



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Natural Resources

Division of Oil & Gas
Anchorage Office

550 W. 7th Avenue, Suite 1100
Anchorage, Alaska 99501-3560
Main: 907.269.8800
Fax: 907.269.8939

December 15, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

John L. Whitworth
Supervisor, WNS Base
ConocoPhillips Alaska Inc.
700 G Street
Anchorage, AK 99501

Re: Colville River Unit, Nanuq Nanuq Participating Area
Eight Year Reserves Estimate Revision

Dear Mr. Whitworth:

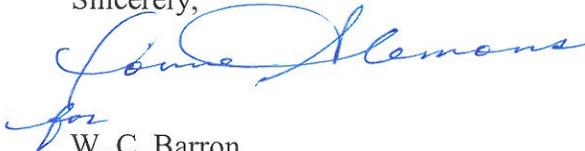
On July 11, 2014, ConocoPhillips Alaska, Inc. (ConocoPhillips), as Unit Operator on behalf of the Colville River Unit (CRU) Working Interest Owners, submitted an application under Articles 9 and 10 of the Colville River Unit Agreement (CRUA) and 11 AAC 83.351, to the Commissioner of the State of Alaska, Department of Natural Resources, Division of Oil and Gas, (Division) and the President of the Arctic Slope Regional Corporation (ASRC) for the Eight Year Reserves Estimate Revision of the Colville River Unit (CRU) Nanuq Nanuq Participating Area (NNPA) (Application). The Application was later updated with revised exhibits after review by the Division. The revised NNPA excludes certain lands included in the current boundary of the NNPA, and includes certain lands not included in the current boundary of the NNPA, as described in Attachment A and B, (Attachment 1). This approval is for the Eight Year Reserves Estimate Revision. Attached is the approved revised division of interest as described in Exhibit C, (Attachment 2), Exhibit D, Map of the NNPA, (Attachment 3), Exhibit E, Revised Allocation of NNPA Expense, (Attachment 4), and Exhibit F, Revised Allocation of Unit Expense, (Attachment 5). The revised division of interest submitted under 10.1.3(b) is approved and is effective as of the first day of the first month following the month during which it is approved by the Proper Authority as described in Subsection 10.1.3(b)(v), January 1, 2015.

The Division's Review of the Application and underlying dynamic model benefited from open technical communications with ConocoPhillips. This communication helped the division gain a better understanding of the model sensitivities and resultant impacts on tract factors. While none of the concerns identified by the Division's technical team during evaluation of the model had a significant impact on tract factors, the Division requests ConocoPhillips take into account feedback from this redetermination in subsequent redeterminations.

The Division is concerned with several adjustments made to the dynamic model in order to reach a satisfactory history match. Abrupt changes in reservoir characteristics, relative permeability for example, without geologic evidence to support such changes may function practically but are unlikely in reality. The Division observed adjustments in the model to compressibility of non-reservoir rock. These adjustments from typical values appear to be nonstandard practice and in this case did not significantly influence end results. Additionally, transmissibility edits in the model achieved the intended result, but adjustments to permeability may have been a more conventional adjustment.

An eligible 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 Marty Rutherford, Acting 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@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.

Sincerely,



W. C. Barron
Director

cc: Department of Law
Dora Soria, ConocoPhillips
Teresa Imm, ASRC
Wayne Svejnoha, BLM

Attachments

1. NNPA Eight Year Reserves Estimate Revision Attachments A and B
2. NNPA Eight Year Reserves Estimate Revision Exhibit C
3. NNPA Eight Year Reserves Estimate Revision Exhibit D
4. NNPA Eight Year Reserves Estimate Revision Exhibit E
5. NNPA Eight Year Reserves Estimate Revision Exhibit F

Attachment 1: NNPA Eight Year Reserves Estimate Revision Attachments A and B

Attachment A

Third Revision of the Nanuq Nanuq Participating Area

| Tract No. | Type Acreage | ADL No./ Tobin No. | Legal Description |
|-----------|--------------|--------------------|---|
| 124 | Expansion | 388903 932353 | T11N-R5E, U.M. Sec. 32, NW1/4SW1/4, SW1/4NE1/4 |
| 125 | Expansion | 388903 932353 | T11N-R5E, U.M. Sec. 33, NW1/4NW1/4 |
| 59 | Contraction | 380075 932034 | T11N-R4E, U.M. Sec. 14, SW1/4 |
| 61 | Contraction | 372097 931996 | T11N-R5E, U.M. Sec. 17, SE1/4SW1/4, S1/2SE1/4 Sec. 18, NW1/4SE1/4 |
| 69 | Contraction | 384211 932080 | T11N-R5E, U.M. Sec. 21, NW1/4NW1/4, SW1/4NE1/4, E1/2SE1/4 |
| 73 | Contraction | 380077 932036 | T11N-R4E, U.M. Sec. 23, W1/2 |
| 79 | Contraction | 380077 932036 | T11N-R4E, U.M. Sec. 26, E1/2NW1/4, SW1/4SE1/4 |
| 119 | Contraction | 380081 932044 | T11N-R5E, U.M. Sec. 28, NE1/4SE1/4 |

Attachment 2: NNPA Eight Year Reserves Estimate Revision Exhibit C

Exhibit C
 Nanuq Nanuq Participating Area
 Attached to and made a part of
 the Colville River Unit Agreement

| Tr. No. | ADL No./ Tobin No. | Legal Description | Acres | Depth Restrictions | Original Royalty (%) | NPSL (%) | Tract Owners | Working Interest | Liquid Tract Allocation | Gas Tract Allocation |
|---------|-----------------------|---|---------------|-----------------------|-------------------------|----------|-----------------|---------------------|----------------------------|-------------------------|
| 59 | 380075 | T11N,R4E, U.M. | | Above 7,631' | 16.667 | | CPAI | 78.000000 | 0.00000000 | 0.00532105 |
| | 932034 | Sec. 14, SE1/4, SE1/4NE1/4 | <u>200.00</u> | | | | APC | 22.000000 | | |
| | | TOTAL | 200.00 | | | | | <u>100.000000</u> | | |
| 60 | 380075 | T11N,R4E, U.M. | | Above 7,631' | 16.667 | | CPAI | 78.000000 | 0.00000000 | 0.03111856 |
| | 932034 | Sec. 13, S1/2, S1/2NW1/4, SW1/4NE1/4 | <u>440.00</u> | | | | APC | 22.000000 | | |
| | | TOTAL | 440.00 | | | | | <u>100.000000</u> | | |
| 61 | 372097 | T11N,R5E, U.M. | | Above 10,350' | 12.5 | | CPAI | 78.000000 | 0.01304838 | 0.03985744 |
| | 931996 | Sec. 17, SW1/4SW1/4 | 40.00 | | | | APC | 22.000000 | | |
| | | Sec. 18, SW1/4, S1/2SE1/4 | <u>219.50</u> | | | | | <u>100.000000</u> | | |
| | | TOTAL | 259.50 | | | | | | | |
| 69 | 384211 | T11N,R5E, U.M. | | None | 16.667 | | CPAI | 78.000000 | 0.01623774 | 0.02863709 |
| | 932080 | Sec. 21, S1/2NW1/4, W1/2SE1/4, SW1/4 | <u>320.00</u> | | | | APC | 22.000000 | | |
| | | TOTAL | 320.00 | | | | | <u>100.000000</u> | | |
| 70 | 384211 | T11N,R5E, U.M. | | Above 7,631' | 16.667 | | CPAI | 78.000000 | 0.06071745 | 0.10041362 |
| | 932080 | Sec. 20, All | <u>640.00</u> | | | | APC | 22.000000 | | |
| | | TOTAL | <u>640.00</u> | | | | | <u>100.000000</u> | | |
| 71 | 384211 | T11N,R5E, U.M. | | Above 7,631' | 16.667 | | CPAI | 78.000000 | 0.11138313 | 0.15140903 |
| | 932080 | Sec. 19, All | <u>601.00</u> | | | | APC | 22.000000 | | |
| | | TOTAL | 601.00 | | | | | <u>100.000000</u> | | |

Exhibit C

Nanuq Nanuq Participating Area
Attached to and made a part of
the Colville River Unit Agreement

| Tr. No. | ADL No./ Tobin No. | Legal Description | Depth Restrictions | Original Royalty (%) | NPSL (%) | Tract Owners | Working Interest | Liquid Tract Allocation | Gas Tract Allocation |
|---------|-----------------------|--|-----------------------|-------------------------|----------|-----------------|---------------------|----------------------------|-------------------------|
| 72 | 380077 | T11N,R4E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.01682294 | 0.13796615 |
| | 932036 | Sec. 24, All | | <u>640.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 640.00 | | | <u>100.000000</u> | | |
| 73 | 380077 | T11N,R4E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.00000000 | 0.03748622 |
| | 932036 | Sec. 23, E1/2 | | <u>320.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 320.00 | | | <u>100.000000</u> | | |
| 79 | 380077 | T11N,R4E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.00788510 | 0.01586769 |
| | 932036 | Sec. 26, NE1/4, N1/2SE/14, SE1/4SE1/4excl. NPRA | | <u>280.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 280.00 | | | <u>100.000000</u> | | |
| 80 | 384209 | T11N,R4E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.26973690 | 0.08207228 |
| | 932195 | Sec. 25, All | | <u>640.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 640.00 | | | <u>100.000000</u> | | |
| 81 | 384211 | T11N,5E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.27094202 | 0.10037615 |
| | 932080 | Sec. 30, All | | <u>604.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 604.00 | | | <u>100.000000</u> | | |
| 82 | 380082 | T11N,R5E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.07586815 | 0.09606987 |
| | 932046 | Sec. 29, All | | <u>640.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 640.00 | | | <u>100.000000</u> | | |
| 119 | 380081 | T11N,R5E, U.M. | None | 16.667 | | CPAI | 78.000000 | 0.03466057 | 0.04549187 |
| | 932044 | Sec. 28, N1/2, SW1/4, NW1/4SE1/4 | | <u>520.00</u> | | APC | 22.000000 | | |
| | | TOTAL | | 520.00 | | | <u>100.000000</u> | | |

Exhibit C

Nanuq Nanuq Participating Area
Attached to and made a part of
the Colville River Unit Agreement

| Tr. No. | ADL No./ Tobin No. | Legal Description | Acres | Depth Restrictions | Original Royalty (%) | NPSL (%) | Tract Owners | Working Interest | Liquid Tract Allocation | Gas Tract Allocation |
|-------------------------|-----------------------|---|----------------------------|-----------------------|-------------------------|----------|-----------------|---|----------------------------|-------------------------|
| 122 | 388902 932351 | T11N,R4E, U.M. Sec. 35, NE1/4NE1/4, excluding the NPRA TOTAL | 40.00 40.00 | None | 16.667 | | CPAI APC | 78.000000 22.000000 <u>100.000000</u> | 0.00000006 | 0.00246509 |
| 123 | 388902 932351 | T11N,R4E, U.M. Sec. 36, Unsurveyed, N1/2, N1/2S1/2, S1/2SE1/4 TOTAL | 560.00 560.00 | None | 16.667 | | CPAI APC | 78.000000 22.000000 <u>100.000000</u> | 0.08795056 | 0.04584370 |
| 124 | 388903 932353 | T11N,R5E, U.M. Sec. 31, Unsurveyed, N1/2, N1/2S1/2, S1/2SW1/4, Sec. 32, Unsurveyed, NW1/4, N1/2NE1/4, SW1/4NE1/4, NW1/4SW1/4 TOTAL | 527.00 320.00 847.00 | None | 16.667 | | CPAI APC | 78.000000 22.000000 <u>100.000000</u> | 0.03474700 | 0.07805356 |
| 125 | 391587 932353 | T11N,R5E, U.M. Sec. 33, Unsurveyed, NW1/4NW1/4, TOTAL | 40.00 40.00 | None | 16.667 | | CPAI APC | 78.000000 22.000000 <u>100.000000</u> | 0.00000000 | 0.00155063 |
| TOTAL PA ACREAGE | | | 7,591.50 | | | | | | | |

KEY:

CPAI: ConocoPhillips Alaska, Inc.
APC: Anadarko Petroleum Corporation

Attachment 3: NNPA Eight Year Reserves Estimate Revision Exhibit D

Attachment 4: NNPA Eight Year Reserves Estimate Revision Exhibit E

Exhibit E

Allocation of Nanuq Nanuq Participating Area Expense

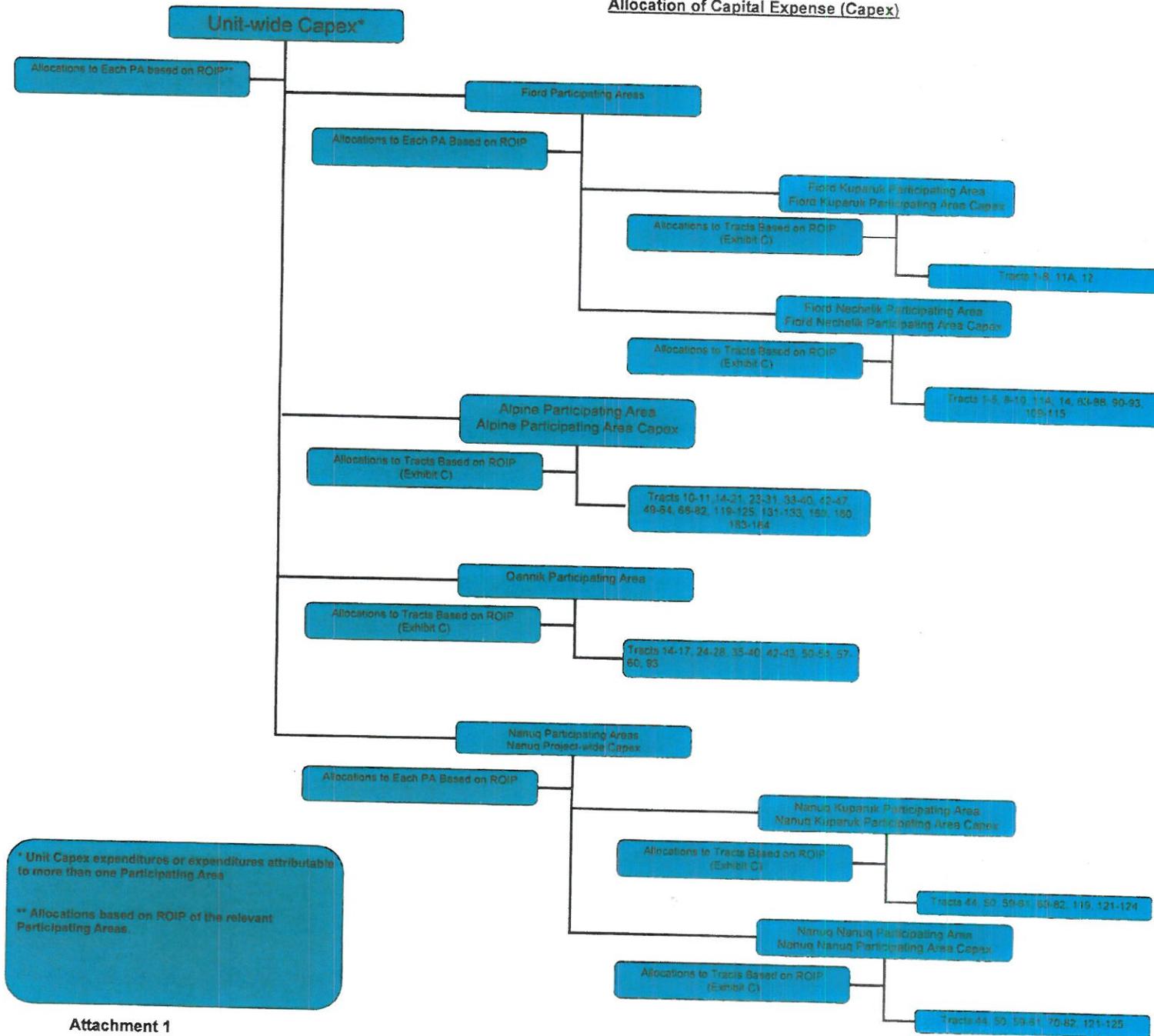
Participating Area Expense for Capital Expenditures

Nanuq Nanuq Participating Area Expense for capital expenditures that benefit both the Nanuq Kuparuk Participating Area and the Nanuq Nanuq Participating Areas (collectively "Nanuq Participating Area") will be allocated between the Participating Areas based on their relative percentages of total Nanuq Participating Area recoverable oil-in-place ("ROIP"), as illustrated in Attachment 1 to this Exhibit E. Those Nanuq Nanuq Participating Area Expenses will then be allocated to specific Colville River Unit Tracts in accordance with Exhibit C for the Nanuq Nanuq Participating Area.

Participating Area Expense for Operating Expenditures

Nanuq Nanuq Participating Expense for operating expenditures that benefit both the Nanuq Kuparuk Participating Area and the Nanuq Nanuq Participating Area will be allocated between the Participating Areas based on their apportioned shares of total monthly Nanuq Participating Area oil and water off take, as illustrated in Attachment 2 to this Exhibit E.

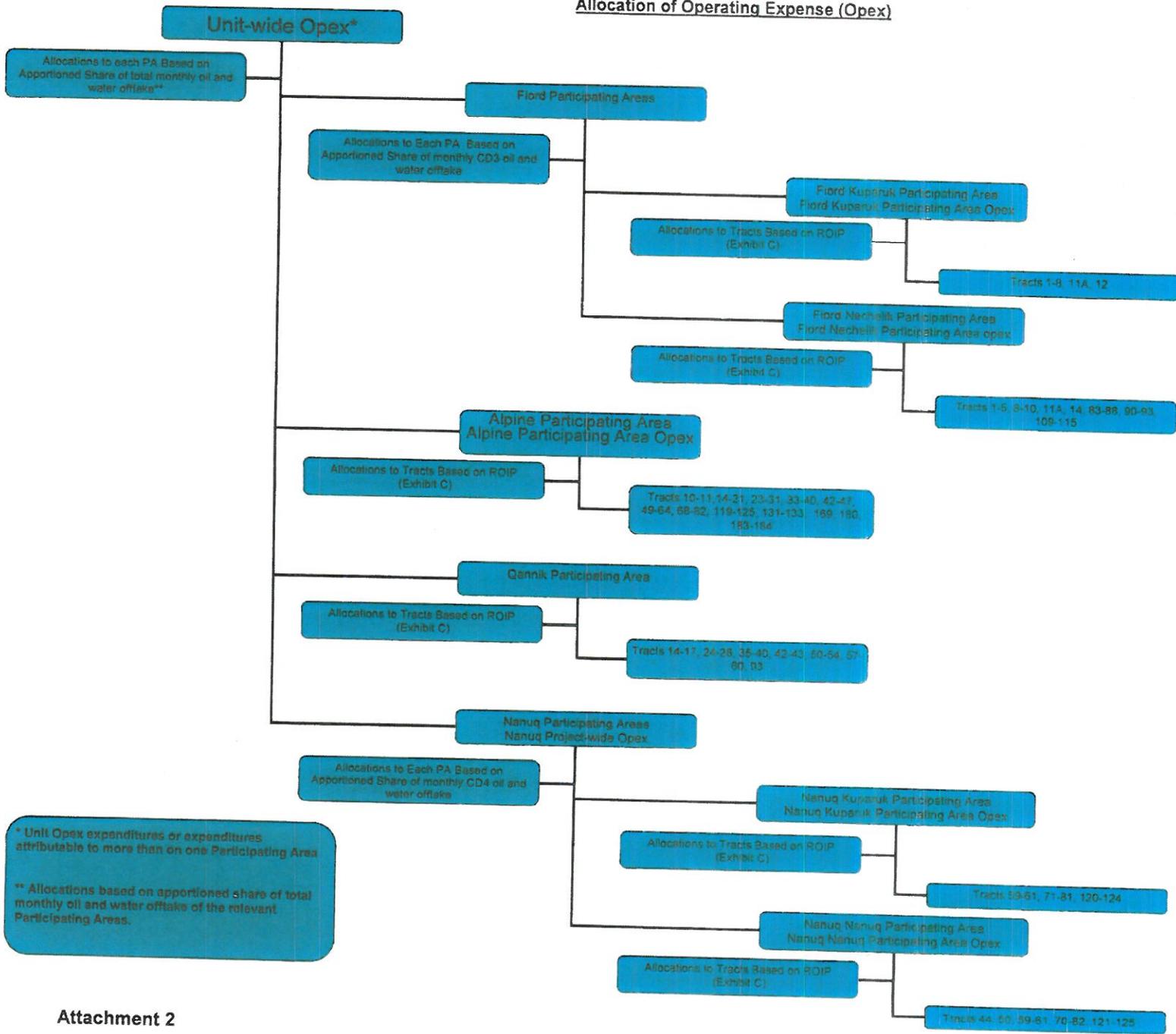
Allocation of Capital Expense (Capex)



* Unit Capex expenditures or expenditures attributable to more than one Participating Area

** Allocations based on ROIIP of the relevant Participating Areas.

Allocation of Operating Expense (Opex)



* Unit Opex expenditures or expenditures attributable to more than one Participating Area

** Allocations based on apportioned share of total monthly oil and water offtake of the relevant Participating Areas.

Attachment 5: NNPA Eight Year Reserves Estimate Revision Exhibit F

Exhibit F

Allocation of Unit Expense for the Nanuq Nanuq Participating Area

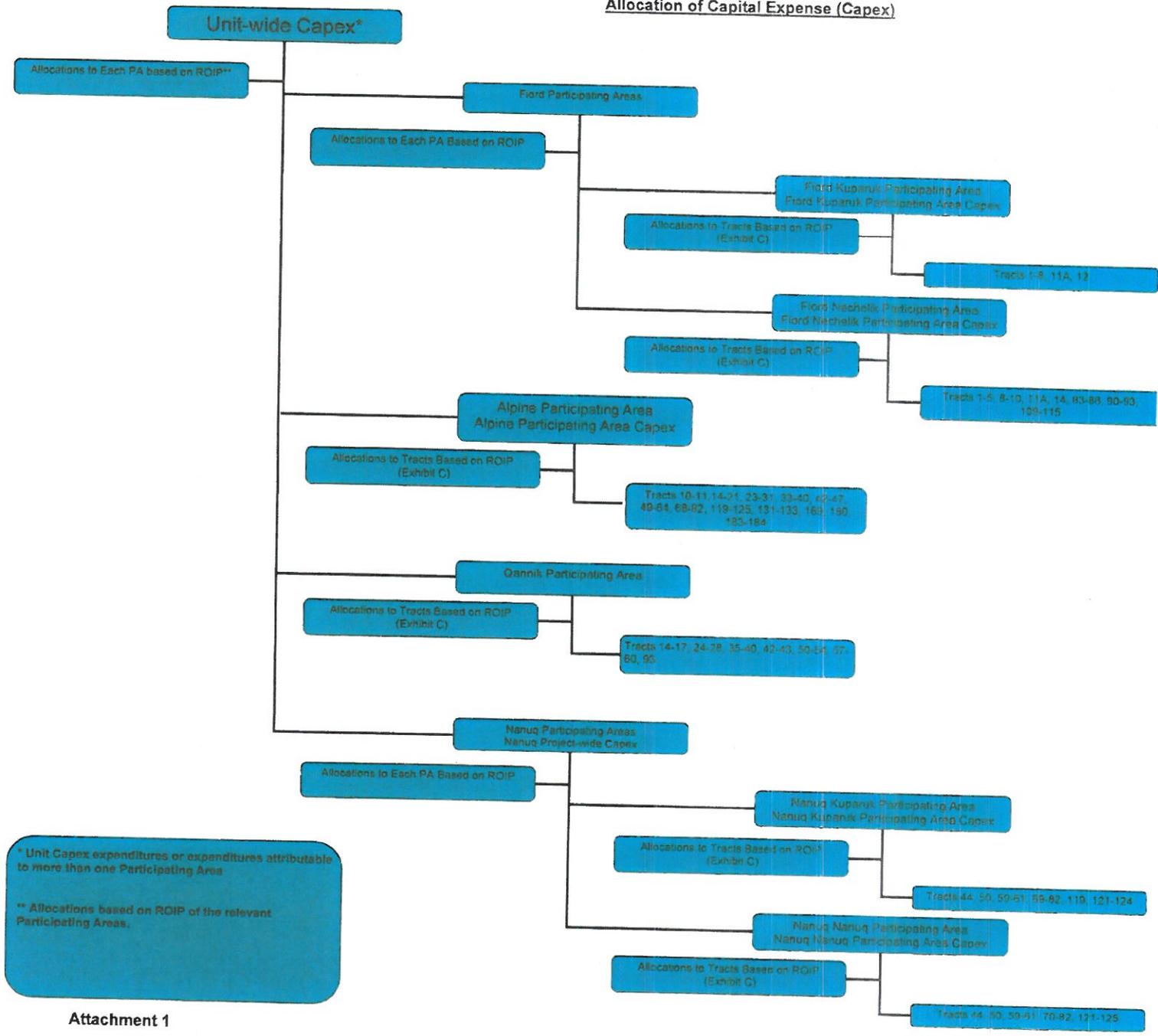
Unit Expense for Capital Expenditures

Unit Expense for capital expenditures that benefit more than one Participating Area shall first be allocated among those Participating Areas based on their percentages of recoverable oil-in-place ("ROIP") compared to the total ROIP of the Participating Areas benefiting from the capital expenditures, as illustrated in Attachment 1 to this Exhibit F. Those Unit Expenses allocated to the Nanuq Nanuq Participating Area will then be allocated to specific Colville River Unit Tracts in accordance with Exhibit C for the Nanuq Nanuq Participating Area.

Unit Expense for Operating Expenditures

Unit Expense for operating expenditures that benefit more than one Participating Area shall first be allocated among those Participating Areas based on their percentage share of monthly oil and water offtake compared to the total monthly oil and water offtakes of the Participating Areas benefiting from the operating expenditures, as illustrated in Attachment 2 to this Exhibit F. Those Unit Expenses allocated to the Nanuq Nanuq Participating Area will then be allocated to specific Colville River Unit Tracts in accordance with Exhibit C for the Nanuq Nanuq Participating Area.

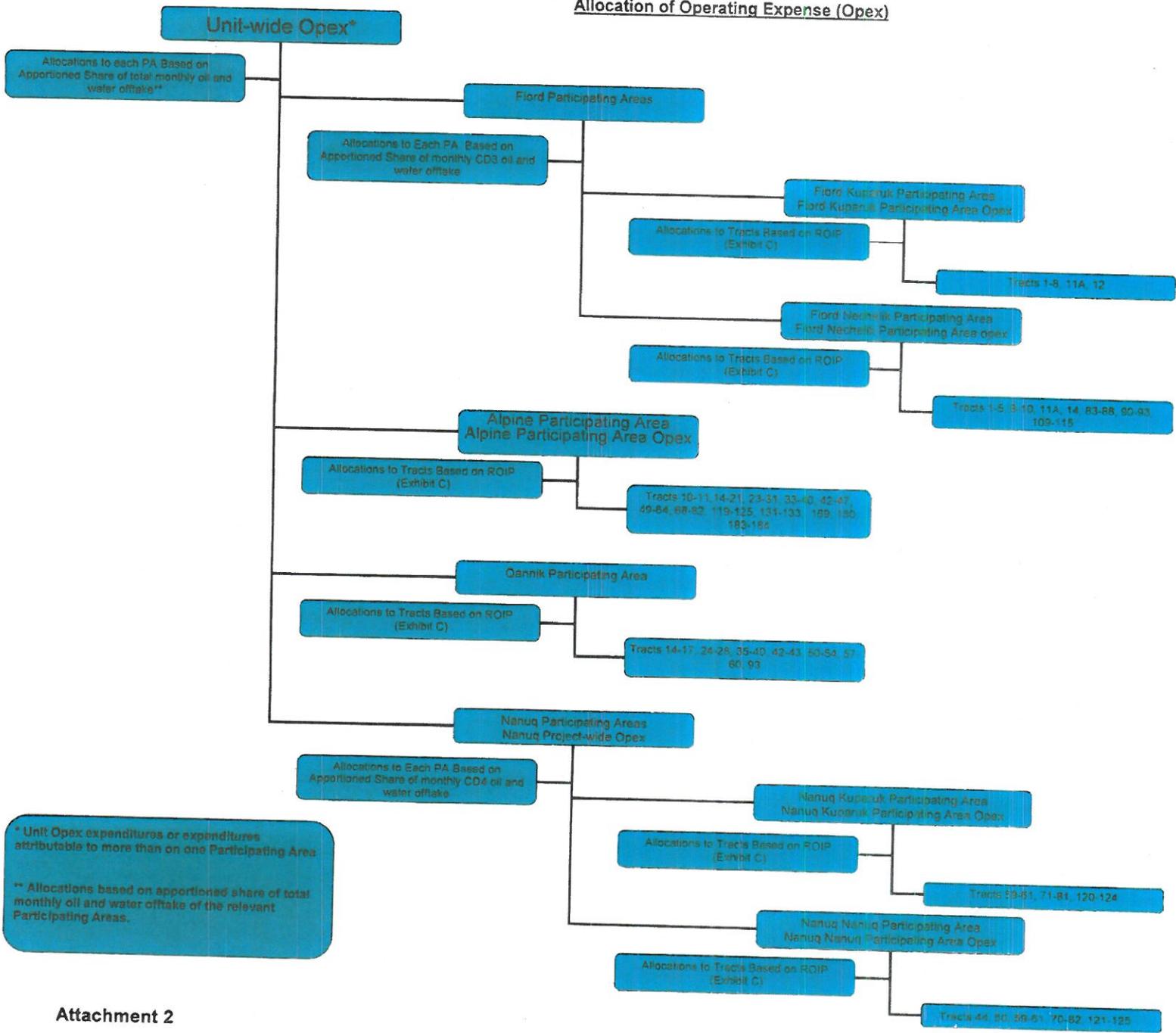
Allocation of Capital Expense (Capex)



* Unit Capex expenditures or expenditures attributable to more than one Participating Area

** Allocations based on ROIIP of the relevant Participating Areas.

Allocation of Operating Expense (Opex)



* Unit Opex expenditures or expenditures attributable to more than one Participating Area

** Allocations based on apportioned share of total monthly oil and water offtake of the relevant Participating Areas.

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 City, State: **Anchorage, AK 99501**

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1. Article Addressed to:
 John L. Whitworth
 Supervisor, WNS Base
 ConocoPhillips Alaska Inc.
 700 G Street
 Anchorage, AK 99501

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