North Aleutian Basin Play 3: Black Hills Uplift-Amak Basin (Eocene-Miocene)

Geological Assessment

GRASP UAI: AAAAA HAD
Play Area: 6,990 square miles
Play Water Depth Range: 15-700 feet
Play Depth Range: 2,000-20,000 feet (mostly 2,000-5,000 feet)
Play Exploration Chance: 0.105

Play 3, Black Hills Uplift-Amak Basin (Eocene-Miocene), North Aleutian Basin OCS Planning Area, 2006 Assessment, Undiscovered Technically-Recoverable Oil & Gas

Assessment Results as of November 2005

Resource Commodity (Units)	Resources *		
	F95	Mean	F05
BOE (Mmboe)	0	210	1,077
Total Gas (Tcfg)	0.000	0.312	1.877
Total Liquids (Mmbo)	0	155	743
Free Gas** (Tcfg)	0.000	0.249	1.588
Solution Gas (Tcfg)	0.000	0.063	0.289
Oil (Mmbo)	0	149	706
Condensate (Mmbc)	0	6	38

** Risked, Technically-Recoverable*

*** Free Gas Includes Gas Cap and Non-Associated Gas*

F95 = 95% chance that resources will equal or exceed the given quantity

F05 = 5% chance that resources will equal or exceed the given quantity

BOE = total hydrocarbon energy, expressed in barrels-of-oil-equivalent, where 1 barrel of oil = 5,620 cubic feet of natural gas

Mmb = millions of barrels

Tcf = trillions of cubic feet

Table 1

Play 3, the "Black Hills Uplift-Amak Basin" play, is a subordinate play in the North Aleutian Basin OCS Planning Area, with 9% (210 Mmboe) of the Planning Area energy endowment (2,287 Mmboe). The overall assessment results for play 3 are shown in table 1. Oil and gas-condensate liquids form 74% of the energy endowment of play 3. Table 5 reports the detailed assessment results by commodity for play 3.

Table 3 summarizes the volumetric input data developed for the *GRASP* computer model of North Aleutian basin play 3. Table 4 reports the risk model used for play 3. The location of play 3 is shown in figure 1.

The Black Hills uplift is a regional arch that extends west from the Alaska Peninsula to join the shelf-edge uplift that forms the west boundary of St. George basin. The Black Hills uplift is onlapped by the Tertiary-age sedimentary fill of both the North Aleutian and Amak basins, but only rocks correlative to the Bear Lake-Stepovak sequence of play 1 crest the top of the uplift. Over the crest, the Bear Lake-Stepovak-equivalent sequence ranges up to 5,000 feet thick and directly overlies moderately deformed Mesozoic sedimentary rocks. Rocks of the lower part of the Stepovak Formation and the Tolstoi Formation are truncated at faults and unconformities on the north and south flanks of the uplift. No wells have penetrated the Tolstoi-equivalent strata in the Amak basin south of the Black Hills uplift. In onshore areas, rocks correlative to the Bear Lake-Stepovak play sequence were penetrated by 9 wells (David River 1/1A, Hoodoo Lake 1, Hoodoo Lake 2, Sandy River 1, Port Heiden 1, Ugashik 1, Becharof Lake 1, Great Basins 1, and Great Basins 2 wells). Offshore, correlative rocks were penetrated at the North Aleutian Shelf COST 1 well (North Aleutian basin) and at the St. George Basin COST 2, Monkshood 1, and Bertha 1 wells (St. George basin). The closest point of offshore control is the Bertha 1 well, located on the crest of the

Black Hills uplift. The Bear Lake-Stepovak-equivalent sequence at the Bertha 1 well is mostly marine and non-coal-bearing, and is a more distal facies than the correlative coal-bearing (nonmarine to inner neritic) sequences penetrated onshore and at the North Aleutian Shelf COST 1 well.

No pools of oil or gas have been discovered in the Bear Lake-Stepovak play sequence or correlative rocks of plays 1 and 3. Gas shows are widely associated with coals in the Bear Lake and Stepovak Formations and oil shows have been noted in these formations in 3 wells onshore (Becharof Lake 1, Sandy River 1, and David River 1/1A wells). Flow tests recovered gas from the Tolstoi Formation in the Becharof Lake 1 well and oil shows were noted in 4 Tolstoi penetrations (North Aleutian Shelf COST 1, Becharof Lake 1, Hoodoo Lake 2, and David River 1/1A wells). No oil or gas shows are associated with the Bear Lake-Stepovak sequence in the Bertha 1 well, located on the Black Hills uplift near the west boundary of play 3.

Most of the oil and gas resources of play 3 are associated with broad, low-amplitude anticlines draped over culminations on the Black Hills uplift. Mapped traps have closure areas ranging up to 133,000 acres. Thick (maximum = 220 feet), highly porous, and plentiful (sum to 1,706 feet net, or 59% of sequence) reservoir sandstones are present in the Bear Lake-Stepovak-equivalent sequence in the Bertha 1 well. No regional seal caps the abundant sandstones in the Bear Lake-Stepovak-equivalent sequence at the Bertha 1 well.

No oil source rocks have been identified in the Tertiary sedimentary fill of either the North Aleutian or Amak basins. In the North Aleutian basin (and presumably the Amak basin), coals and shales with Type III (coal-like) organic matter are abundant and could form sources for both biogenic and thermogenic gas, condensate, and minor oil. In the southwest part of the North Aleutian basin, thousands of feet of Tertiary rocks are thermally mature and could generate oil and gas, given appropriate organic compositions (fig. 19). However, the Amak basin fill reaches a maximum thickness of only 12,500 feet. The depth to the 0.6% vitrinite reflectance isograd at the North Aleutian Shelf COST 1 well is 12,312 feet subsea. If the depth for this isograd at the COST well is extrapolated to Amak basin, only about 200 feet of rocks at the floor of the Amak basin are forecast to be thermally mature and capable of generating petroleum. It is therefore unlikely that Amak basin forms a source for significant quantities of petroleum. In any case, gas and condensate generated in the deep parts of either Amak or North Aleutian basins must migrate laterally tens of miles through areas highly dissected by very young strike-slip faults (that follow the margins of the Black Hills uplift). Because of the risks of losses through long-distance lateral migration and diversion at faults, it is unlikely that significant quantities of gas and condensate generated in the Amak or North Aleutian basins would reach traps on the Black Hills uplift.

The Black Hills uplift is underlain by an assemblage of folded Mesozoic sedimentary rocks that include strata age-equivalent to known regional oil source beds of Middle Jurassic (Kialagvik Fm. or Tuxedni Gp.) and Late Triassic (Kamishak Fm.) ages. The Middle Jurassic Tuxedni Group is the source for 1.6 billion barrels of original oil reserves in northern Cook Inlet (AKDO&G, 2002), most of which is pooled in Tertiary-age rocks that overlie the Tuxedni Group. The Tuxedni-correlative sequence—the Kialagvik Formation—is present in the

Cathedral River 1 well onshore and equivocal geochemical anomalies may suggest a past role as an oil source. In the Cathedral River 1 well, oil shows were widely observed in the rocks overlying the Kialagvik Formation. The Kialagvik Formation is thermally overmature (TAI = 3.0 to 3.8) and post oil-generative in the Cathedral River 1 well. It is probable that Mesozoic oil sources in this area generated and expelled the oil in a past (pre-Tertiary) cycle of deep burial, long before the deposition of the Tertiary-age rocks flanking or overlapping the Black Hills arch. Oil-charging of the Tertiary-age rocks in play 3 must therefore rely upon capturing oil remobilized out of Mesozoic reservoirs where it was sequestered perhaps 30 million years earlier during Mesozoic (Late Cretaceous?) burial and oil generation. The hypothetical Mesozoic oil pools within the Black Hills uplift must first survive uplift, deep erosion, and re-burial beneath Oligocene and younger strata. The Mesozoic oil pools must remain intact during creation of the drape anticlines in Tertiary rocks over culminations on the Black Hills uplift. Once the drape anticlines had formed, fault disruption of the Mesozoic pools must then trigger the release of the oil sequestered in Mesozoic reservoirs. The released oil then migrates upward in some (necessarily) focused or non-dispersive pattern en route to Tertiary-age reservoir sandstones in the drape anticlines. The charge model for play 3 prospects is dependent upon a long chain of critical events and therefore seems likely to fail.

Two major risk factors for play 3 relate to: **1) migration** (must re-migrate oil from underlying disrupted Mesozoic pools or gas from distant generation centers in North Aleutian or Amak basins, crossing numerous young faults); and **2) seal** (the reservoir sequence over the crest of the Black Hills uplift is very sand-rich and is not capped by a regional seal).

Play 3, Black Hills Uplift-Amak Basin, North Aleutian Basin OCS Planning Area, 2006 Assessment, Conditional BOE Sizes of Ten Largest Pools

Assessment Results as of November 2005

Pool Rank	BOE Resources *		
	F95	Mean	F05
1	20	378	1302
2	6	110	365
3	3	52	169
4	1.7	30	98
5	1.2	20	64
6	1.0	14	45
7	0.8	11	34
8	0.7	9	27
9	0.6	7	22
10	0.5	6	19

** Conditional, Technically-Recoverable, Millions of Barrels Energy-Equivalent (Mmboe), from "PSRK.out" file*

F95 = 95% chance that resources will equal or exceed the given quantity

F05 = 5% chance that resources will equal or exceed the given quantity

BOE = total hydrocarbon energy, expressed in barrels-of-oil-equivalent, where 1 barrel of oil = 5,620 cubic feet of natural gas

Table 2

A maximum of 13 hypothetical pools is forecast by the aggregation of the risk model and the prospect numbers model for play 3. These pools range in mean conditional (un-risked) recoverable volumes from 4 Mmboe (pool rank 13) to 378 Mmboe (pool rank 1). Pool rank 1 ranges in possible conditional recoverable volumes from 20 Mmboe (F95) to 1,302 Mmboe (F05), or, in the gas case, from 0.11 Tcfge (F95) to 7.32 Tcfge (F05). Table 2 shows the conditional sizes of the 10 largest pools in play 3.

In the computer simulation for play 3, a total of 15,323 “simulation pools” were sampled for size. These simulation pools can be grouped according to the USGS size class system in which sizes double with each

successive class. Pool size class 11 contains the largest share (2,521, or 16%) of simulation pools (conditional, technically recoverable BOE resources) for play 3. Pool size class 11 ranges from 32 to 64 Mmboe. The largest pool among the 15,323 simulation pools falls within pool size class 19, which ranges in size from 8,192 to 16,384 Mmboe (or 46-92 Tcfge). Table 6 reports statistics for the simulation pools developed in the *GRASP* computer model for play 3.

GRASP Play Data Form (Minerals Management Service-Alaska Regional Office)

Basin: North Aleutian Basin
Play Number: 3
Play UAI Number: AAAAA HAD

Assessor(s): K.W. Sherwood, D. Comer, J. Larson
Play Name: Black Hills Uplift - Amak Basin (Eocene-Miocene)

Date: December 2004

Play Area: 6,990 mi2 (4.5 million acres)
Reservoir Thermal Maturity: 0.23%-2.00% Ro (mostly 0.23%-0.31% Ro)

Play Depth Range: 2,000-12,500 feet (mostly 2,000-5,000 feet)
Expected Oil Gravity: 35^{O} API
Play Water Depth Range: 15-700 feet (mean = 350 ft)

POOLS Module (Volumes of Pools, Acre-Feet)

Fractile	F100	F95	F90	F75	F50	Mean/Std. Dev.	F25	F15	F10	F05	F02	F01	F00
Prospect Area (acres)-Model Input*	2667 (act)		2350 (fit)		5916	25230/48696			57316				133385
Prospect Area (acres)-Model Output**	509	1643	2471	4869	11201	19995/23424	25426	38733	49245	70155	78000	82000	133124
Fill Fraction (Fraction of Area Filled)	0.02	0.07	0.08	0.12	0.15	0.17/0.08	0.2	0.26	0.28	0.33	0.4	0.45	1
Productive Area of Pool (acres)	42	226	343	706	1734	3554/5194	4054	6211	8543	12700	17000	20000	56488
Pay Thickness (feet)	3	21	29	52	98	151/180*	184	258	324	340	375	400	550

* model fit to prospect area data in *BESTFIT*
** output from *@RISK* after aggregation with fill fraction
*** original fit to Cook Inlet data

MPRO Module (Numbers of Pools)

Input Play Level Chance	0.42
Output Play Level Chance*	0.4126

Prospect Level Chance	0.25

Exploration Chance	0.105

* First Occurrence of Non Zero Pools As Reported in PSUM Module

Risk Model	Play Chance	Petroleum System Factors	Prospect Chance
	0.6	Migration (lengthy, highly-faulted path from Tertiary source)	0.5
	0.7	Seal (no regional seal over reservoir)	0.5

Fractile	F99	F95	F90	F75	F50	Mean/Std. Dev.	F25	F15	F10	F05	F02	F01	F00
Numbers of Prospects in Play	10	11	12	13	14	14.61/1.83	15	16	17	17.5	17.7	18	20
Numbers of Pools in Play						1.53/2.12	3	4	5	6	7	7	13

Zero Pools at F41.28

Minimum Number of Pools	1 (F40.00)

Mean Number of Pools	1.53

Maximum Number of Pools	13

POOLS/PSRK/PSUM Modules (Play Resources)

Fractile	F100	F95	F90	F75	F50	Mean/Std. Dev.	F25	F15	F10	F05	F02	F01	F00
Oil Recovery Factor (bbl/acre-foot)	42	129	158	221	311	343/177	427	500	558	644	800	960	1300
Gas Recovery Factor (Mcfg/acre-foot)	8	441	531	686	873	888/302	1074	1194	1271	1389	1450	1550	1963
Gas Oil Ratio (Sol'n Gas)(cf/bbl)	56	162	195	267	376	426/220	531	638	723	871	1073	1100	1110
Condensate Yield ((bbl/Mmcfg)	1	14	17	21	25	25/7	29	32	34	35	37	39	50

Pool Size Distribution Statistics from *POOLS* (1,000 BOE): μ (mu)= 10.662 σ^2 (sigma squared)= 2.666

Random Number Generator Seed= 354,412

BOE Conversion Factor (cf/bbl)	5620
Probability Any Pool is 100% Oil	0.4
Probability Any Pool is 100% Gas	0.2

Probability Any Pool Contains Both Oil and Free Gas (Gas Cap)	0.4
Fraction of Pool Volume Gas-Bearing in Oil Pools with Gas Cap	0.5

Table 3. Input data for North Aleutian basin play 3, 2006 assessment.

Risk Analysis Form - 2006 National Assessment

Assessment Province:	North Aleutian Basin OCS Planning Area	**Play Number, Name:**	3. Black Hills Uplift - Amak Basin (Eocene-Miocene)
Assessor(s):	K.W. Sherwood, D. Comer, J. Larson	**Play UAI:**	AAAAA HAD
Date:	1-Jan-05		

For each component, a *quantitative* probability of success (i.e., between zero and one, where zero indicates no confidence and one indicates absolute certainty) based on consideration of the *qualitative* assessment of **ALL** elements within the component was assigned. This is the assessment of the probability that the minimum geologic parameter assumptions have been met or exceeded.

			Play Chance Factors	Averge Conditional Prospect Chance[1]
1.	**Hydrocarbon Fill component** (1a * 1b * 1c)	**1**	***0.6000***	***0.5000***
	a. Presence of a Quality, Effective, Mature Source Rock			
	Probability of efficient source rock in terms of the existence of sufficient volume of mature source rock of adequate quality located in the drainage area of the reservoirs.	1a	1.00	1.00
	b. Effective Expulsion and Migration			
	Probability of effective expulsion and migration of hydrocarbons from the source rock to the reservoirs.	1b	0.60	0.50
	c. Preservation			
	Probability of effective retention of hydrocarbons in the prospects after accumulation.	1c	1.00	1.00
2.	**Reservoir component** (2a * 2b)	**2**	***1.0000***	***1.0000***
	a. Presence of reservoir facies			
	Probability of presence of reservoir facies with a minimum net thickness and net/gross ratio (as specified in the resource assessment).	2a	1.00	1.00
	b. Reservoir quality			
	Probability of effectiveness of the reservoir, with respect to minimum effective porosity, and permeability (as specified in the resource assessment).	2b	1.00	1.00
3.	**Trap component** (3a * 3b)	**3**	***0.7000***	***0.5000***
	a. Presence of trap			
	Probability of presence of the trap with a minimum rock volume (as specified in the resource assessment).	3a	1.00	1.00
	b. Effective seal mechanism			
	Probability of effective seal mechanism for the trap.	3b	0.70	0.50
Overall Play Chance (Marginal Probability of hydrocarbons, MPhc)			***0.4200***	
	(1 * 2 * 3) *Product of All Subjective Play Chance Factors*			
Average Conditional Prospect Chance[1]				***0.2500***
	(1 * 2 * 3) *Product of All Subjective Conditional Prospect Chance Factors*			
	[1] Assumes that the Play exists (where all play chance factors = 1.0)			
	Must be consistent with play chance and prospect distribution -- See discussion on Page 3 of Guide			
Exploration Chance			***0.1050***	
	(Product of Overall Play Chance and Average Conditional Prospect Chance)			

Comments: *See guidance document for explanation of the Risk Analysis Form*

Table 4. Risk model for North Aleutian basin play 3, 2006 assessment.

GRASP - Geologic and Economic Resource Assessment Model - PSUM Module Results

Minerals Management Service - Alaska OCS Region
GRASP Model Version: 8.29.2005)
Computes the Geologic Resource Potential of the Play

Play UAI:	**AAAAAHAD**		**Play No.**		**3**		
World	Level	-	World	Level	Resources		
Country	Level	-	UNITED	STATES	OF	AMERICA	
Region	Level	-	MMS	-	ALASKA	REGION	
Basin	Level	-	**NORTH**	**ALEUTIAN**	**BASIN**		
Play	**Level**	**-**	**Play**		**3**	**Black Hills Uplift - Amak Basin**	
Geologist	Sherwood	/	Comer	/	Larson		
Remarks	2005	Assessment					
Run Date & Time:		Date	19-Sep-05	Time	14:07:53		

Summary of Play Potential

Product	MEAN	Standard Deviation
BOE (Mboe)	210,410	470,200
Oil (Mbo)	148,820	373,980
Condensate (Mbc)	6,093	17,152
Free (Gas Cap & Nonassociated) Gas (Mmcfg)	248,940	681,860
Solution Gas (Mmcfg)	62,990	175,980

10000 (Number of Trials in Sample)
0.4126 (MPhc [Probability] of First Occurrence of Non-Zero Resource)
Windowing Feature: used

Empirical Probability Distributions of the Products

Greater Than Percentage	BOE (Mboe)	Oil (Mbo)	Condensate (Mbc)	Free (Gas Cap & Nonassociated) Gas (Mmcfg)	Solution Gas (Mmcfg)
100	0	0	0	0	0
99.99	0	0	0	0	0
99	0	0	0	0	0
95	0	0	0	0	0
90	0	0	0	0	0
85	0	0	0	0	0
80	0	0	0	0	0
75	0	0	0	0	0
70	0	0	0	0	0
65	0	0	0	0	0
60	0	0	0	0	0
55	0	0	0	0	0
50	0	0	0	0	0
45	0	0	0	0	0
40	18,084	9,913	870	36,854	4,178
35	81,880	47,531	3,718	152,350	19,800
30	150,570	92,628	6,133	253,230	37,909
25	225,130	144,850	8,386	341,620	62,444
20	324,050	198,230	13,519	553,580	77,544
15	456,270	303,560	15,742	646,920	122,860
10	663,810	453,540	22,132	864,720	192,630
8	783,570	558,610	22,521	908,310	229,390
6	955,530	657,900	29,369	1,231,400	276,220
5	1,077,200	705,640	37,591	1,587,800	289,030
4	1,217,700	867,920	35,234	1,404,600	363,220
2	1,715,000	1,282,900	39,709	1,661,100	544,140
1	2,275,300	1,792,900	41,702	1,697,100	779,420
0.1	4,312,600	3,951,100	15,452	583,050	1,362,000
0.01	6,569,400	6,073,800	835	34,955	2,746,000
0.001	9,685,700	8,652,200	84	3,496	5,804,400

Table 5. Assessment results by commodity for North Aleutian basin play 3, 2006 assessment.

Basin: NORTH ALEUTIAN BASIN
Play 3 - Black Hills Uplift - Amak Basin
UAI Key: AAAAAHAD

Model Simulation "Pools" Reported by "Fieldsize.out" *GRASP* Module

Classification and Size				Pool Count Statistics				Pool Types Count			Mixed Pool Range		Oil Pool Range		Gas Pool Range		Total Pool Range			Pool Resource Statistics (MMBOE)			
Class	Min (MMBOE)	Max (MMBOE)	Pool Count	Percentage	Trial Average	Trials w/Pool Avg		Mixed Pool	Oil Pool	Gas Pool	Min	Max	Min	Max	Min	Max	Min	Max		Min	Max	Total Resource	Average Resource
1	0.0312	0.0625	3	0.019578	0.0003	0.000727		2	1	0	1	1	1	1	0	0	1	1		0.039438	0.060823	0.155729	51.909536
2	0.0625	0.125	4	0.026105	0.0004	0.000969		1	2	1	1	1	1	1	1	1	1	1		0.067153	0.124915	0.364610	91.152616
3	0.125	0.25	18	0.11747	0.0018	0.004362		5	4	9	1	1	1	1	1	1	1	1		0.126170	0.246997	3.641255	202.291951
4	0.25	0.5	60	0.391568	0.006	0.014538		25	16	19	1	1	1	1	1	1	1	1		0.268904	0.497585	23.718012	395.300210
5	0.5	1	140	0.913659	0.014	0.033923		51	49	40	1	1	1	1	1	1	1	2		0.504160	0.999933	103.324543	738.032460
6	1	2	320	2.088364	0.032	0.077538		126	104	90	1	2	1	2	1	2	1	3		1.007409	1.998132	489.314822	1.529109
7	2	4	624	4.072309	0.0624	0.151199		226	194	204	1	2	1	2	1	2	1	3		2.003329	3.997451	1862.126000	2.984177
8	4	8	1139	7.43327	0.1139	0.275987		464	373	302	1	3	1	2	1	2	1	3		4.001815	7.989694	6791.046000	5.962288
9	8	16	1744	11.381583	0.1744	0.422583		695	647	402	1	3	1	4	1	2	1	5		8.000080	15.999747	20554.984000	11.786115
10	16	32	2362	15.414736	0.2362	0.572329		937	906	519	1	4	1	3	1	3	1	4		16.000233	31.996418	55207.503000	23.373201
11	32	64	2521	16.452393	0.2521	0.610855		1026	999	496	1	3	1	3	1	3	1	5		32.014252	63.984028	116124.374000	46.062820
12	64	128	2440	15.923775	0.244	0.591228		973	1017	450	1	4	1	3	1	2	1	5		64.034489	127.967359	222596.856000	91.228218
13	128	256	1889	12.327873	0.1889	0.457717		787	811	291	1	3	1	3	1	2	1	4		128.039834	255.776717	341072.971000	180.557419
14	256	512	1182	7.713894	0.1182	0.286407		464	571	147	1	2	1	2	1	2	1	3		256.278784	511.003356	417328.713000	353.069977
15	512	1024	569	3.713372	0.0569	0.137873		226	305	38	1	2	1	2	1	2	1	3		512.829557	1020.336000	399708.214000	702.474915
16	1024	2048	242	1.579325	0.0242	0.058638		82	141	19	1	2	1	2	1	1	1	2		1026.713000	2026.543000	333511.915000	1.378148
17	2048	4096	58	0.378516	0.0058	0.014054		16	40	2	1	1	1	1	1	1	1	2		2064.536000	3754.216000	151613.131000	2.614020
18	4096	8192	6	0.039157	0.0006	0.001454		1	5	0	1	1	1	1	0	0	1	1		4198.308000	6115.990000	28019.575000	4.669929
19	8192	16384	1	0.006526	0.0001	0.000242		0	1	0	0	0	1	1	0	0	1	1		9111.398000	9111.398000	9111.398000	9.111397
20	16384	32768	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0.000000	0.000000	0.000000	0.000000
21	32768	65536	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0.000000	0.000000	0.000000	0.000000
22	65536	131072	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0.000000	0.000000	0.000000	0.000000
23	131072	262144	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0.000000	0.000000	0.000000	0.000000
24	262144	524288	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0.000000	0.000000	0.000000	0.000000
25	524288	1048576	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		0.000000	0.000000	0.000000	0.000000
Not Classified			1	0.006526	0.0001	0.000242	Below Class	0	0	1									Below Class	0.017078	0.017078	0.017078	17.078210
		Totals	**15323**	**99.999992**	**1.5323**	**3.712866**	Above Class	0	0	0									Above Class	0.000000	0.000000	0.000000	0.000000

Number of Pools not Classified: 1
Number of Pools below Class 1: 1
Number of Trials with Pools: 4127

Min and Max refer to numbers of pools of the relevant size class that occur within any single trial in the simulation.

Min and Max refer to aggregate resources of the relevant size class that occur within any single trial in the simulation.

Table 6. Statistics for simulation pools created in computer sampling run for North Aleutian basin play 3, 2006 assessment.

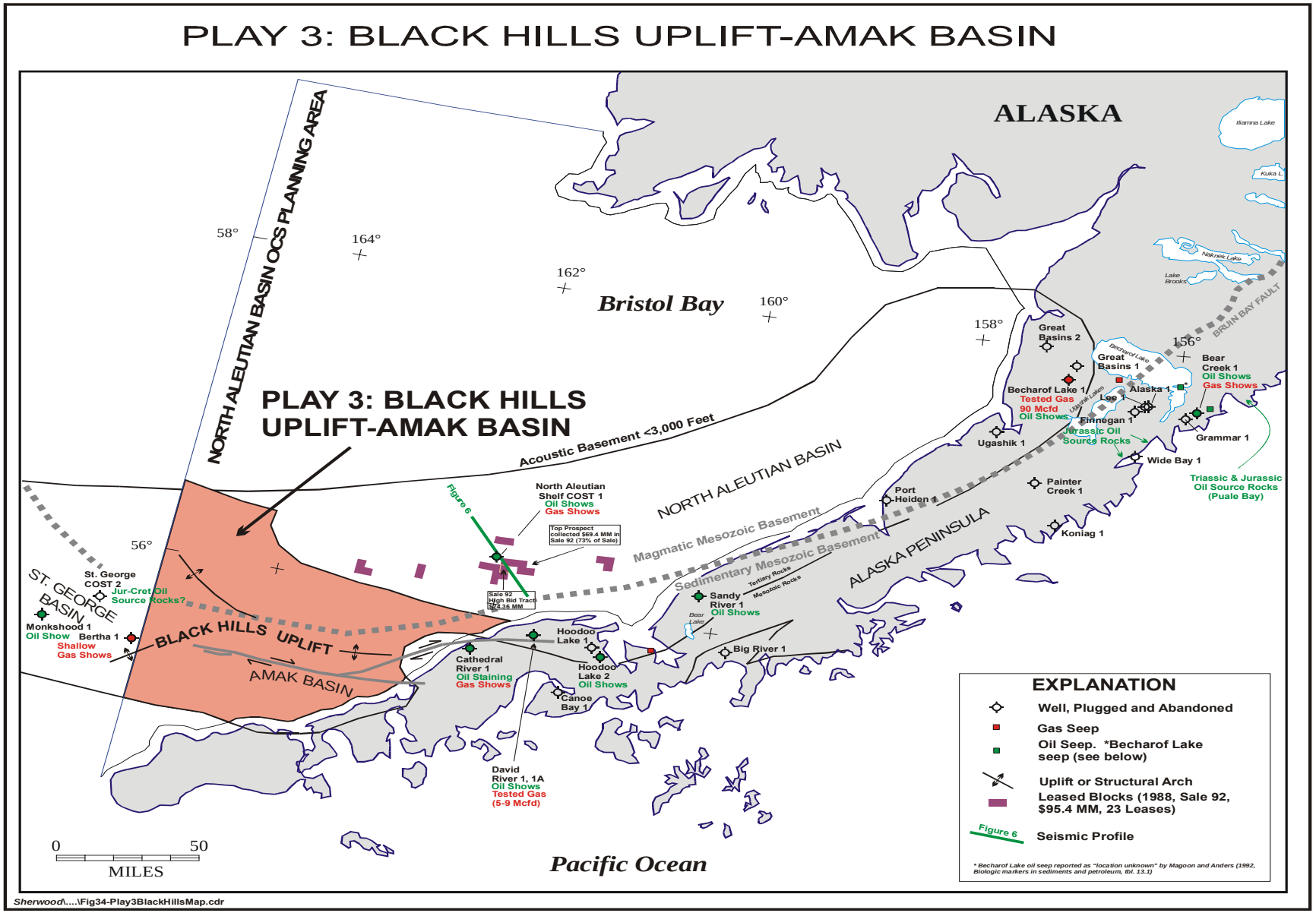

Figure 1. Map location of North Aleutian basin play 3, 2006 assessment.