

Appendix: Summary statistics for model results by unit

	Prudhoe Bay						Kuparuk River						Milne Point					
	Best Fit	Hyp. Tax1	Hyp. Tax2	Hyp. Tax3	Hyp. Tax4	Hyp. Tax5	Best Fit	Hyp. Tax1	Hyp. Tax2	Hyp. Tax3	Hyp. Tax4	Hyp. Tax5	Best Fit	Hyp. Tax1	Hyp. Tax2	Hyp. Tax3	Hyp. Tax4	Hyp. Tax5
Prod. End*	2084	2084	2084	2083	2083	2083	2076	2077	2075	2075	2075	2075	2079	2083	2095	2079	2099	2085
Production																		
Mean	25.67	25.76	25.87	25.90	26.22	25.95	5.38	5.26	5.43	5.49	5.47	5.45	0.83	0.82	0.87	1.18	0.98	1.08
Max. (yr)	52.10	51.27	53.19	55.02	57.49	53.47	10.66	9.77	10.28	10.78	11.03	10.49	1.46	1.55	1.90	2.49	2.05	2.42
Min. (yr)	0.25	0.26	0.25	0.26	0.25	0.26	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.01	0.01	0.02	0.00	0.01
Std. Dev.	15.97	15.96	16.21	16.75	17.43	16.29	3.14	3.01	3.14	3.25	3.31	3.18	0.50	0.51	0.54	0.75	0.63	0.70
Production Cost (\$/bbl)																		
Mean	1.96	2.04	2.06	1.96	2.07	2.04	9.36	9.28	9.17	9.36	9.26	9.32	3.91	4.15	15.69	15.47	10.56	18.38
Max. (yr)	3.32	3.56	3.58	3.32	3.60	3.55	31.77	31.76	30.85	31.47	31.13	31.41	7.50	7.50	52.76	54.59	19.75	69.02
Min. (yr)	0.43	0.43	0.44	0.45	0.46	0.44	0.93	0.92	0.94	0.95	0.94	0.94	2.92	3.01	3.04	2.54	2.72	2.66
Std. Dev.	0.98	1.05	1.06	0.97	1.06	1.05	8.51	8.49	8.26	8.43	8.33	8.41	0.64	0.63	13.06	14.05	5.66	17.89
Wellhead Value (\$/bbl)																		
Mean	35.23	35.23	35.23	34.81	34.81	34.81	33.15	33.55	32.75	32.75	32.75	32.75	35.25	36.97	42.51	35.25	44.48	37.85
Max. (yr)	79.93	79.93	79.93	78.68	78.68	78.68	71.32	72.50	70.16	70.16	70.16	70.16	74.80	79.72	95.62	74.80	101.29	82.26
Min. (yr)	12.11	12.11	12.11	12.11	12.11	12.11	12.29	12.29	12.29	12.29	12.29	12.29	12.65	12.65	12.65	12.65	12.65	12.65
Std. Dev.	20.47	20.47	20.47	20.10	20.10	20.10	17.77	18.12	17.42	17.42	17.42	17.42	18.65	20.12	24.86	18.65	26.56	20.87
Producer Profit (\$ millions per year)																		
Mean	1,266	1,063	1,070	1,236	1,058	1,100	238	217	191	228	193	203	40	42	61	63	57	57
Max. (yr)	5,444	4,697	4,719	5,799	5,384	4,859	1176	960	940	1153	1002	993	194	224	223	295	215	271
Min. (yr)	165	-	-157	-444	-	-185	-259	-129	-347	-392	-208	-437	-32	-33	-25	-216	-38	-155
Std. Dev.	1,187	1,081	1,030	1,236	1,112	1,047	264	242	229	271	236	236	44	53	70	87	63	77
State Taxes** (\$ millions per year)																		
Mean	575	790	769	542	694	745	121	160	172	121	156	153	24	34	67	47	56	52
Max. (yr)	2,215	3,012	3,064	2,306	3,181	2,986	470	579	637	480	638	615	79	115	195	160	190	188
Min. (yr)	67	92	90	67	89	89	12	16	17	12	16	11	2	3	5	5	0	2
Std. Dev.	565	776	723	513	657	704	113	145	160	113	146	152	20	27	60	43	55	53
Adjustment Cost (\$ millions in one year)																		
Mean	17	17	17	22	24	18	5	3	5	5	6	5	1	1	1	3	1	2
Max. (yr)	261	403	216	402	354	219	47	30	44	58	62	53	10	11	14	41	15	34
Min. (yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Std. Dev.	46	56	46	66	68	48	10	7	11	13	13	12	4	4	3	3	3	3
State Credits (\$ millions in one year)																		
Mean	0	0	41	52	115	43	0	0	11	13	26	12	0	0	2	2	5	2
Max. (yr)	0	0	519	965	1701	526	0	0	106	140	264	126	0	0	42	39	78	38
Min. (yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Std. Dev.	0	0	111	157	326	114	0	0	26	31	60	28	0	0	7	7	15	7

Table 1: Summary statistics for model results by unit. Production is assumed to end when production rate falls below 0.5% of historical maximum production for the field or when producer profits become negative, whichever comes first. For Prudhoe, Kuparuk, Colville low production signals the end of production. For Endicott, negative profit signals the end of production. Northstar is a mixture of both.

	Endicott						Colville River						Northstar					
	Best Fit	Hyp. Tax1	Hyp. Tax2	Hyp. Tax3	Hyp. Tax4	Hyp. Tax5	Best Fit	Hyp. Tax1	Hyp. Tax2	Hyp. Tax3	Hyp. Tax4	Hyp. Tax5	Best Fit	Hyp. Tax1	Hyp. Tax2	Hyp. Tax3	Hyp. Tax4	Hyp. Tax5
Prod. End Production	2019	2014	2002	2020	2013	2025	2046	2058	2059	2055	2058	2031	2015	2016	2012	2026	2025	2028
Mean	1.86	1.83	2.65	1.82	1.87	1.79	2.05	1.79	2.20	2.10	1.98	2.11	1.00	0.88	0.69	0.76	0.69	0.86
Max. (yr)	3.48	3.26	4.18	3.86	3.88	3.84	3.59	3.14	4.14	3.82	3.67	3.77	1.78	1.68	1.77	1.83	1.78	1.89
Min. (yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Std. Dev.	0.93	0.80	1.16	1.00	1.00	1.01	1.39	1.20	1.63	1.53	1.48	1.48	0.44	0.49	0.62	0.61	0.61	0.59
Production Cost (\$/bbl)																		
Mean	7.53	5.86	4.00	7.60	5.88	9.18	14.22	13.79	15.21	15.49	14.43	16.07	11.78	11.79	13.00	15.01	13.24	15.80
Max. (yr)	16.72	12.87	9.41	17.07	12.59	21.76	20.62	20.16	24.20	24.35	22.99	25.07	16.97	16.45	16.16	19.69	16.63	20.27
Min. (yr)	1.98	1.96	1.99	1.99	2.00	1.99	2.40	2.40	2.40	2.40	2.40	2.40	5.13	5.13	5.13	5.13	5.13	5.13
Std. Dev.	4.91	3.75	2.23	4.93	3.64	6.22	6.08	6.05	6.45	6.72	6.08	7.29	3.92	3.65	2.83	3.87	2.99	4.33
Wellhead Value (\$/bbl)																		
Mean	16.88	15.98	14.21	17.08	15.81	18.09	24.89	25.82	26.79	26.14	27.45	25.20	17.64	18.03	22.48	22.48	22.48	21.17
Max. (yr)	23.09	20.70	16.17	23.60	20.26	26.34	37.29	39.64	42.10	40.45	43.79	38.06	19.52	20.37	30.82	30.82	30.82	27.66
Min. (yr)	12.73	12.73	12.73	12.73	12.73	12.73	15.67	15.67	15.67	15.67	15.67	15.67	15.94	15.94	15.94	15.94	15.94	15.94
Std. Dev.	3.17	2.45	1.09	3.32	2.32	4.14	6.52	7.21	7.94	7.45	8.44	6.74	1.19	1.44	4.52	4.52	4.52	3.59
Producer Profit (\$ millions per year)																		
Mean	106	115	144	90	87	73	70	64	35	55	39	56	21	15	3	6	3	8
Max. (yr)	309	253	295	338	274	279	337	250	306	341	274	316	95	57	60	96	70	97
Min. (yr)	0	0	-29	0	-52	-17	-12	-15	-32	0	1	1	0	-10	-12	0	-12	0
Std. Dev.	105	78	112	98	91	86	112	89	81	108	81	101	28	17	12	20	13	21
State Taxes** (\$ millions per year)																		
Mean	51	68	156	61	95	60	43	48	62	47	59	51	29	28	19	16	19	14
Max. (yr)	145	180	257	152	215	193	192	219	295	220	285	236	91	113	123	92	120	87
Min. (yr)	0	0	0	0	0	0	0	0	4	3	4	2	0	0	0	0	0	0
Std. Dev.	42	53	78	43	58	55	64	70	93	71	88	79	28	38	30	22	28	23
Adjustment Cost (\$ millions in one year)																		
Mean	1	1	2	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0
Max. (yr)	7	6	10	8	13	10	10	7	18	12	12	11	3	4	4	4	4	4
Min. (yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Std. Dev.	2	2	3	2	3	2	2	1	3	2	2	2	1	1	1	1	1	1
State Credits (\$ millions in one year)																		
Mean	0	0	4	2	5	2	0	0	2	2	3	2	0	0	0	0	1	0
Max. (yr)	0	0	24	19	63	23	0	0	44	30	59	26	0	0	10	9	19	8
Min. (yr)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Std. Dev.	0	0	7	5	14	5	0	0	8	5	10	5	0	0	2	2	4	2

Table 2: Summary statistics for model results by unit (continued). Production is assumed to end when production rate falls below 0.5% of historical maximum production for the field or when producer profits become negative, whichever comes first. For Prudhoe, Kuparuk, Colville low production signals the end of production. For Endicott, negative profit signals the end of production. Northstar is a mixture of both.

Appendix: Present Discounted Values and Correlation Coefficients for Model Results and Historical Production by Unit and North Slope Total, 5% fixed discount rate

Prudhoe Bay Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit (7.4% discount)	0.92	49,780	25,039	0	74,819	25,687	24,413	0	50,099
High Price	0.90	51,082	24,523	0	75,605	24,546	23,964	0	48,510
Fixed Price	0.92	80,033	42,494	0	122,527	60,895	37,465	0	98,360
Low Discount (2%)	0.52	25,744	9,305	0	35,049	25,687	24,413	0	50,099
High Discount (15%)	0.70	51,598	28,506	0	80,104	25,687	24,413	0	50,099
Steeper Cost Func.	0.91	45,952	24,820	0	70,772	22,443	24,419	0	46,862
Shallower Cost Func.	0.91	48,207	25,111	0	73,317	26,187	24,280	0	50,467
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.90	40,777	34,410	0	75,187	16,158	33,868	0	50,026
2) Tax on Gross w/ Credits	0.91	42,427	32,479	2,972	74,906	19,251	30,821	3,468	50,072
3) Low Tax on Gross w/ Credits	0.91	48,634	22,481	3,821	71,116	27,678	22,311	2,915	49,989
4) Tax on Gross w/ High Credits	0.92	42,105	27,834	8,709	69,938	20,540	29,532	4,851	50,072
5) Tax on Net w/ Credits, 2007 Policy	0.91	43,175	31,399	3,061	74,574	20,209	29,842	3,468	50,051
Reference (5% discount)	0.82	137,388	0	0	137,388	138,513	0	0	138,513
High Price	0.68	70,106	0	0	70,106	87,200	0	0	87,200
Reference Price	0.81	64,967	0	0	64,967	88,747	0	0	88,747
Low Discount (2%)	0.87	69,282	0	0	69,282	138,513	0	0	138,513
High Discount (10%)	0.72	185,698	0	0	185,698	138,513	0	0	138,513
Steeper Cost Func.	0.82	133,622	0	0	133,622	134,776	0	0	134,776
Shallower Cost Func.	0.82	137,409	0	0	137,409	138,523	0	0	138,523
Taxes no ELF	0.80	98,495	37,638	0	136,133	100,232	38,512	0	138,743
Taxes with ELF	0.80	98,909	37,274	0	136,183	100,378	38,321	0	138,699

Table 3: Present discounted values and correlation coefficients for Prudhoe Bay model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit (8.6% discount)	0.92	8,291	4,336	0	12,627	6,436	4,094	0	10,530
High Price	0.88	9,318	4,482	0	13,799	6,699	4,138	0	10,837
Fixed Price	0.92	13,206	6,765	0	19,971	12,038	5,874	0	17,912
Low Discount (2%)	0.72	4,001	1,668	0	5,670	6,436	4,094	0	10,530
High Discount (15%)	0.49	9,579	4,394	0	13,974	6,436	4,094	0	10,530
Steeper Cost Func.	0.91	7,204	4,249	0	11,453	4,823	4,095	0	8,918
Shallower Cost Func.	0.92	7,969	4,303	0	12,272	6,484	4,074	0	10,558
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.87	7,765	5,464	0	13,229	5,164	5,368	0	10,532
2) Tax on Gross w/ Credits	0.93	6,611	6,148	719	12,759	4,792	5,769	769	10,561
3) Low Tax on Gross w/ Credits	0.92	7,890	4,285	855	12,175	6,373	4,164	646	10,537
4) Tax on Gross w/ High Credits	0.92	6,828	5,304	1,658	12,132	5,079	5,482	1,072	10,561
5) Tax on Net w/ Credits, 2007 Policy	0.93	6,856	5,663	785	12,518	5,178	5,365	769	10,543
Reference (5% discount)	-0.19	21,302	0	0	21,302	23,227	0	0	23,227
High Price	-0.34	12,655	0	0	12,655	16,005	0	0	16,005
Reference Price	-0.18	13,759	0	0	13,759	15,737	0	0	15,737
Low Discount (2%)	-0.07	13,641	0	0	13,641	23,227	0	0	23,227
High Discount (10%)	-0.32	33,443	0	0	33,443	23,227	0	0	23,227
Steeper Cost Func.	-0.16	19,851	0	0	19,851	21,408	0	0	21,408
Shallower Cost Func.	-0.18	21,289	0	0	21,289	23,221	0	0	23,221
Taxes no ELF	-0.20	15,098	6,246	0	21,344	16,371	6,872	0	23,243
Taxes with ELF	-0.19	15,985	5,253	0	21,238	17,401	5,832	0	23,234

Table 4: Present discounted values and correlation coefficients for Kugaruk River model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Milne Point Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profitsⁱ	PDV Taxesⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profitsⁱ	PDV Taxesⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit (9.5% discount)	0.89	968	761	0	1,728	-2,262	383	0	-1,878
High Price	0.88	2,485	1,385	0	3,870	-2,103	412	0	-1,691
Fixed Price	0.83	2,278	1,245	0	3,523	-1,766	514	0	-1,251
Low Discount (2%)	-0.56	681	391	0	1,071	-2,262	383	0	-1,878
High Discount (15%)	0.85	1,834	1,031	0	2,865	-2,262	383	0	-1,878
Steeper Cost Func.	0.80	1,056	1,045	0	2,101	-2,772	383	0	-2,389
Shallower Cost Func.	0.83	1,814	1,355	0	3,169	-2,168	507	0	-1,661
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.86	980	996	0	1,976	-2,352	469	0	-1,882
2) Tax on Gross w/ Credits	0.84	1,418	1,643	100	3,061	-2,388	524	267	-1,864
3) Low Tax on Gross w/ Credits	0.84	1,501	1,187	253	2,688	-2,235	368	219	-1,867
4) Tax on Gross w/ High Credits	0.86	1,452	1,526	306	2,978	-2,350	487	313	-1,864
5) Tax on Net w/ Credits, 2007 Policy	0.83	1,423	1,402	210	2,825	-2,255	396	267	-1,859
Reference (5% discount)	-0.82	7,822	0	0	7,822	2,259	0	0	2,259
High Price	-0.57	4,132	0	0	4,132	1,778	0	0	1,778
Reference Price	-0.74	3,845	0	0	3,845	1,602	0	0	1,602
Low Discount (2%)	-0.72	4,996	0	0	4,996	2,259	0	0	2,259
High Discount (10%)	-0.85	9,605	0	0	9,605	2,259	0	0	2,259
Steeper Cost Func.	-0.74	7,990	0	0	7,990	1,625	0	0	1,625
Shallower Cost Func.	-0.83	7,798	0	0	7,798	2,411	0	0	2,411
Taxes no ELF	-0.80	5,435	2,521	0	7,956	1,513	746	0	2,259
Taxes with ELF	-0.80	6,198	1,752	0	7,950	1,717	528	0	2,245

Table 5: Present discounted values and correlation coefficients for Milne Point model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Colville River Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit (20.5%)	0.67	2,204	1,302	0	3,506	1,294	837	0	2,132
High Price	0.67	3,282	1,740	0	5,022	1,807	1,002	0	2,809
Fixed Price	0.60	2,514	1,596	0	4,110	1,779	999	0	2,778
Low Discount (10%)	0.39	2,356	983	0	3,340	1,294	837	0	2,132
High Discount (30%)	0.66	1,917	1,392	0	3,309	1,294	837	0	2,132
Steeper Cost Func.	0.70	1,241	966	0	2,207	495	838	0	1,333
Shallower Cost Func.	0.67	2,318	1,208	0	3,527	1,353	774	0	2,127
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.67	2,047	1,514	0	3,561	1,066	1,114	0	2,180
2) Tax on Gross w/ Credits	0.54	1,307	2,079	94	3,387	910	1,166	90	2,075
3) Low Tax on Gross w/ Credits	0.66	1,937	1,523	68	3,460	1,235	834	90	2,069
4) Tax on Gross w/ High Credits	0.66	1,496	2,006	126	3,502	996	1,080	181	2,075
5) Tax on Net w/ Credits, 2007 Policy	0.67	1,808	1,602	62	3,409	1,088	962	90	2,050
Reference (5%)	-0.69	3,418	0	0	3,418	3,328	0	0	3,328
High Price	-0.65	3,677	0	0	3,677	3,304	0	0	3,304
Reference Price	-0.68	2,593	0	0	2,593	2,637	0	0	2,637
Low Discount (2%)	-0.68	2,204	0	0	2,204	3,328	0	0	3,328
High Discount (10%)	-0.70	4,627	0	0	4,627	3,328	0	0	3,328
Steeper Cost Func.	-0.68	2,475	0	0	2,475	2,444	0	0	2,444
Shallower Cost Func.	-0.69	3,418	0	0	3,418	3,328	0	0	3,328
Taxes no ELF	-0.68	2,196	1,233	0	3,430	2,169	1,159	0	3,328
Taxes with ELF	-0.67	2,559	765	0	3,324	2,317	1,042	0	3,359

Table 6: Present discounted values and correlation coefficients for Colville River model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit (12%)	0.93	2,336	1,077	0	3,413	2,073	996	0	3,070
High Price	0.92	2,558	1,043	0	3,601	2,096	987	0	3,083
Fixed Price	0.92	3,830	1,665	0	5,495	3,528	1,445	0	4,972
Low Discount (5%)	0.88	1,758	408	0	2,166	2,073	996	0	3,070
High Discount (20%)	0.91	2,278	1,320	0	3,598	2,073	996	0	3,070
Steeper Cost Func.	0.73	1,769	1,271	0	3,039	1,174	1,001	0	2,174
Shallower Cost Func.	0.91	2,426	1,026	0	3,452	2,173	947	0	3,120
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.83	2,049	1,274	0	3,323	1,787	1,288	0	3,075
2) Tax on Gross w/ Credits	0.91	1,730	1,871	64	3,601	1,497	1,579	82	3,076
3) Low Tax on Gross w/ Credits	0.92	2,071	1,304	62	3,375	1,930	1,140	82	3,070
4) Tax on Gross w/ High Credits	0.93	1,661	1,723	132	3,384	1,575	1,501	164	3,076
5) Tax on Net w/ Credits, 2007 Policy	0.92	1,888	1,489	60	3,377	1,715	1,347	82	3,062
Reference (5%)	0.58	4,422	0	0	4,422	5,429	0	0	5,429
High Price	0.52	3,096	0	0	3,096	3,523	0	0	3,523
Reference Price	0.60	2,347	0	0	2,347	3,518	0	0	3,518
Low Discount (2%)	0.64	2,777	0	0	2,777	5,429	0	0	5,429
High Discount (10%)	0.50	6,399	0	0	6,399	5,429	0	0	5,429
Steeper Cost Func.	0.58	3,676	0	0	3,676	4,446	0	0	4,446
Shallower Cost Func.	0.58	4,405	0	0	4,405	5,417	0	0	5,417
Taxes no ELF	0.59	3,027	1,454	0	4,481	3,681	1,748	0	5,429
Taxes with ELF	0.60	3,462	960	0	4,422	4,003	1,441	0	5,444

Table 7: Present discounted values and correlation coefficients for Endicott model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Northstar Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit (46%)	0.68	204	275	0	480	-90	394	0	304
High Price	0.64	450	388	0	838	158	474	0	632
Fixed Price	0.61	355	345	0	701	118	468	0	585
Low Discount (30%)	0.55	230	268	0	499	-90	394	0	304
High Discount (60%)	0.61	212	269	0	481	-90	394	0	304
Steeper Cost Func.	0.69	234	105	0	338	-1,297	394	0	-903
Shallower Cost Func.	0.80	267	230	0	497	-24	361	0	338
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.49	162	308	0	469	-226	524	0	298
2) Tax on Gross w/ Credits	0.50	72	363	13	435	-264	585	9	321
3) Low Tax on Gross w/ Credits	0.59	175	367	12	542	-110	428	9	318
4) Tax on Gross w/ High Credits	0.50	89	445	25	534	-256	576	18	321
5) Tax on Net w/ Credits, 2007 Policy	0.66	185	313	11	497	-46	280	9	234
Reference (5%)	0.13	602	0	0	602	578	0	0	578
High Price	0.27	878	0	0	878	593	0	0	593
Reference Price	0.17	504	0	0	504	258	0	0	258
Low Discount (2%)	0.16	544	0	0	544	578	0	0	578
High Discount (10%)	-0.34	1,048	0	0	1,048	578	0	0	578
Steeper Cost Func.	-0.14	381	0	0	381	-1,041	0	0	-1,041
Shallower Cost Func.	0.10	612	0	0	612	587	0	0	587
Taxes no ELF	-0.19	403	376	0	779	22	556	0	578
Taxes with ELF	0.12	441	148	0	589	113	486	0	599

Table 8: Present discounted values and correlation coefficients for Northstar model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

North Slope Total Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.92	63,783	32,790	0	96,573	33,138	31,118	0	64,256
High Price	0.86	69,175	33,560	0	102,734	33,203	30,977	0	64,180
Fixed Price	0.93	102,216	54,111	0	156,327	76,592	46,765	0	123,357
Low Discount	0.03	34,771	13,024	0	47,795	33,138	31,118	0	64,256
High Discount	0.71	67,418	36,912	0	104,330	33,138	31,118	0	64,256
Steeper Cost Func.	0.93	57,454	32,455	0	89,910	24,865	31,130	0	55,995
Shallower Cost Func.	0.91	63,000	33,234	0	96,234	34,004	30,944	0	64,949
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.91	53,779	43,967	0	97,746	21,598	42,631	0	64,228
2) Tax on Gross w/ Credits	0.92	53,567	44,582	3,963	98,149	23,798	40,444	4,685	64,242
3) Low Tax on Gross w/ Credits	0.91	62,207	31,148	5,070	93,355	34,871	29,245	3,961	64,116
4) Tax on Gross w/ High Credits	0.92	53,631	38,837	10,956	92,468	25,583	38,658	6,600	64,242
5) Tax on Net w/ Credits, 2007 Policy	0.91	55,333	41,867	4,190	97,200	25,888	38,193	4,685	64,081
Reference (5%)	0.74	174,958	0	0	174,958	169,904	0	0	169,904
High Price	0.56	94,565	0	0	94,565	108,960	0	0	108,960
Reference Price	0.78	88,021	0	0	88,021	109,045	0	0	109,045
Low Discount (2%)	0.92	93,446	0	0	93,446	169,904	0	0	169,904
High Discount (10%)	0.60	240,822	0	0	240,822	169,904	0	0	169,904
Steeper Cost Func.	0.77	167,997	0	0	167,997	155,031	0	0	155,031
Shallower Cost Func.	0.74	174,936	0	0	174,936	171,691	0	0	171,691
Taxes no ELF	0.73	124,655	49,470	0	174,125	120,528	49,622	0	170,150
Taxes with ELF	0.73	127,554	46,153	0	173,707	122,469	47,680	0	170,149

Table 9: Present discounted values and correlation coefficients for the North Slope model results and historical production, with fixed 5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Appendix: Present Discounted Values and Correlation Coefficients for Model Results and Historical Production by Unit and North Slope Total, variable discount rate as defined in each scenario

Scenario	Modeled Production, through 2175					Historical Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.92	37,234	19,309	0	56,543	16,346	19,904	0	36,250
High Price	0.90	35,015	17,812	0	52,827	15,134	19,449	0	34,583
Fixed Price	0.92	63,080	34,268	0	97,348	46,068	30,866	0	76,935
Low Discount	0.52	95,468	33,398	0	128,867	43,337	32,811	0	76,148
High Discount	0.70	22,491	11,799	0	34,290	637	12,037	0	12,674
Steeper Cost Func.	0.91	34,451	19,170	0	53,621	13,837	19,908	0	33,745
Shallower Cost Func.	0.91	36,070	19,334	0	55,403	16,701	19,818	0	36,519
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.90	30,350	26,543	0	56,893	8,455	27,722	0	36,176
2) Tax on Gross w/ Credits	0.91	31,738	24,848	2,544	56,585	11,267	24,934	3,166	36,201
3) Low Tax on Gross w/ Credits	0.91	36,446	17,200	3,296	53,645	18,087	18,051	2,626	36,138
4) Tax on Gross w/ High Credits	0.92	31,494	21,080	7,633	52,574	12,303	23,898	4,294	36,201
5) Tax on Net w/ Credits, 2007 Policy	0.91	32,272	24,067	2,625	56,340	12,039	24,148	3,166	36,187
Reference	0.82	137,388	0	0	137,388	138,513	0	0	138,513
High Price	0.68	70,106	0	0	70,106	87,200	0	0	87,200
Reference Price	0.81	64,967	0	0	64,967	88,747	0	0	88,747
Low Discount	0.87	120,230	0	0	120,230	181,482	0	0	181,482
High Discount	0.72	143,513	0	0	143,513	96,583	0	0	96,583
Steeper Cost Func.	0.82	133,622	0	0	133,622	134,776	0	0	134,776
Shallower Cost Func.	0.82	137,409	0	0	137,409	138,523	0	0	138,523
Taxes no ELF	0.80	98,495	37,638	0	136,133	100,232	38,512	0	138,743
Taxes with ELF	0.80	98,909	37,274	0	136,183	100,378	38,321	0	138,699

Table 10: Present discounted values and correlation coefficients for Prudhoe Bay model results and historical production, with 7.4% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.92	4,928	2,755	0	7,683	3,634	2,835	0	6,469
High Price	0.88	4,724	2,598	0	7,321	3,658	2,825	0	6,483
Fixed Price	0.92	8,760	4,695	0	13,455	7,766	4,135	0	11,901
Low Discount	0.72	18,707	7,662	0	26,369	10,444	5,797	0	16,241
High Discount	0.49	2,978	1,346	0	4,323	1,243	1,650	0	2,893
Steeper Cost Func.	0.91	4,371	2,649	0	7,020	2,570	2,836	0	5,406
Shallower Cost Func.	0.92	4,725	2,727	0	7,452	3,658	2,812	0	6,469
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.87	4,647	3,358	0	8,005	2,753	3,721	0	6,474
2) Tax on Gross w/ Credits	0.93	3,897	3,880	584	7,778	2,583	3,894	683	6,477
3) Low Tax on Gross w/ Credits	0.92	4,674	2,699	700	7,372	3,656	2,805	564	6,462
4) Tax on Gross w/ High Credits	0.92	4,087	3,257	1,324	7,344	2,797	3,680	916	6,477
5) Tax on Net w/ Credits, 2007 Policy	0.93	4,011	3,612	639	7,623	2,841	3,628	683	6,468
Reference	-0.19	21,302	0	0	21,302	23,227	0	0	23,227
High Price	-0.34	12,655	0	0	12,655	16,005	0	0	16,005
Reference Price	-0.18	13,759	0	0	13,759	15,737	0	0	15,737
Low Discount	-0.07	23,019	0	0	23,019	32,269	0	0	32,269
High Discount	-0.32	26,173	0	0	26,173	14,631	0	0	14,631
Steeper Cost Func.	-0.16	19,851	0	0	19,851	21,408	0	0	21,408
Shallower Cost Func.	-0.18	21,289	0	0	21,289	23,221	0	0	23,221
Taxes no ELF	-0.20	15,098	6,246	0	21,344	16,371	6,872	0	23,243
Taxes with ELF	-0.19	15,985	5,253	0	21,238	17,401	5,832	0	23,234

Table 11: Present discounted values and correlation coefficients for Kuparuk River model results and historical production, with 8.6% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.89	383	403	0	786	-1,843	239	0	-1,604
High Price	0.88	705	564	0	1,269	-1,768	251	0	-1,517
Fixed Price	0.83	959	651	0	1,610	-1,530	327	0	-1,202
Low Discount	-0.56	5,807	2,637	0	8,444	-2,626	550	0	-2,076
High Discount	0.85	207	240	0	447	-1,478	148	0	-1,330
Steeper Cost Func.	0.80	171	399	0	570	-2,168	239	0	-1,929
Shallower Cost Func.	0.83	718	587	0	1,305	-1,759	301	0	-1,458
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.86	353	508	0	861	-1,906	297	0	-1,609
2) Tax on Gross w/ Credits	0.84	468	667	61	1,135	-1,894	301	171	-1,593
3) Low Tax on Gross w/ Credits	0.84	547	523	145	1,070	-1,807	212	138	-1,595
4) Tax on Gross w/ High Credits	0.86	514	634	192	1,148	-1,874	280	197	-1,593
5) Tax on Net w/ Credits, 2007 Policy	0.83	519	603	118	1,122	-1,809	220	171	-1,589
Reference	-0.82	7,822	0	0	7,822	2,259	0	0	2,259
High Price	-0.57	4,132	0	0	4,132	1,778	0	0	1,778
Reference Price	-0.74	3,845	0	0	3,845	1,602	0	0	1,602
Low Discount	-0.72	7,773	0	0	7,773	3,288	0	0	3,288
High Discount	-0.85	7,554	0	0	7,554	1,300	0	0	1,300
Steeper Cost Func.	-0.74	7,990	0	0	7,990	1,625	0	0	1,625
Shallower Cost Func.	-0.83	7,798	0	0	7,798	2,411	0	0	2,411
Taxes no ELF	-0.80	5,435	2,521	0	7,956	1,513	746	0	2,259
Taxes with ELF	-0.80	6,198	1,752	0	7,950	1,717	528	0	2,245

Table 12: Present discounted values and correlation coefficients for Milne Point model results and historical production, with 9.5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Colville River Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.67	1,118	622	0	1,740	780	530	0	1,310
High Price	0.67	1,602	819	0	2,421	1,092	628	0	1,721
Fixed Price	0.60	1,435	853	0	2,288	1,111	637	0	1,749
Low Discount	0.39	1,581	638	0	2,219	1,085	713	0	1,798
High Discount	0.66	814	525	0	1,338	603	422	0	1,025
Steeper Cost Func.	0.70	569	367	0	936	303	530	0	833
Shallower Cost Func.	0.67	1,173	561	0	1,734	814	490	0	1,305
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.67	964	706	0	1,670	647	703	0	1,350
2) Tax on Gross w/ Credits	0.54	716	1,022	67	1,738	524	735	77	1,259
3) Low Tax on Gross w/ Credits	0.66	1,024	720	45	1,744	732	523	77	1,255
4) Tax on Gross w/ High Credits	0.66	796	931	86	1,728	588	671	153	1,259
5) Tax on Net w/ Credits, 2007 Policy	0.67	927	792	41	1,719	631	613	77	1,244
Reference	-0.69	3,418	0	0	3,418	3,328	0	0	3,328
High Price	-0.65	3,677	0	0	3,677	3,304	0	0	3,304
Reference Price	-0.68	2,593	0	0	2,593	2,637	0	0	2,637
Low Discount	-0.68	3,529	0	0	3,529	3,647	0	0	3,647
High Discount	-0.70	3,810	0	0	3,810	2,892	0	0	2,892
Steeper Cost Func.	-0.68	2,475	0	0	2,475	2,444	0	0	2,444
Shallower Cost Func.	-0.69	3,418	0	0	3,418	3,328	0	0	3,328
Taxes no ELF	-0.68	2,196	1,233	0	3,430	2,169	1,159	0	3,328
Taxes with ELF	-0.67	2,559	765	0	3,324	2,317	1,042	0	3,359

Table 13: Present discounted values and correlation coefficients for Colville River model results and historical production, with 20.5% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Endicott Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.93	1,428	667	0	2,095	1,302	674	0	1,977
High Price	0.92	1,347	581	0	1,928	1,280	660	0	1,940
Fixed Price	0.92	2,508	1,124	0	3,632	2,303	989	0	3,292
Low Discount	0.88	1,758	408	0	2,166	2,073	996	0	3,070
High Discount	0.91	1,026	591	0	1,617	840	468	0	1,307
Steeper Cost Func.	0.73	1,102	777	0	1,880	752	678	0	1,430
Shallower Cost Func.	0.91	1,500	612	0	2,111	1,379	628	0	2,008
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.83	1,195	757	0	1,952	1,106	880	0	1,986
2) Tax on Gross w/ Credits	0.91	1,147	1,196	51	2,344	949	1,023	69	1,972
3) Low Tax on Gross w/ Credits	0.92	1,299	769	52	2,069	1,233	735	69	1,968
4) Tax on Gross w/ High Credits	0.93	1,072	1,032	114	2,104	1,011	961	139	1,972
5) Tax on Net w/ Credits, 2007 Policy	0.92	1,167	914	51	2,081	1,084	880	69	1,964
Reference	0.58	4,422	0	0	4,422	5,429	0	0	5,429
High Price	0.52	3,096	0	0	3,096	3,523	0	0	3,523
Reference Price	0.60	2,347	0	0	2,347	3,518	0	0	3,518
Low Discount	0.64	4,452	0	0	4,452	6,617	0	0	6,617
High Discount	0.50	5,161	0	0	5,161	4,063	0	0	4,063
Steeper Cost Func.	0.58	3,676	0	0	3,676	4,446	0	0	4,446
Shallower Cost Func.	0.58	4,405	0	0	4,405	5,417	0	0	5,417
Taxes no ELF	0.59	3,027	1,454	0	4,481	3,681	1,748	0	5,429
Taxes with ELF	0.60	3,462	960	0	4,422	4,003	1,441	0	5,444

Table 14: Present discounted values and correlation coefficients for Endicott model results and historical production, with 12% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

Scenario	Modeled Production, through 2175					Historical Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.68	95	118	0	213	35	167	0	202
High Price	0.64	181	157	0	338	132	198	0	330
Fixed Price	0.61	179	168	0	347	128	200	0	328
Low Discount	0.55	127	151	0	279	16	221	0	238
High Discount	0.61	84	105	0	189	41	135	0	177
Steeper Cost Func.	0.69	5	4	0	9	-380	167	0	-213
Shallower Cost Func.	0.80	112	90	0	202	58	154	0	212
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.49	58	148	0	206	-23	222	0	199
2) Tax on Gross w/ Credits	0.50	45	177	8	222	-34	243	6	209
3) Low Tax on Gross w/ Credits	0.59	92	138	7	230	30	178	6	208
4) Tax on Gross w/ High Credits	0.50	50	171	15	221	-30	239	12	209
5) Tax on Net w/ Credits, 2007 Policy	0.66	92	129	7	220	43	138	6	181
Reference	0.13	602	0	0	602	578	0	0	578
High Price	0.27	878	0	0	878	593	0	0	593
Reference Price	0.17	504	0	0	504	258	0	0	258
Low Discount	0.16	710	0	0	710	588	0	0	588
High Discount	-0.34	1,019	0	0	1,019	559	0	0	559
Steeper Cost Func.	-0.14	381	0	0	381	-1,041	0	0	-1,041
Shallower Cost Func.	0.10	612	0	0	612	587	0	0	587
Taxes no ELF	-0.19	403	376	0	779	22	556	0	578
Taxes with ELF	0.12	441	148	0	589	113	486	0	599

Table 15: Present discounted values and correlation coefficients for Northstar model results and historical production, with 46% discount rate used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.

North Slope Total Scenario	Modeled Production, through 2175					Hist. Actual Prod., through 2006			
	Corr.	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes	PDV Profits ⁱ	PDV Taxes ⁱⁱ	PDV Credits	Sum of Profits + Taxes
Best Fit	0.92	45,187	23,873	0	69,060	20,255	24,348	0	44,603
High Price	0.86	43,572	22,532	0	66,104	19,528	24,011	0	43,539
Fixed Price	0.93	76,921	41,758	0	118,680	55,847	37,155	0	93,002
Low Discount	0.03	123,450	44,894	0	168,343	54,330	41,088	0	95,419
High Discount	0.71	27,600	14,605	0	42,205	1,886	14,859	0	16,745
Steeper Cost Func.	0.93	40,669	23,366	0	64,035	14,915	24,357	0	39,272
Shallower Cost Func.	0.91	44,298	23,911	0	68,208	20,851	24,204	0	45,055
Hypothetical Tax Scenarios									
1) High Tax on Gross w/ ELF	0.91	37,567	32,020	0	69,587	11,033	33,545	0	44,577
2) Tax on Gross w/ Credits	0.92	38,011	31,791	3,315	69,802	13,395	31,130	4,172	44,525
3) Low Tax on Gross w/ Credits	0.91	44,082	22,048	4,246	66,130	21,931	22,505	3,480	44,436
4) Tax on Gross w/ High Credits	0.92	38,013	27,105	9,364	65,118	14,795	29,730	5,712	44,525
5) Tax on Net w/ Credits, 2007 Policy	0.91	38,988	30,118	3,481	69,105	14,829	29,626	4,172	44,455
Reference	0.74	174,958	0	0	174,958	169,904	0	0	169,904
High Price	0.56	94,565	0	0	94,565	108,960	0	0	108,960
Reference Price	0.78	88,021	0	0	88,021	109,045	0	0	109,045
Low Discount	0.92	159,721	0	0	159,721	224,320	0	0	224,320
High Discount	0.60	187,232	0	0	187,232	116,792	0	0	116,792
Steeper Cost Func.	0.77	167,997	0	0	167,997	155,031	0	0	155,031
Shallower Cost Func.	0.74	174,936	0	0	174,936	171,691	0	0	171,691
Taxes no ELF	0.73	124,655	49,470	0	174,125	120,528	49,622	0	170,150
Taxes with ELF	0.73	127,554	46,153	0	173,707	122,469	47,680	0	170,149

Table 16: Present discounted values and correlation coefficients for North Slope model results and historical production, with field-specific discount rates used for calculation of PDV. Note, all profits, taxes, and credits are in millions of 1982-84 dollars. ⁱincluding credits; ⁱⁱnet of credits.