

AOGCC Pool Statistics**Nicolai Creek Unit, Undef Gas Pool**

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Operator: Aurora Gas LLC

Discovery Well: Texaco Inc.
Nicolai Creek State No 1A
Permit #165-027
API No. 50-283-10020-00-00
Sec. 30, T11N, R12W,SM
Depth: 8,338' MD / 7,979' TVD
May 12, 1966

Status: **Producing****Location:** **Cook Inlet Basin** [Area Loc. Map](#) [Field Loc. Map](#) [DNR Unit Map](#)**Orders:** [Complete List](#)
[Strat Column](#)**Production:** [Prod Chart](#) [Prod Report](#) [Prod Data](#)

	Gas (mcf)	Water (bbls)	Disposed Fluids (bbls)
Cumulative	3,189,351	32,201	0
2001 Total	277,798	4,231	0
2002 Total	605,050	17,550	0
2003 Total	261,696	10,338	0
2004 Total	982,752	82	0
2003 Rate (/d)	717	28	0
2004 Rate (/d)	2,692	0	0
Change (%)	276%	-	-

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Field Development Information:

Type Well	Status	Wells In Field				
		2004	2003	2002	2001	2000
Producer	Gas	4	4	2	1	1
Injector	Disposal	0	0	0	0	0
Non-Operating	Suspended	1	1	2	2	2
	Abandoned	5	5	5	5	5
Total		10	10	9	8	8

Permitted Wells in Field:

Type Well	Status	2004	2003	2002	2001	2000
Development	New	0	0	2	0	0
	Sidetrack	0	0	1	0	0
	Multilateral	0	0	0	0	0
Service	New	0	0	1	0	0
Exploration	New	0	0	0	0	0
Total		0	0	4	0	0

Active Completions in Pool (Month of December):

Type Well	Status	2004	2003	2002	2001	2000
Gas Producer	Flowing	2	3	1	1	0
	Other	0	0	0	0	0
	Shut-In	2	1	0	0	1
Disposal	Disposal Injector	0	0	0	0	0
	Shut-In	0	0	0	0	0
Total		4	4	1	1	1

Reservoir Properties: Beluga & U Tyonek Formations

Description	2004	2003	2002	2001	2000
Reference Datum - ft. below sea level	1300-3287	1300-3287	1924	1924	1924
Temperature - ° F	66-95	66-95	105	105	105
Porosity - %	21-29	21-29	2	2	17
Permeability - md	20-200	20-200	-	-	-
Swi - %	30-57	30-57	50	50	50
Orig. Press. - psi	690-1680	690-1680	980	980	980
Curr. Reservoir Press. - psi	330-1640	674-1681	-	-	850
Curr. Reservoir Press. - Test Date	Dec-04	Nov-03	-	-	Sep-91
Gas Specific Gravity (Air = 1.0)	0.56	0.56	-	0.56	0.57
Gross Pay - ft.	127-190	127-190	-	140	128
Net Pay - ft.	60-100	60-100	-	140	128

Continued: 1 > 2

State of Alaska, Oil and Gas Conservation Commission

Production History for: **NICOLAI CREEK, NORTH UND GAS Pool**

Jan 1958 Through

<u>Month</u>	<u>DaysProd</u>	<u>Oil (BBL)</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>	<u>Wells</u>
NICOLAI_CREEK_					
Oct 1968	29	0	2883	0	1
Nov 1968	30	0	4473	0	1
Dec 1968	31	0	4914	0	1
Mar 1969	31	0	27795	0	1
Apr 1969	30	0	41371	0	2
May 1969	31	0	47933	0	1
Jun 1969	30	0	32103	0	2
Jul 1969	31	0	26543	0	2
Aug 1969	31	0	28632	0	1
Sep 1969	30	0	28625	0	1
Oct 1969	31	0	17602	0	2
Nov 1969	30	0	13187	0	2
Dec 1969	31	0	19618	0	1
Jan 1970	31	0	21041	0	1
Feb 1970	28	0	18452	0	1
Mar 1970	31	0	18695	0	1
Apr 1970	30	0	14410	0	1
May 1970	31	0	15098	0	1
Jun 1970	30	0	11304	0	1
Jul 1970	31	0	10665	0	1
Aug 1970	31	0	17037	0	1
Sep 1970	30	0	16577	0	1
Oct 1970	31	0	20766	0	1
Nov 1970	30	0	20197	0	1
Dec 1970	31	0	17669	0	1
Jan 1971	31	0	20738	0	1
Feb 1971	28	0	19327	0	1
Mar 1971	31	0	11582	0	1
Apr 1971	30	0	12446	0	1
May 1971	31	0	9351	0	1
Jun 1971	30	0	15309	0	1
Jul 1971	31	0	16250	0	1
Aug 1971	31	0	15485	0	1
Sep 1971	30	0	5295	0	1
Oct 1971	31	0	5897	0	1
Nov 1971	30	0	4185	0	1
Dec 1971	31	0	4962	0	1
Jan 1972	31	0	6333	0	1
Feb 1972	29	0	7940	0	1
Mar 1972	31	0	5781	0	1
Apr 1972	30	0	6125	0	1
May 1972	31	0	7075	0	1
Jun 1972	30	0	6157	0	1
Jul 1972	29	0	7789	0	1
Aug 1972	31	0	5068	0	1
Sep 1972	6	0	777	0	1
Oct 1972	31	0	8407	0	1
Nov 1972	30	0	3061	0	1
Dec 1972	31	0	1368	0	1

State of Alaska, Oil and Gas Conservation Commission

Production History for: **NICOLAI CREEK, NORTH UND GAS Pool**

Jan 1958 Through

<u>Month</u>	<u>DaysProd</u>	<u>Oil (BBL)</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>	<u>Wells</u>
Jan 1973	31	0	1446	0	1
Feb 1973	28	0	118	0	1
Mar 1973	31	0	179	0	1
Apr 1973	30	0	98	0	1
May 1973	0	0	0	0	1
Jun 1973	30	0	825	0	1
Jul 1973	31	0	1076	0	1
Aug 1973	31	0	521	0	1
Sep 1973	30	0	326	0	1
Oct 1973	31	0	109	0	1
Nov 1973	30	0	1116	0	1
Dec 1973	0	0	0	0	1
Jan 1974	0	0	0	0	1
Feb 1974	0	0	0	0	1
Mar 1974	0	0	0	0	1
Apr 1974	30	0	2353	0	1
May 1974	31	0	702	0	1
Jun 1974	30	0	739	0	1
Jul 1974	31	0	985	0	1
Aug 1974	31	0	2639	0	1
Sep 1974	30	0	2394	0	1
Oct 1974	31	0	209	0	1
Nov 1974	30	0	410	0	1
Dec 1974	31	0	100	0	1
Jan 1975	31	0	942	0	1
Feb 1975	28	0	597	0	1
Mar 1975	31	0	4582	0	1
Apr 1975	30	0	4347	0	1
May 1975	31	0	7062	0	1
Jun 1975	30	0	6840	0	1
Jul 1975	31	0	8548	0	1
Aug 1975	31	0	11090	0	1
Sep 1975	30	0	11086	0	1
Oct 1975	31	0	13067	0	1
Nov 1975	30	0	8733	0	1
Dec 1975	31	0	6469	0	1
Jan 1976	31	0	6840	0	1
Feb 1976	29	0	6969	0	1
Mar 1976	31	0	3890	0	1
Apr 1976	30	0	10785	0	1
May 1976	31	0	9308	0	1
Jun 1976	30	0	6750	0	1
Jul 1976	31	0	11933	0	1
Aug 1976	28	0	11517	0	1
Sep 1976	30	0	11700	0	1
Oct 1976	31	0	14086	0	1
Nov 1976	30	0	8429	0	1
Dec 1976	31	0	6199	0	1
Jan 1977	16	0	8419	0	1
Feb 1977	25	0	8504	0	1
Mar 1977	1	0	3058	0	1

State of Alaska, Oil and Gas Conservation Commission

Production History for: **NICOLAI CREEK, NORTH UND GAS Pool**

Jan 1958 Through

<u>Month</u>	<u>DaysProd</u>	<u>Oil (BBL)</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>	<u>Wells</u>
Apr 1977	0	0	0	0	1
May 1977	0	0	0	0	1
Jun 1977	0	0	0	0	1
Jul 1977	31	0	7904	0	1
Aug 1977	18	0	4369	0	1
Sep 1977	0	0	0	0	1
Oct 1977	2	0	10	0	1
Nov 1977	0	0	0	0	1
Dec 1977	0	0	0	0	1
Jan 1978	0	0	0	0	1
Feb 1978	0	0	0	0	1
Mar 1978	0	0	0	0	1
Apr 1978	0	0	0	0	1
May 1978	0	0	0	0	1
Jun 1978	0	0	0	0	1
Jul 1978	0	0	0	0	1
Aug 1978	0	0	0	0	1
Sep 1978	0	0	0	0	1
Oct 1978	0	0	0	0	1
Nov 1978	0	0	0	0	1
Dec 1978	0	0	0	0	1
Jan 1979	0	0	0	0	1
Feb 1979	0	0	0	0	1
Mar 1979	0	0	0	0	1
Apr 1979	0	0	0	0	1
May 1979	0	0	0	0	1
Jun 1979	0	0	0	0	1
Jul 1979	0	0	0	0	1
Aug 1979	0	0	0	0	1
Sep 1979	0	0	0	0	1
Oct 1979	0	0	0	0	1
Nov 1979	0	0	0	0	1
Dec 1979	0	0	0	0	1
Jan 1980	0	0	0	0	1
Feb 1980	0	0	0	0	1
Mar 1980	0	0	0	0	1
Apr 1980	0	0	0	0	1
May 1980	0	0	0	0	1
Jun 1980	0	0	0	0	1
Jul 1980	0	0	0	0	1
Aug 1980	0	0	0	0	1
Sep 1980	0	0	0	0	1
Oct 1980	0	0	0	0	1
Nov 1980	0	0	0	0	1
Dec 1980	0	0	0	0	1
Jan 1981	0	0	0	0	1
Feb 1981	0	0	0	0	1
Mar 1981	0	0	0	0	1
Apr 1981	0	0	0	0	1
May 1981	0	0	0	0	1
Jun 1981	0	0	0	0	1

State of Alaska, Oil and Gas Conservation Commission

Production History for: **NICOLAI CREEK, NORTH UND GAS Pool**
 Jan 1958 Through

<u>Month</u>	<u>DaysProd</u>	<u>Oil (BBL)</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>	<u>Wells</u>
Jul 1981	0	0	0	0	1
Aug 1981	0	0	0	0	1
Sep 1981	0	0	0	0	1
Oct 1981	0	0	0	0	1
Nov 1981	0	0	0	0	1
Dec 1981	0	0	0	0	1
Jan 1982	0	0	0	0	1
Feb 1982	0	0	0	0	1
Mar 1982	0	0	0	0	1
Apr 1982	0	0	0	0	1
May 1982	0	0	0	0	1
Jun 1982	0	0	0	0	1
Jul 1982	0	0	0	0	1
Aug 1982	0	0	0	0	1
Sep 1982	0	0	0	0	1
Oct 1982	0	0	0	0	1
Nov 1982	0	0	0	0	1
Dec 1982	0	0	0	0	1
Jan 1983	0	0	0	0	1
Feb 1983	0	0	0	0	1
Feb 2001	3	0	4146	220	1
Mar 2001	0	0	0	0	1
Apr 2001	0	0	0	0	1
May 2001	0	0	0	0	1
Jun 2001	0	0	0	0	1
Jul 2001	3	0	210	0	1
Aug 2001	0	0	0	0	1
Sep 2001	12	0	9156	406	1
Oct 2001	31	0	111457	1427	1
Nov 2001	30	0	115863	1427	1
Dec 2001	15	0	36966	751	1
Jan 2002	26	0	38117	1024	1
Feb 2002	27	0	74394	1422	1
Mar 2002	31	0	99891	1403	1
Apr 2002	29	0	74638	1402	1
May 2002	31	0	74454	1592	1
Jun 2002	30	0	56774	1623	1
Jul 2002	31	0	43924	1517	1
Aug 2002	31	0	33787	1487	1
Sep 2002	30	0	34878	1498	1
Oct 2002	26	0	23539	1357	1
Nov 2002	25	0	21880	1556	1
Dec 2002	31	0	28774	1669	1
Jan 2003	31	0	22384	1505	1
Feb 2003	28	0	12436	1261	1
Mar 2003	21	0	7372	976	1
Apr 2003	30	0	13388	1579	1
May 2003	31	0	17536	1660	1
Jun 2003	30	0	15844	1595	1
Jul 2003	28	0	12803	1445	1
Aug 2003	2	0	50	0	1

State of Alaska, Oil and Gas Conservation Commission

Production History for: **NICOLAI CREEK, NORTH UND GAS Pool**

Jan 1958 Through

<u>Month</u>	<u>DaysProd</u>	<u>Oil (BBL)</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>	<u>Wells</u>
Sep 2003	30	0	1501	0	1
Oct 2003	31	0	1846	0	1
Nov 2003	11	0	4931	135	2
Dec 2003	29	0	81524	130	2
Jan 2004	16	0	62093	0	2
Feb 2004	7	0	5360	0	2
Mar 2004	8	0	19707	0	2
Apr 2004	10	0	25135	0	2
May 2004	31	0	77632	0	2
Jun 2004	7	0	15493	0	2
Jul 2004	19	0	39744	2	2
Aug 2004	30	0	45870	62	2
Sep 2004	32	0	34153	6	2
Oct 2004	31	0	27067	1	2
Nov 2004	23	0	19507	1	2
Dec 2004	18	0	13221	1	2
Jan 2005	0	0	0	0	2
Feb 2005	0	0	0	0	2
Mar 2005	1	0	6	0	2
Apr 2005	9	0	8278	0	2
Pad Total		0	2412405	32140	

NICOLAI_CREEK_

Dec 1968	31	0	13919	0	1
Jan 1969	31	0	55385	0	1
Feb 1969	28	0	48075	0	1
Nov 2003	2	0	1099	52	1
Dec 2003		0	0	0	1
Jan 2004	0	0	0	0	1
Feb 2004	0	0	0	0	1
Mar 2004	5	0	875	0	1
Apr 2004	0	0	0	0	1
May 2004	0	0	0	0	1
Jun 2004	0	0	0	0	1
Jul 2004	0	0	0	0	1
Aug 2004	0	0	0	0	1
Sep 2004	0	0	0	0	1
Oct 2004	0	0	0	0	1
Nov 2004	0	0	0	0	1
Dec 2004	0	0	0	0	1
Jan 2005	0	0	0	0	1
Feb 2005	0	0	0	0	1
Mar 2005	0	0	0	0	1
Apr 2005	0	0	0	0	1
Pad Total		0	119353	52	

NICOLAI_CREEK_

Nov 2003	1	0	793	0	1
Dec 2003	18	0	68189	0	1
Jan 2004	15	0	38620	0	1
Feb 2004	1	0	573	0	1

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Production History for: NICOLAI CREEK, NORTH UND GAS Pool

Jan 1958 Through

<u>Month</u>	<u>DaysProd</u>	<u>Oil (BBL)</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>	<u>Wells</u>
Mar 2004	13	0	31840	0	1
Apr 2004	22	0	59576	0	1
May 2004	31	0	79158	0	1
Jun 2004	19	0	53103	0	1
Jul 2004	16	0	36134	4	1
Aug 2004	28	0	72869	1	1
Sep 2004	30	0	76400	1	1
Oct 2004	31	0	68267	1	1
Nov 2004	29	0	48475	1	1
Dec 2004	18	0	31880	1	1
Jan 2005	1	0	508	0	1
Feb 2005	1	0	112	0	1
Mar 2005	1	0	24	0	1
Apr 2005	9	0	15813	0	1
Pad Total		0	682334	9	
Pool Total		0	3,214,092	32,201	

Findings and Decision of the Director
of the Division of Oil and Gas

APPROVAL OF THE
REVISED NICOLAI CREEK UNIT AREA,
REVISED PARTICIPATING AREAS A and B,
AND
FORMATION OF THE BELUGA PARTICIPATING AREA

Under a Delegation of Authority
from the Commissioner of the State Of Alaska
Department of Natural Resources

March 10, 2005

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I. DECISION SUMMARY

Aurora Gas, LLC (Aurora), as Nicolai Creek Unit (NCU) operator and sole working interest owner, applied to revise the existing participating areas, form the Beluga Participating Area, and revise the Nicolai Creek Unit Area (the Application). The State of Alaska Department of Natural Resources, Division of Oil and Gas (the DNR or the Division, as appropriate) approves the Application as follows:

1. Participating Area A is revised to reflect the current geologic and engineering interpretation for the reservoir and is renamed the South Participating Area (SPA).
2. Participating Area B is renamed the North Participating Area (NPA).
3. The new Beluga Participating Area (BPA) is approved.
4. A portion of federal lease AA-8426 is added to the NCU and the aerial extent of the Unit is revised to encompass the three PAs. As before, the unit area is limited to its approved participating areas.
5. Aurora shall work with the Division's Royalty Accounting Section to revise all royalty and operator reports back to November 1, 2003. The production must be allocated based on the approved tract participation schedules for each participating area.

Aurora submitted geologic and well data that indicate the revised SPA and proposed BPA are capable of producing or contributing to the production of hydrocarbons in paying quantities, which justifies revising the SPA and the NCU, and forming the BPA.

Attachment 1 is a map showing the old and new NCU boundary. Attachment 2 is a map showing the old and new SPA boundary. Attachment 3 is Exhibit A to the NCU Agreement showing the approved boundaries for the NCU, BPA, SPA, and NPA.

The Division also approves Exhibits B, B-1, B-2 and B-3 to the NCU Agreement (Attachments 4 through 7), the tract allocation schedules for each of the PAs. The tract allocation schedules equitably allocate production and costs among the leases in the NCU.

II. BACKGROUND AND APPLICATION HISTORY

Texaco formed the Nicolai Creek Unit and Participating Areas A and B in 1968. It drilled the Nicolai Creek State No. 1-A well (NCS-1A) in the Participating Area B and tested the well, but no facilities or pipelines were built to facilitate sustained production. It also drilled the Nicolai Creek No. 2 well (NCU-2) and the Nicolai Creek No. 3 well (NCU-3). NCU-2 tested gas from Participating Area A for nine months in 1968 and 1969. Facilities and a pipeline were installed for Participating Area B and NCU-3 produced from Participating area B from 1969 through 1977.

In 1973, the NCU boundary contracted to the discontinuous lands within Participating Areas A and B. Unocal and Marathon acquired the field in 1988, each holding 50% working interest, and Unocal was the designated unit operator.

Beginning in 1998, AS 38.05.180(f)(5) provided for a temporary royalty reduction to encourage development of certain fields in the Cook Inlet Basin, including Nicolai Creek. The Statute establishes a royalty rate of five percent on the first 25,000,000 barrels of oil and 35,000,000,000 cubic feet of gas produced from eligible fields within 10 years of initial production for sale, if production for sale commenced before January 1, 2004. To qualify for the reduced royalty rate on production from the Nicolai Creek Field, the operator was required to submit a written plan to the Alaska Oil and Gas Conservation Commission (AOGCC) in accordance with AS 31.05.030(i). This generous economic incentive was intended to encourage Unocal to bring the Nicolai Creek Unit on production earlier than planned.

In November 2000, Unocal and Marathon assigned their interests to Aurora. Aurora became the operator with 100 percent working interest in the NCU. Aurora successfully restarted sustained production in the NCU-3 well in September 2001 and the AOGCC approved its written plan submitted under AS 31.05.030(i), which qualified the field for the royalty reduction.

By letter date July 12, 2002, Aurora requested an order from the AOGCC allowing a spacing exception to drill and test the Nicolai Creek Unit No. 1B (NCU-1B) and No. 8 (NCU-8) wells and to recompleat and test the NCU-2 well. The AOGCC issued Conservation Order No. 478 (Attachment 9), on September 5, 2002, which approved Aurora's request for spacing exceptions but provided that the wells could not be placed on regular production until the AOGCC took additional action to offset any advantage Aurora may have had over other mineral owners by reason of the wells having been drilled to the exception locations.

Aurora did not drill the NCU-8 well because it encountered a shallow obstruction while driving conductor pipe, but permitted and drilled NCU No. 9 (NCU-9) as a replacement well.

On September 2, 2003, Aurora submitted an application to the Division for approval to revise the participating areas and the NCU boundary. The Division immediately notified Aurora that its application was incomplete and began working with Aurora to remedy the deficiencies. It quickly became apparent that the process was going to take an extended period of time due to the number of parties involved, and the unresolved land ownership and title issues. The Division invited the Mental Health Trust Land Office (TLO) to participate in all pertinent Application communications, discussions, and meetings between Aurora and the Division because they are an adjacent mineral interest owner. As early as August 12, 2003, the Division's goal was to include the TLO throughout the process and arrive at a fair decision that the TLO would support.

In the interim, Aurora proposed to report production from the NCU-1B and NCU-2 wells to the Division at a five percent royalty rate, and production from the NCU-9 to the Bureau of

Land Management (BLM) using a 12.5 percent royalty rate. On September 25, 2003, the Division, the TLO and BLM agreed with this interim royalty reporting payment methodology, on condition that, upon approval of the final Application, Aurora shall submit revised royalty and operator reports to the Division and BLM retroactive to the first day of production (See Attachment 12).

On October 9, 2003, Aurora submitted a revised Application, to the Division, along with additional supporting confidential geologic and engineering data.

On October 16, 2003, the AOGCC issued Conservation Order No. 478A (Attachment 10) allowing regular production from the NCU-1B, NCU-2 and NCU-9 wells using the interim reporting methodology. In November 2003, Aurora completed pipeline and facility construction for PA-B and initiated production from the NCU-2 and NCU-9 wells.

The Division worked with Aurora, the BLM and the TLO on the Application, and on November 4, 2003, the Division determined that the Application included all of the items listed in 11 AAC 83.306 and constituted a complete application for public notice.

The Division issued a public notice of the Revised Application on November 5, 2003, which DNR posted on the State's web page. The notice was published in the *Anchorage Daily News* and the *Peninsula Clarion* on Sunday, November 9, 2003. The public notice invited interested parties and members of the public to submit comments on the Application by December 9, 2003.

The Division received two comment letters in response to the public notice. The first letter, submitted by the TLO to document its involvement in the process of approving the Application, is attached to this Decision (Attachment 11). The second letter was from the Kenai Peninsula Borough, which reviewed the proposed unit expansion for consistency with the Kenai Peninsula Borough Coastal Management Program enforceable policies. The Kenai Peninsula Borough had no objection to approval of the Application.

On January 7, 2004, Aurora submitted a request to suspend the Application process until such time that the technical details could be resolved. On January 8, 2004, the Division approved the suspension of the Application and encouraged Aurora to continue working with the interested parties to reach agreement on the revised unit and participating area boundaries.

After working with the various parties, on and off for approximately one year, on January 21, 2005, Aurora submitted a final, revised Application that included new tract participation schedules and a proposal to create an additional participating area (BPA). The Application proposes to include a portion of federal lease AA-8426, approximately 45.30 acres, in the NCU. Aurora is the only working interest owner, but there are approximately 16 overriding royalty owners.

There is geologic and engineering evidence to support the formation of the BPA to develop

the Beluga Reservoirs within the revised NCU. The data also supports revising the SPA to develop the Tyonek Reservoirs under a unified plan of development.

III. PARTICIPATING AREA DECISION CRITERIA

AS 38.05.180(p) gives DNR the authority to approve an oil and gas unit. The DNR Commissioner (Commissioner) reviews unit and participating area applications under AS 38.05.180(p) and 11 AAC 83.301 – 11 AAC 83.395. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003, and delegated this authority to the Division Director (Director).

Under 11 AAC 83.303(a), the Director will approve the Application upon finding that it will: 1) promote the conservation of all natural resources; 2) promote the prevention of economic and physical waste; and 3) provide for the protection of all parties of interest, including the state. Subsection .303(b) sets out six criteria that the Director will consider in evaluating the Application. A discussion of the subsection .303(b) criteria, as they apply to the Application, is set out directly below, followed by the Director’s findings relevant to subsection .303(a) and the Director’s conditional approval of the Application.

A participating area may include only land reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, or engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities. 11 AAC 83.351(a). “Paying Quantities” means:

Quantities sufficient to yield a return in excess of operating, costs, even if drilling and equipment costs may never be repaid and the undertaking as a whole may ultimately result in a loss; quantities are sufficient to yield a return in excess of operating costs unless those quantities, not considering the costs of transportation and marketing, will produce sufficient revenue to induce a prudent operator to produce those quantities. 11 AAC 83.395(4)

1) The Environmental Costs and Benefits

Approval of the BPA and the revision of the SPA has no environmental impact. This Decision is an administrative action and does not authorize any surface activity. Potential effects on the environment are analyzed when permits to conduct exploration or development in the unit area are reviewed. In fact, unitized development has less impact on the environment than development on a lease-by-lease basis.

2) The Geological and Engineering Characteristics of the Proposed PAs

The State’s regulations provide that a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or potential accumulations. 11 AAC 83.356(a). DNR technical staff evaluated all data provided by the unit operator including

geologic cross sections, structure maps, electric log analyses, and interpreted seismic data to determine if the proposed unit area met the regulatory criteria.

The reservoir sandstones of the NCU belong to the Oligo/Miocene Tyonek and Beluga Formations. Only those sands of the Tyonek Formation are currently producing. Deposition of these sands occurred within the Cook Inlet Basin, a feature characterized as an elongate, northeast trending, fault-bounded forearc basin that extends from the Matanuska Valley south along the Alaska Peninsula. The northwestern reaches of the Cook Inlet forearc basin are defined by a series of tight anticlines and associated structures that deform the Tertiary section and provide traps for both oil and gas. These features are part of a transpressional regime that results from strain transfer between the Castle Mountain Fault to the north and Bruin Bay Fault to the west. The structures manifested within the NCU have evolved through such processes.

Subsurface geology of the NPA of the NCU indicates a combination structural and stratigraphic trap with gas trapped in Upper Tyonek sandstones. Sandstone units are draped over a four-way closure anticline formed along a southward-plunging axis on the west side of an eastward-verging fault (interpreted to be the northern extension of the Trading Bay fault).

A similar setting exists in the subsurface of the SPA of Upper Tyonek gas bearing sandstones trapped within a fold and closed against a dominant west-east cross-fault (the Nicolai Cross Fault) that splays off the aforementioned Trading Bay Fault to the east. The Nicolai Cross Fault appears to separate the structure of the NPA from that of the SPA. From a maximum of approximately 500-600 feet in the east, the fault throw diminishes westwards.

Within the NPA and SPA, reservoir sandstones are restricted to the Upper Tyonek Formation. Eight individual sand members have been identified from log correlation and mapped across the Nicolai Creek field. Within the Nicolai Creek field, individual sands have been assigned names based on standardized industry palynological zonation. The sandstones are within the Carya 2 palynological zone and have been subdivided using an appropriate numeric designation (2-1.1, 2-1.2, 2-2.1, 2-2.2, 2-2.3, 2-4.2, 2-5.1, and 2-6.1). Log data indicate the NCU wells show the relative conformity of the shallower Carya 2-1 through Carya 2-23 section with some possible expansion of the deeper Carya 2-4.2 through Carya 2-6.1 section. The apparent expansion of the deeper section in the NCU-2 well could be explained by faulting. Gas appears trapped in the Upper Tyonek Formation in unconsolidated, non-marine sandstone reservoirs between 1,680 and 3,475 feet subsea true vertical depth (SSTVD). Since the Tyonek reservoirs of both the NPA and SPA are stacked sandstone bodies, the composite areas of the reservoir extent, which is controlled by structure and sandstone distribution and confirmed by seismic and well data, are summed together to define the outline of the SPA and NPA areas.

The BPA is defined by the surface acreage covering the anticipated productive Beluga

Formation sandstones. Since the Beluga reservoirs appear to be stacked sandstone bodies, the composite areas of the reservoir extent, which is controlled by structure and sandstone distribution and confirmed by seismic and well data, are summed together to define the outline of the BPA.

3) Prior Exploration Activities in the Nicolai Creek Unit

The NCU was formed by Texaco on February 29, 1968 after discovering gas in the NCS-1A and NCU-2 wells in 1966 and the NCU-3 well in 1967. NCS-1A produced an average 1.3 MMSCF/day of dry gas from December 1968 to February 1969 and NCU-2 produced an average of 0.4MMSCF/day of dry gas from October 1968 through November 1969. Upon completion of the aforementioned periods of productivity both NCS-1A and NCU-2 were shut-in. NCU-3, produced an average of 0.3 MMSCF/day dry gas from April 1969 through October 1977, when it was shut-in.

During the period 1970 to 1988 three wells, NCU-4 (1970), NCU-5 (1972) and NCU-6 (1988) were drilled and they proved to be dry. In 1988, Unocal and Marathon acquired the field, each holding a 50% working interest. Unocal was designated the NCU operator. In 1991, Unocal worked over NCU-4 but failed to achieve commercial production.

In 2000, Aurora took over the unit as operator with a 100% working interest. In 2000 and 2001, Aurora worked over NCU-3, sidetracked NCS-1A to the NCU-1B location, and repaired NCU-2.

In 2001, Aurora installed production facilities and a pipeline for the NCU-3. It commenced production at an average rate of 1.1 MMSCF/D with an average of 35 barrels of water per day and continued to produce February 2004 when a workover to add additional perforations was completed. The well is currently shut-in but production is expected to be restored in 2005 at 0.5 to 1.0 MMSCF/D.

In 2003, Aurora acquired a new 3-D seismic survey and drilled NCU-9 with a bottom-hole location between the two participating areas but outside of the NCU. Aurora also established new facilities and a pipeline to the SPA's drill site in 2003. During 2003, Aurora produced gas from NCU-9 and NCU-2 at rates of 2.3 and 2.5 MMSCF/Day respectively.

4) The Applicant's Plan for Development of the Participating Areas

The Application included a revised Plan of Development (POD) for the NCU. The new POD is approved for the period beginning on the effective date of this Decision through December 31, 2005.

The POD proposes extensive review and interpretation of existing 3D seismic data, which will

possibly lead to a new development well targeting the stacked Carya 2 (Upper Tyonek) channel sands. The unit operator also plans to reestablish production in the NCU-3 and continue production from NCU-2 and the NCU-9 wells. The NCU No. 1B well is currently shut-in pending further evaluation.

Production rate is declining rapidly in the NCU-2, so Aurora plans to recomplete the well in the Tsuga 2-8.2 and 2-8.3 sands with the hopes of producing those intervals. The NCU-9 well produces from the Tsuga 2.8-1 sands, and Aurora plans additional recompletions in future years.

NCU-3 produced sales gas between October 3, 2001 when the pipeline was installed, and February 2004, when the current work over program began. Aurora plans to commingle production of the deeper Tsuga 2-8.1 perforations with the shallower Carya 2-1.1, 2-1.2, and 2-2.1 in the NCU-3 well.

5) The Economic Costs and Benefits to the State

Approval of the proposed BPA and associated field development will provide economic benefits to the state. The long-term goal is to maximize the physical and economic recovery of hydrocarbons from each of the productive reservoirs. Maximum hydrocarbon recovery will enhance the state's long-term royalty and tax revenue stream.

Any additional administrative burdens associated with the participating areas are far outweighed by the additional royalty and tax benefits derived from production.

The Division finds Aurora's tract allocation schedules acceptable for allocating production and costs among the leases in the participating areas. Aurora shall work with the Division's Royalty Accounting Section to submit royalty and operator reports to properly allocate the production from the NCU-2 and NCU-9 wells to the SPA and BPA, back to November 1, 2003. Aurora shall submit revised royalty and operator reports for the NPA back to November 1, 2003 to correct inaccuracies in the reports.

The production will be allocated based on the approved tract participation schedules for each participating area. Aurora must report production from the SPA, NPA, and BPA using production accounting unit codes NCPA, NCPB, and NCBE, respectively.

IV. FINDINGS

1) Conservation of Natural Resources

The formation of oil and gas units, as well as the formation of participating areas within units, generally conserves hydrocarbons. Coordinated development of leases held by diverse parties maximizes total hydrocarbon recovery and minimizes waste. Formation of the BPA will provide for efficient, integrated development of the Beluga reservoir within the NCU. A

comprehensive plan of development governing the area will help avoid duplicative development efforts on and beneath the surface.

Producing hydrocarbon gas from the area through the NCU facility reduces the incremental environmental impact of the production. Creating the BPA will help maximize gas recovery, while minimizing negative impacts on all other natural resources.

2) Prevention of Economic and Physical Waste

Generally, the formation of a participating area facilitates the equitable division of costs and allocation of the hydrocarbon shares, and provides for a diligent development plan, which helps to maximize hydrocarbon recovery from a reservoir. Further, the formation of a participating area, which enables both facility sharing opportunities and adoption of a unified reservoir management strategy, may allow economically marginal hydrocarbon accumulations to be developed.

Formation of a participating area promotes complete development of a reservoir with variable productivity across adjoining leases. Commingling production from the Tyonek and Beluga Formations in the NPA will maximize drilling and completion efficiency and result in lower development costs, possibly extending the economic life of the field.

3) Protection of All Parties

Because hydrocarbon recovery will more likely be maximized, the state's economic interest is promoted. Diligent exploration and development under a single approved unit plan without the complications of competing leasehold interests promotes the state's interest. The formation of the BPA advances the efficient evaluation and development of the state's resources, while minimizing impacts to the area's cultural, biological, and environmental resources. Operating under the NCU Agreement provides for accurate reporting and record keeping, and royalty settlement. These all protect the state's interest.

The proposed BPA and revised SPA protect the economic interests of the working interest owner and the royalty owners.

V. DECISION

Based on the facts discussed in this Decision and the administrative record, I make the following Findings and Decision:

- 1) The proposed acreage is underlain by hydrocarbons and known and reasonably estimated to be capable of production or contributing to production in sufficient quantities to justify the formation of the BPA, the revision of the SPA, and the revision of the NCU area.

- 2) The geological and engineering data justify the inclusion of the proposed acreage within the participating areas under the terms of the applicable regulations governing formation and operation of oil and gas units (11 AAC 83.301 – 11 AAC 83.395) and the terms and conditions under which these lands were leased from the state.
- 3) The Beluga Participating Area (BPA) is limited to the stratigraphic interval in the Beluga Formation encountered between 1320 and 1477 feet (measured depth) in NCU-9 (API 50-283-20102).
- 4) The Gas Pool PA-A, which is renamed the Southern Participating Area (SPA), is limited to the stratigraphic interval in the Tyonek Formation encountered between 2422 and 2918 feet (measured depth) in NCU-2 (API 50-283-10021).
- 5) The Gas Pool PA-B, which is renamed the Northern Participating Area (NPA), is limited to the stratigraphic interval in the Beluga and Tyonek Formations encountered between 1494 and 2238 feet (measured depth) in NCU-3 (API 50-283-20003).
- 6) Formation of the BPA and revision of the SPA provides for the equitable division of costs and an equitable allocation of produced hydrocarbons under a development plan designed to maximize physical and economic recovery from the reservoirs within the approved participating areas.
- 7) The allocations of production and costs for the tracts within the NCU participating areas (Exhibits B-1, B-2, and B-3), Attachments 5, 6, and 7 to this Findings and Decision are approved.
- 8) Approval of the formation of the BPA, revision to the SPA, revision to the NCU, and approval of the attached Exhibits to the NCU Agreement are retroactively effective to November 1, 2003.
- 9) Aurora shall report all production from the SPA, NPA, and BPA to Production Accounting Units NCPA, NCPB, and NCBE, respectively.
- 10) Aurora shall submit revised operator and royalty reports for accounting unit code NCPB from November 1, 2003 forward in order to correct inaccuracies in the reports.
- 11) Aurora shall submit separate original operator and royalty reports for accounting unit codes NCPA and NCBE from November 1, 2003 forward. Aurora shall also provide the royalty accounting section copies of all revised AOGCC reports (Form 10-422) from November 1, 2003 forward.

For these reasons I hereby approve the formation of the Beluga Participating Area, the revision and renaming of the South Participating Area, the renaming of the North Participating Area, and the revision of the Nicolai Creek Unit area. Since the Application was approved by

the BLM on March 1, 2005 retroactively effective November 1, 2003, this Decision is also retroactively effective to November 1, 2003.

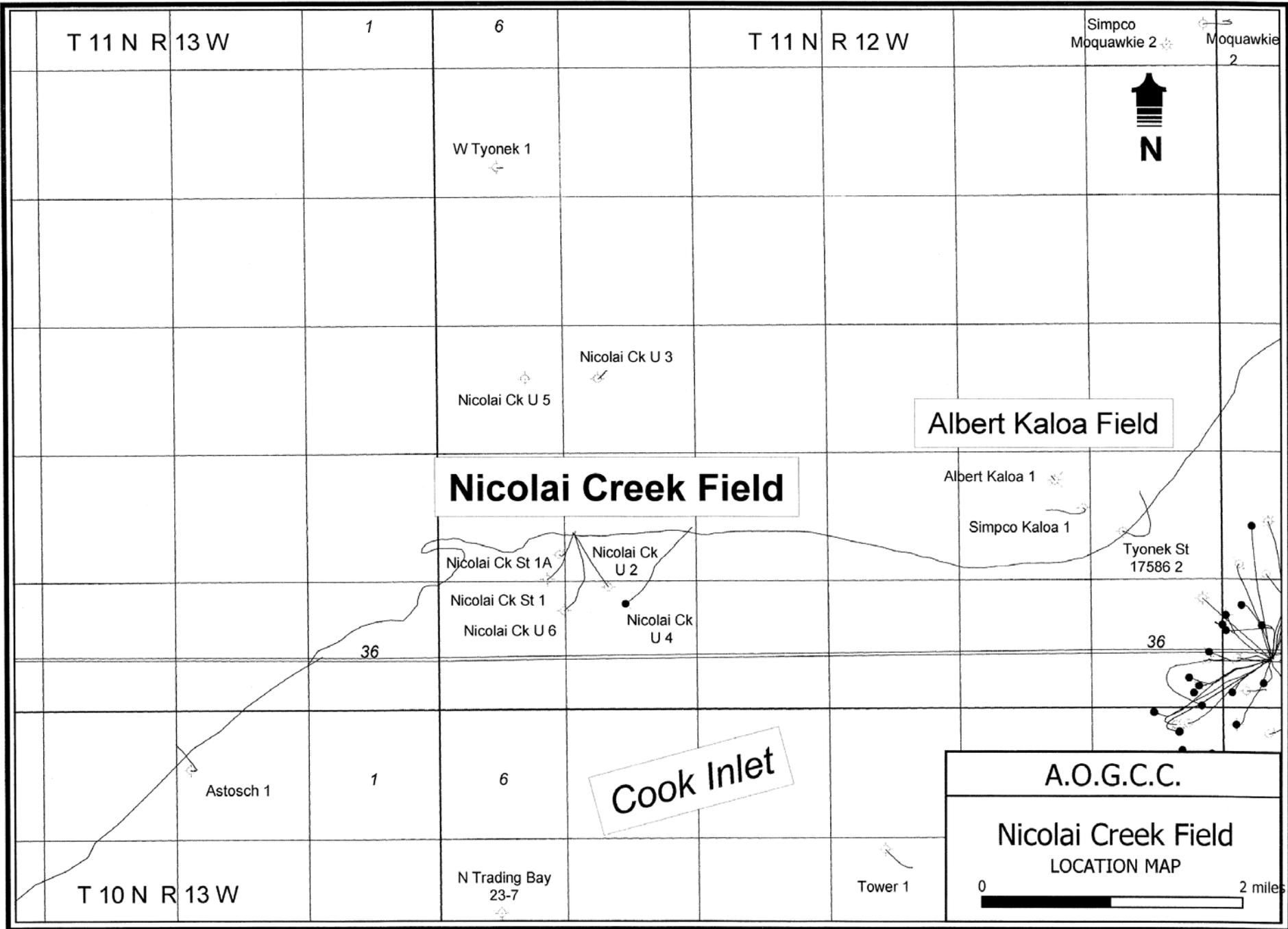
A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02.040 (c) and (d), and may be mailed or delivered to Thomas E. Irwin, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by electronic mail to dnr_appeals@dnr.state.ak.us. This decision takes effect immediately. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31st day after issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

Signed on 03-14-2005 by Sean Parnell for Mark Myers
Mark D Myers
Division of Oil and Gas

03/14/2005
Date

Attachments:

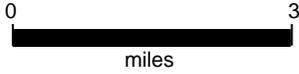
1. Map of old and new NCU boundaries
2. Map of old and new SPA boundaries
3. Exhibit A to the NCU Agreement (Map of Unit and Participating Areas, 3 pages)
4. Exhibit B to the NCU Agreement (NCU Tract Schedule)
5. Exhibit B-1 to the NCU Agreement (Tract Participation Schedule for the North PA)
6. Exhibit B-2 to the NCU Agreement (Tract Participation Schedule for the South PA)
7. Exhibit B-3 to the NCU Agreement (Tract Participation Schedule for the Beluga PA)
8. Exhibit G to the NCU Agreement (Plan of Development)
9. AOGCC Conservation Order No. 478
10. AOGCC Conservation Order No. 478A
11. TLO letter commenting on the public notice



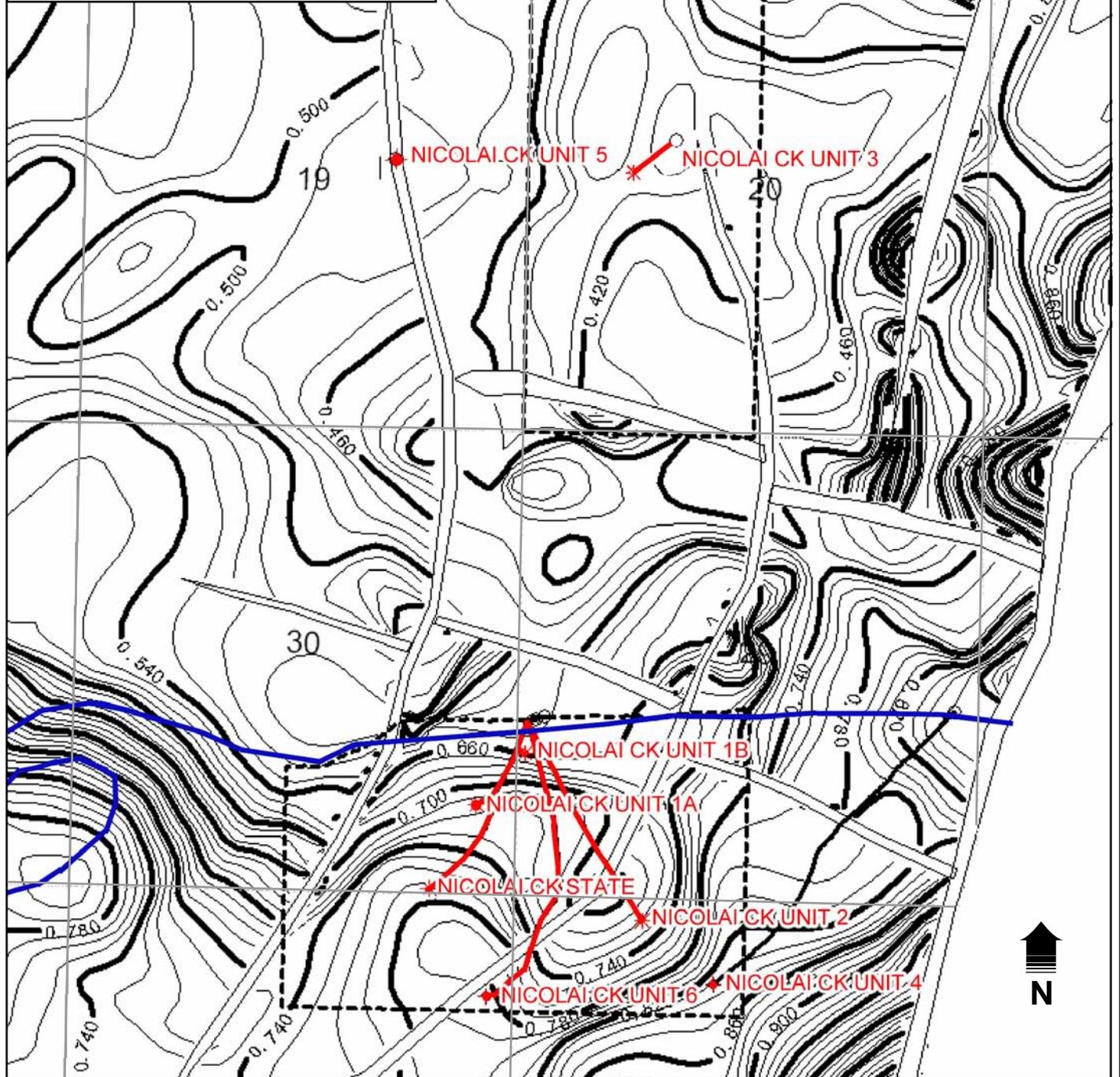
AOGCC

Nicolai Creek Field

TOP TYONEK TIME STRUCTURE MAP



REPRODUCED WITH OPERATOR PERMISSION
MODIFIED FROM ORIGINAL SUBMITTAL BY AOGCC



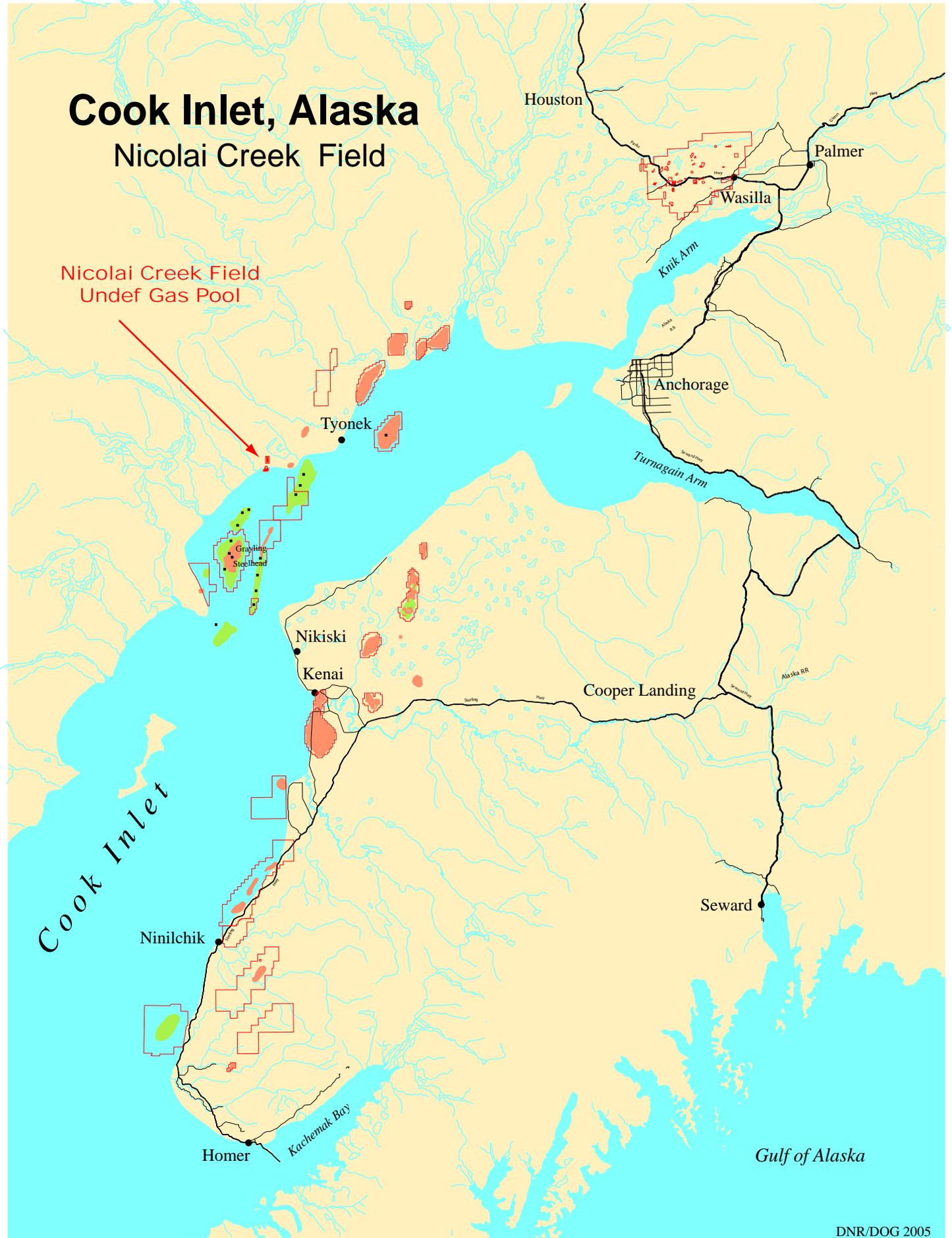
- Nicolai Creek Unit Boundary
- Well Trajectories
- Cook Inlet Shoreline



Cook Inlet, Alaska

Nicolai Creek Field

Nicolai Creek Field
Undef Gas Pool



NICOLAI CREEK FIELD

No Pool

Current Orders

Order No.	AA	Operator	Date	Description	Current	
AEO	10	0	Envirotech LLC	06-Oct-04	Order granting an aquifer exemption beginning at the ground surface for purposes of Class II disposal of treated, produced water using a waste-water drain field installed at Envirotech's North Foreland Facility site.	Y
DIO	24	0	AURORA GAS L	26-Jun-02	Disposal of Class II oil field wastes by underground injection in the Tyonek Formation, Nicolai Creek Unit No. 5, Section 19, T11N, R12W, SM.	Y
OTH	10	0	AURORA GAS L	14-Jan-02	Approves the Nicolai Creek Field plan.	Y
CO	67	0	TEXACO INC	04-Oct-68	Because of unitization, sale of gas permitted field spacing order required by CO 028 no longer necessary.	Y

NICOLAI CREEK FIELD

No Pool

Spacing Exception Orders

Order No.	AA	Operator	Date	Description	Current
CO	478	0 AURORA GAS L	05-Sep-02	Spacing Exception to drill and test the Nicolai Creek Unit No. 1B and No. 8 wells and recompleat and test the No. 2 well. On 11/5/02 Nicolai Creek No. 9 permit to drill was approved. This conservation order governs Nicolai Creek 9.	Y
CO	28	0 TEXACO INC	23-Aug-66	Spacing exception for Nicolai Creek Unit #2.	N
CO	23	0 TEXACO INC		Request for spacing exception. Withdrawn.	N

**NICOLAI CREEK FIELD
NORTH UNDEFINED GAS POOL**

Current Orders

Order No.	AA	Operator	Date	Description	Current	
CO	478 A	0	AURORA GAS L	16-Oct-03	Order allowing regular production from Nicolai Creek Unit Wells No. 1B, No. 2 and No.9 in an undefined gas pool.	Y

Cook Inlet Generalized Stratigraphic Column

TERTIARY	PLIOCENE	Sterling Fm.	     					
	MIOCENE	Beluga						
		Tyonek Fm.						
	OLIGOCENE	Hemlock						
		<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 15%;"></td> </tr> </table>						
	EOCENE	W. Foreland						
Chickaloon Fm.								
CRETACEOUS	UPPER	Matanuska Fm.						
	LOWER	Unnamed Shale						
JURASSIC	UPPER	Naknek Fm.						
		Chinitna Fm.						
	MIDDLE	Tuxedni Gp.						
LOWER	Talkeetna Fm.							

Nicolai Ck
 Undef
 Gas Pool

**OIL
 SOURCE**

NICOLAI CREEK FIELD, UNDEFINED GAS POOL

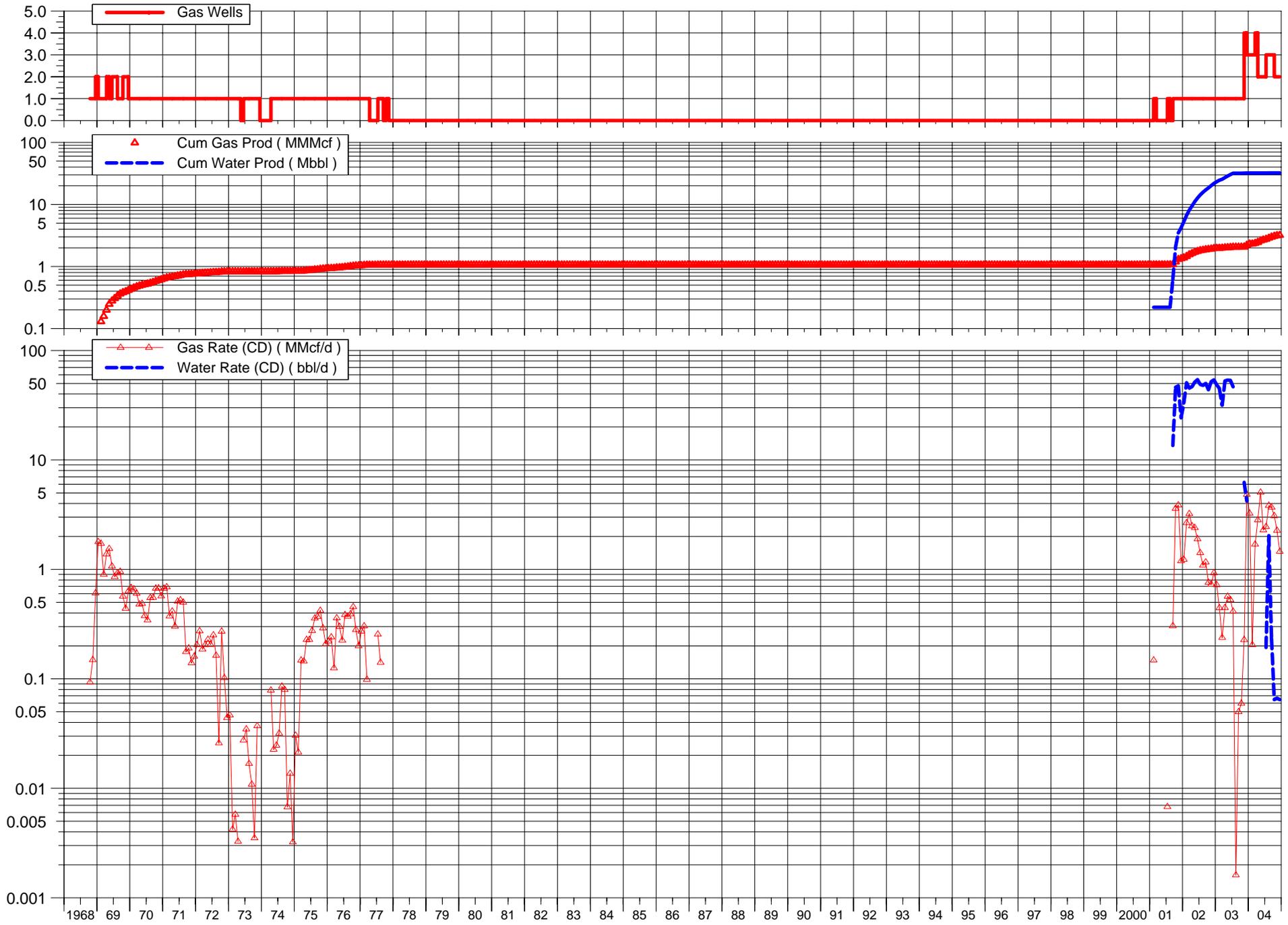


Exhibit "B"

Nicolai Creek Unit Agreement-Unit Area

Nicolai Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Committed Participating Acreage	Lessor/Royalty Owner/Lease Serial No.	Royalty Interest	ORRI Owners	Overriding Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date	Recording	
										Book	Page
1	T11N, R12W, S.M. Section 20: W1/2	320.00	320.00	State of Alaska ADL-63279	0.125*	Alice F. & J. Bailey Hinkle Mitsue & Robert K. Masuda Keiso & Marcella T. Masuda Donald L. Stroble Alice Coulthard Hatsuyo & Etsuo Miyamoto Jayne Y. & Fred S. Hokama Rose M. & Bernard Maresh Ruth S. & Mobley Pharis Patricia & Jack B Conway Laverna I. Traxinger John R. Roderick David Boelens total	0.0025794 0.0028571 0.0028571 0.0025794 0.0025794 0.0028571 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0012500 0.0100000 0.0404565	Aurora 1.00	HBP	N/A	N/A
2	T11N, R12W, S.M. Section 29 & 30: 45.30 acres, as Unsurveyed, being all that portion of Sec 29; N1/2NW1/4SW1/4 & S1/2NW1/4SW1/4 comprising approximately 23.0 acres both lying directly landward of shoreline, along the line of mean high tide of the Cook Inlet, & all of the SW1/4SW1/4NW1/4 comprising approximately 10.0 gross acres; and being all that Unsurveyed portion of Section 30: E1/2 NE1/4SE1/4 lying directly landward of shoreline, along the line of mean high tide of the Cook Inlet, comprising approximately 12.30 acres.	45.30	45.30	BLM AA-8426	0.125	Alice F. & J. Bailey Hinkle Mitsue & Robert K. Masuda Keiso & Marcella T. Masuda Donald L. Stroble Alice Coulthard Hatsuyo & Etsuo Miyamoto Jayne Y. & Fred S. Hokama Rose M. & Bernard Maresh Ruth S. & Mobley Pharis Patricia & Jack B Conway Laverna I. Traxinger John R. Roderick David Boelens total	0.0025794 0.0028571 0.0028571 0.0025794 0.0025794 0.0028571 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0012500 0.0100000 0.0404565	Aurora 1.00	HBP	N/A	N/A

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Exhibit "B"

Nicolai Creek Unit Agreement-Unit Area

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Nicolai Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Committed Participating Acreage	Lessor/Royalty Owner/Lease Serial No.	Royalty Interest	ORRI Owners	Overriding Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date	Recording	
										Book	Page
3	T11N, R12W, S.M. Section 29: 37.542 acres, as UNSurveyed, being all tide and submerged lands within the S1/2NW1/4SW1/4 and all of the N1/2SW1/4SW1/4.	37.542	37.542	State of Alaska ADL-17585	0.125*	David Boelens	0.0100000	Aurora 1.00	HBP	N/A	N/A

4	T11N, R12W, S.M. Section 30: 7.903 acres, as UNSurveyed, being all tide and submerged lands within the SE1/4NE1/4SE1/4	7.903	7.903	State of Alaska ADL-17598	0.125*	David Boelens	0.0100000	Aurora 1.00	HBP	47	83
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Total 410.745 410.745

* Currently subject to Royalty Reduction Relief at .05

Recapitulation of UNIT AREA Land Categories			Percentage	Recapitulation of Working Interest Ownership	
State Land:	365.445		0.8897126		
BLM Land:	45.300		0.1102874		
Total	410.745		1.0		Aurora 1.00

Exhibit "B-1"
Nicolai Creek South Participating Area

Nicolai Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Tract Participation Factor (Participating Area)	Committed Participating Acreage	Lessor/Royalty Owner/Lease Serial No.	Royalty Interest	ORRI Owners	Overriding Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date
2	T11N,R12W, S.M. Section 29 & 30: 4.10 acres, as Unsurveyed being all that portion of Sec 29 SW1/4NW1/4SW1/4 lying directly landward of shoreline, along the line of mean high tide of the Cook Inlet, comprising approximately 1.80 gross acres; and being all that Unsurveyed portion of Section 30: SE1/4 NE1/4SE1/4 lying directly landward of shoreline, along the line of mean high tide of the Cook Inlet, comprising approximately 2.30 acres.	4.10	0.1013321	4.10	BLM AA-8426	0.125	Alice F. & J. Bailey Hinkle Mitsue & Robert K. Masuda Keiso & Marcella T. Masuda Donald L. Stroble Alice Coulthard Hatsuyo & Etsuo Miyamoto Jayne Y. & Fred S. Hokama Rose M. & Bernard Maresh Ruth S. & Mobley Pharis Patricia & Jack B Conway Laverna I. Traxinger John R. Roderick David Boelens total	0.0025794 0.0028571 0.0028571 0.0025794 0.0025794 0.0028571 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0012500 0.0100000 0.0404565	Aurora 1.00	HBP
3	T11N, R12W, S.M. Section 29: 28.458 acres, as UNSurveyed, being all tide and submerged lands within the SW1/4NW1/4SW1/4 and all of the N1/2SW1/4SW1/4	28.458	0.7033440	28.458	State of Alaska ADL-17585	0.125*	David Boelens Mental Health Trust Land Office total	0.0100000 0.0050000 0.0150000	Aurora 1.00	HBP
4	T11N, R12W, S.M. Section 30: 7.903 acres, as UNSurveyed, being all tide and submerged lands within the SE1/4NE1/4SE1/4	7.903	0.1953239	7.903	State of Alaska ADL-17598	0.125*	David Boelens Mental Health Trust Land Office total	0.0100000 0.0050000 0.0150000	Aurora 1.00	HBP
Total		40.461	1.0000000	40.461						

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* Currently subject to Royalty Reduction Relief at .05

Recapitulation of PARTICIPATING AREA Land Categories	Percentage	
State Land:	36.361	0.8986679
Other Land:	4.100	0.1013321
Total	40.461	1.0000000

Recapitulation of Working Interest Ownership
Aurora 1.00

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0.080913

Exhibit "B-2"

Nicolai Creek North Participating Area

Nicolai Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Tract Participation Factor (Participating Area)	Committed Participating Acreage	Lessor/Royalty Owner/Lease Serial No.	Royalty Interest	ORRI Owners	Overriding Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date
1	T11N, R12W, S.M Section 20: W1/2	320.00	1.0000000	320.00	State of Alaska ADL-63279		Alice F. & J. Bailey Hinkle Mitsue & Robert K. Masuda Keiso & Marcella T. Masuda Donald L. Stroble Alice Coulthard Hatsuyo & Etsuo Miyamoto Jayne Y. & Fred S. Hokama Rose M. & Bernard Maresh Ruth S. & Mobley Pharis Patricia & Jack B Conway Laverna I. Traxinger John R. Roderick David Boelens	0.0025794 0.0028571 0.0028571 0.0025794 0.0025794 0.0028571 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0025794 0.0012500 0.0100000		
							total	0.0404565		
Total		320.00	1.0	320.00						

Currently subject to Royalty Reduction Relief at .05

Recapitulation of PARTICIPATING AREA Land Categories		Percentage	Recapitulation of Working Interest Ownership	
State Land:	320.00	1.0		
Other Land:	-	-		
Total	320.00	1.0	Aurora 1.00	

Exhibit "B-3"

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Nicolai Creek Beluga Participating Area

Nicolai Creek Unit Tract Number	Description of Participating Lands	Gross Acres	Tract Participation Factor (Participating Area)	Committed Participating Acreage	Lessor/Royalty Owner/Lease Serial No.	Royalty Interest	ORRI Owners	Overriding Royalty Interest	Working Interest Owners & Percentage Working Interest	Expiration Date
2	T11N, R12W, S.M. Section 29 & 30: 45.30 acres, as Unsurveyed, being all that portion of Sec 29 N1/2NW1/4SW1/4 & S1/2NW1/4SW1/4 comprising approximately 23.0 acres both lying directly landward of shoreline, along the line of mean high tide of the Cook Inlet, & all of the SW1/4SW1/4NW1/4 comprising approximately 10.0 gross acres; and being all that Unsurveyed portion of Section 30: E1/2 NE1/4SE1/4 lying directly landward of shoreline, along the line of mean high tide of the Cook Inlet, comprising approximately 12.30 acres.	45.30	0.5609699	45.30	BLM AA-8426	0.125	Alice F. & J. Bailey Hinkle Mitsue & Robert K. Masuda Keiso & Marcella T. Masuda Donald L. Stroble Alice Coulthard Hatsuyo & Etsuo Miyamoto Jayne Y. & Fred S. Hokama Rose M. & Bernard Maresh Ruth S. & Mobley Pharis Patricia & Jack B Conway Laverna I. Traxinger John R. Roderick David Boelens total	0.0025794 0.0028571 0.0028571 0.0025794 0.0028571 0.0025794 0.0025794 0.0025794 0.0025794 0.0012500 0.0100000 0.0404565	Aurora 1.00	HBP
3	T11N, R12W, S.M. Section 29, 27.55 acres, as UNSurveyed, being all tide and submerged lands within S1/2NW1/4SW1/4 and all of the NW1/4SW1/4SW1/4	27.550	0.3411638	27.550	State of Alaska ADL-17585	0.125*	David Boelens Mental Health Trust Land Office total	0.0100000 0.0050000 0.0150000	Aurora 1.00	HBP
4	T11N, R12W, S.M. Section 30: 7.903 acres, as UNSurveyed, being all tide and submerged lands within the SE1/4NE1/4SE1/4	7.903	0.0978663	7.903	State of Alaska ADL-17598	0.125*	David Boelens Mental Health Trust Land Office total	0.0100000 0.0050000 0.0150000	Aurora 1.00	HBP
Total		80.753	1.000	80.753						

Currently subject to Royalty Reduction Relief at .05

Recapitulation of PARTICIPATING AREA Land Categories			Percentage	Recapitulation of Working Interest Ownership	
State Land:	35.453	0.4390301			
BLM Land:	45.300	0.5609699			
Total	80.753	1.0000000	Aurora 1.00		

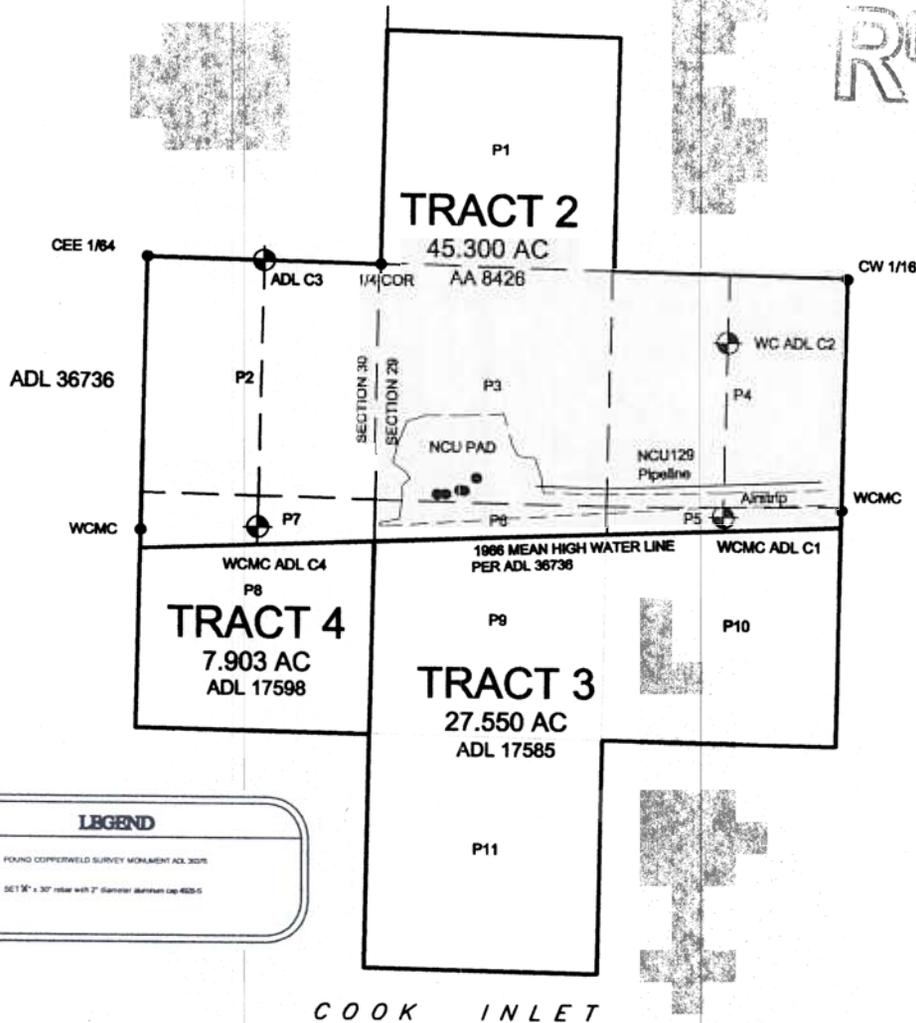
BELUGA PA TRACTS
 within Sec 29 and 30
 T11N R12W SM AK

EXHIBIT "A"
 Page 3 of 3



RECEIVED
 JAN 21 2005

DIVISION OF
 OIL AND GAS



LEGEND

- FOUND COPPERWELD SURVEY MONUMENT ADL 3076
- SET 1" x 30" nail with 7" diameter aluminum cap 453-5

PARCEL	LEGAL	ACRES	SURVEY
P1	SW 1/4 SW 1/4 NW 1/4	10.000	AA 8426
P2	NE 1/4 NE 1/4 SE 1/4	10.002	AA 8426
P3	NW 1/4 NW 1/4 SW 1/4	9.982	AA 8426
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P7	SE 1/4 NE 1/4 SE 1/4 LYING NORTH OF MHW	2.3485	AA 8426
P8	SE 1/4 NE 1/4 SE 1/4 LYING SOUTH OF MHW	7.903	ADL 17598
P9	SW 1/4 NW 1/4 SW 1/4 LYING SOUTH OF MHW	8.482	ADL 17585
P10	SE 1/4 NW 1/4 SW 1/4 LYING SOUTH OF MHW	9.084	ADL 17585
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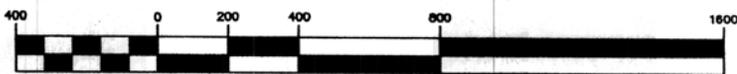
NOTES

- 1) BEARING AND DISTANCES SHOWN HEREON ARE GRID.
- 2) HORIZONTAL COORDINATES ARE ALASKA STATE PLANE, ZONE 4 NAD83 BASED ON THE CORNER BRASS CAP SEC. 29 T11N R12W 3M AT ADL 3076 FOUND.
- 3) THE UPLAND AND TIDEFLAT AREAS SHOWN HEREON ARE BASED ON THE PARCELS SURVEYED FOR ADL 36736 AND THE MONUMENTS SHOWN HEREON AS RECOVERED THIS SURVEY.
- 4) THE MEAN HIGH WATER LINE OF COOK INLET WAS OBTAINED FROM DATA SHOWN ON ADL 36736 WHICH NOTED THIS LINE WAS ESTABLISHED FROM DATUM PROVIDED BY USACE'S ON TIDAL BENCH MARKS AT NORTH FORSLANDS COOK INLET OBSERVED BY THE USACE'S JULY 22-AUGUST 13, 1995.

COOK INLET

GRAPHIC SCALE

30 | 29
 31 | 32



(IN FEET)
 1 inch = 400 ft.

SHEET: 2 of 3

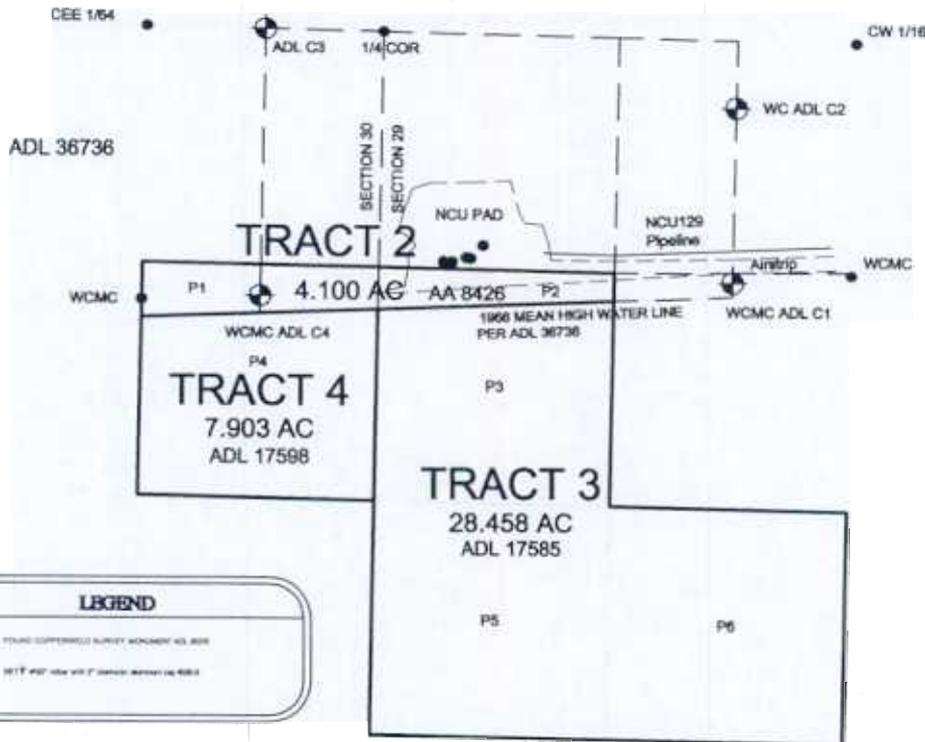
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REV	DATE	DESCRIPTION	BY													

NICOLAI SOUTH PA TRACTS
 within Sec 29 and 30 T11N
 R12W SM AK



EXHIBIT "A"
 Page 2 of 3

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 DIVISION OF OIL AND GAS



LEGEND

- Symbol: TYPICAL SURVEY MONUMENT (S.M.)
- Symbol: BENCH MARK (B.M.)

COOK INLET

PARCEL	LEGAL	ACRES	SURVEY
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P4	SE 1/4 NE 1/4 SE 1/4 LYING SOUTH OF MNW	7.903	ADL 17598
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NOTES

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- THE MEAN HIGH WATER LINE OF COOK INLET WAS OBTAINED FROM DATA SHOWN ON ADL 36736 WHICH NOTED THIS LINE WAS ESTABLISHED FROM DATUM PUBLISHED BY USCGAS ON TIDAL BENCH MARKS AT NORTH FORELANDS COOK INLET OBSERVED BY THE USCGAS JULY 22-AUGUST 15, 1966.

GRAPHIC SCALE



(IN FEET)
 1 inch = 400 ft.

SHEET: 3 of 3

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Aurora Gas, LLC

REV	DATE	DESCRIPTION	BY

DATE OF FIELD WORK: 9/15/04 FIELD BOOK NO: 0407 JOB NO: 04308

Protracted Sections 19,
20, 29 and 30, T11N,
R12W, SM, AK

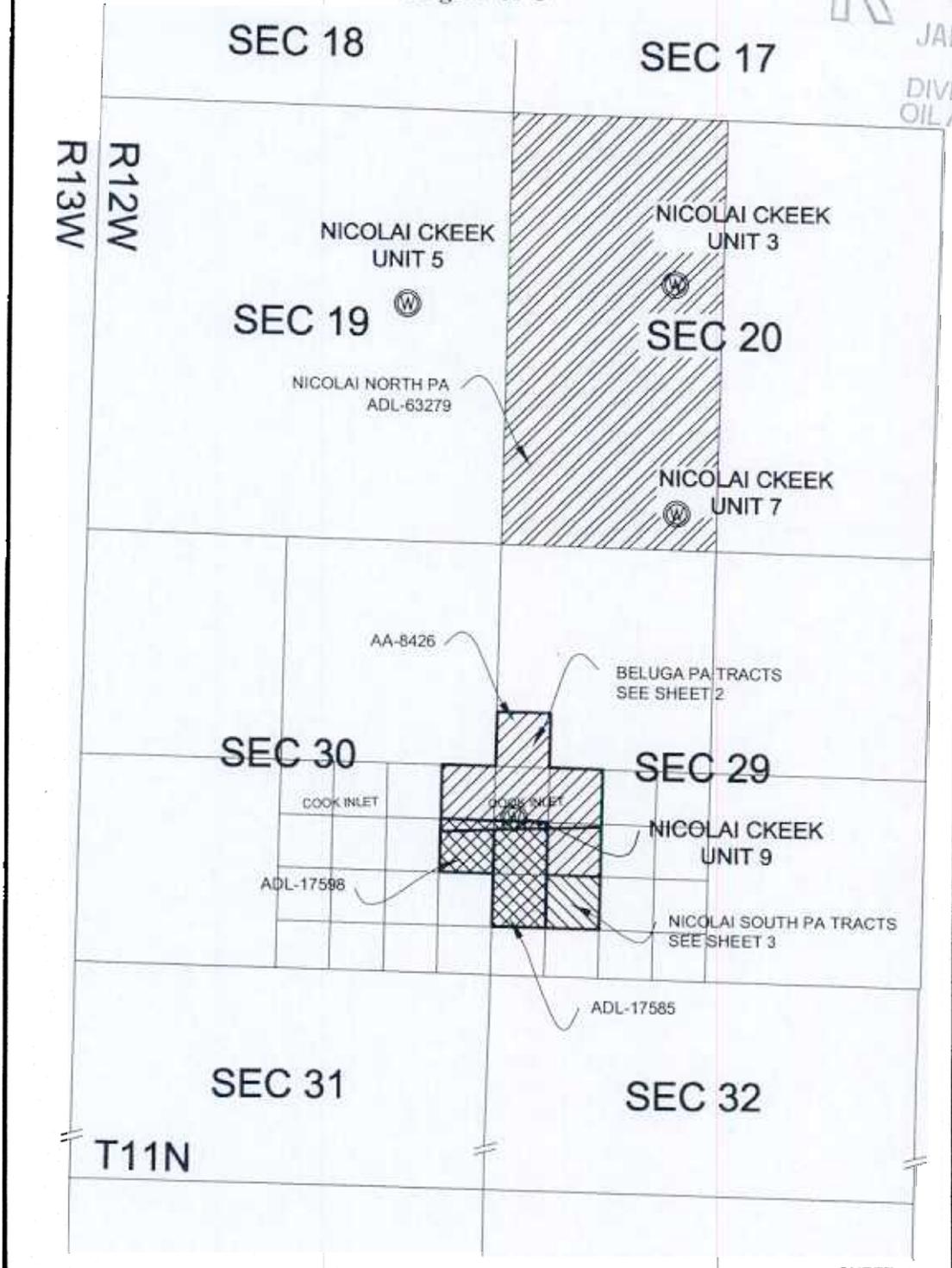
Nicolai North PA,
Nicolai South PA &
Beluga PA Tracts



EXHIBIT "A"
Page 1 of 3

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JAN 21 2005

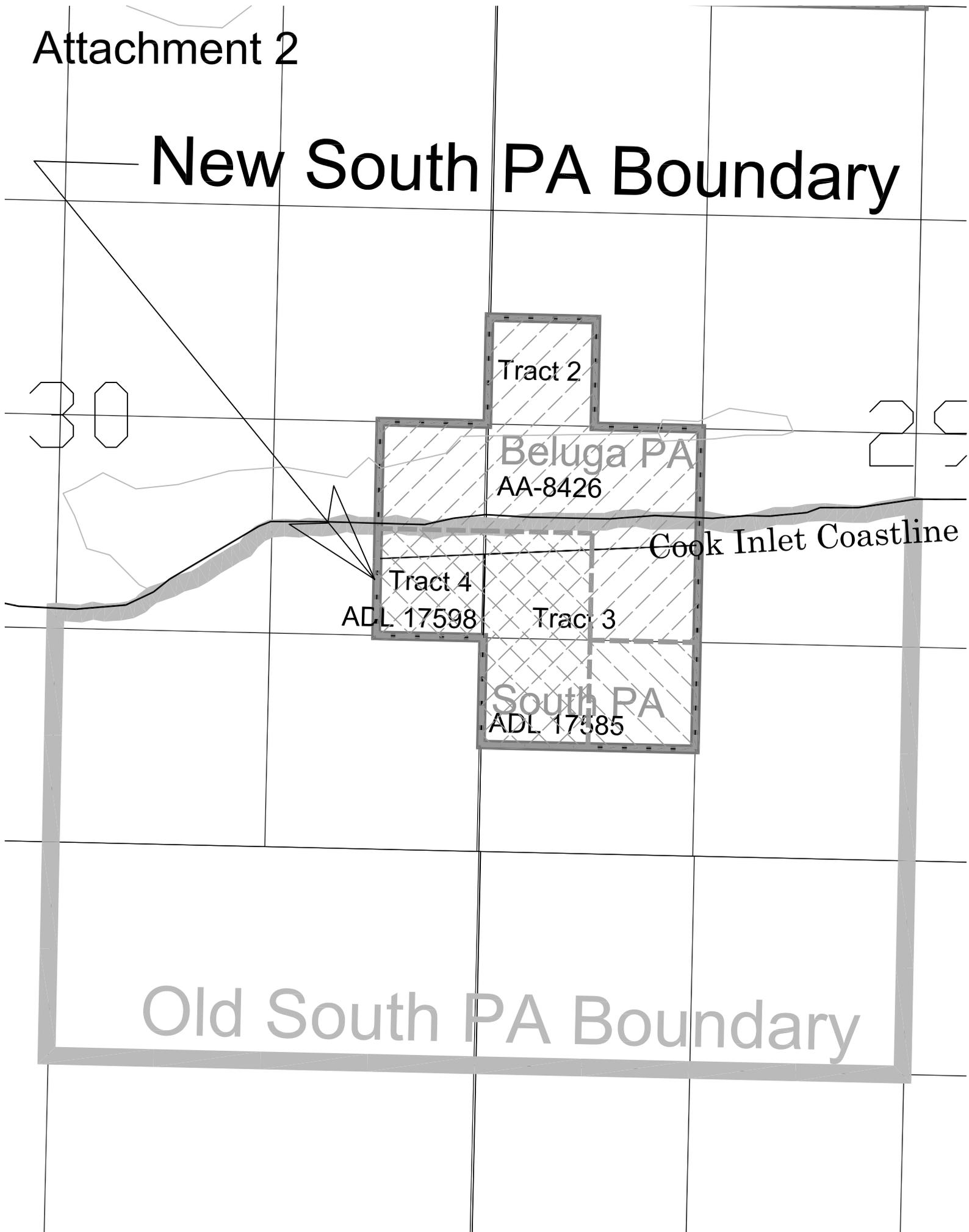
DIVISION OF
OIL AND GAS



SHEET: 1 of 3

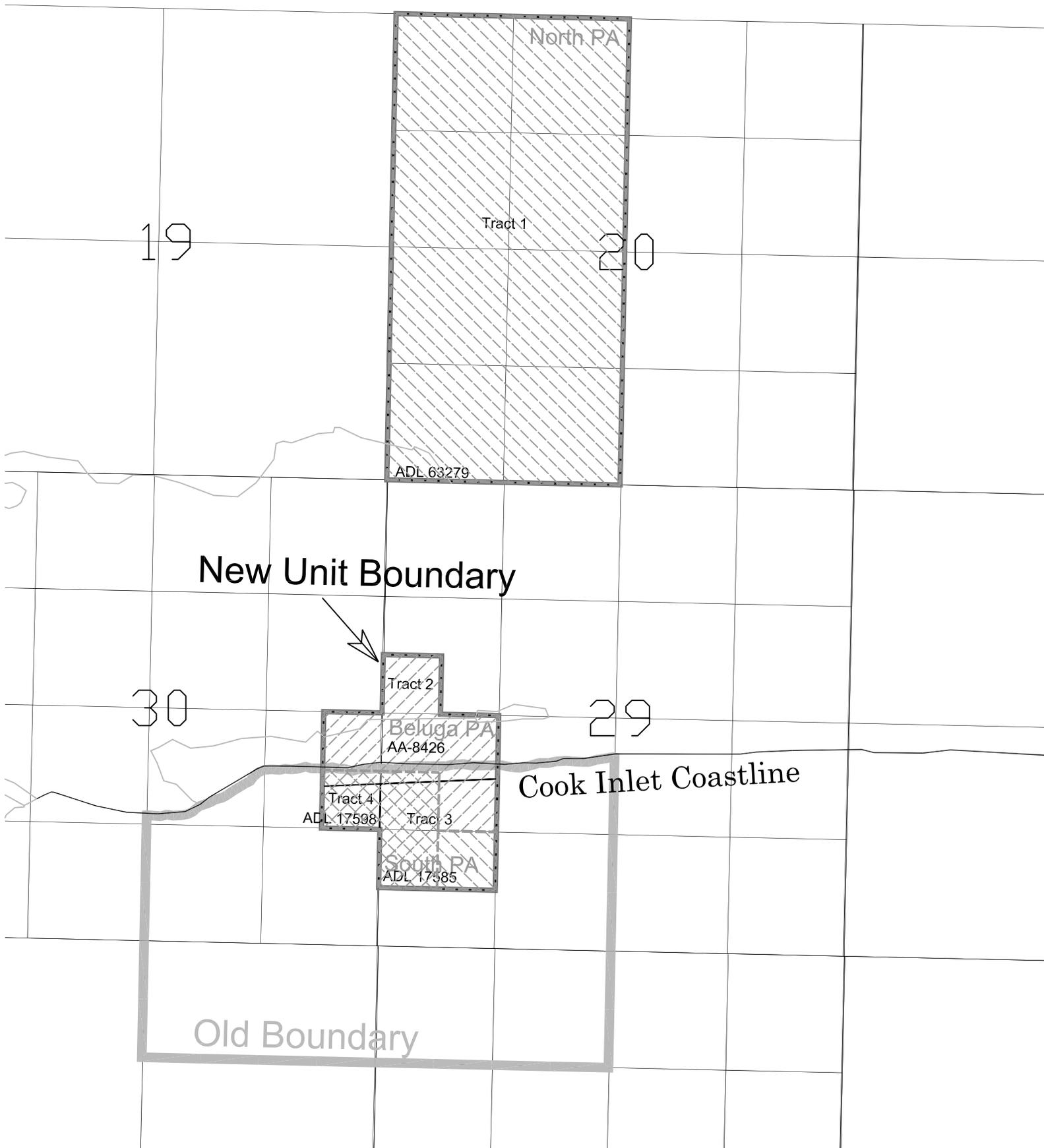
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REV	DATE	DESCRIPTION	BY																					
DATE OF FIELD WORK: 9/15/04 FIELD BOOK NO.: 6407 JOB NO.: 04308																								

New South PA Boundary



Attachment 1

T 11N, R 12 W, Seward Meridian
Nicolai Creek Unit



Findings and Decision of the Director
of the Division of Oil and Gas

APPROVAL OF THE
REVISED NICOLAI CREEK UNIT AREA,
REVISED PARTICIPATING AREAS A and B,
AND
FORMATION OF THE BELUGA PARTICIPATING AREA

Under a Delegation of Authority
from the Commissioner of the State Of Alaska
Department of Natural Resources

March 10, 2005

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I. DECISION SUMMARY

Aurora Gas, LLC (Aurora), as Nicolai Creek Unit (NCU) operator and sole working interest owner, applied to revise the existing participating areas, form the Beluga Participating Area, and revise the Nicolai Creek Unit Area (the Application). The State of Alaska Department of Natural Resources, Division of Oil and Gas (the DNR or the Division, as appropriate) approves the Application as follows:

1. Participating Area A is revised to reflect the current geologic and engineering interpretation for the reservoir and is renamed the South Participating Area (SPA).
2. Participating Area B is renamed the North Participating Area (NPA).
3. The new Beluga Participating Area (BPA) is approved.
4. A portion of federal lease AA-8426 is added to the NCU and the aerial extent of the Unit is revised to encompass the three PAs. As before, the unit area is limited to its approved participating areas.
5. Aurora shall work with the Division's Royalty Accounting Section to revise all royalty and operator reports back to November 1, 2003. The production must be allocated based on the approved tract participation schedules for each participating area.

Aurora submitted geologic and well data that indicate the revised SPA and proposed BPA are capable of producing or contributing to the production of hydrocarbons in paying quantities, which justifies revising the SPA and the NCU, and forming the BPA.

Attachment 1 is a map showing the old and new NCU boundary. Attachment 2 is a map showing the old and new SPA boundary. Attachment 3 is Exhibit A to the NCU Agreement showing the approved boundaries for the NCU, BPA, SPA, and NPA.

The Division also approves Exhibits B, B-1, B-2 and B-3 to the NCU Agreement (Attachments 4 through 7), the tract allocation schedules for each of the PAs. The tract allocation schedules equitably allocate production and costs among the leases in the NCU.

II. BACKGROUND AND APPLICATION HISTORY

Texaco formed the Nicolai Creek Unit and Participating Areas A and B in 1968. It drilled the Nicolai Creek State No. 1-A well (NCS-1A) in the Participating Area B and tested the well, but no facilities or pipelines were built to facilitate sustained production. It also drilled the Nicolai Creek No. 2 well (NCU-2) and the Nicolai Creek No. 3 well (NCU-3). NCU-2 tested gas from Participating Area A for nine months in 1968 and 1969. Facilities and a pipeline were installed for Participating Area B and NCU-3 produced from Participating area B from 1969 through 1977.

In 1973, the NCU boundary contracted to the discontinuous lands within Participating Areas A and B. Unocal and Marathon acquired the field in 1988, each holding 50% working interest, and Unocal was the designated unit operator.

Beginning in 1998, AS 38.05.180(f)(5) provided for a temporary royalty reduction to encourage development of certain fields in the Cook Inlet Basin, including Nicolai Creek. The Statute establishes a royalty rate of five percent on the first 25,000,000 barrels of oil and 35,000,000,000 cubic feet of gas produced from eligible fields within 10 years of initial production for sale, if production for sale commenced before January 1, 2004. To qualify for the reduced royalty rate on production from the Nicolai Creek Field, the operator was required to submit a written plan to the Alaska Oil and Gas Conservation Commission (AOGCC) in accordance with AS 31.05.030(i). This generous economic incentive was intended to encourage Unocal to bring the Nicolai Creek Unit on production earlier than planned.

In November 2000, Unocal and Marathon assigned their interests to Aurora. Aurora became the operator with 100 percent working interest in the NCU. Aurora successfully restarted sustained production in the NCU-3 well in September 2001 and the AOGCC approved its written plan submitted under AS 31.05.030(i), which qualified the field for the royalty reduction.

By letter date July 12, 2002, Aurora requested an order from the AOGCC allowing a spacing exception to drill and test the Nicolai Creek Unit No. 1B (NCU-1B) and No. 8 (NCU-8) wells and to recompleat and test the NCU-2 well. The AOGCC issued Conservation Order No. 478 (Attachment 9), on September 5, 2002, which approved Aurora's request for spacing exceptions but provided that the wells could not be placed on regular production until the AOGCC took additional action to offset any advantage Aurora may have had over other mineral owners by reason of the wells having been drilled to the exception locations.

Aurora did not drill the NCU-8 well because it encountered a shallow obstruction while driving conductor pipe, but permitted and drilled NCU No. 9 (NCU-9) as a replacement well.

On September 2, 2003, Aurora submitted an application to the Division for approval to revise the participating areas and the NCU boundary. The Division immediately notified Aurora that its application was incomplete and began working with Aurora to remedy the deficiencies. It quickly became apparent that the process was going to take an extended period of time due to the number of parties involved, and the unresolved land ownership and title issues. The Division invited the Mental Health Trust Land Office (TLO) to participate in all pertinent Application communications, discussions, and meetings between Aurora and the Division because they are an adjacent mineral interest owner. As early as August 12, 2003, the Division's goal was to include the TLO throughout the process and arrive at a fair decision that the TLO would support.

In the interim, Aurora proposed to report production from the NCU-1B and NCU-2 wells to the Division at a five percent royalty rate, and production from the NCU-9 to the Bureau of

Land Management (BLM) using a 12.5 percent royalty rate. On September 25, 2003, the Division, the TLO and BLM agreed with this interim royalty reporting payment methodology, on condition that, upon approval of the final Application, Aurora shall submit revised royalty and operator reports to the Division and BLM retroactive to the first day of production (See Attachment 12).

On October 9, 2003, Aurora submitted a revised Application, to the Division, along with additional supporting confidential geologic and engineering data.

On October 16, 2003, the AOGCC issued Conservation Order No. 478A (Attachment 10) allowing regular production from the NCU-1B, NCU-2 and NCU-9 wells using the interim reporting methodology. In November 2003, Aurora completed pipeline and facility construction for PA-B and initiated production from the NCU-2 and NCU-9 wells.

The Division worked with Aurora, the BLM and the TLO on the Application, and on November 4, 2003, the Division determined that the Application included all of the items listed in 11 AAC 83.306 and constituted a complete application for public notice.

The Division issued a public notice of the Revised Application on November 5, 2003, which DNR posted on the State's web page. The notice was published in the *Anchorage Daily News* and the *Peninsula Clarion* on Sunday, November 9, 2003. The public notice invited interested parties and members of the public to submit comments on the Application by December 9, 2003.

The Division received two comment letters in response to the public notice. The first letter, submitted by the TLO to document its involvement in the process of approving the Application, is attached to this Decision (Attachment 11). The second letter was from the Kenai Peninsula Borough, which reviewed the proposed unit expansion for consistency with the Kenai Peninsula Borough Coastal Management Program enforceable policies. The Kenai Peninsula Borough had no objection to approval of the Application.

On January 7, 2004, Aurora submitted a request to suspend the Application process until such time that the technical details could be resolved. On January 8, 2004, the Division approved the suspension of the Application and encouraged Aurora to continue working with the interested parties to reach agreement on the revised unit and participating area boundaries.

After working with the various parties, on and off for approximately one year, on January 21, 2005, Aurora submitted a final, revised Application that included new tract participation schedules and a proposal to create an additional participating area (BPA). The Application proposes to include a portion of federal lease AA-8426, approximately 45.30 acres, in the NCU. Aurora is the only working interest owner, but there are approximately 16 overriding royalty owners.

There is geologic and engineering evidence to support the formation of the BPA to develop

the Beluga Reservoirs within the revised NCU. The data also supports revising the SPA to develop the Tyonek Reservoirs under a unified plan of development.

III. PARTICIPATING AREA DECISION CRITERIA

AS 38.05.180(p) gives DNR the authority to approve an oil and gas unit. The DNR Commissioner (Commissioner) reviews unit and participating area applications under AS 38.05.180(p) and 11 AAC 83.301 – 11 AAC 83.395. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003, and delegated this authority to the Division Director (Director).

Under 11 AAC 83.303(a), the Director will approve the Application upon finding that it will: 1) promote the conservation of all natural resources; 2) promote the prevention of economic and physical waste; and 3) provide for the protection of all parties of interest, including the state. Subsection .303(b) sets out six criteria that the Director will consider in evaluating the Application. A discussion of the subsection .303(b) criteria, as they apply to the Application, is set out directly below, followed by the Director’s findings relevant to subsection .303(a) and the Director’s conditional approval of the Application.

A participating area may include only land reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, or engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities. 11 AAC 83.351(a). “Paying Quantities” means:

Quantities sufficient to yield a return in excess of operating, costs, even if drilling and equipment costs may never be repaid and the undertaking as a whole may ultimately result in a loss; quantities are sufficient to yield a return in excess of operating costs unless those quantities, not considering the costs of transportation and marketing, will produce sufficient revenue to induce a prudent operator to produce those quantities. 11 AAC 83.395(4)

1) The Environmental Costs and Benefits

Approval of the BPA and the revision of the SPA has no environmental impact. This Decision is an administrative action and does not authorize any surface activity. Potential effects on the environment are analyzed when permits to conduct exploration or development in the unit area are reviewed. In fact, unitized development has less impact on the environment than development on a lease-by-lease basis.

2) The Geological and Engineering Characteristics of the Proposed PAs

The State’s regulations provide that a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or potential accumulations. 11 AAC 83.356(a). DNR technical staff evaluated all data provided by the unit operator including

geologic cross sections, structure maps, electric log analyses, and interpreted seismic data to determine if the proposed unit area met the regulatory criteria.

The reservoir sandstones of the NCU belong to the Oligo/Miocene Tyonek and Beluga Formations. Only those sands of the Tyonek Formation are currently producing. Deposition of these sands occurred within the Cook Inlet Basin, a feature characterized as an elongate, northeast trending, fault-bounded forearc basin that extends from the Matanuska Valley south along the Alaska Peninsula. The northwestern reaches of the Cook Inlet forearc basin are defined by a series of tight anticlines and associated structures that deform the Tertiary section and provide traps for both oil and gas. These features are part of a transpressional regime that results from strain transfer between the Castle Mountain Fault to the north and Bruin Bay Fault to the west. The structures manifested within the NCU have evolved through such processes.

Subsurface geology of the NPA of the NCU indicates a combination structural and stratigraphic trap with gas trapped in Upper Tyonek sandstones. Sandstone units are draped over a four-way closure anticline formed along a southward-plunging axis on the west side of an eastward-verging fault (interpreted to be the northern extension of the Trading Bay fault).

A similar setting exists in the subsurface of the SPA of Upper Tyonek gas bearing sandstones trapped within a fold and closed against a dominant west-east cross-fault (the Nicolai Cross Fault) that splays off the aforementioned Trading Bay Fault to the east. The Nicolai Cross Fault appears to separate the structure of the NPA from that of the SPA. From a maximum of approximately 500-600 feet in the east, the fault throw diminishes westwards.

Within the NPA and SPA, reservoir sandstones are restricted to the Upper Tyonek Formation. Eight individual sand members have been identified from log correlation and mapped across the Nicolai Creek field. Within the Nicolai Creek field, individual sands have been assigned names based on standardized industry palynological zonation. The sandstones are within the Carya 2 palynological zone and have been subdivided using an appropriate numeric designation (2-1.1, 2-1.2, 2-2.1, 2-2.2, 2-2.3, 2-4.2, 2-5.1, and 2-6.1). Log data indicate the NCU wells show the relative conformity of the shallower Carya 2-1 through Carya 2-23 section with some possible expansion of the deeper Carya 2-4.2 through Carya 2-6.1 section. The apparent expansion of the deeper section in the NCU-2 well could be explained by faulting. Gas appears trapped in the Upper Tyonek Formation in unconsolidated, non-marine sandstone reservoirs between 1,680 and 3,475 feet subsea true vertical depth (SSTVD). Since the Tyonek reservoirs of both the NPA and SPA are stacked sandstone bodies, the composite areas of the reservoir extent, which is controlled by structure and sandstone distribution and confirmed by seismic and well data, are summed together to define the outline of the SPA and NPA areas.

The BPA is defined by the surface acreage covering the anticipated productive Beluga

Formation sandstones. Since the Beluga reservoirs appear to be stacked sandstone bodies, the composite areas of the reservoir extent, which is controlled by structure and sandstone distribution and confirmed by seismic and well data, are summed together to define the outline of the BPA.

3) Prior Exploration Activities in the Nicolai Creek Unit

The NCU was formed by Texaco on February 29, 1968 after discovering gas in the NCS-1A and NCU-2 wells in 1966 and the NCU-3 well in 1967. NCS-1A produced an average 1.3 MMSCF/day of dry gas from December 1968 to February 1969 and NCU-2 produced an average of 0.4MMSCF/day of dry gas from October 1968 through November 1969. Upon completion of the aforementioned periods of productivity both NCS-1A and NCU-2 were shut-in. NCU-3, produced an average of 0.3 MMSCF/day dry gas from April 1969 through October 1977, when it was shut-in.

During the period 1970 to 1988 three wells, NCU-4 (1970), NCU-5 (1972) and NCU-6 (1988) were drilled and they proved to be dry. In 1988, Unocal and Marathon acquired the field, each holding a 50% working interest. Unocal was designated the NCU operator. In 1991, Unocal worked over NCU-4 but failed to achieve commercial production.

In 2000, Aurora took over the unit as operator with a 100% working interest. In 2000 and 2001, Aurora worked over NCU-3, sidetracked NCS-1A to the NCU-1B location, and repaired NCU-2.

In 2001, Aurora installed production facilities and a pipeline for the NCU-3. It commenced production at an average rate of 1.1 MMSCF/D with an average of 35 barrels of water per day and continued to produce February 2004 when a workover to add additional perforations was completed. The well is currently shut-in but production is expected to be restored in 2005 at 0.5 to 1.0 MMSCF/D.

In 2003, Aurora acquired a new 3-D seismic survey and drilled NCU-9 with a bottom-hole location between the two participating areas but outside of the NCU. Aurora also established new facilities and a pipeline to the SPA's drill site in 2003. During 2003, Aurora produced gas from NCU-9 and NCU-2 at rates of 2.3 and 2.5 MMSCF/Day respectively.

4) The Applicant's Plan for Development of the Participating Areas

The Application included a revised Plan of Development (POD) for the NCU. The new POD is approved for the period beginning on the effective date of this Decision through December 31, 2005.

The POD proposes extensive review and interpretation of existing 3D seismic data, which will

possibly lead to a new development well targeting the stacked Carya 2 (Upper Tyonek) channel sands. The unit operator also plans to reestablish production in the NCU-3 and continue production from NCU-2 and the NCU-9 wells. The NCU No. 1B well is currently shut-in pending further evaluation.

Production rate is declining rapidly in the NCU-2, so Aurora plans to recomplete the well in the Tsuga 2-8.2 and 2-8.3 sands with the hopes of producing those intervals. The NCU-9 well produces from the Tsuga 2.8-1 sands, and Aurora plans additional recompletions in future years.

NCU-3 produced sales gas between October 3, 2001 when the pipeline was installed, and February 2004, when the current work over program began. Aurora plans to commingle production of the deeper Tsuga 2-8.1 perforations with the shallower Carya 2-1.1, 2-1.2, and 2-2.1 in the NCU-3 well.

5) The Economic Costs and Benefits to the State

Approval of the proposed BPA and associated field development will provide economic benefits to the state. The long-term goal is to maximize the physical and economic recovery of hydrocarbons from each of the productive reservoirs. Maximum hydrocarbon recovery will enhance the state's long-term royalty and tax revenue stream.

Any additional administrative burdens associated with the participating areas are far outweighed by the additional royalty and tax benefits derived from production.

The Division finds Aurora's tract allocation schedules acceptable for allocating production and costs among the leases in the participating areas. Aurora shall work with the Division's Royalty Accounting Section to submit royalty and operator reports to properly allocate the production from the NCU-2 and NCU-9 wells to the SPA and BPA, back to November 1, 2003. Aurora shall submit revised royalty and operator reports for the NPA back to November 1, 2003 to correct inaccuracies in the reports.

The production will be allocated based on the approved tract participation schedules for each participating area. Aurora must report production from the SPA, NPA, and BPA using production accounting unit codes NCPA, NCPB, and NCBE, respectively.

IV. FINDINGS

1) Conservation of Natural Resources

The formation of oil and gas units, as well as the formation of participating areas within units, generally conserves hydrocarbons. Coordinated development of leases held by diverse parties maximizes total hydrocarbon recovery and minimizes waste. Formation of the BPA will provide for efficient, integrated development of the Beluga reservoir within the NCU. A

comprehensive plan of development governing the area will help avoid duplicative development efforts on and beneath the surface.

Producing hydrocarbon gas from the area through the NCU facility reduces the incremental environmental impact of the production. Creating the BPA will help maximize gas recovery, while minimizing negative impacts on all other natural resources.

2) Prevention of Economic and Physical Waste

Generally, the formation of a participating area facilitates the equitable division of costs and allocation of the hydrocarbon shares, and provides for a diligent development plan, which helps to maximize hydrocarbon recovery from a reservoir. Further, the formation of a participating area, which enables both facility sharing opportunities and adoption of a unified reservoir management strategy, may allow economically marginal hydrocarbon accumulations to be developed.

Formation of a participating area promotes complete development of a reservoir with variable productivity across adjoining leases. Commingling production from the Tyonek and Beluga Formations in the NPA will maximize drilling and completion efficiency and result in lower development costs, possibly extending the economic life of the field.

3) Protection of All Parties

Because hydrocarbon recovery will more likely be maximized, the state's economic interest is promoted. Diligent exploration and development under a single approved unit plan without the complications of competing leasehold interests promotes the state's interest. The formation of the BPA advances the efficient evaluation and development of the state's resources, while minimizing impacts to the area's cultural, biological, and environmental resources. Operating under the NCU Agreement provides for accurate reporting and record keeping, and royalty settlement. These all protect the state's interest.

The proposed BPA and revised SPA protect the economic interests of the working interest owner and the royalty owners.

V. DECISION

Based on the facts discussed in this Decision and the administrative record, I make the following Findings and Decision:

- 1) The proposed acreage is underlain by hydrocarbons and known and reasonably estimated to be capable of production or contributing to production in sufficient quantities to justify the formation of the BPA, the revision of the SPA, and the revision of the NCU area.

- 2) The geological and engineering data justify the inclusion of the proposed acreage within the participating areas under the terms of the applicable regulations governing formation and operation of oil and gas units (11 AAC 83.301 – 11 AAC 83.395) and the terms and conditions under which these lands were leased from the state.
- 3) The Beluga Participating Area (BPA) is limited to the stratigraphic interval in the Beluga Formation encountered between 1320 and 1477 feet (measured depth) in NCU-9 (API 50-283-20102).
- 4) The Gas Pool PA-A, which is renamed the Southern Participating Area (SPA), is limited to the stratigraphic interval in the Tyonek Formation encountered between 2422 and 2918 feet (measured depth) in NCU-2 (API 50-283-10021).
- 5) The Gas Pool PA-B, which is renamed the Northern Participating Area (NPA), is limited to the stratigraphic interval in the Beluga and Tyonek Formations encountered between 1494 and 2238 feet (measured depth) in NCU-3 (API 50-283-20003).
- 6) Formation of the BPA and revision of the SPA provides for the equitable division of costs and an equitable allocation of produced hydrocarbons under a development plan designed to maximize physical and economic recovery from the reservoirs within the approved participating areas.
- 7) The allocations of production and costs for the tracts within the NCU participating areas (Exhibits B-1, B-2, and B-3), Attachments 5, 6, and 7 to this Findings and Decision are approved.
- 8) Approval of the formation of the BPA, revision to the SPA, revision to the NCU, and approval of the attached Exhibits to the NCU Agreement are retroactively effective to November 1, 2003.
- 9) Aurora shall report all production from the SPA, NPA, and BPA to Production Accounting Units NCPA, NCPB, and NCBE, respectively.
- 10) Aurora shall submit revised operator and royalty reports for accounting unit code NCPB from November 1, 2003 forward in order to correct inaccuracies in the reports.
- 11) Aurora shall submit separate original operator and royalty reports for accounting unit codes NCPA and NCBE from November 1, 2003 forward. Aurora shall also provide the royalty accounting section copies of all revised AOGCC reports (Form 10-422) from November 1, 2003 forward.

For these reasons I hereby approve the formation of the Beluga Participating Area, the revision and renaming of the South Participating Area, the renaming of the North Participating Area, and the revision of the Nicolai Creek Unit area. Since the Application was approved by

the BLM on March 1, 2005 retroactively effective November 1, 2003, this Decision is also retroactively effective to November 1, 2003.

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02.040 (c) and (d), and may be mailed or delivered to Thomas E. Irwin, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by electronic mail to dnr_appeals@dnr.state.ak.us. This decision takes effect immediately. If no appeal is filed by the appeal deadline, this decision becomes a final administrative order and decision of the department on the 31st day after issuance. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

Signed on 03-14-2005 by Sean Parnell for Mark Myers
Mark D Myers
Division of Oil and Gas

03/14/2005
Date

Attachments:

1. Map of old and new NCU boundaries
2. Map of old and new SPA boundaries
3. Exhibit A to the NCU Agreement (Map of Unit and Participating Areas, 3 pages)
4. Exhibit B to the NCU Agreement (NCU Tract Schedule)
5. Exhibit B-1 to the NCU Agreement (Tract Participation Schedule for the North PA)
6. Exhibit B-2 to the NCU Agreement (Tract Participation Schedule for the South PA)
7. Exhibit B-3 to the NCU Agreement (Tract Participation Schedule for the Beluga PA)
8. Exhibit G to the NCU Agreement (Plan of Development)
9. AOGCC Conservation Order No. 478
10. AOGCC Conservation Order No. 478A
11. TLO letter commenting on the public notice