

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

**APPROVAL OF THE EXPANSION OF THE TARN PARTICIPATING AREA
KUPARUK RIVER UNIT**

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

January 23, 2008

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I. BACKGROUND

Effective July 2, 1998, the Division approved the Sixth Expansion of the Kuparuk River Unit and Formation of the Tarn Participating Area, which required the inclusion of the expansion leases in a participating area within five years of the effective date of the expansion--July 2, 2003.

In a June 25, 2003, letter, the State of Alaska Department of Natural Resources (DNR), Division of Oil and Gas (Division), issued the Automatic Contraction of the Tarn Participating Area (TPA) and Associated Contraction of the Kuparuk River Unit (KRU), which contracted the KRU boundary and the TPA boundary, but deferred the contraction of portions of three of the TPA leases, designated as Expansion Areas 1, 2, & 3, described below.

That letter discussed the automatic contraction of the KRU, and ADLs 375073, 375077, 375078, 375079, 375080, 373111, which the KRU Operator, ConocoPhillips Alaska, Inc. (CPAI) had requested for continued inclusion in the KRU, but omitted reference to two other leases also subject to possible automatic contraction: ADLs 375074 and 375079. ADL 375074 was committed in part to the TPA. On July 2, 2003, the Division issued the Correction for the Automatic Contraction of the Tarn Participating Area and Associated Contraction of the Kuparuk River Unit (July 2, 2003, Correction), which included reference to the two leases (Attachment 1).

In that Correction, the Division deferred the automatic contraction of ADL 375074, as well as the other leases, until September 1, 2003, and in an August 27, 2003, letter, CPAI again requested extension. The Division deferred the contraction of the leases to January 29, 2004. Effective January 30, 2004, the portions of ADL 375074 not committed to the TPA contracted from the TPA and the KRU and the other leases contracted from the KRU.

The terms of the July 2, 2003, Correction required CPAI to drill two wells in Expansion Area 1 by July 1, 2005, and one well in both Expansion Area 2 and Expansion Area 3 by July 1, 2006. If the wells were not drilled by the commitment dates in the locations specified, the relevant Expansion Areas would contract from the TPA. Although the acreage would contract from the TPA, none of the acreage in the Expansion Areas would contract from the KRU because all the leases were already partially committed to the KRU Kuparuk Participating Area (KPA) and the TPA.

Expansion Area 1:

Tract 90	ADL 25603 (T10N, R8E, UM, Section 19)
Tract 95	ADL 25608 (T10N, R8E, UM, Section 30)

Expansion Area 2:

Tract 134	ADL 380053 (T10N, R7 E, UM, Secs 25, SE/4, 36 NE/4)
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Expansion Area 3:

Tract 134	ADL 380053 (T10N, R7 E, UM, Secs 35, SE/4, 36, SW/4,)
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On May 12, 2005, CPAI requested extension of the Expansion Area 1 well commitment deadline, from July 1, 2005 until July 1, 2006. The Division granted the extension as requested in a May 17, 2005, letter (Attachment 2).

In a June 13, 2006, letter, CPAI requested extension of the drilling commitment deadlines for Expansion Areas 1, 2, & 3. On June 28, 2006, the Division deferred the contraction to July 1, 2007, and, if submitted prior to July 1, 2007, allowed consideration of requests for portions of the Expansion Areas to remain committed to the TPA (Attachment 3).

II. APPLICATION

The Division received "The Application for the Modification of the Tarn Participating Area" (Application) on June 29, 2007. The Application (Attachment 4) requested a deferment of the automatic contraction, inclusion of a portion of the Expansion Areas (Deferment Acreage) in the TPA, and the expansion of the TPA to include additional acreage (Expansion Acreage). The Application does not address the eastern half of Expansion Area 1 and the southern half of Expansion Area 2, which are both subject to automatic contraction.

Deferment Acreage

Expansion Area 1:

Tract 90 ADL 25603 (T 10N, R 8E, UM, Section 19, W/2)

Tract 95 ADL 25608 (T 10N, R 8E, UM, Section 30, W/2)

Expansion Area 2:

Tract 134 ADL 380053 (T 10N, R 7E, UM, Section 25, SE/4)

Expansion Area 3:

Tract 134 ADL 380053 (T 10N, R 7E, UM, Sections 35,
SE/4 and 36, SW/4)

Expansion Acreage

Tract 131 ADL 380051 (T 10N, R 7E, UM, Section 13, S/2)

Tract 90 ADL 25603 (T 10N, R 8E, UM, Section 18, SW/4)

Although CPAI did not drill the wells required in the July 2, 2003, Correction, the Application requests that the Division include portions of the acreage due to automatically contract, (Deferment Acreage) and expand the TPA based upon Section 6.2 of the Kuparuk River Unit Agreement (KRUA)

a participating area may be expanded or contracted from time to time by the Unit Operator with the approval of the Working Interest Owners and of the Commissioner whenever expansion or contraction is warranted on the basis of further drilling or otherwise[.]

and 11 AAC. 351(c)

[a] participating area must be expanded to include acreage 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.

For the purposes of this Decision, the Deferment Acreage and the Expansion Acreage will be collectively referred to as the TPA Expansion Acreage and this Decision considered an expansion of the TPA.

CPAI submitted confidential geotechnical, engineering, and economic data to support the Application. In a September 12, 2007, letter, the Division notified CPAI that the data submitted with the Application had been reviewed and that the Application warranted further discussion. The Division met with CPAI for a confidential technological work session on October 9, 2007, in order to discuss questions and better understand the work CPAI had completed in the TPA which formed the basis for the deferment and expansion request.

As a result of these discussions, the Division recommended a revision to the acreage for which CPAI had requested expansion. The Division recommended that the TPA expand to also include the southern half of Expansion Area 2. CPAI concurred and on November 27, 2007, submitted a revised Exhibit C for the Application. All of Expansion Area 2 would be included in the TPA.

Revised Expansion Area 2:

Tract 134 ADL 380053 (T 10N, R 7E, UM, Section 25, SE/4,
Section 36, NE/4)

III. DISCUSSION OF DECISION CRITERIA

The DNR Commissioner (Commissioner) reviews applications related to units, including unit contraction and participating area expansion, under 11 AAC 83.303-11 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. The Division's review of the Application is based on the criteria set out in 11 AAC 83.303 (a), (b) and (c). Subsection (c), paragraph (4), directs the Commissioner to consider the criteria in subsections (a) and (b) when evaluating a PA. A discussion of the subsection (b) criteria, as they apply to the Application, is set out directly below, followed by a discussion of the subsection (a) criteria.

A. Decision Criteria considered under 11 AAC 83.303(b)

1. The Environmental Costs and Benefits of the Expansion of the TPA

Approval of the TPA expansion has no direct environmental impact. This Decision is an administrative action and does not authorize any on-the-ground activity. Potential effects on the environment are analyzed when permits to conduct exploration or development in the unit area are reviewed. Approval of this expansion does not convey any authority to conduct any operations on the surface within the KRU. DNR considered environmental issues in the lease sale process, the initial KRU unitization and TPA formation process, and the unit plan of operations, exploration, and development approval processes. This Decision simply approves additional acreage for an existing PA for which there is an approved plan of operations and development and any environmental costs associated with this expansion are outweighed by the benefits of producing oil and gas from the existing TPA infrastructure.

2. The Geological and Engineering Characteristics of the TPA Expansion Area

a. Exploration History

Exploration activity in the area began with the drilling of the Bermuda #1 well (KRU 36 10-7/1) in 1991 followed by the Tarn 1 well in 1992. A 3-D seismic survey was acquired over the area in early 1996. Interpretation of the data led to the drilling of the Tarn 2, Tarn 3, Tarn 3a, and Tarn 4 delineation wells in the 1996/1997 winter drilling season. The 10-day cased-hole production test in the Tarn 2 well confirmed the discovery of a Brookian oil reservoir. This test yielded an average, post fracture-stimulated flow rate of 1900 bpd of 37 degree API gravity oil from the perforated interval between 5488 - 5572 feet measured depth (md). Additional 3-D seismic data was acquired to the north and south of the Tarn Discovery area during the winters of 1996/1997 and 1997/1998.

b. Characteristics of the Reservoir

The TPA is situated in the southwest part of the Kuparuk River Field. The Late Cretaceous Tarn Sands are comprised of five sequences of Cenomanian-aged marine sandstone of the Seabee Formation that contain inter-bedded sandstones, siltstones, and mudstones with similar lithologic and fluid characteristics. These five intervals are informally named from oldest (deepest) to youngest (shallowest): C- 30, Bermuda, Cairn, Arete, and Iceberg. The type section of the Tarn field is defined in the AOGCC Pool Rules from the stratigraphic interval between 4376 feet and 5990 feet measured depth (md) in the Berumda #1 well (KRU 36 10-7/1). The sequences were deposited from mud-rich to mixed sediment and sand-rich Brookian sources as confined and unconfined deep-water slope-apron turbidite deposits along the base of slope in the Brooks Range foreland basin. At maximum sea level low-stand, slope gullies are thought to have fed multiple slope apron systems. Distribution of reservoir sand within the Tarn Sands is complex, with highly variable gross sand percentages within each interval. Hydrocarbon distribution is controlled by sand distribution.

Reservoir sandstones within the Bermuda interval consists of very fine, to fine-grained, moderately, to well-sorted litharenites with the average framework grain composition of Q₁₀F₁₀L₈₀. The lithic component is composed of sedimentary, igneous and metamorphic rock fragments L_{S40}L_{V20}L_{M40}. Significant amounts of zeolite in the form of analcime resulting from diagenetic alteration of pyroclastic volcanic glass is also present. Clay content is high, ranging between 15 and 25 percent, and occurs primarily within the lithic framework grains. Porosity ranges from 18 to 27 percent, averages 21 percent, with common microporosity. Air permeability ranges from 1 to 45 md and averages 10 md. The Tarn structure is a homocline, with easterly dip ranging up to four degrees. Few faults have been identified within the reservoir.

The lithic nature of the reservoir presents unique challenges to petrophysical log analysis and the identification of reservoir quality sands. The variable mineralogy and physical characteristics of the lithic fraction are complicating factors, as is the low density analcime. Grain densities vary from 2.52-2.78 g/cc and largely reflect the distribution of analcime and lithic grains. Petrologic data combined with routine core analyses has proven crucial for developing a petrophysical log model for estimating rock properties such as porosity, permeability and saturation, even then, limits in log resolution of thin, inter-bedded sands can make log analyses challenging.

c. Current TPA Production

Development and production from the Tarn oil pool has been limited to reservoir sands within the Bermuda interval. The other potential reservoir intervals in the pool have not yet been shown to be productive. For that reason, the TPA is limited to that area of the Bermuda interval deemed to be productive. In 1998, estimated original oil in place (OOIP) for the Bermuda interval was 80 – 250 million barrels of oil (MMBO), with an expected value of 136 MMBO. Recoverable reserves were estimated to be approximately 43 MMBO. As of December 31, 2006, CPAI had drilled 45 wells from two drillsites (DS 2L and 2N) in the Tarn PA. Production started in 1998. After a short period of primary depletion, water alternating miscible gas injection started in July 1999. A 20 percent pore volume of miscible injectant followed by lean gas to recover the mobilized oil and miscible products. Through November 2007, 107 MMSTB water and 150 MMSCF miscible gas have been injected. Production from Tarn has been better than originally anticipated. As of November 30, 2007, 85.5 MMBO has been produced from the Bermuda interval. Average daily production in November 2007 was 14,912 barrels of oil per day (BOPD). Peak production in 2003 averaged 33,842 BOPD. Estimated ultimate recovery as of 2007 will be 121 million STB based on production performance (2007 DOG Annual Report).

d. Recent Tarn Reservoir Development

In recent years CPAI has adopted a phased approach in stepping out to delineate the distal portions of the Bermuda interval. During the period January 1, 2006 through November 30, 2007, CPAI drilled 10 development wells in the Tarn reservoir. Many of the wells targeted thinner, distal lobes previously assessed to be uneconomic. This

included twinning of wellbores drilled during initial development, which were thought to be non-productive based upon the petrophysical logs and subsequently sidetracked back towards the core area of the field. By stepping out in a phased approach, CPAI was able to maximize production while gathering the data needed to calibrate the well results to their seismic data and reservoir models.

e. Conclusions

CPAI requested the inclusion of a portion of the Expansion Areas in the TPA, as well as additional acreage (Attachment 4). The portions of the Expansion Areas included in the Application consist of the western half of Area 1, the northern half of Area 2, and all of Area 3. The portions of the Expansion Areas not included in the application will be subject to automatic contraction.

Although CPAI did not drill the wells within the Expansion Areas required to avoid the automatic contraction of the Expansion Areas from the TPA, two wells, 2L-309 and 2N-310, were drilled within a few hundred feet of those areas. In a letter dated July 28, 2006, (Attachment 3), the Division stated that it would consider including all or portions of the Expansion Areas if information from existing adjacent wells justified the inclusion of those areas in the TPA.

The results of recent wells drilled by CPAI, including those adjacent to the Expansion Areas, demonstrate that thinner sands along the distal flanks of the field are capable of producing in payable quantities. In addition, during work sessions as part of the Plan of Development (POD) and Application process, CPAI shared confidential interpretive data with the Division that reasonably indicate that the productive sands extend onto the applied for expansion acreage. Based upon the data presented, the Division believes that the consistent application of the criteria used to define the areal extent of the TPA requires the inclusion of the southern half of Expansion Area 2 (Tract 134; ADL 380053, T10N, R7E, UM, Section 36, NE/4) in the TPA as part of the expansion.

3. The Further Plans of Development for the TPA

The Division approved the 2007 KRU POD for the period August 1, 2007 through July 31, 2008. As of December 31, 2006, CPAI had drilled 45 wells from two drillsites (DS 2L and 2N) in the TPA. During the period January 1, 2006 through November 30, 2007, CPAI drilled 10 development wells in the Tarn reservoir, including the 2L-309 and 2N-310 wells drilled within a ¼ mile of the expansion areas. Based upon the recent drilling results, CPAI is updating the Tarn geologic model to refine the history match of the reservoir model. CPAI acquired six leases adjacent to the TPA for evaluation. For the 2007 POD, CPAI plans to continue infill drilling with eight possible wells under consideration, contingent upon data obtained from current completions. Veritas DGC Land Inc. has applied for a permit from the State to acquire a 200 square mile 3-D seismic survey for CPAI over the Tarn Field and adjacent acreage during the 2007/2008 winter season.

The State will benefit from CPAI's further POD, which proposes to maximize the physical recovery of hydrocarbons from the Tarn. Increased hydrocarbon production will enhance the State's long-term royalty and tax revenues.

4. The Economic Costs and Benefits to the State and Other Relevant Factors

CPAI submitted tract participation schedules for the individual tracts in the TPA (Attachments 5 and 6) as required under 11 AAC 83.371. The proposed allocation distributes expenses and production among the tracts in the PA on a surface acreage basis. The PA is defined by the surface acreage covering the anticipated productive area. CPAI also submitted confidential paying quantities calculations demonstrating that the Expansion Acreage is reasonably capable of producing hydrocarbons in paying quantities, as required under 11 AAC 83.351(c).

The Division finds CPAI's tract participation schedules acceptable for allocating production and costs among the tracts in the TPA. CPAI shall work with the Division's Royalty Accounting Section to submit royalty and operator reports to properly allocate the production from the PA.

CPAI has allocated production from wells drilled to date within the TPA to the TPA. The 2L-319 was the only well drilled outside the existing TPA boundary and production from that well was assigned account code KU21. Account code KU21, approved for production from the 2L-319 tract operation, acreage now committed to the expanded TPA, will be discontinued and CPAI shall report all of the production from the TPA using the TPA production accounting code.

B. Decision Criteria considered under 11 AAC 83.303(a)

1. Promote the Conservation of All Natural Resources

The unitization of oil and gas reservoirs and the formation and expansion of participating areas within unit areas to develop hydrocarbon-bearing reservoirs are well-accepted means of hydrocarbon conservation. The TPA expansion conserves natural resources by increasing hydrocarbon production without substantially increasing the facilities required to accommodate that additional production. This expansion of an existing participating area promotes efficient evaluation and development of the State's resources, yet minimizes impacts to the area's cultural, biological, and environmental resources.

2. The Prevention of Economic and Physical Waste

This proposed expansion prevents economic and physical waste within the KRU. CPAI has submitted tract allocation schedules which allocate costs and revenues equitably between the Working Interest Owners (WIO). All of the leases retain a 12.5% royalty rate and the ownership of the Tarn interval within the expanded TPA is aligned as follows:

ConocoPhillips Alaska, Inc.	55.402367%
BP Exploration (Alaska) Inc.	39.282233%
Union Oil Company of California	4.95060%
ExxonMobil Alaska Production, Inc.	0.364800 %

Alignment of interest in a PA prevents competition amongst leases with differing ownership interests that may inhibit maximum efficiency in the development of the leases as a single reservoir. And, TPA expansion will contribute to the optimization of KRU processing facilities.

Approval of the TPA expansion 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 PA expansion are outweighed by the additional royalty and tax benefits derived from production.

3. The Protection of All Parties of Interest, Including the State

The TPA expansion protects the economic interests of the WIOs and the royalty owner. The expansion promotes the State's economic interests because hydrocarbon recovery will be maximized and additional production-based revenue will be derived from the increased production.

IV. FINDINGS AND DECISION

Considering the facts discussed in this Decision and the administrative record, I hereby make findings and impose conditions as follows.

1. The geological and engineering data that CPAI provided reasonably justify the inclusion of the TPA Expansion Acreage under the terms of the applicable regulations governing formation, expansion, and operation of oil and gas units and participating areas (11 AAC 83.301 – 11 AAC 83.395) and the terms and conditions under which these lands were leased from the State.
2. CPAI submitted confidential geotechnical, engineering, and economic data that justifies the TPA expansion and the resolution of the automatic contraction provisions. The TPA Expansion Acreage proposed for inclusion is underlain by hydrocarbons and reasonably estimated to be capable of production or contributing to production in sufficient quantities to justify the expansion of the TPA, retroactively effective July 1, 2007 .
3. The production of hydrocarbons through the existing production and processing facilities reduces the environmental impact of the additional production. Using

existing facilities will avoid unnecessary duplication of development efforts on and beneath the surface.

4. The TPA is stratigraphically limited to the Tarn Sands defined by the AOGCC in the Tarn Pool Rules as being from 4,376 MD to 5,990 MD in the ARCO Bermuda #1 Well.
5. The Accounting Unit Code KU21 is closed, effective July 1, 2007. TPA production will continue to be reported to the KUTR production Accounting Unit code.
6. This TPA expansion provides for the equitable division of costs and an equitable allocation of produced hydrocarbons under a POD designed to maximize physical and economic recovery from the reservoirs within the approved participating area.
7. The allocations of production and costs for the tracts within the TPA are approved, as submitted.
8. The areal extent of the Tarn PA is revised as follows:

Acreage that automatically contracts from the Tarn PA under the July 2, 2003, Correction:

Tract 90	ADL 25603 (T 10N, R 8E, UM, Section 19, E/2)
Tract 95	ADL 25608 (T 10N, R 8E, UM, Section 30, E/2)

Acreage included in Expanded Tarn PA:

Tract 131	ADL 380051 (T 10N, R 7E, UM, Section 13, S/2)
Tract 90	ADL 25603 (T 10N, R 8E, UM, Section 18, SW/4)

9. CPAI shall submit revised KRUA Exhibits C and D within sixty days of the issuance of this Decision.

For the reasons discussed in this Findings and Decision, I hereby approve the TPA Expansion and the tract allocation schedules subject to the conditions set out above.

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 Tom Irwin, Commissioner, DNR, 550 W. 7th avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to dnr.appeals@alaska.gov. This decision takes effect immediately. 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.

If you have any questions regarding this decision, contact Temple Davidson with the Division at 907-269-8784.



Kevin R. Banks,
Acting Director
Division of Oil and Gas



Date

Cc: Jeff Landry, Department of Law

Attachments:

1. July 2, 2003 Automatic Contraction of the TPA
2. May 2005, Extension request and Approval
3. June 2006 Extension request and Approval
4. June 2007 Kuparuk River Unit Tarn Participating Expansion Application
5. Kuparuk River Unit Tarn Participating Area Exhibit C
6. Kuparuk River Unit Tarn Participating Area Exhibit D

ATTACHMENT ONE
July 2, 2003 Automatic Contraction of the TPA

STATE OF ALASKA

FRAI. H. MURKOWSKI, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

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July 2, 2003

John Cookson and Dan Kruse
GKA Development
ConocoPhillips Alaska, Inc.
ATO-1200
Anchorage, Alaska 99510

Subject: Correction for the Automatic Contraction of the Tarn Participating Area and Associated Contraction of the Kuparuk River Unit

Dear Mr. Cookson and Mr. Kruse:

According to the Sixth Kuparuk River Unit (KRU) Expansion and Tarn Participating Area (TPA) Formation Decision dated September 24, 1998, within two years of the effective date of the TPA, the TPA will automatically be contracted to exclude the non-drilled areas and the leases or portions of the leases not included in a participating area within five years of the effective date of the Decision and Findings will be automatically eliminated from the KRU.

By letter dated May 30, 2003, ConocoPhillips Alaska, Inc. (CPAI) submitted an application for a proposed revised Tarn Participating Area (TPA) and new Exhibits C and D. A second letter dated June 3, 2003 asked for four relatively small areas to remain in the Kuparuk River Unit in order to streamline permitting and ease administrative burdens on all parties involved. A third and final letter also dated June 3, 2003 requested that ADLs 375073, 375074, 375077, 375078, 375079, 375080, and 373111 continue to be held within the Kuparuk River Unit until a market is available and a participating area can be established for the Cairn Gas Resource.

This letter is the Division's response to this series of letters that were sent to the division to document the results of and defer in part the automatic contraction provisions of the Sixth KRU Expansion and TPA Formation Decision.

Tarn Participating Area Contraction

After reviewing CPAI's May 30, 2003 letter, the Division and CPAI agreed on some minor modifications to the TPA boundary and CPAI agreed to drill specific areas as listed below. If the drilling commitments are not satisfied by the dates below, those areas will be automatically contracted out of the TPA, but will remain part of the Unit.

Area 1: Drill 2 wells in this area by July 1, 2005

Area 2: Drill 1 well in this area by July 1, 2006

Area 3: Drill 1 well in this area by July 1, 2006

(See Attachments 1 and 2)

"Develop, Conserve, and Enhance Natural Resources for Present and Future Alaskans."

CPAI will submit new exhibits A, B, C and D by September 1, 2003 to reflect the changes noted on the attached map and CPAI will supply new exhibits within 60 days of any automatic contractions in the future.

Kuparuk River Unit Contraction

In reference to the first June 3, 2003 letter, which requests four areas to remain in the unit due to the location of the pipelines and roads, please note that the first area is not subject to the automatic contraction provisions because it is held by the Kuparuk Participating Area. The Division is willing to allow a substantial portion of the other three areas to remain in the Unit to streamline permitting and ease administrative burdens on all parties. (See Attachments 3 and 4)

In reference to the second June 3, 2003 letter, the Division recognizes CPAI's request to defer the automatic contraction of ADLs 375073, 375074, 375077, 375078, 375079, 375080, and 373111 and the Division grants a deferral of the automatic contraction for these areas of the Unit until 5:00 pm September 1, 2003, while the Division works with CPAI to determine the future of these leases.

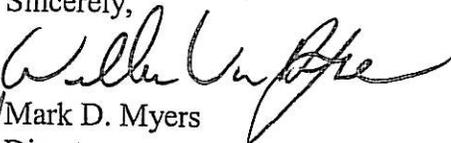
Since the TPA doesn't cover ADLs 375107, 380050 and 380049 and there are no future exploration or development plans for these leases, they will contract out of the KRU, effective July 1, 2003.

The new Tarn Participating Area and Kuparuk River Unit Boundaries are shown on attachment 2. The Unit boundary basically follows the TPA boundary except for the areas that will be kept in the unit to streamline the management of the road and pipeline system.

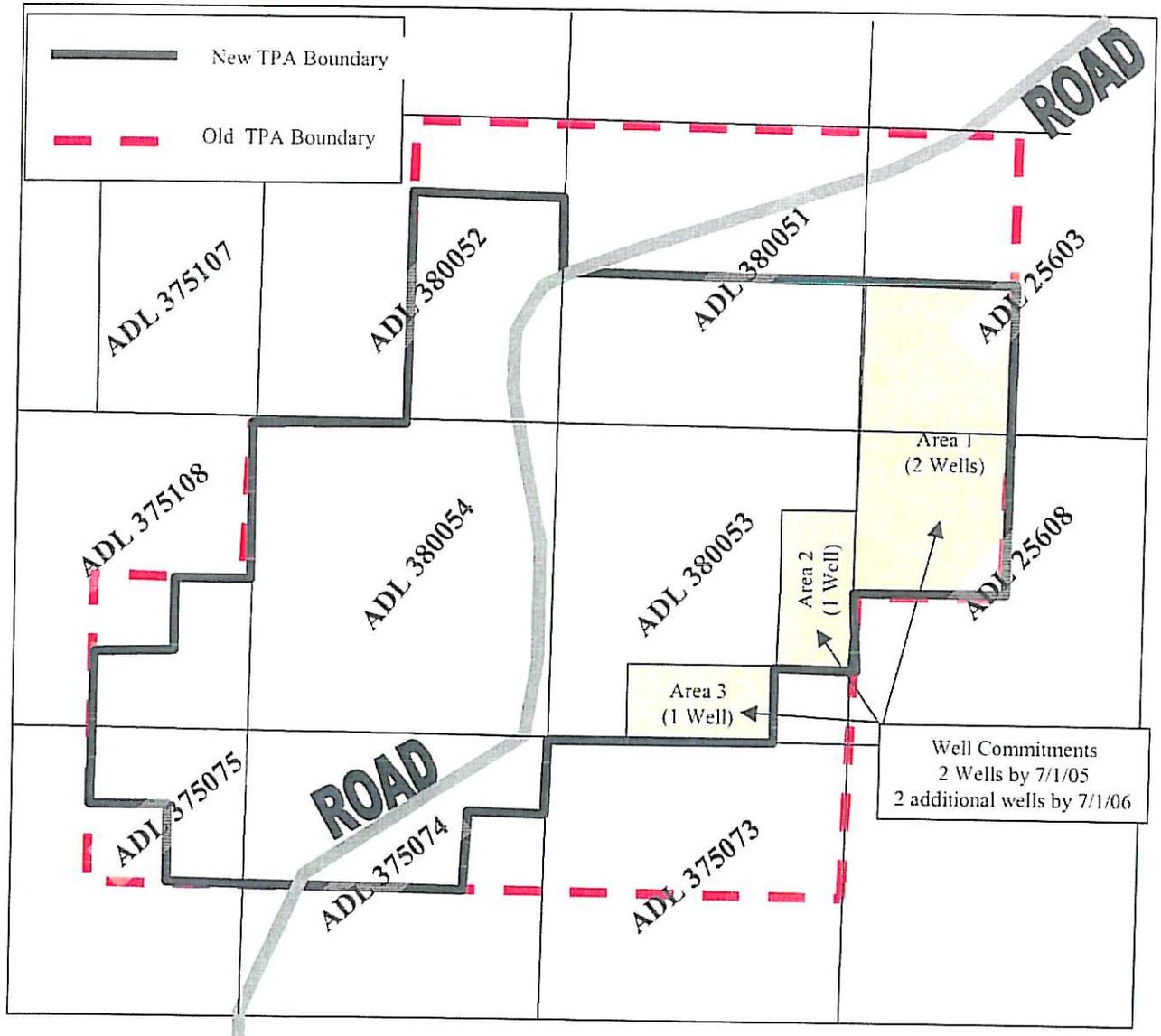
A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02.040 (c) and (d), and may be mailed or delivered to Tom Irwin, Commissioner, DNR, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by e-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.

If you have any questions regarding this decision, contact Christopher Ruff with the Division at 907-269-8451.

Sincerely,


for Mark D. Myers
Director

Attachment 1: Map of Tarn Participating Area



Attachment 2 :TPA Land Description

ADL 380052	U.M., T. 10 N., R. 7 E.,	Sec. 15: S. ½ Sec. 22: All
ADL 380051	U.M., T. 10 N., R. 7 E.,	Sec. 23: All Sec. 24: All
ADL 25603	U.M., T. 10 N., R. 8 E.	Sec. 19: All
ADL 25608	U.M., T. 10 N., R. 8 E.	Sec. 30: All
ADL 380053	U.M., T. 10 N., R. 7 E.,	Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: N ½, SW ¼
ADL 380054	U.M., T. 10 N., R. 7 E.,	Sec. 27: All Sec. 28: All Sec. 33: All Sec. 34: All
ADL 375108	U.M., T. 10 N., R. 7 E.,	Sec. 32: NE¼, S ½
ADL 375075	U.M., T. 9 N., R. 7 E.,	Sec. 5: N ½, SE ¼
ADL 375074	U.M., T. 9 N., R. 7 E.,	Sec. 3: N ½, SW ¼ Sec. 4: All

Attachment 3 : Areas to remain in KRU for Road

ADL 380051

U.M., T. 10 N., R. 7 E., Sec. 13: All

U.M., T. 10 N., R. 7 E., Sec. 14: S ½

ADL 375074

U.M., T. 9 N., R. 7 E., Sec. 9: All

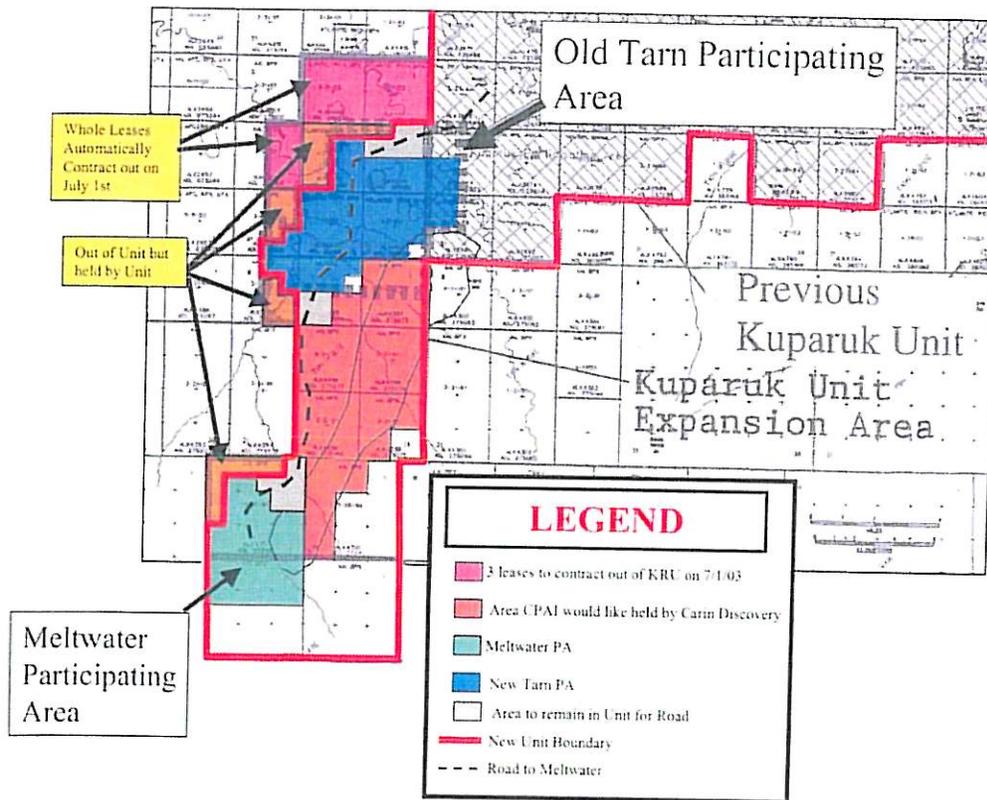
ADL 373112

U.M., T. 8 N., R. 7 E., Sec. 4: S ½, NE ¼

U.M., T. 8 N., R. 7 E., Sec. 5: SE ¼

U.M., T. 8 N., R. 7 E., Sec. 9: N ½

Attachment 4: KRU Map in Tarn Area



ATTACHMENT TWO
May 2005, Extension request and Approval

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

550 WEST 7TH AVENUE, SUITE 800
ANCHORAGE, ALASKA 99501-3560
PHONE: (907) 269-8800
FAX: (907) 269-8938

May 17, 2005

John Cookson
ConocoPhillips Alaska, Inc.
P.O. Box 100360 – Suite ATO 1200
Anchorage, Alaska 99510

Subject: Request for Time Extension
Tarn Participating Area Drilling Commitment Area 1

Dear Mr. Cookson:

The Division of Oil and Gas, Department of Natural Resources (Division) received your request by letter dated May 12, 2005 that requests an extension of the Area 1 drilling commitments until July 1, 2006. It is our understanding that ConocoPhillips Alaska, Inc., as operator of the Kuparuk River Unit (Operator) plans to drill a well on or within ¼ mile of Area 1 by the forth quarter of 2005 (2005 Well) and if the 2005 Well is successful, one or two follow up wells will be drilled in Area 1 by July 1, 2006.

Since the Kuparuk Participating Area holds the area of interest, the Division approves your request. Upon completion of the 2005 Well, please supply the Division with all well information related to the well. If any of the four wells, defined in the July 2, 2003 approval letter (2003 Approval), are not drilled by July 1, 2006, the Tarn Participating Area (TPA) will contract on July 1, 2006 as defined in the 2003 Approval.

If the TPA contracts, the Operator will submit new exhibits to the Unit Agreement, as appropriate, by September 1, 2006.

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 Tom Irwin, Commissioner, DNR, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by e-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.

If you have any questions regarding this decision, contact Christopher Ruff with the DNR at 907-269-8451.

Sincerely,


for Mark D. Myers
Director

Attachments:

- 1) Division's Letter dated July 2, 2003 documenting the TPA and KRU contraction
- 2) CPAI's Letter dated May 12, 2005 requesting a time extension.



John Cookson
GKA Development Advisor

Post Office Box 100360
Anchorage, Alaska 99510
ATO-1200
phone 907.265.6547
john.cookson@conocophillips.com

RECEIVED
MAY 16 2005

DIVISION OF
OIL AND GAS

May 12, 2005

Mark D. Myers, Director
Division of Oil and Gas
Alaska Department of Natural Resources
550 West 7th Ave., Suite 800
Anchorage, AK 99501

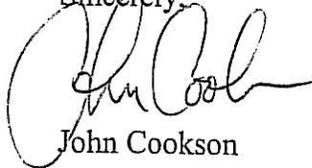
RE: Request for Time Extension
Tarn Participating Area Drilling Commitment, Area 1

Dear Dr. Myers,

In a letter dated July 2, 2003, the Department of Natural Resources addressed an automatic contraction of the Tarn Participating Area (TPA). In that letter, allowance was given for three areas to remain in the TPA on the condition that wells are drilled, in the areas, by certain dates. Area 1 requires two wells to be drilled by July 1, 2005. ConocoPhillips Alaska, Inc. (CPAI), as operator of the Kuparuk River Unit, requests an extension of the Area 1 drilling commitments until July 1, 2006. CPAI plans to drill a well on or within ¼ mile of Area 1 by the fourth quarter of 2005. If this well proves successful, then further wells may be planned in Area 1 in 2006.

Should you have any questions or comments concerning this proposal, please contact me at any time.

Sincerely,



John Cookson

ATTACHMENT THREE
June 2006 Extension request and Approval

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS

R.F.

FRANK H. MURKOWSKI, GOVERNOR

550 WEST 7TH AVENUE, SUITE 800
ANCHORAGE, ALASKA 99501-3560
PHONE: (907) 269-8800
FAX: (907) 269-8938

June 28, 2006

Mr. Matt J. Fox
Development Manager, Greater Kuparuk Area
ConocoPhillips Alaska, Inc.
P O Box 100360
Anchorage AK 99510-0360

RE: Request for Time Extension
Tarn Participating Areas 1, 2 and 3

Dear Mr. Fox:

In a letter dated June 13, 2006 you requested an extension of time until July 1, 2009 to drill wells in Areas 1, 2 and 3 of the Tarn Participating Area. The appraisal history of Areas 1, 2 and 3 is well documented in our unit files and summarized in your letter. Several wells have been drilled adjacent to the Areas but not in the Areas.

I appreciate that capital and other resources are limited both within the Kuparuk River Unit and on the North Slope in general. However, delineation of Areas 1, 2 and 3 is required before they can be added to the Tarn Participating Area and sufficient information exists to decision such delineation. I agree to extend the time to drill wells in Areas 1, 2 and 3 for one year, until July 1 2007.

If drilling in the Areas or information from existing wells adjacent to the Areas indicates that all or portions of the Areas qualify for inclusion in the Tarn participating area I will consider such requests prior to July 1, 2007.

Sincerely,



William Van Dyke
Acting Director

CC: Pirtle Bates



Matt J. Fox
Development Manager,
Greater Kuparuk Area

ConocoPhillips Alaska, Inc.
700 G Street
Anchorage, AK 99501
phone 907.263.4810

June 13, 2006

William Van Dyke
Acting Director
Division of Oil and Gas
Alaska Department of Natural Resources
550 West 7th ave., Suite 800
Anchorage, AK 99501

*Review was
06/05*

RE: Request for Time Extension
Tarn Participating Areas 1, 2 and 3

Dear Mr Van Dyke,

In a letter dated July 2, 2003 ("2003 Approval"), the Department of Natural Resources (DNR) addressed an automatic contraction of the Tarn Participating Area (TPA). In that letter, allowance was given for three areas to remain in the TPA on condition that wells be drilled in the areas by certain dates as follows:

Area 1: drill 2 wells by July 1, 2005

Area 2: drill 1 well by July 1, 2006

Area 3: drill 1 well by July 1, 2006

In a letter dated May 12, 2005, ("2005 Request") ConocoPhillips Alaska Inc. (CPAI), as Operator of the Kuparuk River Unit (KRU), requested an extension of the Area 1 commitments by 12 months until July 1, 2006 on the basis that CPAI planned to drill a well in or within ¼ mile of Area 1 by the fourth quarter of 2005 ("2005 Well") with potential followup wells in the area if the 2005 Well was successful.

In a letter dated May 17, 2005 ("2005 Approval"), the DNR approved the 2005 Request, with a condition that if any of the four wells defined in the 2003 Approval letter were not drilled by July 1, 2006, the TPA would contract on July 1, 2006 as defined in the 2003 Approval.

This letter summarizes recent Tarn development activity, including the Areas in question, highlights revisions to CPAI's geoscientific understanding of the Tarn field, and requests a time extension to allow further activity we believe will enhance ultimate oil recovery from the Tarn field in an economic and timely manner.

Recent Activity

Well 2L-309 (API 50-103-20521-00-00) is the 2005 Well, and was spudded January 12, 2006, slightly later than the planned December 2005 spud due to late arrival of the Doyon 14 rig into the KRU. The well was drilled to within 800' of the western boundary of Area 1, completed, hydro-fraced, and placed on production (POP'd) on April 2, 2006. It is considered highly successful with allocated daily production as high as 1900 bopd a few days after POP and current rates of approximately 850 bopd. The well will be monitored in the coming months to ensure proper pressure support from offset injection wells, and managed accordingly.

Encouraging production has also been seen in another eastern peripheral well 2L-311, which was drilled in April 2004 one mile to the north-north-west of 2L-309. Well 2L-311 initial flowed at approximately 900 bopd and is currently flowing at approximately 500 bopd.

More recently, infill well 2N-333 drilled in the southwest of the field in March 2006 is very prolific with post-frac daily allocated rates as high as 6,200 bopd.

The success of these wells has led to a revision of our geoscientific understanding of the Tarn field.

Geoscientific Understanding

During 2005, a new Log Model was developed, and the Seismic Inversion and Attribute Calibrations were updated. Combined with the performance of the eastern peripheral wells 2L-309 and 2L-311, the Net Pay map has been revised and is shown in Attachment 1. We now see multiple potential candidate locations Tarn including the eastern peripheral areas. Geotechnical work is progressing on a program for at least 7 wells of which four are in Areas 1, 2 and 3 as shown in Attachment 1. Note that in Area 3, the Yankee Inboard location is a fallback in the event that the Yankee

Outboard location fails to meet minimum pay requirements. The ongoing geotechnical work includes a rebuild of the geocellular model and an associated update of the reservoir simulation models.

This updated Understanding was presented to representatives of the DNR on Monday June 5, 2006.

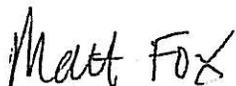
Request for Time Extension

CPAI believes that both the infill and peripheral areas of Tarn offer good development potential. We have taken steps towards this development by the purchase (\$5.8 million) of Long Lead Materials for an initial 7 well program and are progressing these wells through the development process. Success with these first 7 wells could lead to an additional 8 development locations. We have also started geotechnical evaluation of the Cairn Gas trend, and were high bidder in the March, 2006 lease sale for tracts covering portions of the Cairn accumulation. These efforts demonstrate a strong belief that Areas 1, 2 and 3 all contain economically viable payzone and will ultimately be a permanent part of the TPA by virtue of development drilling.

However, the exact timing for development of individual potential locations is less certain since these wells will compete for available resources (capital and rig time) against other attractive locations both within the TPA, the KRU and elsewhere on the North Slope. CPAI therefore requests an extension to the automatic contraction of Areas 1, 2 and 3 until July 1, 2009.

With regard to timing, we request that the DNR advise CPAI prior to July 1, 2006 of the potential for extension of the contraction date of the three Areas so that we may incorporate suitable wording within the Plan of Development (due July 1, 2006) and potentially make a formal request to expand the TPA in the area around well 2L-309.

Sincerely,



Matt J. Fox
Kuparuk Development Manager

ATTACHMENT FOUR

June 2007 Kuparuk River Unit Tarn Participating Expansion Application



Paul K. Wharton
Staff Landman
P.O. Box 100360 – Suite ATO 1482
Anchorage, Alaska 99510-0360
Phone (907) 263-4076
Fax (907) 263-4966
Paul.K.Wharton@conocophillips.com

June 29, 2007

via hand delivery

Kevin Banks
Acting Director
Division of Oil and Gas
Alaska Department of Natural Resources
550 West 7th Avenue, Suite 1100
Anchorage, Alaska 99501

RECEIVED

JUN 29 2007

**DIVISION OF
OIL AND GAS**

Re: Application for the Modification of the Tarn Participating Area.

Dear Mr. Banks:

ConocoPhillips Alaska, Inc., for itself and on behalf of Kuparuk River Unit working interest owners and Tarn Participating Area ("Tarn PA") owners BP Exploration (Alaska), Inc., Union Oil Company of California, and ExxonMobil Alaska Production Inc., hereby submits the enclosed Application for the Modification of the Tarn Participating Area ("Application"). The Application seeks deferral of automatic contraction of the Tarn PA as noted, and seeks approval of expansion of the Tarn PA as noted. Application for deferral of automatic contraction is timely made pursuant to Department of Natural Resources letter dated June 28, 2006. Confidential portions of the Application are submitted under separate cover and are requested to be held confidential under applicable law.

Very truly yours,

Paul K. Wharton

Paul K. Wharton
Staff Landman

cc: w/out attachments:

D. (Don) Dunham, BP Exploration (Alaska) Inc.
Glen Frederick, Union Oil Company of California
R.L.(Sonny) Rix, ExxonMobil Alaska Production, Inc.
Chris Wyatt, BP Exploration (Alaska) Inc., via e-mail: chris.wyatt@bp.com
Temple Davidson, DNR, via e-mail: [Temple Davidson@dnr.state.ak.us](mailto:Temple_Davidson@dnr.state.ak.us)

with attachments:

Kay LaBau, Kuparuk River Unit Secretary

**Application for the Modification of the Tarn
Participating Area**

by ConocoPhillips Alaska, Inc.

to the Alaska Department of Natural Resources,

Division of Oil and Gas

I. REQUEST FOR DEFERMENT OF CONTRACTION OF THE TARN PARTICIPATING AREA AND INCLUSION OF MODIFICATION AREA LANDS IN THE TARN PA AND APPROVAL OF A REVISED EXHIBIT C

Pursuant to 11 AAC 83.351 and Section 6.2 of the Kuparuk River Unit Agreement, ConocoPhillips Alaska, Inc. ("ConocoPhillips"), as Unit Operator, and on behalf of the Kuparuk River Unit working interest owners and Tarn Participating Area ("Tarn PA") owners BP Exploration (Alaska) Inc., Union Oil Company of California, and ExxonMobil Alaska Production Inc. (hereinafter "Tarn PA Owners"), hereby applies to the Commissioner of the Department of Natural Resources (the "Commissioner" or "DNR") to defer contraction of the Tarn Participating Area ("Tarn PA") to include portions of ADL 25603, KRU Tract 90, ADL 25608, KRU Tract 95, and ADL 380053, KRU Tract 134 as shown on the attachments to this application ("Deferment Area"). Simultaneously, ConocoPhillips applies, as Unit Operator on behalf of Tarn PA Owners to expand the Tarn PA to include portions of ADL 25603, KRU Tract 90, and portions of ADL 380051, KRU Tract 131 as shown on the attachments to this application ("Expansion Area"). The Deferment Area and the Expansion Area are sometimes hereinafter collectively referred to as the "Modification Area."

Pursuant to 11 AAC 83.371, ConocoPhillips, as Unit Operator, and on behalf of the Tarn PA Owners, requests the Commissioner's approval of a revised Tarn PA Exhibit C to the Kuparuk River Unit Agreement.

The Modification Area is defined in Attachment A, Figure A-1 (legal descriptions). The location of the Modification Area is depicted on Attachment A, Figure A-2 (plat).

II. BACKGROUND

1. The Kuparuk River Unit was approved by DNR on March 26, 1982 with an effective date of December 1, 1981. The Tarn PA was originally approved by DNR on September 4, 1998. The Tarn PA has been contracted once previously on June 1, 2003. As part of the June 1, 2003 Tarn PA contraction, the DNR created Areas 1, 2, and 3 with drilling commitments under the terms of the DNR July 2, 2003 Correction for the Automatic Contraction of the Tarn Participating Area and Associated contraction of the Kuparuk River Unit decision ("July 2, 2003 DNR Decision"). The drilling commitments provided for under the July 2, 2003 DNR Decision required drilling two wells in Expansion Area 1 by July 1, 2005, and one well in each of Expansion Areas 2, and 3 by July 1, 2006. By DNR letter dated June 28, 2006 these drilling commitments were deferred until July 1, 2007. The drilling commitments were not met and Areas 1, 2, and 3 are due to contract from the PA as of July 1, 2007. However, portions of Area 1, 2, and 3 (shown on Figure A-1 and Figure A-2) warrant deferment of contraction and inclusion of the Deferment Area within the Tarn PA as set out below. The Expansion Area lands similarly warrant inclusion in the Tarn PA because they are 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.
2. Section 6.2 of the Kuparuk River Unit Agreement provides in relevant part:

. . . a participating area may be expanded or contracted from time to time by the Unit Operator with the approval of the Working Interest Owners and of the Commissioner whenever expansion or contraction is warranted on the basis of further drilling or otherwise.

3. DNR regulations at 11 AAC 83.351 provide in relevant part:

A participating area must be expanded to include acreage 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 subject to approval by the Commissioner.

4. DNR regulations at 11 AAC 83.303 provide the Commissioner will approve a request for a participating area expansion upon a written finding that the expansion will promote the conservation of all natural resources, promote the prevention of economic and physical waste, and provide for the protection of all parties of interest.
5. Under the terms of the September 4, 1998 DNR decision approving the formation of the Tarn PA, the July 2, 2003 Contraction Decision, and the DNR June 28, 2006 letter extension ConocoPhillips is authorized to apply for deferment of the contraction of the Tarn PA prior to July 1, 2007.
6. By this application ConocoPhillips on behalf of itself and all Tarn PA owners applies to defer contraction of the Tarn PA as to those areas shown on Figure A-1 and Figure A-2 and to expand the Tarn PA to include the Modification Area within the Tarn PA.

III. STATEMENT IN SUPPORT OF TARN PA MODIFICATION

7. Attachment B is a summary of the pertinent geological, geophysical, and engineering data which shows that the Modification Area is, based on geological, geophysical, and engineering data, reasonably estimated to be capable of producing or contributing to the production of oil in paying quantities. Attachment B and data supplied therewith are confidential proprietary data owned by ConocoPhillips and the other Tarn PA working interest owners. Attachment B and confidential data submitted in connection with this Application are submitted to the Division of Oil and Gas ("Division") for the sole purpose of enabling the Division to evaluate this Application and all such confidential data is to be held confidential by the Division in accordance with AS 38.05.035 (a) (9) (C).
8. The geological, geophysical, and engineering data submitted to the Division by ConocoPhillips with this Application, along with information already on file with the Division, demonstrate that the Tarn PA should be modified as requested in this application. The Modification Area is reasonably estimated to be capable of producing or contributing to the production of hydrocarbons in paying quantities as specified in 11 AAC 83.351 (c) and Section 6.2 of the Kuparuk River Unit Agreement.
9. The modification of the Tarn PA meets the criteria set forth in 11 AAC 83.303. It will promote conservation of natural resources by expanding the benefits of unitization,

thereby providing a practical and efficient method for maximizing oil recovery with minimal impact on other resources. It will promote the prevention of economic and physical waste by incorporating the area into a unified reservoir management plan and taking advantage of existing KRU infrastructure. It will benefit and protect all parties, including the State of Alaska, by maximizing oil recovery. It also provides for the protection of the environment through planned development.

IV. TRACT PARTICIPATIONS

- 10.11 AAC 83.351 (c) and 11 AAC 83.371(a) require that, upon any expansion or contraction of a unit's participating area, a revised division of interest or formula allocating hydrocarbon production and operating costs among all the leases in that participating area must be approved by the Commissioner.
- 11.A revised Exhibit C is herewith submitted for approval by the Commissioner in accordance with 11 AAC 83.351(c) and 11 AAC 83.371(a). The Tract Participations and Cost Participations specified in Exhibit C equitably allocate production and costs among the leases in the modified Tarn PA.

V. REVISED EXHIBITS

12. Upon approval of the modification of the Tarn PA, revisions to Exhibits C, D, and F shall become effective. Five copies of these revised exhibits are attached hereto and made a part of this application.
13. Exhibit C sets forth Tract Participations and Cost Participations for all Tracts included in the modified Tarn PA. These Participations represent relative reserve contributions of all Tracts located within the modified Tarn PA.
14. Revised Exhibit D is a map of the modified Tarn PA.
15. Revised Exhibit F is a map of the revised Reservoir Limits of the Tarn Reservoir. Because Revised Exhibit F is based on confidential data. Exhibit F is submitted to the Division for the sole purpose of enabling the Division to evaluate this Application and Exhibit F is to be held confidential by the Division in accordance with AS 38.05.035(a) (9) (C).

Attachment A

Figure A-1: Second Tarn PA Modification Area Legal Description
Figure A-2: Second Tarn PA Modification Area Location

Attachment B

Confidential Geologic and Engineering Statement in Support of Modification of Tarn PA

List of Exhibits

Exhibit C: Revised Tract Participations and Cost Participations

Exhibit D: Revised Tarn Participating Area Plat
Exhibit F: Revised Reservoir Limits – Tarn Reservoir

Respectfully Submitted,

ConocoPhillips Alaska, Inc.

By: 
Name: JAMES R. HAND
Its: ACTUAL NORTH SLOPE DEVELOPMENT MANNER

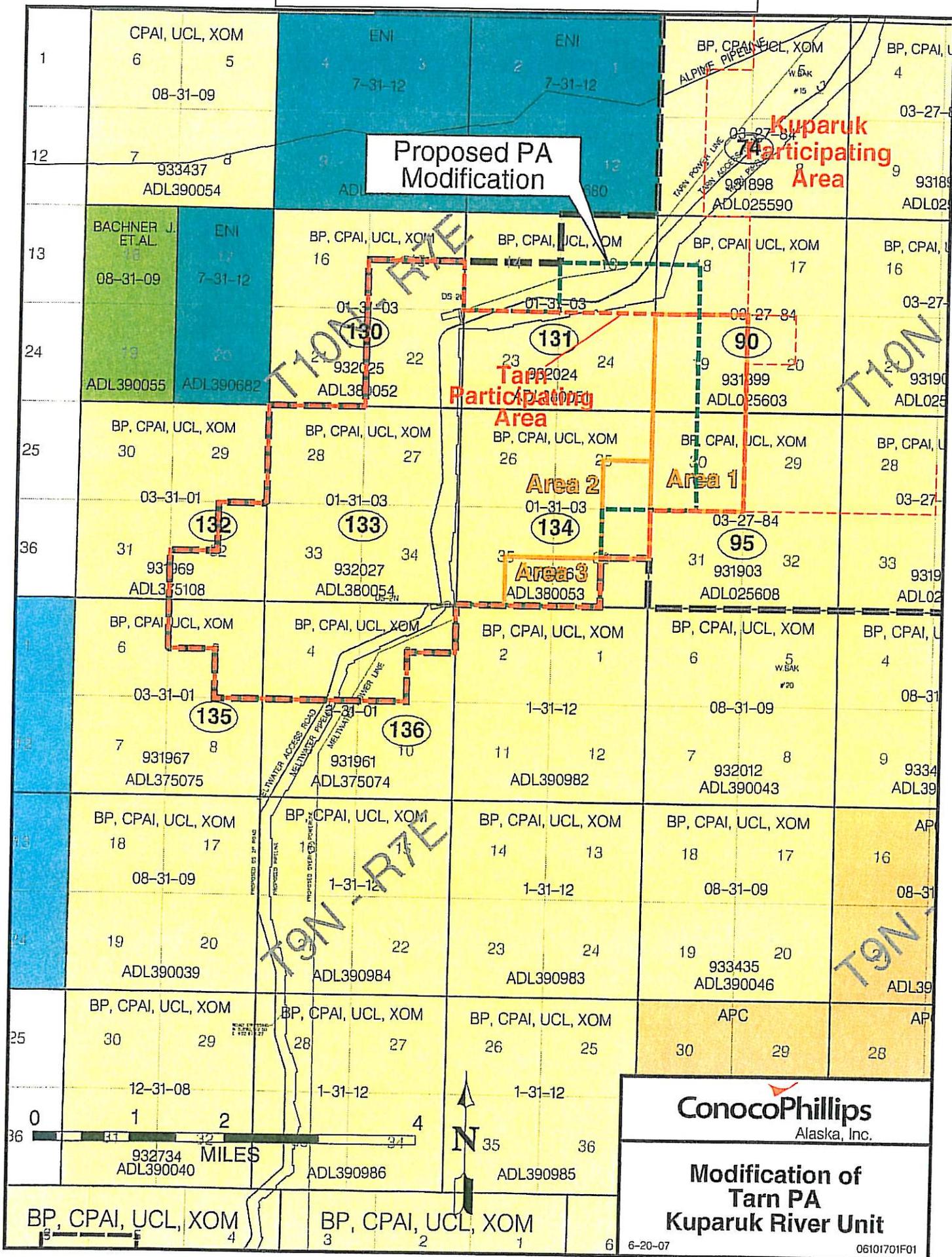
Date: 6/27/07

**Attachment "A" Figure A-1
to Application to Modify the Tarn PA**

**TARN PA Modification Area
Legal Description**

Tract	ADL	Legal	Ownership ¹	Working Interest
90	25603	Sec. 18 SW4, Sec. 19 W2 T10N, R08E, UM	CPAI BP Union EMAP	55.402367% 39.282233% 4.950600% 0.364800%
95	25608	Sec. 30, W2, T10N, R08E, UM	CPAI BP Union EMAP	55.402367% 39.282233% 4.950600% 0.364800%
131	380051	Section 13 S2, T10N, R07E, UM	CPAI BP Union EMAP	55.402367% 39.282233% 4.950600% 0.364800%
134	380053	Sec. 25 SE4, Sec. 35 SE4, Sec. 36 SW4, T10N, R07E, UM	CPAI BP Union EMAP	55.402367% 39.282233% 4.950600% 0.364800%

¹ Names of Working Interest Owners are abbreviated as follows:
 ConocoPhillips Alaska, Inc. CPAI
 BP Exploration (Alaska) Inc. BP
 Union Oil Company of California Union
 ExxonMobil Alaska Production Inc. EMAP



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JAN 16 2008

DIVISION OF OIL AND GAS

Exhibit C - Tarn Participation Area, Tract Participations (revised January 16, 2007)

Tr. No.	ADL No.	Exp. Date	Legal Description of Lease Included in Tarn PA	Lease Acres	Lessor Royalty	Alaska Net Profit Share	Agreed Leasehold Cost Interests				Agreed Leasehold Working Interests				Area Inside 0' Contour (Acres)	Tract Participation
							COP	BP	Union	EMAP	COP	BP	Union	EMAP		
90	25603	03/26/80	T10N, R08E, UM, Sec. 16, SW4; Sec. 19, W2.	445	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	412	4.62445%
95	25608	03/26/80	T10N, R08E, UM, Sec. 30, W2.	300	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	238	2.66468%
130	380052	01/30/99	T10N, R7E, UM, Sec. 15, S2; Sec. 22, All.	980	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	333	3.73701%
131	380051	01/30/99	T10N, R07E, UM, Sec. 13, S2; Sec. 23, All; Sec. 24, All.	1,600	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	1459	16.36605%
132	375108	03/30/97	T10N, R07E, UM, Sec. 32, NE4 and S2.	480	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	364	4.08212%
133	380054	01/30/99	T10N, R07E, UM, Sec. 27, All; Sec. 28, All; Sec. 33, All; Sec. 34, All.	2,560	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	2435	27.31848%
134	380053	01/30/99	T10N, R07E, UM, Sec. 25, All; Sec. 26, All; Sec. 35, All; Sec. 36, N2 and SW4.	2,400	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	2383	26.73351%
135	375075	03/30/97	T09N, R07E, UM, Sec. 5, N2 and SE4.	480	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	236	2.64224%
136	375074	03/30/97	T09N, R07E, UM, Sec. 3, N2 and SW4; Sec. 4, All.	1,120	12.50%	0.0%	55.981240%	39.693480%	3.96048%	0.364800%	55.402367%	39.282233%	4.95060%	0.364800%	1055	11.83148%
Totals				10,346											8913	100.0000%

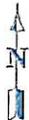
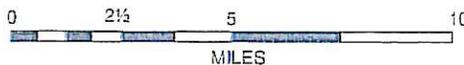
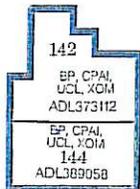
Note: Tract participation values are based upon the area in each tract inside 0' contour on expected net pay map (Exhibit "Tarn D-2") divided by the sum of the areas from all the leases in the Tarn PA.

ATTACHMENT SIX
Kuparuk River Unit Tarn Participating Area Exhibit D

-  Unit Boundary
-  Participating Area
-  Tract Boundary
- 11** Tract Number

Kuparuk
Unit Boundary

Tarn Participating Area



ConocoPhillips
Alaska, Inc.

Kuparuk River Unit

Exhibit 'D'
Tarn Participating Area

Located within T8-13N, R7-11E
Umiat Meridian, Alaska

