

ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 86/2
4895 HRES FILE HISTORY (SEE ALSO HB 164)

467

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

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	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%
						AS43.20 & 55					
						Pre SB 524					
						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%
						AS43.20 & 55					
						HB 353 as of 1/1/85 1)					
						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	2739.56	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	5800.91	3099.70	2701.21	1185.11	43.87%	04	5800.91	3099.70	2701.21	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 NHV

Fiscal Year	-----Total Petroleum-----			State Petrol Revenues	State / Net Rev %	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	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	2790.29	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	2146.93	39.84%	97	9515.632	4126.62	5389.01	2098.16	38.43%
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
(all 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-----		Collections-----		Diff
															HB 353 1)	HB 353 1)	AS 43.20 2)		
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	210.56	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	6541.97	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	1220.81	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	355.00	99.05	6958.33	5427.94	510.23	519.30	254.00	265.30	
91	11789.55	983.67	603.23	537.14	1747.62	1653.39	124.08	2.71	418.55	313.40	72.80	92.86	6846.74	4942.81	464.62	476.02	251.48	224.55	
92	11334.36	1008.16	610.04	528.09	1763.64	1618.38	129.44	1.72	393.54	329.07	341.40	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	466.49	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	49.55	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	298.21	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	812.85	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 CB 524, for FY 1985-05 this is '85 353.

2) FY82 collections of \$130.72a are the actual amounts collected or credited to CY82 liability. The estimate for a full year under AS43.20 in FY82 is \$242.5a which would result in a difference of \$595.12a 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, \$236.50a; CY83, \$224.01a; CY84 \$241.54a.

3) based on 6/85 Mean 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 (/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)	Meie Other Cost 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	5608.83	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	10144.92	1220.81	1204.74	264.50	1266.70	955.40	0.76	39.85	131.90	245.55	292.10	123.82	5706.28	4438.64	417.23	443.94
87	1.7888	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	685.93	358.30	1402.65	1314.95	25.26	9.83	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	319.10	105.24	5874.31	3309.33	311.03	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	372.60	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	3090.08	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	0.9565	22.107	906549	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	285.74
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	2.52	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	954349	2.72	7745.92	891.76	427.43	337.20	1279.92	783.87	80.44	0.00	156.80	440.98	524.50	49.53	4972.43	2773.45	260.71	261.82
99	0.5910	30.529	943764	2.981	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	4780.58	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	30.95	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	73.89	1068.44	404.34	24.26	0.00	201.40	620.50	738.67	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 Tariff 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	229.00	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	37.30	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 F^v 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-	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

June '85
projections

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

Fiscal Year	To. Corp Pre	Inc Tax Collections		Total Prodn Tax Liability			Total Gain or Loss
		AS 43.20	Diff	Pre	AS 43.55	Diff	
	SB 524			SB 524			
<i>hypothetical</i> 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
<i>actual</i> 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
	HB 353						
85	448.48	168.60	279.88 3)	1588.50	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	331.08	904.34	989.98	-85.64	25.44
88	515.28	238.38	276.90	638.67	773.71	-135.04	11.86
89	491.39	241.26	250.13	610.81	737.68	-127.07	13.06
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	58.93
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	484.75	-69.52	20.97
98	270.06	194.51	75.55	388.95	451.24	-62.29	15.26
99	247.16	187.15	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	214.35	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	199.61	-18.16	-115.15
SUM 85-05	6973.24	4203.18	2770.05	10995.41	12375.83	-1380.42	1369.63

\$382.79
\$309 loss

-85-2005

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 ACCT" law and \$130.7 from AS43.20 "CURRENT MODIFIED APPORTIONMENT" 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.

NO TAX

TABLE 2a
 Calculation of State Petroleum Revenues as a
 Percent of Adjusted Production Income
 6/85 Forecast Assumptions 30% 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	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	2332.59	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	7865.09	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	46.03%
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.

HAPS

HAPS

TABLE 26

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 HW

Fiscal Year	-----Total Petroleum-----			State Petrol Revenues	State / Net Rev %	Fiscal Year	With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax			State Petrol Revenues	State / Net Rev %
	Gross Revenue	Cost Deductns	Net Revenue				-----Total Petroleum-----	Gross Revenue	Cost Deductns		
62	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	37.67%	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	4517.45	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	40.50%	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	7567.890	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 \$60.0m 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	Exploratr'n Costs	Admin Costs	Other Deductns	Total Deductns	Total Net Income	Liability-----Collections-----			
															HB 353 1)	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	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	5154.38	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	109.41	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	386.65	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	789.94	388.95	411.37	1592.93	947.57	84.77	0.00	293.02	423.64	524.50	49.53	5506.22	2813.30	254.45	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	1542.65	802.43	64.20	0.00	273.89	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	707.22	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 AS 43.20 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 (mcf/day)	Gas Price (\$/mcf)	Total Revenue (cur \$)	State Royalty Share	Prod'n Cons Tax	Property Tax	Total Oper'tg Costs	Depre Devel Costs	Amort Acquis Costs	Windfall Profits Tax	Interest Expense	Exploratr'n Costs (expen'd)	Adain 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
85	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	2798.36	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	335.00	99.05	5658.39	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	5523.24	2381.49	223.86	229.00
92	1.2302	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	5589.07	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	2388.17	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	485.89	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	557.30	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	738.00	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 Input (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	1060.30	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	1860.85	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	833.65	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 AS45.56 @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 \$)

Fiscal Year	To, Corp Inc Tax Collections			Total Prodn Tax Liability			Total Gain or Loss
	Pre SB 524	AS 43.20	Diff	Pre SB 524	AS 43.55	Diff	
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 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	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	571.12	263.02	268.09	588.58	700.65	-112.07	156.02
98	579.12	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	333.00	-47.61	66.24
03	228.30	167.72	60.58	237.25	270.88	-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 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 \$539.2m 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 \$60.8m 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 WHV

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 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	2957.89	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	2606.71	38.60%	97	10742.51	3988.64	6753.87	2548.60	37.74%
98	10330.41	3814.79	6515.62	2478.65	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

Fiscal Year	-----Total Petroleum-----			State Petrol Revenues	State / Net Rev %	Fiscal Year	With AS 43.20 Corporate Income Tax & AS 43.55 Production Tax -----Total Petroleum-----			State Petrol Revenues	State / Net Rev %
	Gross Revenue	Cost Deductns	Net Revenue				Gross Revenue	Cost Deductns	Net Revenue		
82	16455.00	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	14387.36	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	2869.13	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	10584.46	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	5683.742	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 \$60.0m 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	Prod'n	Total	Total	Total	Total	Windfall	Interest	Exploratn	Admin	Other	Total	Total	Liability-----		Collections-----	
		Royalty Share	Cons Tax	Property Tax	Oper'g Costs	Depre	Acquis Costs	Profits Tax	Expense Uncap	Costs	Costs	Deductns	Deductns	Net Income	HB 353 1)	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	8243.58	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	778.5	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	80.49	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	7	733.70	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	0	700.16	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	103.99	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
(oil current FY \$)

Fiscal Year	Oil Prod'n (oil B/D)	Wellhead Value (cur \$)	Gas Prod'n (acf/day)	Gas Price (acfl)	Total Revenue (cur \$)	State Royalty Share	Prod'n Cons Tax	Property Tax	Total Oper'tg Costs	Depre Level Costs	Acort of 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	136.70	5518.78	5808.83	546.03	553.33
85	1.7523	17.493	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	130.20	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	16.273	537624	1.097	10626.57	1281.15	1262.27	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	4694.94	441.21	446.68
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	5258.40	4087.69	384.24	388.79
01	0.4528	44.381	890963	3.550	8490.22	984.97	354.12	250.50	1265.14	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	0.2855	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

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

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

Fiscal Year	Pipeline Thrupt (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	2603.40	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

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- 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.

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.

Table 3

- The total production, exploration, and pipeline revenue picture. The production revenue is calculated for Sadlerochit, Kaparuk, Cook Inlet, Endicott, Lisburne, and Milne Pt.
- The expenditures for each of the aforementioned fields as well as the pipeline are then calculated and deducted. The expenditures relative to each of the fields include state royalties, production conservation taxes, property taxes, operating costs, depreciation, acquisition costs, windfall profits taxes (for FY 82 - 84 and first half of FY 85 only), interest expenses (uncapitalized), exploration costs, administration costs, and other deductions.

Table 4

- The production income and production expenditure data for the aforementioned producing fields.

Table 5

- The pipeline income and expenditure data for TAPS.

Table 6

- The windfall profits tax is not allowed as a deduction under HB 353. The legislature, however, asked for the figures and they are presented separately.
- The windfall profits tax deduction would have had only a minor effect in FY 85 on Sadlerochit and no effect on this field after that date because the adjusted base price exceeds the wellhead value.
- The newer fields such as Kaparuk, Endicott, Lisburne, and Milne Pt. are exempt from the windfall profits tax.
- The only field affected from FY 85 on is Cook Inlet.

VDW:bv
Attachment

TABLE 1
 Old Law (Pre SB 524)
 Current Law (AS43.20 & AS 43.55)
 Proposed Law (HB 353)

Fiscal Year	Yo. Coro Inc Tax Collections			Total Prodn Tax Liability			Total Gain or Loss
	Pre SB 524	AS 43.20	Diff	Pre SB 524	AS 43.55	Diff	
82	837.62	242.50	595.12 1)	1219.03	1581.70	-362.67	232.45
83	840.95	236.00	604.95	1098.94	1493.70	-394.76	210.19
84	838.08	265.10	572.98	1032.93	1393.10	-360.17	212.81
				existing			
				AS 43.55			
85	489.61	190.00	299.61 2)	1379.81	1379.81	0.00	299.61 2)
86	799.19	240.00	559.19	1243.84	1243.84	0.00	559.19
				HB 353			
87	749.61	260.00	489.61	1075.97	1189.08	-113.11	376.50
88	727.53	275.00	452.53	804.18	977.32	-173.14	279.39
89	678.73	305.00	373.73	773.49	935.47	-161.98	211.75
90	630.95	340.00	290.95	765.25	922.53	-157.28	193.67
91	567.35	350.00	217.35	688.95	834.04	-145.09	72.26
92	530.95	350.00	180.95	668.52	808.07	-139.55	41.40
93	513.29	365.00	148.29	664.83	801.87	-137.04	11.25
94	464.95	365.00	99.95	605.78	727.10	-121.32	-21.36
95	405.70	360.00	45.70	552.83	659.73	-106.90	-61.20

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 1985 HB353 Corp. Inc. Tax includes \$60.8m of AS43.20 already collected through December 31, 1984. The difference is for half of FY85 only. The difference for a full year as indicated in the final column of Table 3.

3) 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, \$255.50m; CY83, \$224.01m; CY84 \$240.37m.

Handwritten notes:
 299.61
 659.19
 376.50
 279.39
 211.75
 193.67
 72.26
 41.40
 11.25
 -21.36
 -61.20
 1/2 * 1/2
 *

ASSUMPTIONS

1. Oil and Gas Production and Price and TAPS thruput:
FY 82 - 84, actuals. FY 85 forward, based on March 1985 Petroleum Production Revenue Forecast, Mean Case.
2. TAPS tariff:
Proposed settlement ignored, weighted average TAPS tariff assumed to be \$6 per barrel.
3. Oil and Gas royalties as a deduction from gross production income:
FY 82 - 84, actuals. FY 85 forward, based on March 1985 Petroleum Production Revenue Forecast, Mean Case.
4. Oil severance taxes as a deduction from gross production income:
FY 82 - 84, pre SB 524 rates and ELF's used - 12.25% rate with calculated ELF.

FY 85 - 86 and first half FY 87, current rates and ELF's used - Sadlerochit and Cook Inlet 15% rate with ELF = 1 if calculated ELF is .7 or above for first 10 years of production. Kuparuk and other North Slope fields 12.25% rate for first 5 years of production, then 15% with ELF = 1 if calculated ELF is .7 or above for first 10 years of production.

January 1987 forward, HB 353 rates, 12.25% for all fields, ELF provisions same as current law.
5. Crude oil windfall profits taxes as a deduction from gross production income:

Calculated and used as a deduction for purposes of estimating AS 43.21 collections from FY 82 - 84 for both Sadlerochit and Cook Inlet.

No windfall profits tax deduction allowed under HB 353 from FY 85 on.
6. Ad Valorem property taxes as a deduction from both gross production income and gross oil transportation (TAPS) income:

Calculated at 2% of estimated assessed tangible property value for both production and transportation facilities.

7. Direct operating costs as a deduction from gross production income:

Estimates are consistent with March 1985 Petroleum Production Revenue Forecast, Mean Case production assumptions.

8. Direct operating costs as a deduction from gross oil transportation (TAPS) income:

Estimates are based on actual FERC filings and projected based on thruput and inflation assumptions consistent with March 1985 Petroleum Production Revenue Forecast, Mean Case.

9. Depreciation of development costs and amortization of lease acquisition costs as a deduction from gross production income:

Calculated on a units of production basis using production estimates consistent with the March 1985 Petroleum Production Revenue Forecast, Mean Case and reserves estimates from the Alaska Oil and Gas Conservation Commission. Both were calculated using total recoverable reserves as a base.

Development cost estimates include an estimate of capitalized intangible drilling costs.

Acquisition cost estimates include capitalized lease bonus payments, successful exploration expenses and property taxes paid before production.

10. Depreciation as a deduction from gross oil transportation (TAPS) income:

Calculated on a straight line basis as allowed by FERC.

11. Uncapitalized interest as a deduction from gross production income:

Projected based on historical trends reported on AS 43.21 returns from CY 1978 - 81 and accounting for the statutory cap provisions setting the maximum allowable uncapitalized interest deduction for a corporation equal to total interest expense of the consolidated worldwide business multiplied by the ratio of the cost of real and tangible personal property used in production in Alaska to cost of total real and tangible personal property used in the consolidated business worldwide.

12. Uncapitalized interest as a deduction from gross oil transportation (TAPS) income:

Projected based on actual TAPS debt schedule.

13. General overhead and administration expenses as a deduction from gross production income:

Projected based on historical trends reported on AS 43.21 returns from CY 78 - 81 and accounting for the statutory cap provisions setting the maximum allowable general overhead and administration deduction for a corporation equal to total general overhead and administration expense of the consolidated worldwide business multiplied by the ratio of the cost of real and tangible personal property used in production in Alaska to the cost of total real and tangible personal property used in the consolidated business worldwide.

14. Unsuccessful exploration and abandonment expenses as a deduction from gross production income:

Projected based on historical trends reported on AS 43.21 returns from CY 78 - 81.

Projected total exploration expenses are assumed to be deducted in total from gross production income in year of abandonment, even though it may be that some corporations will have insufficient production income to write off their full exploration expenses against and hence would have to carry losses forward. Also under HB 353 corporations with exploration expenses but no production income would fall under separate accounting, a provision different from AS 43.21. 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 provision would not materially impact tax collections in the time frame of this analysis.

TABLE 2
Calculation of State Petroleum Revenues as a
Percent of Adjusted Production Income
3/85 Forecast Assumptions Mean Case FY 85-95 Using WHV

Fiscal Year	Total Petroleum Production			State / Petrol Revenues	State / Net Rev %	Total Petroleum Production			State / Petrol Revenues	State / Net Rev %	
	Gross Revenue	Cost Deducts	Net Revenue			Gross Revenue	Cost Deducts	Net Revenue			
With A5 43.20 Corporate Income Tax & A5 43.55 Production Tax											
Pre 5B 524											
82	12958.93	1346.69	11612.24	3525.22	0.3036	82	12958.93	1346.69	11612.24	3889.46	0.3349
83	11941.70	1636.27	10305.43	3313.25	0.3215	83	11941.70	1636.27	10305.43	3321.58	0.3223
84	11327.62	1903.30	9424.32	3201.84	0.3397	84	11327.62	1903.30	9424.32	3220.43	0.3417
HB 353 as of 1/1/85 1)											
85	11481.87	2039.82	9442.05	3568.78	0.3780	85	11481.87	2039.82	9442.05	3151.33	0.3338
86	10645.15	2350.70	8294.45	3309.05	0.3989	86	10645.15	2350.70	8294.45	3007.07	0.3625
87	10323.23	2691.74	7631.49	3092.73	0.4053	87	10323.23	2691.74	7631.49	2981.84	0.3907
88	10370.84	2937.38	7433.46	2820.23	0.3794	88	10370.84	2937.38	7433.46	2791.48	0.3755
89	10132.39	3101.75	7030.64	2761.80	0.3928	89	10132.39	3101.75	7030.64	2776.31	0.3949
90	10077.12	3242.94	6834.18	2778.62	0.4066	90	10077.12	3242.94	6834.18	2848.93	0.4169
91	9601.91	3323.96	6277.95	2617.50	0.4169	91	9601.91	3323.96	6277.95	2721.63	0.4335
92	9533.60	3327.22	6204.38	2573.94	0.4149	92	9533.60	3329.22	6204.38	2685.70	0.4329
93	9553.63	3360.51	6193.12	2566.27	0.4144	93	9553.63	3360.51	6193.12	2691.89	0.4347
94	9090.33	3382.09	5708.24	2419.91	0.4239	94	9090.33	3382.09	5708.24	2555.60	0.4477
95	8507.01	3365.37	5221.64	2257.98	0.4324	95	8587.01	3365.37	5221.64	2408.09	0.4612

FY 1985 HB353 Corp. Inc. Tax includes \$60.8m of A543.20 already collected through December 31, 1984 and half a year of the new tax.

FOOTNOTES

1. Total production income for each fiscal year is the sum of Sadlerochit weighted average oil production volume times Sadlerochit weighted average oil wellhead value, Kuparuk weighted average oil production volume times Kuparuk weighted average oil wellhead value, Endicott weighted average oil production volume times Endicott weighted average oil wellhead value, Lisburne weighted average oil production volume times Lisburne weighted average oil wellhead value, Milne Pt. weighted average oil production volume times Milne Pt. weighted average oil wellhead value, Cook Inlet weighted average oil production volume times Cook Inlet weighted average oil wellhead value, and Cook Inlet weighted average gas production volume times Cook Inlet weighted average gas wellhead value.
2. The deductions for each fiscal year include those defined under AS 43.21 and HB 353 less State severance taxes, royalties, property taxes, and federal crude oil windfall profits tax.
3. Adjusted production income for each fiscal year is total production income less total production deductions.
4. Total state petroleum revenues for each fiscal year is the sum of Sadlerochit, Kuparuk, Endicott, Lisburne, Milne Pt., and Cook Inlet oil royalties, production taxes, and property taxes associated with oil production activities and facilities, and Cook Inlet gas royalties, production taxes, and property taxes associated with gas production activities and facilities, and corporate income taxes attributable to those oil and gas production activities.

TABLE 3

Pipeline, Production & Exploration
Income Tax Estimates
(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-----		Collections-----		Diff
															HB 353	HB 353	AS 43.20	AS 43.20	
82	14455.80	1564.30	1219.03	278.40	645.59	601.54	0.76	2017.53	698.10	190.90	236.20	50.00	7502.35	8953.45	841.62	837.62	130.72	706.90	
83	15469.75	1442.73	1098.94	308.85	710.90	781.97	1.00	1018.33	653.20	210.00	252.30	47.60	6525.82	8943.93	840.73	840.95	236.00	604.95	
84	14547.14	1370.57	1032.93	353.36	729.60	997.32	1.08	422.58	590.80	230.10	264.90	47.60	6040.84	8906.30	837.19	838.08	265.10	572.98	
85	15182.97	1377.88	1379.81	367.64	733.70	1080.94	0.78	0.00	541.40	254.10	270.10	45.00	6059.35	9123.62	857.62	852.51	190.00	662.51	
86	14433.85	1278.11	1243.84	404.02	849.20	1225.47	6.73	0.00	518.00	279.50	292.10	42.00	6138.97	8294.88	779.72	799.19	240.00	559.19	
87	14177.63	1244.21	1075.97	441.25	943.90	1441.66	15.18	0.00	494.60	307.40	306.70	39.00	6309.87	7867.76	739.57	749.61	260.00	489.61	
88	13962.44	1219.43	804.18	466.13	1023.20	1560.48	20.10	0.00	467.70	338.20	322.00	36.00	6265.42	7697.02	723.52	727.53	275.00	452.53	
89	13439.29	1198.80	773.49	477.24	1094.40	1606.49	39.56	0.00	444.50	372.00	338.10	33.00	6377.58	7061.71	663.80	678.73	305.00	373.73	
90	13143.12	1230.07	765.25	490.33	1228.60	1565.45	52.09	0.00	421.40	409.20	355.00	30.00	6547.39	6595.73	620.00	630.95	340.00	290.95	
91	12339.41	1184.46	688.95	480.83	1334.90	1485.41	68.05	0.00	397.90	450.10	372.80	27.00	6490.40	5849.01	549.81	567.35	350.00	217.35	
92	12030.20	1103.43	668.52	465.70	1393.10	1386.40	67.32	0.00	373.70	495.10	391.40	24.00	6448.67	5581.52	524.66	530.95	350.00	180.95	
93	11675.03	1192.82	664.83	447.50	1451.90	1305.95	66.46	0.00	348.75	544.60	411.00	21.00	6454.81	5420.22	509.50	513.29	365.00	148.29	
94	11127.03	1143.17	605.78	429.33	1521.10	1196.52	67.37	0.00	326.80	599.10	431.50	18.00	6338.67	4788.36	450.11	464.95	365.00	99.95	
95	10339.01	1084.87	552.83	406.29	1574.90	1064.54	58.83	0.00	311.10	659.00	453.10	15.00	6180.46	4158.55	390.90	405.70	360.00	45.70	

These estimates assume the tax plan is in effect for the whole year; for FY 1982-84 this is Pre SB 524, for FY 1985-95 this is HB 353.

FY82 collections of \$130.72m are the actual amounts collected or credited to CY82 liability. The estimate for a full year under AS43.20

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

projected to be low due to substantial refunds and credits for prior

years' tax overpayments. Tax liability on a calendar year basis under

AS.20 was CY82, \$235.50m; CY83, \$224.01m; CY84 \$240.37m.

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

Fiscal Year	Oil Prod'n (all O/D) (cur \$)	Wellhead Value \$ (cur \$)	Gas Prod'n (cur \$)	Gas Price (cur \$/cu ft)	Total Revenue (cur \$)	State Royalty Share	Prod'n Costs Tax	Property Tax	Total Oper'g Costs	Depr. Devel. Costs	Acquis. Costs	Windfall Profit Tax	Interest Expense	Exploratio. Costs (expn'd)	Adm'n. Cost	Other Deductio. Cost	Total Deductio. Income	Total Taxable Income	Total Tax Liability	Total Tax Collectio. Tax
82	1.6533	21.273	307400	0.590	12958.93	1564.36	1219.03	113.90	416.59	332.84	0.76	2017.33	119.40	190.90	236.20	50.00	6261.45	6497.40	629.56	627.99
83	1.7004	19.040	303000	0.670	11941.70	1442.73	1098.94	149.15	490.90	513.27	1.00	1018.33	121.20	210.00	252.30	47.60	3345.42	6576.28	620.85	622.43
84	1.7103	17.864	305000	0.670	11327.62	1370.57	1032.93	191.66	508.60	728.62	1.00	422.58	122.40	239.10	264.90	47.60	4921.04	6406.58	602.22	605.68
85	1.7380	17.776	336715	0.983	11481.87	1377.88	1379.81	203.64	522.20	812.24	0.78	0	127.40	254.10	278.10	45.00	3001.15	6489.72	609.19	607.45
86	1.7783	16.084	323625	1.073	10645.15	1278.11	1243.84	245.12	641.70	956.77	6.73	0	131.90	279.50	292.10	42.00	5117.77	5527.30	519.57	541.98
87	1.3045	15.347	326000	1.126	10323.23	1244.21	1075.97	280.55	714.40	1172.96	15.18	0	136.10	307.40	306.70	39.00	3300.47	5022.76	472.14	484.00
88	1.6784	16.553	327650	1.195	10370.84	1219.43	804.18	319.73	782.70	1291.78	28.10	0	138.60	338.20	322.00	38.00	5280.72	5070.12	478.47	476.89
89	1.5443	17.530	333300	1.292	10132.39	1198.80	773.49	337.04	841.90	1337.79	39.56	0	139.40	372.00	338.10	33.00	5411.08	4721.31	443.80	452.47
90	1.4234	18.780	337300	1.632	10077.12	1230.07	765.25	356.33	959.60	1296.73	52.09	0	140.30	409.20	355.00	70.00	5594.59	4402.53	421.36	426.97
91	1.2723	19.861	342300	1.912	9601.91	1184.46	688.95	353.13	1048.40	1216.71	68.05	0	140.90	450.10	372.80	27.00	5550.50	4051.41	380.03	370.96
92	1.1619	21.451	346300	2.188	9533.60	1103.43	668.52	344.20	1092.60	1117.70	67.32	0	141.10	495.10	391.40	24.00	5525.37	4008.22	374.77	377.79
93	1.0746	23.140	338000	2.431	9553.63	1192.82	664.83	332.20	1138.90	1037.25	66.46	0	141.30	544.60	411.00	21.00	5550.36	4003.27	376.31	376.42
94	0.9402	24.931	345000	2.488	9090.33	1143.17	605.78	320.33	1197.10	927.82	67.37	0	141.20	599.10	431.50	18.00	5451.37	3638.96	342.06	350.62
95	0.8163	26.845	350000	2.932	8587.01	1084.87	552.93	303.49	1240.90	795.84	58.83	0	142.70	659.00	453.10	15.00	5306.56	3280.45	308.36	316.79

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

TABLE 5
Trans Alaska Pipeline
Income Tax Estimates
(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	1.568	6.11	3496.88	229.00	266.70	578.70	164.50	1240.90	2255.98	212.06
83	1.630	5.93	3528.05	220.00	268.70	532.00	159.70	1180.40	2347.65	220.48
84	1.650	6.01	3619.52	221.00	268.70	468.40	161.70	1119.80	2499.72	234.97
85	1.690	6.00	3701.10	211.50	268.70	414.00	164.00	1058.20	2642.90	248.43
86	1.730	6.00	3788.70	207.50	268.70	386.10	158.90	1021.20	2767.50	260.15
87	1.760	6.00	3854.40	229.50	268.70	358.50	152.70	1009.40	2845.00	267.43
88	1.640	6.00	3591.60	240.50	268.70	329.10	146.40	984.70	2606.90	245.05
89	1.510	6.00	3306.90	252.50	268.70	305.10	140.20	966.50	2340.40	220.00
90	1.400	6.00	3066.00	269.00	268.70	281.10	134.00	952.80	2113.20	198.64
91	1.250	6.00	2737.50	286.50	268.70	257.00	127.70	939.90	1797.60	168.97
92	1.140	6.00	2496.60	300.50	268.70	232.60	121.50	923.30	1573.30	147.89
93	1.060	6.00	2321.40	313.00	268.70	207.45	115.30	904.45	1416.95	133.19
94	0.930	6.00	2036.70	324.00	268.70	185.60	109.00	887.30	1149.40	108.04
95	0.800	6.00	1752.00	334.00	268.70	168.40	102.80	873.90	878.10	82.54

- 1) The gas picture isn't 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) Corporate overhead i.e. administrative costs excluded.
- 5) U. Sai, Pt. Thom. & Seal Is. excluded.

ASSUMPTIONS:

Property taxes per AS43.56 22% gross.

Table 6
Windfall Profits Tax
Deduction
(current \$ - 000,000)

<u>FY</u>	<u>Deduction from FY Taxable Income</u>			<u>Impact on FY Tax Liability</u>
	<u>Sadlerochit</u>	<u>Cook Inlet</u>	<u>Total</u>	(Total deduction) (x .094) <u>1/</u>
82	1,750.48	267.05	2,017.53	-189.65
83	848.74	169.59	1,018.33	-95.72
84	299.50	123.04	422.58	-39.72
85	89.47	79.06	168.53	-15.84
86		55.86	55.86	-5.25
87		41.18	41.18	-3.87
88		32.65	32.65	-3.07
89		28.45	28.45	-2.67
90		26.80	26.80	-2.52
91		23.86	23.86	-2.24
92		14.32	14.32	-1.34
93		5.49	5.49	-.52
94		.19	.19	-.02
95		0	0	0

Note: Based on prices and production volumes consistent with the March 1985 Petroleum Production Revenue Forecast, Mean Case.

1/ For FY 82 - 84, these impacts are included in Tables 3 and 4. If windfall profits tax was not a deduction for these years, the total tax liability columns would be increased by these amounts.

For FY 85 forward, these impacts are not included in Tables 3 and 4 because HB 353 has no provision for a windfall profits tax deduction. If such a provision were added the total tax liability columns in Tables 3 and 4 would be reduced by these amounts. The exception, however, is in FY 85 where the reduction would be approximately one half the listed amount due to the fact that HB 353 would go into effect midway through the fiscal year.

MEMORANDUM

State of Alaska

TO: Mary A. Nordale
Commissioner
Department of Revenue

DATE: May 3, 1985

FILE NO:

TELEPHONE NO: 465-2173

FROM: Vincent D. Wright *VDW*
Chief of Research
Department of Revenue

SUBJECT: HB 353

Because of time constraints involved in this project only one base case was considered relative to our analysis of HB 353. The case we adopted, identified by our assumptions, was a mean thruput and price approach and no consideration for a possible TAPS settlement between the State and the oil companies.

We intend to evaluate various oil price scenarios and what affect a TAPS settlement will have on HB 353 during the next few weeks. This is important because obviously any change in prices or tariffs will no doubt have a major impact on the revenues that would be generated under a separate accounting approach such as HB 353.

VDW:bv

MEMORANDUM

State of Alaska

TO: Mary A. Nordale
Commissioner
Department of Revenue

DATE: May 3, 1985

FILE NO:

TELEPHONE NO: 465-2173

FROM: Vincent D. Wright *VDW*
Chief of Research
Department of Revenue

SUBJECT: HB 353

I would like to take this opportunity to inform you that we received excellent cooperation and a great deal of aid from various agencies in gathering the data for our analysis of HB 353. The Oil and Gas Conservation Commission supplied us with crucial data relative to the number of exploratory wells drilled in fields not yet developed. The Department of Natural Resources provided us as they usually do with volume production numbers by field. We also utilized information from federal agencies such as FERC which supplied us with operating cost information on TAPS.

Finally, your own staff in the Petroleum Revenue Division and the Research Section, which did the bulk of work and supplied a great deal of raw data, were very helpful in identifying and resolving conceptual problems and working diligently to complete the analysis by May 6, 1985.

VDW:bv

HISTORY OF OIL AND GAS SEVERANCE TAXES IN ALASKA

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.

MEMORANDUM

DEPARTMENT OF NATURAL RESOURCES
OFFICE OF THE COMMISSIONER

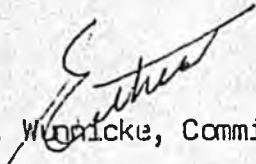
TO: Governor Bill Sheffield

State of Alaska

DATE: January 22, 1986

FILE NO:

TELEPHONE NO: 561-2020

FROM:  Esther C. Wunnicke, Commissioner

SUBJECT: Incentives for
Development of Marginal
Fields

At your request I asked the Division of Oil and Gas to provide a more detailed written discussion of the issues Kay Brown and I discussed briefly with you January 6. This paper summarizes several possible incentives that the state could employ to encourage marginal field development, and identifies some of the potential benefits and costs associated with each.

What are marginal fields? As used by oil industry spokesmen, this term apparently encompasses all North Slope fields except Prudhoe Bay and Kuparuk River, two of the largest producing fields in the United States. The term implies that we are talking about fields that are "at or close to the margin" in terms of projected profitability. If projected profits do not meet the lessees' expected or required rates of return on capital, then a field would not be developed.

A number of factors influence the lessees' decision to develop any particular field. These factors include 1) the size of the reservoir; 2) the quality of the reservoir and the oil; 3) expected costs of development; 4) projected world oil prices; and 5) the royalty and taxes imposed.

Some discoveries will remain non-economic regardless of any action (or inaction) by the state. Factors such as remoteness from markets, lack of infrastructure, labor and material costs, fluctuating world oil prices and the availability of competitively priced alternative fuels--all factors over which the state has little, if any, control--will continue to influence lessees' future resource development decisions just as they have in the past.

The term "marginal fields" is itself a relative term. Today's marginal field may be tomorrow's nest egg, and vice versa. Producer price expectations will continue to be the driving force in determining not only which fields will be developed, but also when development will begin and end. Most producers' near-term price expectations are currently very conservative. These same expectations are mirrored in the state's revenue projections.

Options. Listed below are several options that theoretically could be effective in influencing lessees either to commit to the development of marginal fields or to continue existing development which would otherwise be non-economic.

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JAN 24 1986

DIVISION OF OIL & GAS
ANCHORAGE, ALASKA

Governor Bill Sheffield

Page 2

January 22, 1986

While most of these options entail demonstrable near-term costs to the state, the adoption of any or all of them does not guarantee corresponding returns unless their use is contingent upon reciprocal commitments from the producers.

Most of the measures described below will involve short-term revenue losses in return for potential long-term gains.

Rely on existing tools. On numerous occasions in recent years the department has used net profit share leasing and exploration incentive credits for exploratory drilling and geophysical exploration. Both of these tools encourage the development of marginal fields.

Net profit share leasing with a fixed royalty percentage undeniably reduces the bonus the state receives, but it guarantees successful lessees the opportunity to recoup development expenses plus interest for future discoveries before having to share profits with the state. This assurance effectively minimizes lessees' initial financial exposure, and thus provides an incentive to develop any discovery--marginal or otherwise. Similarly, the use of exploration incentive credits (EIC's) reduces lessees' direct expenditures for exploration--regardless of whether that exploration is successful or not. Theoretically, the use of EIC's should not only encourage exploration, but it should also make more money available for delineation and development of new discoveries.

In the case of the Milne Point field, it appears that Conoco and the other Working Interest Owners made commitments to develop this small reservoir (60 million barrels, recoverable) several years ago when oil prices were somewhat higher. Now, they say, declining prices make the existing development non-economic at a 20 percent royalty rate. As you know, the companies have asked the state to reduce their royalty to 12.5 percent. The companies claim that a reduction to 12.5 percent would extend the life of the producing formation as well as encourage development of the shallower, yet more marginal, West Sak Sands.

After analysis of the legal and policy questions, we have offered Conoco the opportunity to change (not reduce) their royalty obligation to a 12.5 percent royalty and a 30 percent Net Profit Share. We believe this option would ultimately provide the state with at least the same amount of revenue, and may possibly encourage West Sak development that would not otherwise occur. This option, should it be acceptable to Conoco and the other lessees, would not require a statutory change.

Any action by the state which either reduces lessees' costs or provides them increased "cost certainty" should increase the likelihood that marginal fields will be developed. In addition to the actions described above, which the department presumably will continue to employ on a sale-specific basis, there are additional measures the department could recommend which may positively influence new or continued development.

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Settle TAPS

Reduce Royalties

Separate acct.

~~off~~ ELF

My Job

represent dist
interest issues

\$3-NOTAX

Governor Bill Sheffield

Page 3

January 22, 1986

Settle disputes to provide more certainty. Expedited resolution of the Amerada-Hess litigation, as well as adoption of the proposed TAPS settlement by the remaining parties, would clarify lessees' royalty obligations and provide them a measure of certainty for evaluating potential returns on future projects. Resolution of these issues—judicial or otherwise—in the companies' favor would clearly enhance the value of marginal discoveries. Although the effects will never be directly quantifiable, it is almost axiomatic that legal and financial certainty will encourage exploration and development.

Allow flexibility in establishing tariffs. Providing flexibility in establishing tariffs for future pipelines could also contribute to earlier development of marginal fields. Allowing companies to "front-load" tariffs would shield early cash flows from royalty and severance taxes, and thereby improve project economics. The downside to this option is that it could result either in early abandonment of declining fields, unexpectedly sharp rises in tariffs as throughput declines, or both.

Propose legislation to allow reductions in royalty or tax burdens. There are several alternatives for adjusting royalty rates (or severance taxes, for that matter) to influence development. These alternatives include offering total "royalty/tax holidays" for some fixed period of time early in the life of new producing fields, reducing royalties/taxes for either all or a part of production from marginal fields, issuing leases with sliding scale royalties which decline with either total production or average production per well or reducing royalties/taxes on production from innovative and costly secondary and tertiary recovery projects such as the West Sak Pilot Project or the Enhanced Oil Recovery (EOR) project within the Prudhoe Bay Unit.

Under AS 38.05.180(j), the commissioner currently has the authority to reduce royalties, but only after two years of initial production from a field and then only upon a clear showing by each affected lessee that "...the revenue from all hydrocarbons produced from the field is insufficient to produce a reasonable rate of return with respect to that lessee's total investment in the field." To provide the department greater latitude, the administration could introduce legislation to enable the commissioner to reduce royalty rates at any time upon a showing of non-commerciality under prevailing royalty rates, or if necessary to encourage development.

A sub-option could include establishing the authority through new legislation to reduce royalties on production from secondary producing intervals. For example, reductions could be applied selectively to production from the shallower West Sak interval but not for production from a primary producing horizon, such as the Kuparuk formation. This approach would provide an incentive to produce reserves not currently planned for

times change - as
everyone is aware
during high prices

Fed Taxation

lower price less
fed tax & @ "share"
went up.

Prices

we have no control
over either

in fact - we
could end up at
zero or even negative
cash flow!

SO - were all fighting
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state taxes - sensitive
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JOBS current activity
appears optimal
INTRO - most important & most
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Resources goals - maximizing benefit
Budget to citizens of AR states
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Save in **Plan** ^{for} **Build**
infrastructure - roads, power etc
to **Provide** services Ed, health
etc.

SO - Try to strike balance
loyalties - ↑ ↓ →
Production taxes
Income taxes -

Governor Bill Sheffield
Page 4
January 22, 1986

production, while at the same time not setting a precedent of granting royalty reductions for production which has not been demonstrated to be non-commercial by objectively verifiable production data.

Make permit stipulations more lenient. In addition to the "carrots," there are alternatives which include "removing the sticks." Operational delays are costly (time is money), and permit stipulations obviously have direct costs. Any additional reduction in the time required to secure permits or in the number of permit and lease stipulations could translate into increased development. However, there are obvious trade-offs in both reduced public participation and, perhaps, environmental protection. Accepting those potential trade-offs would require careful inter-agency analysis and consensus.

Form a task force to study problem. Given the potential sensitivity of this subject, and the implications for the state's future revenue stream, you might wish to consider forming a task force of state, industry and public interest representatives to consider the problem, and recommend constructive measures.

Conclusion. In considering these options, please remember the caveats. The economic conditions affecting the state's producing lessees will be the same as those influencing the budget debates within the administration and the legislature. Declining state revenues undoubtedly will engender lively debate about these and other options. While there will be pressure to encourage incremental development and production, there likely will be corresponding pressure to maintain the state's current revenue stream. While these goals may seem compatible at first glance, they are not necessarily so.

As I mentioned earlier, use of most of these options would involve near-term revenue losses as a trade-off for potential (but not guaranteed) future revenues. Compared to other factors, particularly the strength of world oil prices, the state's efforts may themselves have only a "marginal" effect on the producers' decisions to develop marginal fields. For example, according to staff calculations, total elimination of state taxes would be approximately equivalent to a \$5.00 per barrel increase in the price of oil. However, the corresponding increase in federal taxes would reduce this incentive to approximately \$3.00 per barrel.

Any policy change should be capable of standing the test of time. It would be short-sighted to react to current market conditions without providing adequate protection for the state should market conditions improve in the future.

I look forward to discussing these options at your convenience.

cc: Molly McCammon

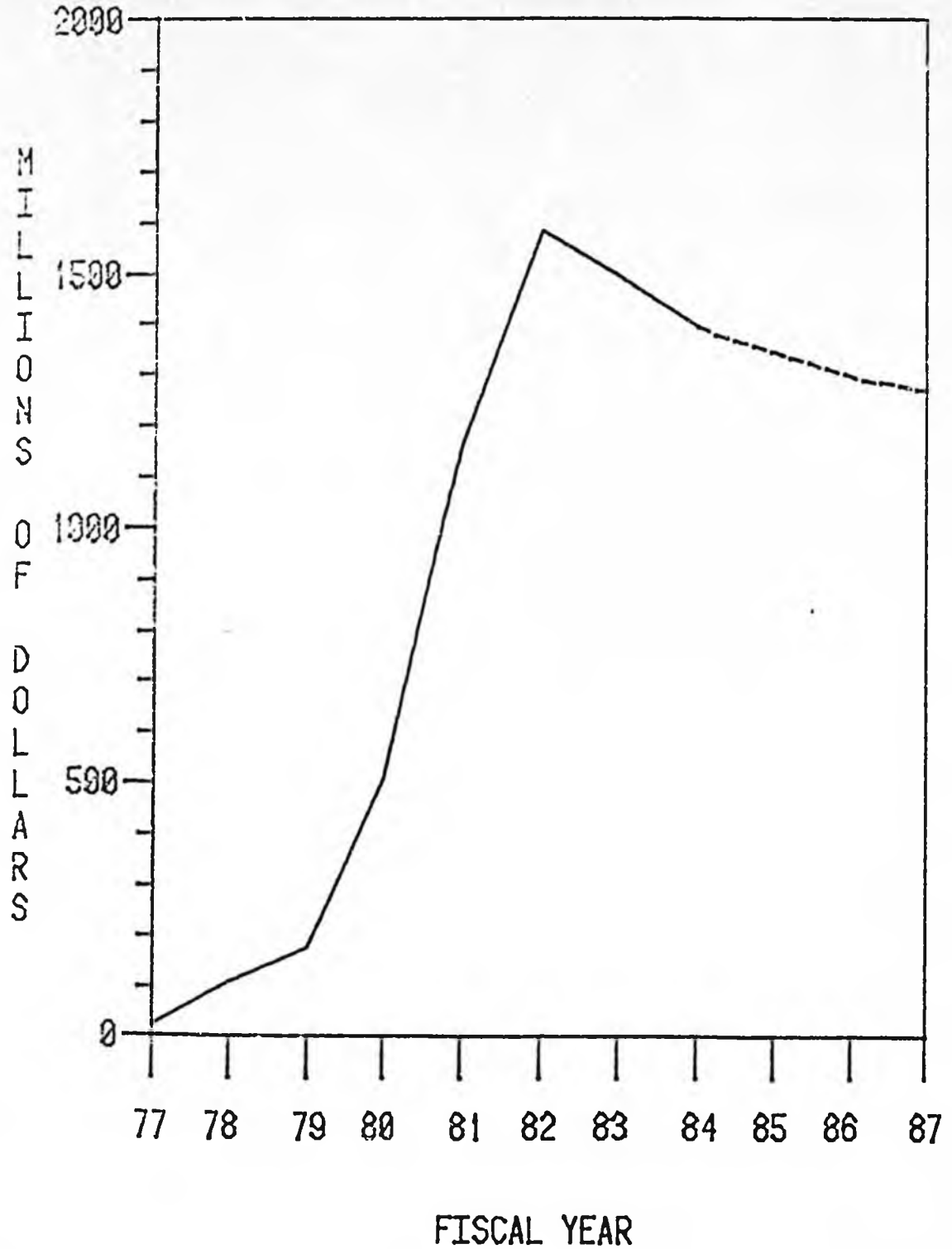
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OIL AND GAS PRODUCTION AND TAX TIMELINE

- 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

*pertinent sections from old
sep. accting. law*

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--

*no audit
checklist
M & B*

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. 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 percent common ownership direct or indirect, or a group of corporations in which

MEMORANDUM

Division of Strategic Planning
Office of Management and Budget
MS 0164

TO: Gordon Harrison
Associate Director

DATE: 28 March 1986

FROM: Tom Chester *TC*
Senior Economist
Gregg Erickson *SEE*
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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Well- head Value (\$/B)	Daily Produc- tion (MMB/D)	Revenue at Well- head	State Royalty	Produc- tion & Conser. Tax	Prop- erty Tax	Oper- ating Costs	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	956	316	1,367	1,173
1988	11.15	1.59	6,471	929	747	358	1,403	1,315

FISCAL YEAR	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Amort. Of Acqui. Costs	Federal Wind- fall Profits Tax	Interest Expense	Explor- ation Expense	Adminis- trative Costs	Other Deduc- tions	Net Alaska Produc- tion Income	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)

<u>FISCAL YEAR</u>	(1) Well-head Value (\$/B)	(2) Daily Production (MMB/D)	(3) Revenue at Well-head	(4) State Royalty	(5) Production & Conser. Tax	(6) Prop-erty Tax	(7) Oper-ating Costs	(8) Depre-iated 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

<u>FISCAL YEAR</u>	(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 Production 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

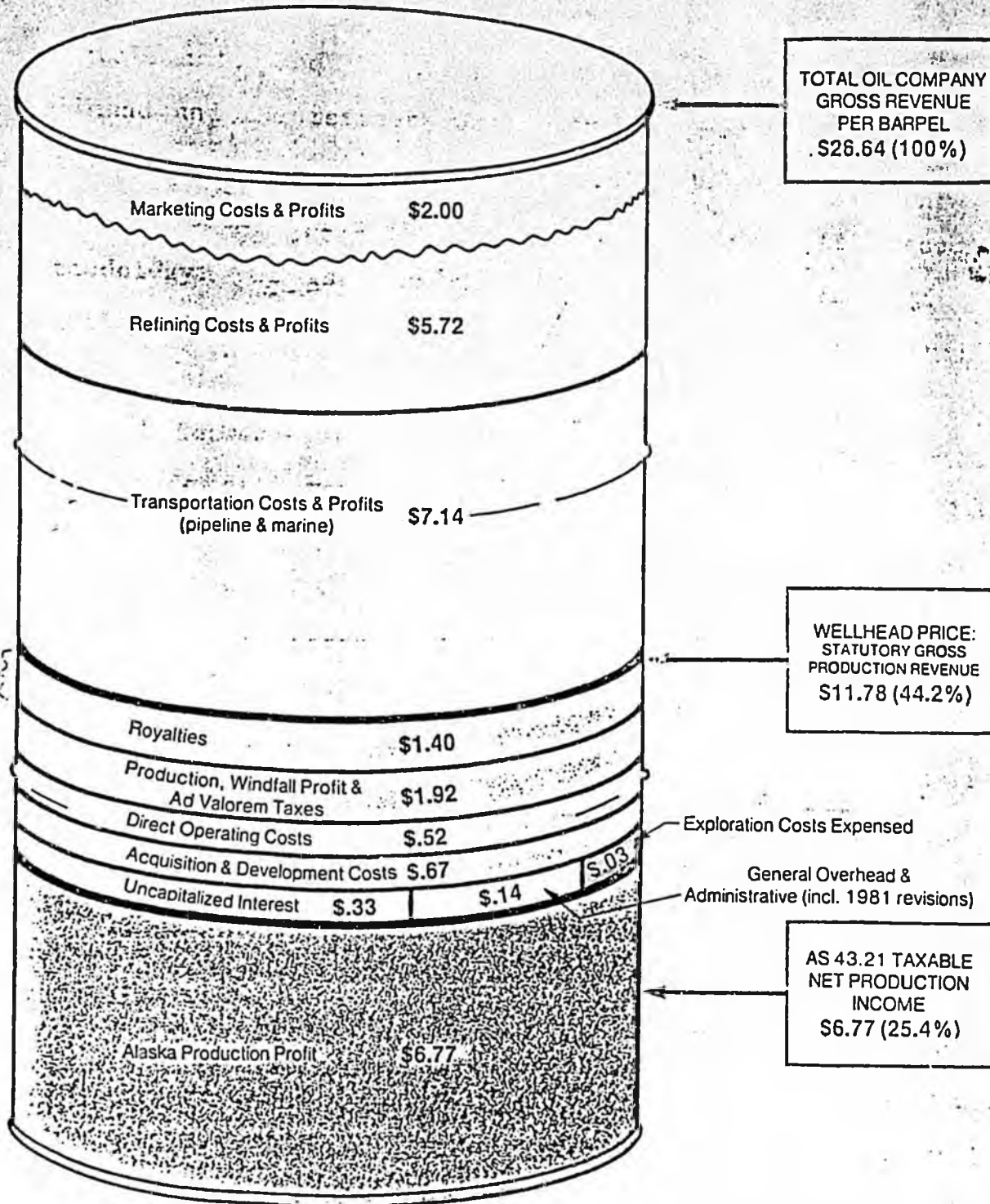
Columns 13-14: Wright, op. cit.

Column 15: (column 3)-(sum of columns 4-14).

Column 16: (.094)*(column 15).

ESTIMATED REVENUES AND COSTS
PER BARREL OF ALASKAN CRUDE OIL
1978 - 1980

	GATE	PF
78	441.5	50.5
79	821.6	83.9
80	2256.5	230.3
81	3304.3	395.1
84	2861.6	366.2



SOURCE: Deakin 2d Supplemental Affidavit 15, R. 16917, 16929.

CHART 1

DRAFT

MEAN CASE:

ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING (millions of dollars except as noted)

<u>FISCAL YEAR</u>	(1) Well- head Value (\$/B)	(2) Daily Produc- tion (MMB/D)	(3) TAPS Tariff (\$/B)	(4) Revenue at Well- head	(5) Gross Pipeline Revenue	(6) Total Gross Revenue	(7) State Royalty	(8) Produc- tion & Conser. Tax	(9) Prop- erty Tax
1986	12.93	1.80	5.18	8,495	3,403	11,898	1,140	1,115	420
1987	11.65	1.80	4.66	7,654	3,062	10,716	973	936	419
1988	11.15	1.59	5.32	6,471	3,087	9,558	929	747	451

<u>FISCAL YEAR</u>	(10) Total Oper- ating Costs	(11) Total Depre- ciation	(12) Federal Wind- fall Profits Tax	(13) Uncap- italized Interest Expense	(14) Explor- ation Expense	(15) Adminis- tration Costs	(16) Other Deduc- tions	(17) Net Income Earned In Alaska	(18) Alaska Income Tax
1986	1,477	1,224	40	542	221	292	124	5,303	499
1987	1,600	1,441	0	518	103	307	118	4,301	404
1988	1,645	1,583	0	490	27	322	114	3,250	306

Notes:

Columns 1-3: DOR March 1986 Revenue Forecast, memorandum from M. Nordale, March 12, 1986, Table II.

Column 4: (365 days)*(column 1)*(column 2).

Column 5: (365 days)*(column 2)*(column 3).

Column 6: (column 4)+(column 5).

Column 7: for 1986, forecast value in Nordale memorandum adjusted for perm. fund contributions (value/.75); for 1987-8, DOR, personal communication, C. Logsdon to T. Chester, March 13, 1986.

Column 8: for 1986, forecast value in Nordale memorandum; for 1987-8, Logsdon to Chester, March 13, 1986.

Column 9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985, except 1987 and 1988 reduced by 10 % and 20 % respectively to account for TAPS tariff settlement effects.

Columns 10-11: Wright, *ibid*.

Column 12: OMB estimates.

Column 13, 15, and 16: Wright, *ibid*.

Column 14: Wright, *ibid*., reduced by 10 %, 60 %, and 90 % in 1986-8 respectively.

Column 17: (column 6)-(sum of columns 7-16).

Column 18: (.094)*(column 17).

DRAFT

DRAFT

30 PERCENT CASE:
ALASKA OIL AND GAS CORPORATE INCOME TAX UNDER SEPARATE ACCOUNTING
(millions of dollars except as noted)

<u>FISCAL YEAR</u>	(1) Well-head Value (\$/B)	(2) Daily Production (MMB/D)	(3) TAPS Tariff (\$/B)	(4) Revenue at Well-head	(5) Pipeline Revenue	(6) Total Gross Revenue	(7) State Royalty	(8) Production & Conser. Tax	(9) Property Tax
1986	12.93	1.80	5.18	8,495	3,403	11,898	1,140	1,115	420
1987	9.02	1.80	4.66	5,926	3,062	8,988	799	771	419
1988	7.75	1.59	5.32	4,498	3,087	7,585	620	534	451

<u>FISCAL YEAR</u>	(10) Total Operating Costs	(11) Total Depreciation	(12) Federal Wind-fall Profits Tax	(13) Uncap-italized Interest Expense	(14) Exploration Expense	(15) Adminis-tration Costs	(16) Other Deduc-tions	(17) Net Income Earned In Alaska	(18) Alaska Income Tax
1986	1,477	1,224	40	542	221	292	124	5,303	499
1987	1,600	1,441	0	518	26	307	118	2,989	281
1988	1,645	1,583	0	490	0	322	114	1,826	172

Notes:

- Columns 1-3: DOR March 1986 Revenue Forecast, memorandum from M. Nordale, March 12, 1986, Table II.
- Column 4: (365 days)*(column 1)*(column 2).
- Column 5: (365 days)*(column 2)*(column 3).
- Column 6: (column 4)+(column 5).
- Column 7: for 1986, forecast value in Nordale memorandum adjusted for perm. fund contributions (value/.75); for 1987-8, DOR, personal communication, C. Logsdon to T. Chester, March 13, 1986.
- Column 8: for 1986, forecast value in Nordale memorandum; for 1987-8, Logsdon to Chester, March 13, 1986.
- Column 9: Vincent Wright, memorandum to Nordale, Oct. 31, 1985, except 1987 and 1988 reduced by 10 % and 20 % respectively to account for TAPS tariff settlement effects.
- Columns 10-11: Wright, *ibid.*
- Column 12: OMB estimates.
- Column 13, 15, and 16: Wright, *ibid.*
- Column 14: Wright, *ibid.*, reduced by 10 %, 90 %, and 100 % in 1986-8 respectively.
- Column 17: (column 6)-(sum of columns 7-16).
- Column 18: (.094)*(column 17).

DRAFT

DRAFT

CHANGE IN REVENUE FROM ADOPTION OF SEPARATE ACCOUNTING (millions, based on March 1986 forecast)

Fiscal Year	Current Law*	MEAN CASE		30 PERCENT CASE	
		Separate Accounting†	Gain Due To Separate Accounting	Separate Accounting†	Gain Due To Separate Accounting
1986	\$200	\$499	\$299	\$499	\$299
1987	\$180	\$404	\$224	\$281	\$101
1988	\$170	\$306	\$136	\$172	\$2

		MEAN CASE	30 PERCENT CASE
FY '86-'87	ADDITIONAL REVENUE:	\$523	\$400
FY '86-'88	ADDITIONAL REVENUE:	\$659	\$402

*Official DOR March 1986 forecast value; DCR provides only single point projections for the corporate income tax.

†Tax applied to income earned after June 30, 1985.

DRAFT

STATE OF ALASKA 1986 LEGISLATIVE SESSION FISCAL NOTE

Revision Date : _____

REQUEST

Bill/Resolution No.: HB 545
 Title: An Act relating to the oil production tax
 Sponsor: House Finance Committee
 Requestor: House Finance Committee
 Date of Request: 2-3-86

FISCAL DETAIL

Agency Affected: _____
 BRU: _____
 Components: _____

EXPENDITURES/REVENUES : (Thousands of Dollars)

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING						

CAPITAL						
---------	--	--	--	--	--	--

REVENUE		450	155,720	143,140	155,310	138,410
---------	--	-----	---------	---------	---------	---------

FUNDING : (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS :

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : Attach a separate page if necessary

See attached.

Prepared by: Charles L. Lopez
 Division: Research

Phone: 276-5361
 Date: 2-6-86

Approved by Commissioner: Henry A. Stankala
 Agency: Revenue

Date: 2/12/86

Distribution (by Agency preparing fiscal note):
 Legislative Finance
 Legislative Sponsor
 Requestor
 Office of Management and Budget
 Impacted Agency(ies)

This bill would change the oil production tax by altering the formula for calculating the Economic Limit Factor (ELF) and making the calculated value of ELF apply to the tax rate in all instances. The change in the formula results in a value for ELF which is higher or lower than currently calculated depending on whether an oil field produced more or less than 80,436 bbls-day. Applying the calculated value of ELF in all instances results in a lower effective tax rate for fields producing less than 80,436 bbl-day, and for fields which have an ELF equal or greater than .7 and which will have been in production less than ten years upon the effective date of the bill. The effective tax rate will increase for those fields which produce more than 80,436 bbl/day, and which have been in production more than ten years.

Under current law, the ELF is set to 1.0 when a field has been in production less than 10 years and has a calculated ELF greater than or equal to .7, otherwise the calculated ELF applies.

Prudhoe Bay, because of its immense size and productivity is in this category of oil fields. Prudhoe Bay began production in 1977 so under current law the production tax rate is scheduled to fall in FY 1988 since an ELF less than 1.0 will be applied to the nominal tax rate. This bill would apply an ELF much greater than that calculated under the current formula. So as a result the tax rate on Prudhoe Bay will decrease only a small amount in FY 1988 and beyond, so that tax revenues for Prudhoe Bay will increase over the current projections.

The revenue impacts estimated in this fiscal note are for the 30% case. The effect of this bill was analyzed using the Petroleum revenue model. The product effect is based on the change in the average expected production from the North Slope oil fields using the economic feasibility subroutine of that model. The actual realized production impact could be much larger or smaller if assumptions other than tax rates were changed, i.e. price, however, several issues are suggested by these results. The first is that the effect of the tax on feasibility given the Petroleum Revenue December oil price assumption does not appear large since Prudhoe Bay produces 45 million bbl every month. Second, the major impacts on production would occur in Prudhoe Bay, Kuparuk and West Sak Sands. This occurs because of the impact on enhanced recovery for Prudhoe and Kuparuk and because of the marginal economic and production characteristics of West Sak (significant production but a very large number of wells).

Production Effect

FY 1987 - FY 2000

Field	Average Expected Production Effect
Prudhoe Bay	* -22.37 million bbls.
Kuparuk	* -15.72 million bbls.
Mill Pt.	3.3 million bbls.
Endicott	-1.45 million bbls.
Lisburne	-.67 million bbls.
West Sak	-15.97 million bbls.
Other Onshore	6.85 million bbls.
Other Offshore	.47 million bbls.
TOTAL	-45.56 million bbls.

*Enhanced Recovery Effect

STATE OF ALASKA 1986 LEGISLATIVE SESSION FISCAL NOTE

Revision Date : _____

REQUEST

Bill/Resolution No. : HB 545
 Title : An Act relating to the oil production tax
 Sponsor : House Finance Committee
 Requestor : House Finance Committee
 Date of Request : 2-3-86

FISCAL DETAIL

Agency Affected : _____
 BRU : _____
 Components : _____

EXPENDITURES/REVENUES : (Thousands of Dollars)

OPERATING	FY 86	FY 87	FY 88	FY 89	FY 90	FY 91
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING						

CAPITAL						
----------------	--	--	--	--	--	--

REVENUE		450	155,720	143,140	155,310	138,410
----------------	--	-----	---------	---------	---------	---------

FUNDING : (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS :

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : Attach a separate page if necessary

See attached.

Prepared by : *Wanda L. Lopez* Phone : 276-536-1
 Division : Research Date : 2-6-86
 Approved by Commissioner : *Shirley G. Stedahl* Date : 2/12/86
 Agency : Revenue

Distribution (by Agency preparing fiscal note):

- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

Analysis

This bill would change the oil production tax by altering the formula for calculating the economic limit factor (ELF) and making the calculated value of ELF apply to the tax rate in all instances. The change in formula results in a value for ELF which is higher or lower than currently calculated depending upon whether an oil field produces more or less than 80,436 Bbls/Day. The net result is to raise production taxes on the fields producing more than this amount, and lower production taxes on those producing less.

The Revenue impacts estimated in this fiscal note are for the 30 percent case. The effect of this bill was analyzed using the Petrev model. Further, the calculation of the reduction in production is based upon the economic feasibility subroutine of that model.

Production Effect

FY 1987 - FY 2000

Field	Average Expected Production Effect
Prudhoe Bay	* -22.37 million bbls. →
Kuparuk	* -15.72 million bbls.
Milne Pt.	3.3 million bbls.
Endicott	-1.45 million bbls.
Lisburne	-.67 million bbls.
West Sak	-15.97 million bbls.
Other Onshore	6.85 million bbls.
Other Offshore	.47 million bbls.
TOTAL	-45.56 million bbls.

151225
12
60

*Enhanced Recovery Effect

EXXON COMPANY, U.S.A.

P.O. BOX 6601 • ANCHORAGE, ALASKA 99502-0601 (907) 561-5331

ALASKA OPERATIONS
WESTERN DIVISION

LARRY M. SMEDLEY
AREA MANAGER

February 20, 1986

Commissioner Mary A. Nordale
Alaska Department of Revenue
Pouch S
Juneau, Alaska 99811

Dear Commissioner Nordale:

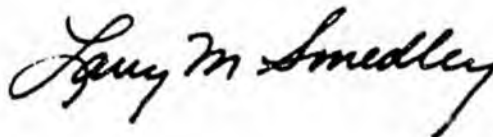
This is in reference to the Alaska Department of Revenue's fiscal note on H.B. 545 which was released at last Friday's House Finance Committee hearing. As I indicated during the hearing, the finding in the fiscal note that H.B. 545 would result in a production loss of only 22 million barrels at Prudhoe Bay significantly understates the potential impact of the bill.

As we pointed out during the hearing, H.B. 545 will significantly increase severance taxes on production from major fields in Alaska by a modification in the economic limit factor. This change in the ELF would have a negative impact on marginal project development in these fields. At Prudhoe Bay alone, over 10 billion barrels will be left unrecovered under the current production plan. Although no one knows how much of this remaining oil can be recovered through sophisticated recovery techniques which are continually being developed and refined, a very significant volume is at risk. Future additional recovery projects will be very costly and marginal economically. Additional costs such as the proposed tax increase will place such marginal projects in jeopardy.

While the fiscal note recognized a negative production impact of H.B. 545 on the planned enhanced oil recovery project at Prudhoe Bay, the barrel calculation is not correct. Moreover, the fiscal note did not consider other additional recovery projects at Prudhoe Bay which would be affected. For example, drilling wells on closer spacing and in thinner oil columns and other projects involving new technologies would also be adversely impacted by H.B. 545. Because of these deficiencies, the Department of Revenue's estimates should be considered only a qualitative indication of the adverse impact of H.B. 545 on future oil recovery. Mr. Logsdon suggested this via teleconference during the hearing.

In order to avoid further confusion regarding this matter, I urge you to write a supplementary note to the House Finance Committee pointing out the limitations of the fiscal note on H.B. 545. I would be happy to discuss this with you in greater detail at your convenience.

Sincerely,



LMS/THG3/342:vh
cc: House Finance Committee

OFFICE OF THE GOVERNOR

OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF STRATEGIC PLANNING

POUCH AD
JUNEAU, ALASKA 99811
PHONE: (907) 465-3568

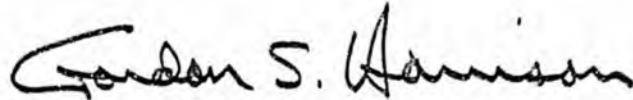
February 3, 1986

The Honorable Sam Cotten
Representative
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Representative Cotten:

Please find enclosed our analysis of your proposed changes to the Economic Limit Factor.

Sincerely,



Gordon S. Harrison
Associate Director

GSH/TC/dmc

Enclosure

cc: Jim Ayers, Director
Legislative Relations
Office of the Governor

MEMORANDUM

State of Alaska

TO: The Honorable Bill Sheffield
Governor

DATE: February 13, 1986

FILE NO: 86F-482

TELEPHONE NO: 465-3568

FROM: Tom Chester, ^{PC} Principal Analyst
Division of Strategic Planning
Office of Management and Budget

SUBJECT: Oil Shares

Attached is an updated and revised oil shares analysis. It contains no substantive changes from the one you received dated January 9, 1986.

TC/dmc

Attachment

cc: Representative Sam Cotten
Alaska State Legislature

Ray Gillespie, Chief of Staff
Jim Ayers, Director, Legislative Relations
Office of the Governor

Vince Wright, Chief, Research Section
Department of Revenue

**STATE, FEDERAL AND INDUSTRY SHARES OF ALASKA OIL RESOURCE
INCOME: ACTUAL FOR FISCAL '82-'84, ESTIMATED FOR FISCAL '85**
(millions of dollars except as noted)

Fiscal year	[1] Total Revenue	[2] State Royalty	[3] Sever. Conser. tax	[4] Total Prop. tax	[5] Total Oper. Costs	[6] Total Deprec.	[7] Total Acquis. Costs	[8] Windfall Profits Tax
1982	\$16,456	\$1,553	\$1,581	\$276	\$940	\$602	\$1	\$2,018
1983	\$15,470	\$1,448	\$1,494	\$307	\$1,101	\$780	\$1	\$1,018
1984	\$14,955	\$1,409	\$1,393	\$358	\$1,259	\$998	\$1	\$412
1985	\$15,136	\$1,390	\$1,389	\$.97	\$1,449	\$1,093	\$1	\$70

Fiscal Year	[9] Uncap. Interest Expense	[10] Explore. Costs	[11] Admin. Costs	[12] Other Deducs.	[13] Total Deducs.	[14] State Taxable Net Income	[15] Corp. Petrol Income Tax	[16] Federal Taxable Income
1982	\$721	\$191	\$236	\$149	\$7,916	\$8,539	\$669	\$7,870
1983	\$676	\$204	\$252	\$142	\$7,023	\$8,446	\$236	\$8,210
1984	\$614	\$219	\$265	\$136	\$6,666	\$8,289	\$265	\$8,024
1985	\$566	\$234	\$278	\$130	\$6,594	\$8,542	\$169	\$8,373

Fiscal Year	[17] Federal Corp. Income Tax	[18] Oil Industry Alaska Profits	[19] Total Federal Tax	[20] Total State Tax & Royalty	----Share of Oil Income----		
					[21] State	[22] Federal	[23] Industry
1982	\$2,142	\$5,728	\$4,160	\$4,079	29%	30%	41%
1983	\$2,131	\$6,079	\$3,149	\$3,485	27%	25%	48%
1984	\$2,368	\$5,656	\$2,780	\$3,425	29%	23%	48%
1985	\$2,433	\$5,940	\$2,503	\$3,345	28%	21%	50%

SOURCES AND FORMULAS --

Column [1]: Vincent Wright, chief of research, to Mary Nordale, Commissioner of Revenue, Memorandum of October 31, 1985, Table 3.

Columns [2] & [3]: January 1986 DOR Revenue Sources, p. 39.

Columns [4] to [14]: Vincent Wright, loc. cit.

Column [15]: Revenue Sources, p. 39.

Column [16]: column [14] - column [15].

Column [17]: column [16] * (production-weighted average tax rate -- 1982 = .279; 1983 = .274; 1984 = .294; 1985 = .294). Company effective rates for '82-84 from R. McIntire and R. Folen, "Corporate Income Taxes in the Reagan Years," Oct. 1984, pp. 32-36; '85 estimated by OMB.

Column [18]: column [16] - column [17].

Column [19]: column [8] + column [17].

Column [20]: sum of columns [2], [3], [4], and [15].

Column [21]: (column [18]) / (sum of columns [18], [19], and [20]).

Column [22]: (column [19]) / (sum of columns [18], [19], and [20]).

Column [23]: (column [20]) / (sum of columns [18], [19], and [20]).

Office of Management and Budget
Division of Strategic Planning
revised February 13, 1986

MEMORANDUM

Division of Strategic Planning

TO: Representative Sam Cotten
 FROM: Thomas P. Chester
 RE: Computation of the Economic Limit Factor

DATE: January 15, 1986

In response to your request the following provides the information needed to compute the Economic Limit Factor (current and as you propose), a numerical example, and a chart which displays the effect of field size on the value of the proposed Economic Limit Factor (ELF).

The current and proposed Economic Limit Factor formulas are:

$$\text{Current ELF} = (1 - \text{PEL}/\text{TP})((460 * \text{WD})/\text{PEL})$$

$$\text{Proposed ELF} = (1 - \text{PEL}/\text{TP})((37,000,000 * \text{WD})/(\text{PEL} * \text{TP}/\text{Days}))$$

The following definitions are used in computing ELF values:

PEL (Production at the Economic Limit) =
 (300 barrels per day)*

(average number of operating wells during the month)*

(number of days of production for the month). For example:

$$300 \text{ barrels} * 541 \text{ wells} * 30 \text{ days} = 4,869,000 \text{ barrels per month at the Economic Limit}$$

TP (Total Production for the field) =

(average number of operating wells during the month)*

(number of days of production for the month)*

(average daily production per well). For example:

$$541 \text{ wells} * 30 \text{ days} * 2477 \text{ barrels per well} = 40,201,710 \text{ barrels of production per month}$$

WD (Well Days) =

(average number of operating wells during the month)*

(number of days of production for the month). For example:

$$541 \text{ wells} * 30 \text{ days} = 16,230 \text{ well days}$$

TP/Days =

(average number of operating wells during the month)*

(average daily production per well). For example:

$$541 \text{ wells} * 2477 \text{ barrels per well} = 1,340,057 \text{ barrels of production per day}$$

Table 1.
Hypothetical ELF
Under Current and Proposed Law Using
Values Given In Examples Above

Current ELF

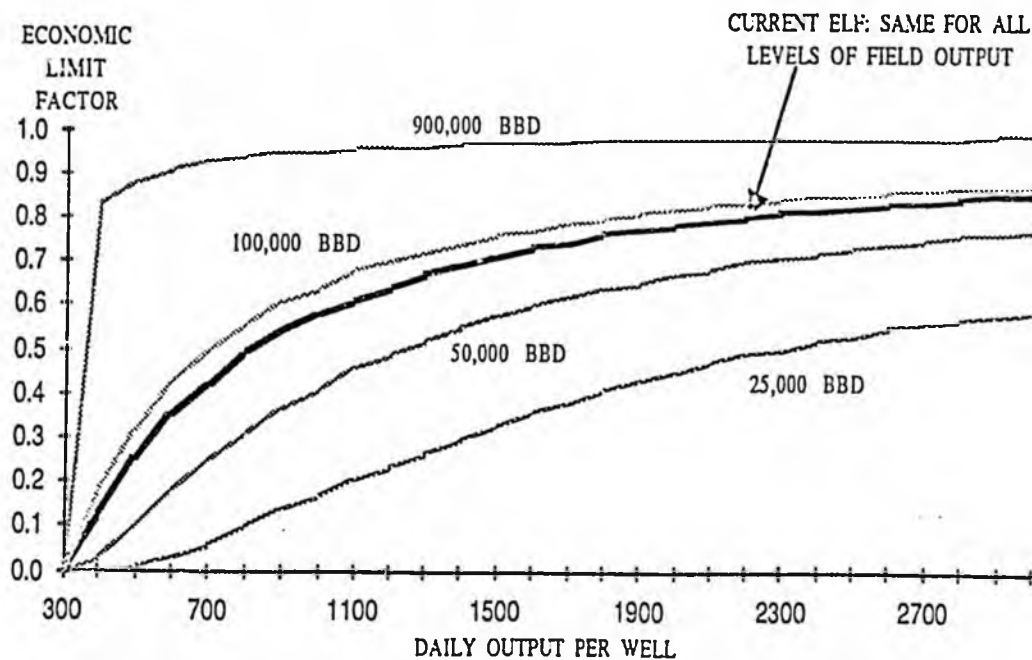
$$(1 - 4,869,000/40,201,710)(460*16,230/4,869,000) = .82$$

Proposed ELF

$$(1 - 4,869,000/40,201,710)(37,000,000*16,230/(4,869,000*1,340,057)) = .99$$

chart 1

THE ECONOMIC LIMIT FACTOR (ELF):
CURRENT AND PROPOSED FOR VARIOUS LEVELS OF
WELL OUTPUT AND FIELD PRODUCTION



NOTE: BBD FIGURES REPRESENT DAILY FIELD PRODUCTION IN BARRELS PER DAY

When the formulas are written out incorporating the definitions given above they become unwieldy. For the curious they are:

$$\begin{aligned} \text{Current ELF (Economic Limit Factor)}^1 &= (1 - \text{PEL}/\text{TP})((460 * \text{WD})/\text{PEL}) \\ &= (1 - \{(300 \text{ barrels per day}) * (\text{average number of operating wells during the month}) * (\text{number of days of production for the month})\} / \\ &\quad \{(\text{average number of operating wells during the month}) * (\text{number of days of production for the month}) * (\text{average daily production per well})\}) (460 * (\text{average number of operating wells during the month}) * (\text{number of days of production for the month}) / \{(300 \text{ barrels per day}) * (\text{average number of operating wells during the month}) * (\text{number of days of production for the month})\}) \end{aligned}$$

$$\begin{aligned} \text{Proposed ELF}^2 &= (1 - \text{PEL}/\text{TP})((37,000,000 * \text{WD})/(\text{PEL} * \text{TP}/\text{Days})) \\ &= (1 - \{(300 \text{ barrels per day}) * (\text{average number of operating wells during the month}) * (\text{number of days of production for the month})\} / \\ &\quad \{(\text{average number of operating wells during the month}) * (\text{number of days of production for the month}) * (\text{average daily production per well})\}) (37,000,000 * (\text{average number of operating wells during the month}) * (\text{number of days of production for the month})) / ((300 \text{ barrels per day}) * (\text{average number of operating wells during the month}) * (\text{number of days of production for the month}) * (\text{average number of operating wells during the month}) * (\text{average daily production per well})) \end{aligned}$$

¹The formula for the existing ELF can be simplified through cancellation of like terms in the numerator and denominators of the various formula terms. Consider: $\text{PEL}/\text{TP} = (300 * \text{days} * \text{wells})/(\text{days} * \text{wells} * \text{well_prod}) = 300/\text{well_prod}$ and $(460 * \text{wells} * \text{days})/(300 * \text{wells} * \text{days}) = 460/300 = 1.533$. Making these substitutions into the ELF formula gives:

$$\text{ELF} = (1 - 300/\text{well_prod})1.533$$

²The formula for the proposed ELF can be simplified through cancellation of like terms in the numerator and denominators of the various terms. consider: $\text{PEL}/\text{TP} = (300 * \text{days} * \text{wells})/(\text{days} * \text{wells} * \text{well_prod}) = 300/\text{well_prod}$ and $(37,000,000 * \text{wells} * \text{days})/(300 * \text{wells} * \text{wells} * \text{well_prod}) = 37,000,000/(300 * \text{wells} * \text{well_prod}) = 37,000,000/(300 * \text{total field production})$.

Making these substitutions into the proposed ELF formula gives:

$$\text{ELF} = (1 - 300/\text{well_prod})^{123,333/\text{TP}/\text{Days}}$$

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:

$$ELF = \left(1 - \frac{PEL}{TP} \right) \exp \left(\frac{55,000,000 \times WD}{PEL \times TP / \text{Days}} \right)$$

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	24.01	22.41	22.206	22.733	23.464	24.362	25.565	26.934	28.379
Average Rate of Inflation	4.03	3.92	4.01	4.76	4.76	4.76	4.76	4.76	5.104	5.104
ANS/World Oil & Marketing Adjust	3.253	2.532	2.663	2.639	2.386	2.447	2.475	2.520	2.507	2.612
TransAlaska Pipeline Tariff	6.007	6.007	6.007	6.007	6.007	6.007	6.007	6.007	6.007	6.007
ANS Netback Price 9801 (\$/bbl)	17.11	15.471	13.74	13.56	14.34	15.01	15.00	17.03	18.34	19.76
Prudhoe Bay Prod. (MMbbl/d)	1.520	1.517	1.500	1.34	1.100	1.07	.874	.815	.753	.641
Prudhoe Bay Price (\$/bbl)	17.11	15.471	13.74	13.56	14.34	15.01	15.00	17.03	18.34	19.76
Wells	460.25	509.6	527.1	540.6	524.05	505.15	409.9	466.45	447.65	420.65
ELP	.0648307	.0496944	.0437062	.0205200	.0041141	.7034653	.7540433	.7491265	.7399201	.7145022
Nominal Tax Rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
Effective Tax Rate	.15	.15	.15	.1230793	.1206171	.1175190	.1131065	.1123690	.1109092	.1071753
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELP)	1252.465	1124.336	902.6137	714.2504	656.2593	500.2696	501.3609	490.1035	469.5263	433.5515
SEVERANCE TAX (NO ELP)	1252.465	1124.336	992.6137	870.4757	816.1270	740.6450	664.8966	664.9124	561.5063	606.7802
CONSERVATION TAX	.6100063	.6056140	.6020219	.5349531	.4742719	.4111953	.3409172	.3253633	.3006117	.2550992
Gathering & Cleaning Charge	.7	.72021	.7567550	.7071017	.8245670	.8630172	.9049349	.9400090	.9931331	1.044619
ROYALTIES	1144.023	1020.395	893.2797	700.9031	732.5702	664.7022	597.1494	597.9900	595.9624	547.3410
TOTAL OIL PROD REVENUES	2396.400	2144.731	1805.093	1495.153	1300.079	1245.052	1090.510	1096.102	1005.409	900.0945
Kuparuk River Prod. (MMbbl/d)	.167	.2	.219	.239	.239	.239	.21	.187	.162	.141
Kuparuk River Price (\$/bbl)	16.29	14.651	12.92	12.74	13.52	14.19	15.06	16.21	17.52	18.94
Wells	154.5	240.5	284	205.25	205.25	205.25	276.5	276.5	254	254
ELP	.69	.4091136	.4697705	.5067938	.5067938	.5067938	.4627634	.4070192	.3773622	.3112742
Nominal Tax Rate	.1275	.1275	.1363	.15	.15	.15	.15	.15	.15	.15
Effective Tax Rate	.004525	.0599164	.0640297	.0760191	.0760191	.0760191	.0694145	.0610529	.0566043	.0466911
Royalty Percentage	.125	.125	.125	.125	.125	.125	.125	.125	.125	.125
SEVERANCE TAX (ELP)	73.43040	56.07173	57.06143	73.92490	70.45092	82.33065	70.11249	59.10602	51.30973	40.30790
SEVERANCE TAX (NO ELP)	106.4326	114.6393	123.1696	145.0670	154.7905	162.4697	151.5003	145.2160	135.9694	129.7502
CONSERVATION TAX	.0666695	.0790430	.0074209	.0954133	.0954133	.0954133	.0030359	.0706539	.0646734	.0570003
Gathering & Cleaning Charge	.4	.4005	.4010006	.4015019	.4020030	.4025063	.4030094	.4035132	.4040175	.4045226
ROYALTIES	121.0719	130.0350	125.0003	134.5436	143.0436	150.3460	140.3323	134.0590	126.5005	120.9324
TOTAL OIL PROD REVENUES	194.3103	106.1075	102.9497	200.4605	221.4945	232.6027	210.5440	193.9650	177.0102	161.3203
Milne Point Prod. (MMbbl/d)	0	0	.000	.023	.023	.023	.023	.023	.010	.016
Milne Point Price (\$/bbl)	17.40	15.041	14.11	13.93	14.71	15.30	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
ELP	0	0	.0092001	.6096111	.6096111	.6096111	.6096111	.6150020	.5970649	.5082759
Nominal Tax Rate	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
Effective Tax Rate	0	0	.0133920	.0914417	.0914417	.0914417	.0914417	.0951053	.0896797	.0802414
Royalty Percentage	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625	.1625
SEVERANCE TAX (ELP)	0	0	.4621040	0.955726	0.955726	0.955726	0.955726	0.955726	0.955726	0.955726
SEVERANCE TAX (NO ELP)	0	0	5.175901	14.69000	15.51349	16.22000	17.13761	18.35042	19.44242	20.76037