225	.1225	.1225	.1225	.1225	.15	.15	.15	.15	.15	.15	.15	.15	.15
159 EFFECTIVE TAX RATE CURRENT ELF	.1225	.1225	.0717743	.0639919	.0632302	.0774247	.0783328	.0770058	.0763518	.0757794	.0753303	.0639022	.0530959	.0415516
160 EFFECTIVE TAX RATE ALTERNATIVE ELF	.0142279	.0297722	.0258378	.0279649	.0442764	.0542161	.0693373	.0668493	.0656152	.0645368	.0636919	.0381388	.0175839	.0049499
161 ROYALTY PERCENTAGE	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
162 SEVERANCE TAX CURRENT ELF	4.391607	9.401526	9.053984	11.79380	17.89799	23.90200	34.22485	35.91396	38.23228	40.34625	42.92030	30.39850	21.06923	13.68340
163 SEVERANCE TAX NO ELF	4.907	9.401526	15.45279	22.57693	34.67496	46.30691	65.53741	69.95698	75.11080	79.86255	85.46417	71.35548	59.52224	49.39664
164 SEVERANCE TAX PER BARREL CUR. LAW	.7159743	1.001361	.6953905	.7082830	.7271542	.9710831	1.072795	1.149384	1.236041	1.315925	1.409534	1.289575	1.15010	.9641286
165 CUR SEV. TAX NO ELF ON CENTS/BBL	4.907	9.401526	10.416	13.321	19.691	23.90200	34.22485	35.91396	38.23228	40.34625	42.92030	30.39850	21.06923	13.68340
166 SEVERANCE TAX ALTERNATIVE ELF	.5699305	2.284928	3.259312	5.153967	12.53293	16.73719	30.30331	31.17716	32.85608	34.36051	36.28919	18.14277	6.977562	1.630050
167 SEV TAX ALT ELF NO ELF ON CENTS/BBL	4.907	7.511	10.416	13.321	19.691	19.691	30.30331	31.17716	32.85608	34.36051	36.28919			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Fiscal Years															
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
190 West Sak Sands Prod. (MMbbl/yr)	.01	.01	0	12.19	14.97	20.35	20.55	20.89	20.91	21.13	22.17	22.23	22.25	17.76		
191 West Sak Sands Price (\$/bbl)	4.334688	6.664373	8.178571	9.558325	9.990112	11.032229	12.18535	13.41595	14.67876	15.8552	17.20137	18.67043	20.16795	21.69316		
192 WELLS (Sept. '86)	6	6	34	130	157	256	260	263	267	268	269	269	271	177		
193 TOTAL DAILY OUTPUT	27.39726	27.39726	0	33397.26	41013.70	55753.42	56301.37	57232.88	57287.67	57890.41	60739.73	60904.11	60958.90	48657.53		
194 TOTAL MONTHLY OUTPUT	833.3333	833.3333	0	1015833.	1247500	1695833.	1712500	1740833.	1742500	1760833.	1847500	1852500	1854167.	1480000		
195 TOTAL DAILY OUTPUT PER WELL	4.566210	4.566210	0	256.9020	261.2337	217.7868	216.5437	217.6155	214.5606	216.0090	225.7982	226.4093	224.9406	274.9013		
196 PEL	54000	54000	306000	1170000	1413000	2304000	2340000	2367000	2403000	2412000	2421000	2439000	2439000	1593000		
197 WELL DAYS	180	180	1020	3900	4710	7680	7800	7890	8010	8040	8070	8070	8130	5310		
198 ALTERNATE ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
199 PRESUMED ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
200 NOMINAL TAX RATE	0	.1225	.1225	.1225	.1225	.1225	.15	.15	.15	.15	.15	.15	.15	.15		
201 EFFECTIVE TAX RATE CURRENT ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
202 EFFECTIVE TAX RATE ALTERNATIVE ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
203 ROYALTY PERCENTAGE	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125		
204 SEVERANCE TAX CURRENT ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
205 SEVERANCE TAX NO ELF	.007	.0071434	0	12.48906	16.03010	24.06435	32.86619	36.78401	40.28494	43.97142	50.05276	54.47448	58.89672	50.56677		
206 SEVERANCE TAX PER BARREL CUR. LAW	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
207 CUR SEV. TAX NO ELF ON CENTS	.007	.007	0	8.533	10.479	14.245	14.385	14.623	14.637	14.791	15.519	15.561	15.575	12.432		
208 SEVERANCE TAX ALTERNATIVE ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
209 SEV TAX ALT ELF NO ELF ON CENTS/BBL	.007	.007	0	8.533	10.479	14.245	14.385	14.623	14.637	14.791	15.519	15.561	15.575	12.432		
210 CONSERVATION TAX	.0000109	.0000109	0	.0133328	.0163734	.0222578	.0224766	.0228484	.0228703	.0231109	.0242484	.0243141	.0243359	.019425		
211 Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
212 ROYALTIES	.0054184	.0083305	0	14.56450	18.69400	28.06338	31.30113	35.03239	38.36661	41.87755	47.66929	51.88046	56.09212	48.15882		
213 TOTAL OIL PROD REVENUES	.0054184	.0083305	0	14.56450	18.69400	28.06338	31.30113	35.03239	38.36661	41.87755	47.66929	51.88046	56.09212	48.15882		
214	0	0	0	1.38	9.85	9.83	9.93	9.99	10.01	10.01	11.32	8.78	6.88	6		
215 Unspecified Onshore Prod. (MMbbl/yr)	0	0	0	1.38	9.85	9.83	9.93	9.99	10.01	10.01	11.32	8.78	6.88	6		
216 Unspecified Onshore Price (\$/bbl)	4.194688	6.524373	8.038571	9.418325	9.850112	10.89229	12.04535	13.27595	14.53876	15.7152	17.06137	18.53043	20.02795	21.55316		
217 WELLS (Sept. '86)	.08	.07	.08	34	51	51	51	51	51	51	51	51	46	38		
218 TOTAL DAILY OUTPUT	0	0	0	3780.822	26986.30	26931.51	27205.48	27369.86	27424.66	27424.66	31013.70	24054.79	18849.32	16438.36		
219 TOTAL MONTHLY OUTPUT	0	0	0	115000	820833.3	819166.7	827500	832500	834166.7	834166.7	943333.3	731666.7	573333.3	500000		
220 TOTAL DAILY OUTPUT PER WELL	0	0	0	111.2006	529.1432	528.0688	533.4408	536.6640	537.7384	537.7384	608.1117	522.9303	438.3562	432.5883		
221 PEL	720	630	720	306000	459000	459000	459000	459000	459000	459000	459000	414000	387000	342000		
222 WELL DAYS	2.4	2.1	2.4	1020	1530	1530	1530	1530	1530	1530	1530	1380	1290	1140		
223 ALTERNATE ELF	0	0	0	0	.0036412	.0035365	.0040824	.0044376	.0045607	.0045607	.0187490	.0016342	.0000162	.0000023		
224 PRESUMED ELF	0	0	0	0	.2771317	.2760006	.2816264	.2849662	.2860737	.2860737	.3525703	.2705495	.1706336	.1631280		
225 NOMINAL TAX RATE	0	0	0	.1225	.1225	.1225	.125	.125	.15	.15	.15	.15	.15	.15		
226 EFFECTIVE TAX RATE CURRENT ELF	0	0	0	0	.0339486	.0338101	.0344992	.0349084	.0429110	.0429110	.0528855	.0405824	.0255950	.0244692		
227 EFFECTIVE TAX RATE ALTERNATIVE ELF	0	0	0	0	.0004460	.0004332	.0005001	.0005436	.0006841	.0006841	.0028123	.0002451	.0000024	.0000004		
228 ROYALTY PERCENTAGE	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125		
229 SEVERANCE TAX CURRENT ELF	0	0	0	0	2.882092	3.167574	3.610657	4.051059	5.464352	5.906513	8.937280	5.777315	3.085949	2.768790		
230 SEVERANCE TAX NO ELF	0	0	0	1.393147	10.39972	11.47669	12.82074	14.21593	19.10121	20.64683	25.34893	21.35400	18.08524	16.97312		
231 SEVERANCE TAX PER BARREL CUR. LAW	0	0	0	0	.3343979	.3682691	.4155555	.4634416	.6238735	.6743557	.9022998	.7520097	.5126161	.5273886		
232 CUR SEV. TAX NO ELF ON CENTS/BBL	0	0	0	.966	6.895	6.881	6.951	6.993	7.007	7.007	8.937280	6.146	4.816	4.2		
233 SEVERANCE TAX ALTERNATIVE ELF	0	0	0	0	.0378671	.0405869	.0523396	.0630841	.0871147	.0941637	.4752665	.0348973	.0002928	.0000397		
234 SEV TAX ALT ELF NO ELF ON CENTS/BBL	0	0	0	.966	6.895	6.881	6.951	6.993	7.007	7.007	7.924	6.146	4.816	4.2		
235 CONSERVATION TAX	0	0	0	.0015094	.0107734	.0107516	.0108609	.0109266	.0109484	.0109484	.0123813	.0096031	.007525	.0065625		
236 Gathering & Cleaning Charge	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
237 ROYALTIES	0	0	0	1.624661	12.12795	13.38390	14.95130	16.57834	18.19163	19.66364	24.14184	20.33715	17.22404	16.16487		
238 TOTAL OIL PROD REVENUES	0	0	0	1.624661	15.01004	16.55147	18.56195	20.62940	23.65598	25.57016	33.07912	26.11446	20.30999	18.93366		
239	0	0	0	0	0	0	0	0	0	0	1.96	2.92	2.94	2.99		
240 Seal Island Prod. (MMbbl/yr)	0	0	0	0	0	0	0	0	0	0	1.96	2.92	2.94	2.99		
241 Seal Island Price (\$/bbl)	4.544688	6.874373	8.388571	9.768325	10.20011	11.24229	12.39535	13.62595	14.88876	16.0652	17.41137	18.88043	20.37795	21.90316		
242 WELLS (Sept. '86)	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	22	64	65	65		
243 TOTAL DAILY OUTPUT	0	0	0	0	0	0	0	0	0	0	5369.863	8000	8054.795	8191.781		
244 TOTAL MONTHLY OUTPUT	0	0	0	0	0	0	0	0	0	0	163333.3	243333.3	245000	249166.7		
245 TOTAL DAILY OUTPUT PER WELL	0	0	0	0	0	0	0	0	0	0	244.0847	125	123.9199	126.0274		
246 PEL	180	180	180	180	180	180	180	180	180	198000	198000	576000	585000	585000		
247 WELL DAYS	.6	.6	.6	.6	.6	.6	.6	.6	.6	.660	.660	1920	1950	1950		
248 ALTERNATE ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
249 PRESUMED ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
250 NOMINAL TAX RATE	0	0	0	0	0	0	0	0	0	.1225	.1225	.1225	.1225	.1225		
251 EFFECTIVE TAX RATE CURRENT ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
252 EFFECTIVE TAX RATE ALTERNATIVE ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
253 ROYALTY PERCENTAGE	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125		
254 SEVERANCE TAX CURRENT ELF	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
255 SEVERANCE TAX NO ELF	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.66	5.91	6.42	7.02		
256 SEVERANCE TAX PER BARREL CUR. LAW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
257 CUR SEV. TAX NO ELF ON CENTS/BBL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.37	2.04	2.06	2.09		
258 SEVERANCE TAX ALTERNATIVE ELF	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
259 SEV TAX ALT ELF NO ELF ON CENTS/BBL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
260 CONSERVATION TAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
261 Gathering & Cleaning Charge	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
262 ROYALTIES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.27	6.89	7.49	8.19		
263 TOTAL OIL PROD REVENUES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.27	6.89	7.49	8.19		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
273	NORTH SLOPE Prod. (MMbbl/yr)	640.42	598.36	575.28	569.37	542.72	500.08	521.80	459.32	410.84	425.66	376.64	322.27	274.99	235.07	
274	AVG. NORTH SLOPE PRICE (\$/bbl)	6.00	8.31	9.78	11.11	11.50	12.52	13.69	14.91	16.15	17.36	18.68	20.13	21.62	23.15	
275	AVG. NOMINAL TAX RATE	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15	
276	AVG. EFFECTIVE TAX RATE	.14	.12	.11	.10	.10	.10	.10	.10	.09	.10	.09	.09	.08	.08	
277	AVG. ROYALTY PERCENTAGE	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13	
278	SEVERANCE TAX	472.88	506.99	542.14	586.07	549.94	531.84	629.44	577.87	546.40	634.16	575.05	502.26	435.11	386.83	
279	SEVERANCE TAX NO ELF	502.94	646.76	724.52	810.53	796.16	803.25	932.57	893.91	869.26	968.59	921.23	849.33	778.08	712.21	
280	SEVERANCE TAX - ALTERNATIVE ELF	478.89	592.25	641.84	697.83	656.18	632.69	733.80	672.16	632.29	720.86	657.03	580.68	513.61	465.28	
281	SEV TAX CUR LAW NO ELF ON CENTS/BBL	502.94	525.66	560.43	603.73	574.19	558.07	649.12	601.29	562.58	655.83	598.95	529.95	465.81	414.28	
282	SEV TAX ALT LAW NO ELF ON CENTS/BBL	502.94	609.01	666.27	731.24	695.71	670.53	763.99	707.06	666.34	762.94	702.17	626.39	563.26	510.26	
283	SEV TAX CUR LAW NO 10 YEAR LIM. P.B.	472.88	600.50	647.70	704.85	671.57	657.40	761.27	712.18	682.01	772.94	716.18	644.66	578.05	529.77	
284	CONSERVATION TAX	.70	.65	.63	.62	.59	.55	.57	.50	.45	.46	.41	.35	.30	.26	
285	ROYALTIES	428.96	576.62	666.30	755.65	748.16	754.34	861.70	827.77	804.41	892.30	850.35	784.45	718.57	656.94	
286	TOTAL OIL PROD REVENUES	902.54	1084.26	1209.06	1342.34	1298.70	1286.73	1491.72	1406.15	1351.26	1526.93	1425.82	1287.06	1153.98	1044.03	
287	TOTAL OIL PROD REV. ALT. ELF	908.55	1169.52	1308.77	1454.10	1404.93	1387.58	1596.08	1500.44	1437.15	1613.63	1507.79	1365.48	1232.47	1122.48	
288																
289	REVENUE CHANGE FROM NO ELF	30.06	139.77	182.38	224.46	246.22	271.40	303.13	316.04	322.86	334.43	346.18	347.07	342.96	325.37	
290	Prudhoe Bay	.00	93.52	105.56	118.79	121.63	125.56	131.82	134.31	135.61	138.78	141.13	142.41	142.93	142.93	
291	Kuparuk	27.29	39.25	50.22	57.80	58.84	63.22	63.47	67.56	64.44	67.22	63.98	60.96	57.15	54.54	
292	Milne Point	2.25	3.09	4.86	5.49	6.97	7.57	7.17	6.88	6.19	5.87	5.46	5.29	4.63	3.94	
293	Endicott	.00	3.90	15.35	17.72	18.47	20.28	27.28	26.28	25.81	24.33	22.94	21.49	19.48	16.45	
294	Lisburne	.52	.00	6.40	10.78	16.78	22.40	31.31	34.04	36.88	39.52	42.54	40.96	38.45	35.71	
295	West Sak	.01	.01	.00	12.49	16.03	24.06	32.87	36.78	40.28	43.97	50.05	54.47	58.90	50.57	
296	Unspecified	.00	.00	.00	1.39	7.52	8.31	9.21	10.16	13.64	14.74	16.41	15.58	15.00	14.20	
297	Seal Island	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.66	5.91	6.42	7.02	
298	REVENUE CHANGE FROM ALT. ELF	6.01	85.26	99.71	111.76	106.24	100.84	104.36	94.29	85.89	86.70	81.98	78.42	78.49	78.45	
299	Prudhoe Bay	.00	84.44	94.03	105.04	105.95	107.40	114.07	113.40	111.14	116.42	114.44	110.98	105.97	100.40	
300	Kuparuk	12.40	15.39	20.07	23.11	19.93	16.21	12.19	6.72	3.84	-1.55	-5.53	-7.66	-7.38	-6.97	
301	Milne Point	-2.57	-4.25	-5.14	-5.65	-7.18	-7.79	-8.12	-8.12	-8.19	-7.05	-5.10	-3.10	-1.51	-1.16	
302	Endicott	.00	-3.21	-3.47	-4.09	-4.26	-4.68	-6.30	-8.99	-10.14	-9.33	-6.73	-3.80	-1.42	.00	
303	Lisburne	-3.82	-7.12	-5.79	-6.64	-5.37	-7.16	-3.92	-4.74	-5.38	-5.99	-6.63	-12.26	-14.09	-12.05	
304	West Sak	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
305	Unspecified	.00	.00	.00	.00	-2.84	-3.13	-3.56	-3.99	-5.38	-5.81	-8.46	-5.74	-3.09	-2.77	
306	Seal Island	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
307	REV CHANGE FOR CUR ELF NO ELF ON CENTS/	30.06	18.68	18.29	17.66	24.25	26.23	19.68	23.41	16.18	21.67	23.90	27.69	30.69	27.44	
308	Prudhoe Bay	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
309	Kuparuk	27.29	14.60	8.27	.64	2.81	4.67	1.95	5.85	.00	5.43	5.06	6.54	7.39	6.81	
310	Milne Point	2.25	.97	.84	.19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.76	
311	Endicott	.00	3.10	7.82	5.81	5.16	3.60	.00	.00	.00	.35	1.95	3.17	3.93	3.92	
312	Lisburne	.52	.00	1.36	1.53	1.79	.00	.00	.00	.00	.00	.00	.00	.00	.00	
313	West Sak	.01	.01	.00	8.53	10.48	14.25	14.39	14.62	14.64	14.79	15.52	15.56	15.58	12.43	
314	Unspecified	.00	.00	.00	.97	4.01	3.71	3.34	2.94	1.54	1.10	.00	.37	1.73	1.43	
315	Seal Island	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.37	2.04	2.06	2.09	
316	REV CHANGE FOR ALT ELF NO ELF ON CENTS/R	30.06	102.03	124.13	145.17	145.77	138.69	134.54	129.19	119.94	128.78	127.12	124.13	128.14	123.43	
317	Prudhoe Bay	.00	84.44	94.03	105.04	105.95	107.40	114.07	113.40	111.14	116.42	114.44	110.98	105.97	100.40	
318	Kuparuk	27.29	15.39	20.07	23.11	19.93	16.21	12.19	6.72	3.84	5.43	5.06	6.54	7.39	6.81	
319	Milne Point	2.25	.97	.84	.19	-1.56	-2.27	-3.08	-3.44	-4.02	-3.33	-2.20	-.95	-.04	-.76	
320	Endicott	.00	3.10	7.82	5.81	5.16	3.60	-2.44	-.33	-1.81	.35	1.95	3.17	3.93	3.92	
321	Lisburne	.52	-1.89	1.36	1.53	1.79	-4.21	-3.92	-4.74	-5.38	-5.99	-6.63	-11.54	-6.43	-2.33	
322	West Sak	.01	.01	.00	8.53	10.48	14.25	14.39	14.62	14.64	14.79	15.52	15.56	15.58	12.43	
323	Unspecified	.00	.00	.00	.97	4.01	3.71	3.34	2.94	1.54	1.10	-1.01	.37	1.73	1.43	
324	Seal Island	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
325	REV CHANGE CUR ELF NO 10 YEAR LIMIT	.00	93.52	105.56	118.79	121.63	125.56	131.82	134.31	135.61	138.78	141.13	142.41	142.93	142.93	
326	Prudhoe Bay	.00	93.52	105.56	118.79	121.63	125.56	131.82	134.31	135.61	138.78	141.13	142.41	142.93	142.93	
327	Kuparuk	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
328	Milne Point	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
329	Endicott	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
330	Lisburne	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
331	West Sak	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
332	Unspecified	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
333	Seal Island	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
334																
335																
336	PRESENT VALUE OF CHANGES IN NET REVENUE															
337	RESULTING FROM CHANGES IN THE SEVERANCE TAX															
338	1988 THROUGH 2000															
339	IN MILLIONS OF DOLLARS															
340	NO ELF	1867.50														
341	ALTERNATE ELF	670.01														
342	ALTERNATE ELF - NO ELF ON CENTS/BBL	911.99														
343	CURRENT ELF - NO ELF ON CENTS/BBL	154.73														
344	CURRENT ELF - NO 10 YEAR LIMIT	879.26														