

PLACER UNIT AGREEMENT

APPROVAL OF THE APPLICATION TO  
FORM THE PLACER UNIT

FINDINGS AND DECISION OF THE DIRECTOR  
DIVISION OF OIL AND GAS  
UNDER DELEGATION OF AUTHORITY FROM THE COMMISSIONER  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF ALASKA

September 8, 2011

**TABLE OF CONTENTS**

- I. DECISION SUMMARY ..... 3
- II. INTRODUCTION AND BACKGROUND..... 3
- III. APPLICATION FOR THE PLACER UNIT.....4
- IV. DISCUSSION OF DECISION CRITERIA.....5
  - A. Decision Criteria considered under 11 AAC 83.303(b)
    - 1. Environmental Costs and Benefits of Unitized Exploration and Development
    - 2. Geological and Engineering Characteristics of the Potential Hydrocarbon Accumulations and Prior Exploration Activities in the Unit Area
    - 3. Prior Exploration Activities
    - 4. Plan of Exploration
    - 5. Economic Costs and Benefits to the State
    - 6. Amendments to the State Only Model Unit Agreement Form
  - B. Decision Criteria considered under 11 AAC 83.303(a)
    - 1. Promote the Conservation of All Natural Resources
    - 2. Promote the Prevention of Economic and Physical Waste
    - 3. Provide for the Protection of All Parties of Interest
- V. FINDINGS AND DECISION.....12
- VI. ATTACHMENTS.....15

## PLACER UNIT APPLICATION

### **I. DECISION SUMMARY**

On January 20, 2011, ASRC Exploration, LLC (AEL), as the sole Working Interest Owner (WIO), filed the Placer Unit (PLU) application (Application) with the State of Alaska (State), Department of Natural Resources (DNR). Subsequently, on May 24, 2011, AEL submitted an amended Application, reducing the proposed unit acreage from 8,769 acres to 1,480 acres.

The State of Alaska, Department of Natural Resources, Division of Oil and Gas (Division) gave notice under 11 AAC 83.311 of the proposed PLU on June 6, 2011. The period for public comment closed effective 4:30 p.m. July 14, 2011. No comments were received.

A unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations. AEL submitted confidential and public information as part of the Application, which demonstrate that the proposed unit area includes all or part of an oil reservoir.

This Approval constitutes the written findings and decision required under 11 AAC 83.303 and is fully appealable. The Division finds that the approval of the PLU promotes conservation of all natural resources, promotes the prevention of economic and physical waste, and provides for the protection of all parties, including the State. AS 31.05.110(a), AS 38.05.180(p), and 11 AAC 83.303. I approve the formation of the PLU in accordance with the criteria under 11 AAC 83.303 and under the terms and conditions of this Decision.

### **II. INTRODUCTION AND BACKGROUND**

On January 20, 2011, AEL on behalf of itself as the sole WIO applied for approval of the proposed PLU Agreement (Agreement) with AEL as operator. AEL is qualified to act as Unit Operator under 11 AAC 83.331 because it is qualified to hold a lease and is qualified to fulfill the duties and obligations under the Agreement.

The Agreement proposes to combine for unitized exploration and development part of four State of Alaska oil and gas leases. The proposed unit is located on the North Slope of Alaska, southwest of the Kuparuk River Unit. Approval of the proposed Agreement would conform and modify the lease contracts to be consistent with the Agreement, and extend the term of the leases for as long as they are subject to the Agreement.

The leases in the proposed unit, and their corresponding lease numbers, acreages, state royalty interest, lease effective date, lease form, ownership, and current lease expiration dates are shown below in Table 1.

Table 1

**Proposed Placer Unit Lease Information**

<b>ADL</b>	<b>Acres</b>	<b>State Royalty Interest %</b>	<b>Lease Effective Date</b>	<b>Lease Form</b>	<b>Working Interest Owners and Percentage</b>	<b>Lease Expiration Date</b>
391023	800	16.66667	2/1/2007	200204(REV10/03)	ASRC 100%	1/31/2012
391024	560	16.66667	2/1/2007	200204(REV10/03)	ASRC 100%	1/31/2012
391027	80	16.66667	2/1/2007	200204(REV10/03)	ASRC 100%	1/31/2012
391028	40	16.66667	2/1/2007	200204(REV10/03)	ASRC 100%	1/31/2012

The proposed Agreement is based on the State of Alaska Model Unit Agreement form (Revised March 2011) with modifications agreed upon by DNR and AEL. The Agreement provides for plans of exploration, development and operations within the unit area without regard to internal lease boundaries. The proposed Initial POE as submitted by AEL sets forth a two-year schedule during which AEL commits on or before June 30, 2013 to have drilled and logged a Unit exploratory well or alternatively, will have re-entered and tested the Placer #1 well.

**III. APPLICATION FOR THE FORMATION OF THE UNIT AREA**

AEL submitted an Application on January 20, 2011 along with an application filing fee of \$5,000 in accordance with 11 AAC 83.306 and 11 AAC 05.010(a)(10)(D). The Application included: the Placer Unit Agreement; an Exhibit A, describing the proposed unit area, its leases, and ownership interests; an Exhibit B, a map of the proposed unit area; an Exhibit G, the proposed Initial Plan of Exploration (POE); and the Unit Operating Agreement. The Application also included confidential geological, geophysical and engineering information supporting the Application. Supplemental information to complete the Application was submitted by AEL on May 24, 2011. The Division deemed the Application complete and issued public notice of the Application.

Public notice of the Application was published in the *Anchorage Daily News* and in the *Arctic Sounder* on June 6, 2011. The public notice and a copy of the Application were posted to the Division website on June 6, 2011. Copies of the Application and public notice were provided to interested parties under 11 AAC 83.311. The Division provided public notice to the North Slope Borough, Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, Alaska Department of Natural Resources (Division of Mining, Land and Water), Alaska Oil and Gas Conservation Commission, Postmaster Nuiqsut, Postmaster Barrow, Postmaster Fairbanks, Arctic Slope Regional Corporation, KBRW Radio, Kuukpik Corp., Arctic Slope Native Association, LTD., City of Barrow, Inupiat Community of the Arctic Slope, Native Village of Barrow, City of Nuiqsut, Ukpeagvik Inupiat Corporation, Native Village of Nuiqsut, Nuiqsut Trapper School/Community Library, Tuzzy Consortium Library, Cook Inlet Region Inc., and ASRC Exploration, LLC. The thirty-day public comment period closed on July 14, 2011. No comments were received.

On August 8, 2011, the Unit Operator submitted a revised Initial POE. No additional notice under 11 AAC 83.311 was required.

#### **IV. DISCUSSION OF DECISION CRITERIA**

A unit may be formed to conserve the natural resources of all or a part of an oil or gas pool, field, or like area when determined and certified to be necessary or advisable in the public interest. AS 38.05.180(p). The commissioner will approve a proposed unit upon a finding that it will (1) promote conservation of all natural resources, including all or part of an oil or gas pool, field, or like area; (2) promote the prevention of economic and physical waste; and (3) provide for the protection of all parties of interest including the state. In evaluating these three criteria, the commissioner will consider:

1. Environmental costs and benefits of unitized exploration or development;
2. Geologic and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization;
3. Prior exploration activities in the proposed unit area;
4. Applicant's plans for exploration or development of the unit area;
5. Economic costs and benefits to the state; and
6. Any other relevant factors, including measures to mitigate impacts identified above, the commissioner determines necessary or advisable to protect the public interest.

AS 38.05.180(p) gives DNR the authority to approve an oil and gas unit. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003 and delegated this authority to the Director of the Division. The Division's review of the Application is based on the criteria set out in 11 AAC 83.303(a) and (b). 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. Environmental Costs and Benefits of Unitized Exploration**

The proposed PLU is located onshore North Slope, Alaska. Alaska statutes require that DNR provide public notice and issue a written finding before approving a contract for disposal of the State's oil and gas resources. AS 38.05.035(e), AS 38.05.945 and 11 AAC 82.415. In preparing a written decision before an oil and gas lease sale, the Commissioner may impose additional conditions or limitations beyond those imposed by law. AS 38.05.035(e). DNR develops lease stipulations through the lease sale process to mitigate the potential environmental, social and cultural impacts from oil and gas activity.

The four leases to be included in the proposed PLU contain stipulations designed to protect the environment and to address concerns regarding potential impact to fish and game, to wildlife habitats, and to subsistence. Lease conditions address issues such as the protection of primary waterfowl areas, site restoration, construction of pipelines, seasonal restriction on operations, public access to, or use of, the leased lands, and avoidance of seismic hazards. Unitization will neither change these protective measures, nor result in additional restrictions or limitations. All lease operations require additional approval(s) and must comply with federal, state, and applicable borough enforceable policies.

## **2. Geological and Engineering Characteristics of the Potential Hydrocarbon Accumulation and Prior Exploration Activities in the Unit Area**

### **Introduction**

Under 11 AAC 83.356(a), a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations. 11 AAC 83.395(5) defines a “potential hydrocarbon accumulation” as “any structural or stratigraphic entrapping mechanism which has been reasonably defined and delineated through geophysical, geological, or other means and which contains one or more intervals, zones, strata, or formations having the necessary physical characteristics to accumulate and prevent the escape of oil and gas.”

Data and information submitted by AEL to the Division in support of the application to form the PLU includes geologic cross sections, analyses of well log, core, and fluid data, and regional structure maps, but no interpreted seismic data. AEL is in the process of securing a license to existing pertinent seismic data, which they propose to reprocess and re-interpret as part of their initial work commitment. AEL will submit the re-processed data and interpretation to the Division by December 31, 2011. All data will be held confidential in accordance with AS 38.05.035(a)(8)(C) and 11 AAC 96.220.

### **Geologic and Engineering Characteristics of the Reservoir**

The primary reservoir in the proposed PLU is the Kuparuk C sandstone within the Kuparuk River Formation. The Kuparuk River Formation is a sequence of clastic sediments deposited on a shallow marine shelf during Neocomian (Early Cretaceous) time. The Early Cretaceous aged (120 – 145 million years old) Kuparuk River Formation has a unique and complex depositional history. The formation is informally subdivided into four members designated by letters A (oldest) through D (youngest). Each member is further subdivided into sub-members designated by numbers, such as A-1 and C-4 (with one being the oldest sub-member). The lower Kuparuk A and B members (Berriasian and Valanginian in age) were derived from a subaerially exposed northern provenance that foundered during Late Jurassic - Early Cretaceous time and are generally comprised of predictable, inter-bedded mudstone-siltstone marine shelf sediments to coarsening-upward marine offshore bars and shoreface sequences that were deposited over a large contiguous area. Following the deposition of the lower Kuparuk sediments, the area became tectonically active due to regional rifting that resulted in regional tilting and the formation of local structural highs. As the northern source terrain subsided, the localized uplifted blocks along the Prudhoe Bay structural high became the primary source of the Upper Kuparuk C and D sediments as these areas were subsequently eroded by the Lower Cretaceous Unconformity (LCU), a major regional scouring event. The upper Kuparuk C and D members (Hauterivian and Barremian in age) represent the first sediments sourced from the local structural highs and were deposited in fault grabens and other low-lying areas upon the eroded LCU surface.

The Kuparuk River Formation is the main producing reservoir in the Kuparuk River Unit (KRU) adjacent to the proposed Placer unit. At KRU, the production from the Kuparuk Formation is from both the ‘A’ and ‘C’ members. Further east, in the Milne Point Unit, oil is also produced from localized reservoir sands within the intervening Kuparuk ‘B’ member.

In the northern portion of the KRU (around 3R, 3Q, and 3O drill pads), the primary oil production comes from the Kuparuk A sandstone members. The Kuparuk C sandstone is absent due to erosion or non-deposition on paleo-topographic highs. Along the western and northwestern boundaries of the KRU, the LCU has progressively eroded and completely truncated the lower members of the Kuparuk Formation (A & B). Areas with productive C sandstone tend to be associated with localized thicker sand accumulations preserved on the down-thrown side of a series of northwest-trending syndepositional faults, such as those extending from the 2X through 3H drill sites (DS-2X, DS-3H) and ultimately into the Oooguruk Unit. At right angle to the C sand accumulations associated with the northwest-trending faults, local secondary southwest-northeast trending accumulations of Kuparuk C are also present. One of these C sand secondary accumulations (Palm) is developed along the western margin of the KRU from DS-3S. This accumulation does not appear to be fault controlled, but rather, is likely due to preservation of transgressive Kuparuk C sand deposited in a scoured, paleo-topographic low that pre-dated the syndepositional faults. The proposed PLU is located approximately six miles to the southwest, on trend with the Kuparuk C sandstone developed at KRU DS-3S.

In addition to the Palm (DS-3S) development which came on production in 2002, a number of other discovered, isolated, local accumulations, either controlled by faulting and/or scoured paleotopography, of thin transgressive Kuparuk C sand have been developed in the area surrounding the proposed Placer unit in recent years, for example: approximately 10-13 miles to the west of Placer, both the Fiord-Kuparuk and Nanuq-Kuparuk pools within the Colville River Unit (CRU) came on production in 2006, and approximately 9 miles to the north of the PLU, the Oooguruk-Kuparuk Pool within the Oooguruk Unit came on production in 2008.

The reservoir sands in these developed accumulations of Kuparuk C sand range from approximately 6 – 35 feet thick. Porosity typically averages 18-25%, with an average permeability of 50-100 millidarcies, though individual permeability measurements can reach 1000 millidarcies or more. Oil gravity within reservoirs within the Kuparuk Formation to the west and north of the proposed Placer unit generally ranges between 21-26° API, a reflection of a mixed Triassic age Shublik and minor Jurassic age Kingak source. The higher gravity, 30-40° oil found within the Kuparuk reservoirs to the east in the CRU are more indicative of being sourced entirely from the Jurassic age Kingak Formation.

### **3. Prior Exploration Activities**

The proposed unit is located on the southwestern flank of the Colville structural high. Based upon seismic and wells in the area, regional structural dip at LCU level is approximately 40-50 feet per mile to the southwest.

The area encompassing the discovered Placer accumulation is covered by a 3D seismic survey shot by Arco Alaska in 1997 (KRU WBA survey). Prior to drilling the wells, the Kuparuk interval was identified as a prospect in the Placer area due to increased amplitude on the 3D seismic data at the LCU stratigraphic level, similar to that in the previously discovered Palm (KRU DS-3S) accumulation to the northeast. Although seismic data generally lacks the frequency to fully resolve thin transgressive sands, an increase in amplitude may indicate an increase in sand content (and/or secondary siderite cement) due

to an increase in acoustic impedance compared to the surrounding shales. Because of the limit of seismic resolution and inability to determine reservoir quality, the seismic data may not reliably differentiate the boundaries of prospective area and require wells to be drilled to confirm and adequately test and define the limits of the reservoir.

ConocoPhillips drilled the Placer #1 and #2 exploration wells in 2004 as work commitments for expansion of the KRU following the discovery in 2001 and successful development (KRU DS-3S) of the Kuparuk C sand at Palm. BP, Unocal, ChevronTexaco, ExxonMobil and unit operator ConocoPhillips were the original partners in the Placer area. ASRC (AEL) farmed into BP's acreage, assuming a portion of the well cost in exchange for a 35 percent working interest in the project.

The Placer #1 well was spud in February 2004 and suspended in March of that year after reaching a total depth of 7,761 feet measured depth (md) in the SW1/4 Sec 4, T11N, R7E, U.M. Approximately 17 feet true vertical thickness (tvt) of hydrocarbon bearing sands were encountered within the Kuparuk Formation between 7,539 and 7,560 feet md (-6054 to -6071 feet subsea true vertical depth (sstvd)) in the well. A comprehensive suite of data was gathered across this interval including; well logs, mud logs (cuttings/gas samples), side wall cores, and Modular Dynamic Tester (MDT) logs for pressure and fluid sample analysis. Analysis of the data indicated 5-7 feet of oil-bearing reservoir quality sand (10-28% porosity, 3-3000 millidarcies permeability) at the base of the interval. Although the upper 2/3rds of the interval was sand-bearing, secondary siderite cement occluded the pore space between the sand grains. Siderite cement such as this is generally not continuous within the Kuparuk C sand and as such, does not necessarily condemn the upper portion of the interval further away from this well location. Analysis of fluid samples recovered indicates the Kuparuk C sand contains 26 degree API, 1.5 centipoises viscosity oil.

Placer #2 was drilled to delineate the Kuparuk C at a bottom hole location (BHL) approximately 1.5 miles northeast of Placer #1 BHL. Placer #2 drilled to a total md of 9,118 feet in the NE1/4, Sec. 33, T12N, R7E U.M. Based on well logs and core data, the well encountered an approximately 4 feet tvf transgressive lag of Kuparuk C interval between 8,209 and 8,214 feet md (-6,013 to -6,017 feet sstvd). Thirty two feet of conventional core was cut and recovered from the wellbore between 8,188 – 8,220 feet md. The thin (4 ft) Kuparuk interval consisted of mostly siltstone with very thin inter-bedded sandstone. Core porosity from this interval ranged from 12 – 25%, with measured permeability (@2,600 psi confining pressure) between 0.2 to 3 millidarcy. No fluid samples or production tests were attempted. The well was plugged and abandoned.

Although no production test was attempted at the time the Placer #1 well was drilled, the well bore was suspended rather than plugged and abandoned to preserve the ability to test the well at a later date. Ultimately, after drilling the Placer #2 well, the partnership decided, without testing, that the reservoir discovered in Placer #1 was not economic to develop and the leases were subsequently dropped. AEL re-acquired the leases in the 2006 lease sale with a five year primary term. Since acquiring the leases, AEL has secured ownership of the Placer #1 well bore from ConocoPhillips to maintain the option of testing the original well and has also pursued acquiring 3D seismic over the area.



The Placer #1 well demonstrated that decent quality oil is present in a thin, but high quality reservoir in the Placer area. Additional work and delineation is required to determine if this reservoir has sufficient volume to be commercially viable.

#### **4. Plan of Exploration for the Proposed Placer Unit**

The WIO provided technical data sufficient to delineate one potential hydrocarbon accumulation under consideration, committed their lease interest to the proposed unit, and submitted a two-year Initial POE. See Attachment 3.

The two-year Initial POE, Exhibit G, for the proposed PLU establishes the work obligation that the WIO must meet in order for the proposed unit to remain in good standing. The term of the Initial POE commences on the effective date of the PLU Agreement, September 8, 2011, and ends on September 7, 2013. The terms of the Initial POE will require the following:

1. By December 31, 2011, the Unit Operator will have reprocessed and reinterpreted newly licensed seismic data set that was shot across the unit acreage.
2. On or before June 30, 2013, the Unit Operator will have drilled and logged a Unit exploratory well or alternatively, will have re-entered and tested the Placer #1 well.
  - a. Log the Unit exploratory well (GR or SP, Resistivity and Neutron/Density or Porosity: appropriate triple combo log); and
  - b. Complete, suspend or abandon the Unit exploratory well or if the Placer #1 well was re-entered, complete or abandon the previously drilled well.
  - c. If the Unit Operator fails to either drill the first initial Unit exploratory well or fails to reenter and test the Placer #1 well as described in the paragraph by June 30, 2013:
    - i. The Placer Unit will automatically terminate;
    - ii. WIO shall surrender all such acreage within Lease whose primary terms have expired to the Commissioner, effective the day that the Unit terminates.

AEL shall submit to the Division the Second POE or an Initial Plan of Development (POD) at least sixty days prior to the expiration of the Initial POE. Under the Second POE or the Initial POD, the Unit Operator shall:

1. Provide a POD for the installation of production facilities, pipelines and future development wells to the Division.
  - a. Submit an application to the Division to form an initial Participating Area within the PLU; or
2. Submit to the Division the Second POE for the Unit. The Second POE shall describe plans for the drilling of a Unit well by June 30, 2014.

#### **5. Economic Costs and Benefits to the State**

The assessment of the hydrocarbon potential on State lands will create jobs and in-state economic activity in the short-term and, if the exploration activity is successful, the State and its residents will enjoy royalty

and tax revenues, and increased employment opportunities over the long term. The State should enjoy these benefits of exploration and development regardless of whether the leases are unitized. AEL has the obligation to act as a prudent lessee. Given that AEL is operating without the constraints of competition to explore for hydrocarbons on these leases, the potential economic benefits at the initial exploration stage should be relatively similar whether the activities are carried out on individual or unitized leases. Any exploration activity on the North Slope, under the umbrella of unitization or otherwise, would provide employment opportunities in the short-term to state residents.

All four of the leases will expire on January 31, 2012 if not extended by unitization. The State foregoes revenue in the form of bonus bids by including portions of these leases within the proposed PLU. Absent unitization, these leases would expire and the acreage would be available at the next lease sale.

In considering the lands justified for inclusion within the PLU, the Division reviewed the data available from the Placer wells and nearby offset wells, as well as the performance of existing wells in nearby analogous developments of thin Kuparuk C sand. Based upon this review, it was mutually agreed between the Division and AEL that a reasonable interpretation would support approval of a unit encompassing an area based upon a 3,500 foot drainage radius around the Placer #1 bottom hole location (BHL). See Attachments 1 and 2. The proposed unit would cover only a portion of each of the four leases that AEL proposed to incorporate into the unit and would not include the area penetrated by the Placer #2 well, which failed to demonstrate a producible reservoir within the Kuparuk.

To partially offset any potential loss of lease sale bonus bids, the State is increasing the lease rentals for these four leases as authorized under AS 38.05.180(m). (“Upon extension, the commissioner may increase lease rentals so long as the increased rental rate does not exceed 150 percent of the rate for the preceding year.”) The rental rate for ADLS 391023, 391024, 391027, and 391028 will increase from \$3.00 per acre to \$4.50 per acre effective September 8, 2011, the effective date of unitization. Annual rental paid in advance is a credit on the royalty or net profit share due for that year.

## **6. Amendments to the State Only Model Unit Agreement Form**

The Agreement defines the relationship between the Unit Operator, WIO(s), and the State. It describes the rights and responsibilities, in addition to those imposed by state law and the leases, of the Unit Operator, WIO(s) and the State for exploration, development, and production of the unit area. It protects the interests of the state and the lessees. It defines the parties’ rights and responsibilities in the event of successful or unsuccessful exploration results. DNR may approve the Agreement if the available data suggest that the unit area covers one or more geologic formations that should be developed under a DNR approved plan, and the proposed unit meets the other statutory and regulatory criteria.

As part of the Application, AEL submitted the Agreement based on the State of Alaska Model Unit Agreement form (Revised March 2011). DNR and AEL negotiated modifications to the Agreement. Revisions accepted by both parties protect the State’s interest and provides additional clarity to the Agreement language. See Attachment 4.

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

### **1. Promote the Conservation of All Natural Resources**

Conservation of the natural resources of all or part of an oil or gas pool, field or like area means maximizing the efficient recovery of oil and gas and minimizing the adverse impacts on the surface and other resources.

Unitization of leases under AS 38.05.180(p) provides for the conservation of natural resources of all or a part of an oil or gas pool, field, or like area. Pool is defined under 11 AAC 88.185(23) as an underground reservoir containing or appearing to contain, a common accumulation of oil or gas; whereas 11 AAC 83.395(6) defines reservoir as an oil or gas accumulation which has been discovered by drilling and evaluated by testing and which is separate from any other accumulation of oil and gas.

The Placer #1 well has demonstrated the presence of a reservoir, as defined by 11 AAC 83.395(6), to be present within the Kuparuk Formation. The unitized area, agreed upon by AEL, will cover approximately 1,480 acres. Unitization will allow the Unit Operator the time to conduct the proposed delineation activities necessary to define the aerial extent of the reservoir and to determine whether the reservoir can be commercially developed.

### **2. Promote the Prevention of Economic and Physical Waste**

Economic waste is often referred to as the drilling of wells in excess of the number necessary for the efficient recovery of the oil and gas in place. Physical waste, among other things, includes the inefficient, excessive, or improper use, or unnecessary dissipation of, reservoir energy.

Unitization prevents economic and physical waste by setting forth a development plan that allows maximization of physical and economic recovery as well as efficient use of unitized facilities, thereby eliminating redundant expenditures. DNR recognizes that unitization of leases overlying all or part of an oil or gas pool, field, or like area can be a prudent conservation mechanism. Without unitization, the unregulated development of reservoirs can become a contest for possession of production by competing lessees. This haphazard activity can result in: (1) unnecessarily dense drilling, especially along property lines; (2) rapid dissipation of reservoir pressure; and (3) irregular advancement of displaced fluids, all of which contribute to the loss of ultimate recovery. The potential proliferation of surface activity, duplication of production, gathering, and processing facilities, and haste to get oil to the surface also increases the potential for unnecessary environmental impact.

The Placer #1 well demonstrated that oil is present in a thin reservoir. Additional work and delineation is required to determine if this reservoir has sufficient volume to be commercially viable. Although exploration or delineation activity of these leases is not driven by competitive pressures, under unitization, exploration drilling investment costs may be minimized as a consequence of eliminating the need for numerous well sites within the leasehold and thus promote the prevention of economic waste.

If the reservoir is found to be commercially viable, unitization would allow for the location of individual wells and surface facilities to be chosen for optimization of ultimate oil and gas recovery, while minimizing or completely avoiding adverse impacts to the environment. Reducing development costs and environmental impacts through unitized operations will expedite development of any reserves discovered and will promote greater ultimate recovery of any oil and gas from the unit area. This will increase and extend the State's income stream from royalties. The revenues to the lessees and Unit Operator may be reinvested in new exploration and development in the State. Unitization means reduced costs and increased benefits to all interested parties.

### **3. Provide for the Protection of all Parties**

Provide for the protection of all parties of interest, including the State.

The people of Alaska have an interest in the development of the State's oil and gas resources to maximize the economic and physical recovery of the resources. AS 38.05.180(a)(1). It is further in the state's best interest to encourage assessment of oil and gas resources, recognize the costs of exploring in varied geographic regions, and minimize the adverse impact of exploration, development, production, and transportation activity. AS 38.05.180(a)(2). Unitization protects correlative rights relative to non-unitized development and production operations by providing for an equitable division of costs and allocation of hydrocarbons shares among the WIOs. A Unit Agreement extends these benefits and protections to all leases reasonably known to be capable of producing or contributing to production of hydrocarbons in paying quantities.

The POE proposes activities that will promote the people's and state's interests in resource assessment and development. Operating under the PLU Agreement provides for accurate reporting and record keeping. State approval of plans of exploration and development, and operating procedures, royalty settlement, in-kind taking, and emergency storage of oil and gas, will all further the State's interest. Furthermore, AEL has a Unit Operating Agreement, which provides for an equitable allocation of drilling and development costs, and defines the procedures under which unit operations will be conducted.

## **V. FINDINGS AND DECISION**

AEL has the burden of demonstrating to the Division why the approval of the PLU Agreement is necessary or advisable to protect the public interest. Unitization consolidates all or a high percentage of the mineral royalty and working interests in a pool or pools to facilitate the efficient planning and development of those resources. The various WIOs or lessees join together in exploration and drilling, and allocate costs and production. Unitization is designed to address conservation of natural resources, prevention of waste, and the protection of all parties, including that of the State's.

In considering the above decision criteria discussion, unitization in this case can protect the interest of all parties particularly in strict adherence to work commitments under the prescribed timeline. I therefore make findings and impose conditions as follows.

1. The formation of the Placer Unit promotes the conservation of all natural resources, hydrocarbons; and in the event of a commercial discovery of hydrocarbons, the PLU Agreement

and approved plans of development thereunder will promote the prevention of economic and physical waste.

2. The Division complied with the public notice requirements of 11 AAC 83.311.
3. AEL is qualified to be the Unit Operator of the PLU and has reasonable effective control of operations. 11 AAC 83.331(b).
4. The PLU Agreement, conditioned upon the performance of the Initial POE and adherence of work commitment timelines, adequately and equitably protects the public interest.
5. The Agreement meets the requirement of 11 AAC 83.303.
6. The Agreement provides for expansions and contractions of the unit area in the future, as warranted by data obtained by exploration or otherwise. Therefore, the Agreement protects the public interest, the rights of the parties, and the correlative rights of adjacent landowners.
7. The Agreement will not diminish access to public and navigable waters beyond those limitations (if any) imposed by law or already contained in the oil and gas leases covered by this Agreement.
8. The Initial POE provides for the automatic termination of the Unit if the Unit Operator fails to either drill the first initial Unit exploratory well or fails to re-enter and test the Placer #1 well by June 30, 2013, as described in Section II of the POE. Therefore, the Initial POE adequately protects the State's interest.
9. If the exploration/delineation activities under the Initial POE result in the discovery of a commercially producible reservoir, there may be environmental impacts associated with reservoir development. All unit development must proceed according to an approved Plan of Development. Additionally, before undertaking any specific operations, the Unit Operator must submit a unit Plan of Operations to the Division and other appropriate, local, state and federal agencies for review and approval. The lessees may not commence any drilling or development operations until all agencies have granted the required permits. The Division may condition its approval of a unit Plan of Operations and other permits on performance of mitigation measures in addition to those in the modified leases and the Agreement, if necessary or appropriate. Compliance with mitigation measures will minimize, reduce or completely avoid adverse environmental impacts.
10. The rental rate for ADLs 391023, 391024, 391027, and 391028 will increase from \$3.00 per acre to \$4.50 per acre effective September 8, 2011, the effective date of unitization.
11. ADL 391023 is segregated as to lands committed to the PLU and as to lands not committed to the PLU. 11 AAC 83.373(a). Upon unitization that portion of ADL 391023 not committed to the unit is severed, assigned a new lease number, ADL 391910, and granted a two-year extension of the lease term with an expiration date of January 31, 2014. 11 AAC 83.373(b). AEL agreed that the rental rate for ADL 391910 will increase from \$3.00 per acre to \$4.50 per acre effective September 8, 2011, the effective date of unitization.

12. ADL 391024 is segregated as to lands committed to the PLU and as to lands not committed to the PLU. 11 AAC 83.373(a). Upon unitization that portion of ADL 391024 not committed to the unit is severed, assigned a new lease number, ADL 391911, and granted a two-year extension of the lease term with an expiration date of January 31, 2014. 11 AAC 83.373(b). AEL agreed that the rental rate for ADL 391911 will increase from \$3.00 per acre to \$4.50 per acre effective September 8, 2011, the effective date of unitization.
13. ADL 391027 is segregated as to lands committed to the PLU and as to lands not committed to the PLU. 11 AAC 83.373(a). Upon unitization that portion of ADL 391027 not committed to the unit is severed, assigned a new lease number, ADL 391912, and granted a two-year extension of the lease term with an expiration date of January 31, 2014. 11 AAC 83.373(b). AEL agreed that the rental rate for ADL 391912 will increase from \$3.00 per acre to \$4.50 per acre effective September 8, 2011, the effective date of unitization.
14. ADL 391028 is segregated as to lands committed to the PLU and as to lands not committed to the PLU. 11 AAC 83.373(a). Upon unitization that portion of ADL 391028 not committed to the unit is severed, assigned a new lease number, ADL 391913, and granted a two-year extension of the lease term with an expiration date of January 31, 2014. 11 AAC 83.373(b). AEL agreed that the rental rate for ADL 391913 will increase from \$3.00 per acre to \$4.50 per acre effective September 8, 2011, the effective date of unitization.
15. The Initial POE, subject to the terms and conditions discussed in Section IV.A.3, meets the requirements of 11 AAC 83.303 and 11 AAC 83.341. The two-year Initial POE, (Exhibit G to the Agreement), is approved from September 8, 2011 through September 7, 2013. The Unit Operator shall conduct the proposed exploration activities in accordance with the timelines specified in the plan. The Initial POE describes the performance standards and diligence requirements that the State requires.
16. The Unit Operator shall submit an annual status report on the Initial POE to the Division. The annual status report must describe the status of projects undertaken and the work completed, as well as any proposed changes to the plan. The annual status report on the Initial POE will be due by July 9<sup>th</sup> of each applicable year.
17. The Unit Operator shall submit to the Division at least sixty days prior to the expiration of the Initial POE either:
  - a. A Second POE that describes plans for the drilling of a Unit well by June 30, 2014; or
  - b. A Plan of Development for the installation of production facilities, pipelines and future development wells that accompanies the submittal of an application to form an initial Participating Area within the Placer Unit.

For the reasons discussed in this Findings and Decision, I hereby approve the PLU Agreement effective September 8, 2011, subject to the conditions set out in this decision. The PLU automatically terminates five years from the effective date, specifically September 7, 2016, unless conditions under 11 AAC 83.336 have been met.

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 Daniel S. Sullivan, Commissioner, DNR, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to (907) 269-8918, or sent by electronic mail to [dnr.appeals@alaska.gov](mailto: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.



W.C. Barron  
Director



Date

## VI. ATTACHMENTS

- 1) Exhibit A, unit tracts, royalty, working interest ownership
- 2) Exhibit B, Placer Unit Boundary (map of the unit and tract boundaries)
- 3) Exhibit G, Placer Unit Exhibit “G” Initial Plan of Exploration
- 4) Placer Unit Agreement

**EXHIBIT A  
PLACER UNIT**

Tract #	Legal Description	Lease #	Acreage	Royalty Owner & Percentage	Working Interest Owners	WIO Percentage	Overriding Royalty Interests	ORRI Percentage
1	T. 12 N., R. 7 E., UMIAT MERIDIAN, ALASKA.  SECTION 33, UNSURVEYED, S1/2 SW1/4 80.00 ACRES; THIS TRACT (NS2006-1159) CONTAINS 80.00 ACRES, MORE OR LESS.	ADL - 391027	80	State of Alaska 16.666670%	ASRC Exploration LLC	100.00%	N/A	
2	T. 12 N., R. 7 E., UMIAT MERIDIAN, ALASKA.  SECTION 32, UNSURVEYED, SE1/4 SE1/4 , 40.00 ACRES; THIS TRACT (NS2006-1160) CONTAINS 40.00 ACRES, MORE OR LESS.	ADL - 391028	40	State of Alaska 16.666670%	ASRC Exploration LLC	100.00%	N/A	
3	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA.  SECTION 4, UNSURVEYED, W1/2, SE1/4, S1/2 NE1/4, NW1/4 NE1/4, 600.00 SECTION 9, UNSURVEYED, NW1/4, NW1/4 NE1/4 , 200.00 ACRES; THIS TRACT (NS2006-1056) CONTAINS 800.00 ACRES, MORE OR LESS.	ADL - 391023	800	State of Alaska 16.666670%	ASRC Exploration LLC	100.00%	N/A	
4	T. 11 N., R. 7 E., UMIAT MERIDIAN, ALASKA.  SECTION 5, UNSURVEYED, E1/2, E1/2 SW1/4, SE1/4 NW1/4, 440.00 ACRES; SECTION 8, UNSURVEYED, N1/2 NE1/4, SE1/4 NE1/4, 120.00 ACRES; THIS TRACT (NS2006-1057) CONTAINS 560.00 ACRES, MORE OR LESS.	ADL - 391024	560	State of Alaska 16.666670%	ASRC Exploration LLC	100.00%	N/A	

**RECEIVED**

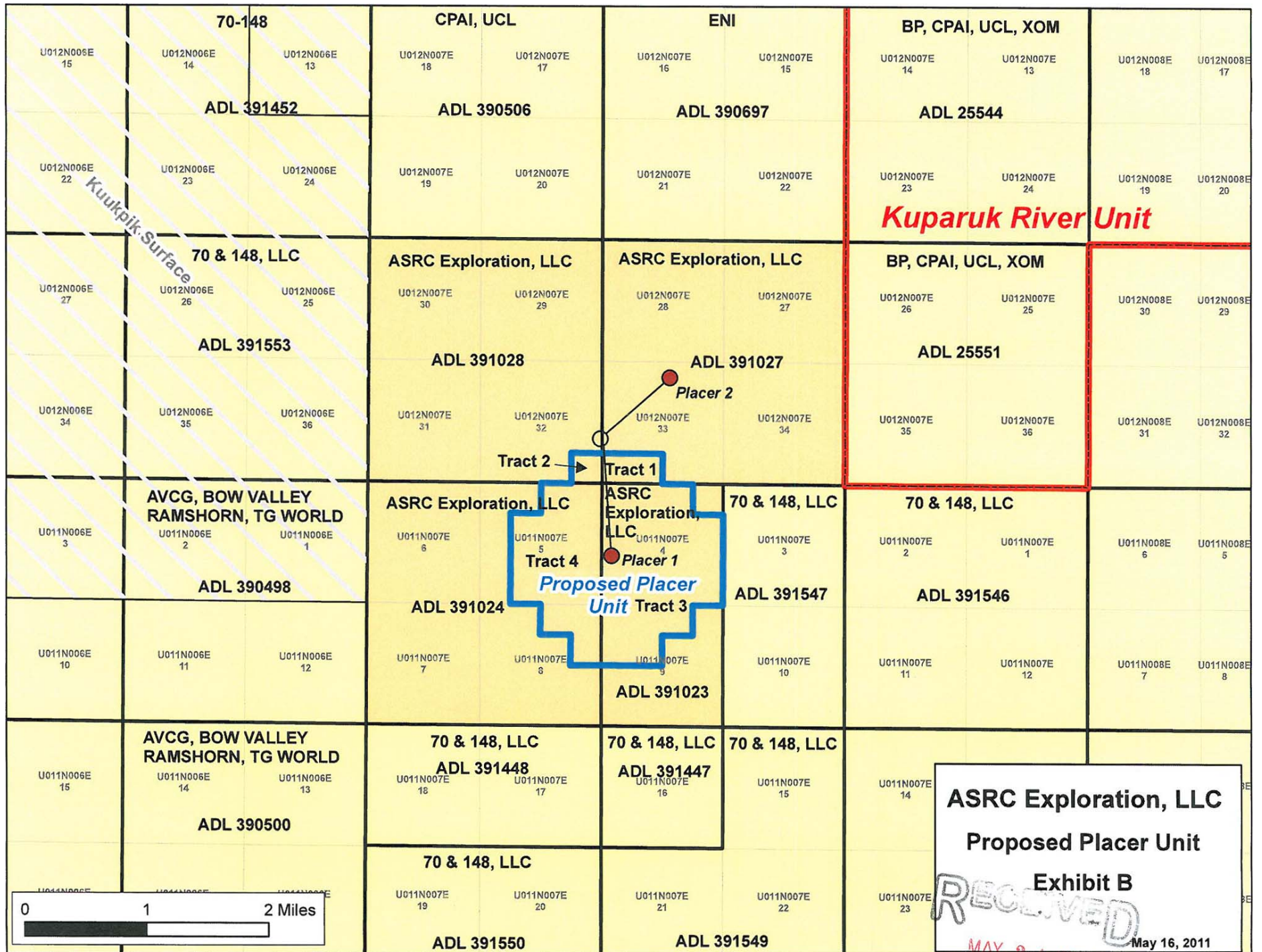
JUN 01 2011

DIVISION OF  
OIL AND GAS

**TOTALS 1,480.00 acres**

**ASRC Exploration LLC 100.00%**





ASRC Exploration, LLC  
 Proposed Placer Unit  
 Exhibit B  
 RECEIVED  
 MAY 3 2011  
 May 16, 2011

## EXHIBIT G

### Placer Unit

#### Initial Plan of Exploration

(Revision Date August 8, 2011)

The Placer Unit is composed of four State of Alaska oil & gas leases: ADLs 391023, 391024, 391027 and 391028. ASRC Exploration, LLC holds 100% working interest in the leases within the Placer Unit that comprises a total of approximately 1,480 acres.

ASRC Exploration, LLC, as Unit Operator, commits to the following two-year Initial Plan of Exploration (Initial POE).

#### Initial POE, Year 2011-2013:

- I. By December 31, 2011, the Unit Operator will have reprocessed and reinterpreted newly licensed seismic data set that was shot across the unit acreage.
- II. On or before **June 30, 2013**, the Unit Operator will have drilled and logged a Unit exploratory well, or alternatively will have re-entered and tested the Placer #1 well.
  - a. Log the Unit exploratory well (GR or SP, Resistivity and Neutron/Density or Porosity: appropriate triple combo log); and
  - b. Complete, suspend or abandon the Unit exploratory well or if the Placer #1 well was re-entered, complete or abandon the previously drilled well.
  - c. If the Unit Operator fails to either drill the first initial Unit exploratory well or fails to re-enter and test the Placer #1 well as described in Section II above, by **June 30, 2013**:
    - i. The Placer Unit will automatically terminate;
    - ii. Working Interest Owner(s) shall surrender all such acreage within Leases whose primary terms have expired to the Commissioner, effective the day that the Unit terminates.
- III. By December 1, 2013, the Unit Operator shall:
  - a. Provide a Plan of Development for the installation of production facilities, pipelines and future development wells to the Department of Natural Resources, Division of Oil and Gas (Division)
    - i. Submit an application to the Division to form an initial Participating Area within the Placer Unit; or
  - b. Submit to the Division the Second POE for the Unit. The Second POE will describe plans for the drilling of a Unit well by June 30, 2014.

In accordance with 11 AAC 83.341, ASRC will submit an annual report to the Division that describes the status of projects undertaken and the work completed during the prior year, as well as any proposed changes to the Initial POE. The annual report will be due on December 1<sup>st</sup> of each applicable year.



## PLACER UNIT AGREEMENT

### Table of Contents

RECITALS .....	2
AGREEMENT .....	2
ARTICLE 1: DEFINITIONS.....	2
ARTICLE 2: EXHIBITS .....	4
ARTICLE 3: CREATION AND EFFECT OF UNIT.....	6
ARTICLE 4: DESIGNATION OF UNIT OPERATOR.....	6
ARTICLE 5: RESIGNATION OR REMOVAL OF UNIT OPERATOR.....	7
ARTICLE 6: SUCCESSOR UNIT OPERATOR.....	8
ARTICLE 7: UNIT OPERATING AGREEMENT.....	8
ARTICLE 8: PLANS OF EXPLORATION, DEVELOPMENT AND OPERATIONS.....	9
ARTICLE 9: PARTICIPATING AREAS .....	10
ARTICLE 10: OFFSET WELLS.....	12
ARTICLE 11: ALLOCATION OF PRODUCTION.....	12
ARTICLE 12: LEASES, RENTALS AND ROYALTY PAYMENTS.....	13
ARTICLE 13: UNIT EXPANSION AND CONTRACTION.....	16
ARTICLE 14: UNIT EFFECTIVE DATE, TERM AND TERMINATION.....	17
ARTICLE 15: EFFECT OF CONTRACTION AND TERMINATION.....	17
ARTICLE 16: COUNTERPARTS .....	18
ARTICLE 17: LAWS AND REGULATIONS.....	18
ARTICLE 18: APPEARANCES AND NOTICES.....	18
ARTICLE 19: JOINDER.....	19
ARTICLE 20: DEFAULT .....	19

## RECITALS

The purpose of this Agreement is to conserve natural resources and effect efficient and timely production of oil and gas.

The Working Interest Owners who are parties to the Agreement are owners of interest in oil and gas leases subject to this Agreement.

The Commissioner of the Department of Natural Resources, State of Alaska, is authorized by Alaska Statute 38.05.180(p) and (q) and applicable regulations to consent to and approve oil and gas unit agreements to explore, develop and produce state oil and gas resources.

## AGREEMENT

In consideration of the mutual promises in this Agreement, the parties commit their respective interests in the Unit Area defined in Exhibit A and depicted in Exhibit B to this Agreement, and agree as follows:

### ARTICLE 1: DEFINITIONS

1.1 **Alaska Oil and Gas Conservation Commission (AOGCC)** means the independent quasi-judicial agency of the State of Alaska established by the Alaska Oil and Gas Conservation Act, Alaska Statute 31.05.

1.2 **Approved Unit Plan** means a plan of exploration, plan of development, or plan of operations that the Commissioner has approved under Article 8 of this Agreement.

1.3 **Commissioner** means the Commissioner of the Department of Natural Resources, State of Alaska, or the Commissioner's authorized representative.

1.4 **Effective Date** means the time and date this Agreement becomes effective under Article 14.1 of this Agreement.

1.5 **Exploration Block** means a block of Unit Tracts within the Unit Area that are combined for purposes of exploration.

1.6 **Lease or Leases** means one or more oil and gas leases subject to this Agreement.

1.7 **Oil and Gas Rights** means the rights to explore, develop, and produce Unitized Substances.

1.8 **Outside Unit Substances** means oil, gas, and other hydrocarbons and non-hydrocarbon substances obtained from outside the Unit Area and injected into a Reservoir in the Unit Area with the Commissioner's approval.

1.9 **Outside PA Substances** means oil, gas, and other hydrocarbons and non-hydrocarbon substances obtained from one Participating Area in the Unit Area and injected into a Reservoir in a different Participating Area in the Unit Area with the Commissioner's approval.

1.10 **Overriding Royalty Interest** means an interest in the value of oil and gas produced at the surface. An Overriding Royalty is derived from a Working Interest and is not connected to ownership of the land or minerals. Overriding Royalty Interest owners are not proper parties to this Unit Agreement; nor are they third-party beneficiaries or have any rights to enforce the terms of this Unit Agreement.

1.11 **Participating Area** means all Unit Tracts and parts of Unit Tracts established under the provisions of Article 9 of this Agreement to allocate Unitized Substances produced from a Reservoir.

1.12 **Participating Area Expense** means all costs, expenses or indebtedness, incurred by the Unit Operator under this Agreement or the Unit Operating Agreement for or on account of production from or operations in a Participating Area and allocated solely to the Unit Tracts in that Participating Area.

1.13 **Paying Quantities** means a quantity of Unitized Substances sufficient to yield a return in excess of operating costs, even if drilling and equipment costs may never be repaid and the undertaking considered as a whole may ultimately result in a loss. The quantity is insufficient to yield a return in excess of operating costs unless it will produce sufficient revenue, not considering transportation and marketing, to induce a prudent operator to produce it.

1.14 **Reservoir** means that part of the Unit Area containing an accumulation of Unitized Substances which has been discovered by drilling and evaluated by testing a well or wells, and which is geologically separate from and not in hydrocarbon communication with any other oil and gas accumulation.

1.15 **Royalty Interest** means a mineral owner's right to or interest in the amount or value of Unitized Substances other than a Working Interest,

1.16 **State** means the State of Alaska acting in this Agreement through the Commissioner.

1.17 **Sustained Unit Production** means continuing production of Unitized Substances from a well in the Unit Area into production facilities and transportation to market, but does not include testing, evaluation, or pilot production.

1.18 **Unit Area** means the "state land" or "land", as defined in AS 38.05.965, subject to this Agreement, described in Exhibit A and shown in Exhibit B to this Agreement.

1.19 **Unit Equipment** means all personal property, Lease and well equipment, plants, platforms and other facilities and equipment used, taken over or otherwise acquired for use in Unit Operations.

1.20 **Unit Expense** means all costs, expenses or indebtedness incurred by the Unit Operator for Unit Operations, except for Participating Area Expense.

1.21 **Unit Operating Agreement** means any and all agreements entered into by the Unit Operator and the Working Interest Owners, as described in Article 7 of this Agreement.

1.22 **Unit Operations** means all operations conducted under this Agreement in accordance with a Unit Plan approved under Article 8 of this Agreement.

1.23 **Unit Operator** means the party designated by the Working Interest Owners and approved by the Commissioner to conduct Unit Operations.

1.24 **Unit Plan** means a unit plan of exploration, development, or operation as described in Article 8 of this Agreement.

1.25 **Unit Tract** means each separate parcel of land that is described in Exhibit A and given a Unit Tract number.

1.26 **Unit Tract Participation** means the percentage of Unitized Substances allocated to a Unit Tract in a Participating Area.

1.27 **Unit Well** means a well drilled within the Unit Area after the effective date of this Agreement unless specifically authorized by the Commissioner.

1.28 **Unitized Substances** means all oil, gas and associated substances produced from the Unit Area.

1.29 **Working Interest** means the interest held in lands by virtue of a Lease, operating agreement, fee title or otherwise, under which the owner of the interest is vested with the right to explore for, develop and produce minerals; the right delegated to a Unit Operator by a unit agreement is not a working interest.

1.30 **Working Interest Owner** means a party who owns a Working Interest.

## **ARTICLE 2: EXHIBITS**

2.1 When this Agreement is submitted for approval, only Exhibits A, B, and G must be attached and are made a part of this Agreement. Exhibit F is also required when this Agreement is submitted if the Unit Area includes net profit share leases. Exhibits C, D, E, and F are required when a Participating Area application is submitted for approval

and are, upon approval by the Commissioner, made a part of this Agreement. The Unit Operator shall supply all Exhibits.

2.2 Exhibit A is a table that identifies and describes each Unit Tract, and displays: the Unit Tract numbers, legal descriptions, Lease numbers, Working Interest ownership, Royalty Interest ownership, initial Overriding Royalty Interest ownership, and the applicable royalty and net profit share rates applicable to each Unit Tract. Within 30 days after approval by the Commissioner of any expansion or contraction of the Unit Area under Article 13 of this Agreement, or any change of the Working Interest, Royalty Interest, or any additional separation creating a new Overriding Royalty Interest in any Unit Tract, the Unit Operator shall submit a revised Exhibit A to the Commissioner.

2.3 Exhibit B is a map that shows the boundary lines of the Unit Area and of each Unit Tract, identified by Unit Tract number and Lease number. Within 30 days after the Commissioner approves any expansion or contraction of the Unit Area under Article 13 of this Agreement, the Unit Operator shall submit a revised Exhibit B to the Commissioner.

2.4 Exhibit C is comprised of a table for each Participating Area established under this Agreement. The Exhibit C table for each Participating Area must display the Unit Tract numbers, legal descriptions, Lease numbers, Working Interest ownership, Royalty Interest ownership, initial Overriding Royalty Interest ownership, and the Unit Tract Participation for that Participating Area. Exhibits must be prepared for each Participating Area established in the Unit Area. The Unit Operator shall submit an initial or revised Exhibit C to the Commissioner within 30 days of: 1) the effective date of any Participating Area; 2) any expansion or contraction of a Participating Area; 3) any division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area; or 4) any change of the Working Interest, Royalty Interest or any additional separation from the working interest of the Lease creating a new Overriding Royalty Interest in any Unit Tract.

2.5 Exhibit D is comprised of a map for each Participating Area. Each Exhibit D map must show the boundary lines of the Unit Area, a Participating Area and the Unit Tracts in that Participating Area identified by Unit Tract number and Lease number. Within 30 days after approval by the Commissioner of a Participating Area or any expansion or contraction of a Participating Area under Article 9 of this Agreement, the Unit Operator shall submit a revised Exhibit D to the Commissioner.

2.6 Exhibit E is comprised of a table for each Participating Area that displays the allocation of Participating Area Expense to each Unit Tract in the Participating Area, identified by Unit Tract number and Lease number. Exhibits must be prepared for each Participating Area established in the Unit Area. The Unit Operator shall submit an initial or revised Exhibit E to the Commissioner whenever an initial or revised Exhibit C is required.

2.7 Exhibit F is a table that displays the allocation of Unit Expense to each Unit Tract in the Unit Area, identified by Unit Tract number and Lease number. The Unit Operator shall submit an initial or revised Exhibit F to the Commissioner whenever an initial or revised Exhibit A is required if the Unit Area includes net profit share leases. The Unit Operator may submit a revised Exhibit F anytime, but any revisions to Exhibit F are not effective until approved by the Commissioner.

2.8 Exhibit G is the unit plan of exploration or unit plan of development described in Article 8 of this Agreement.

### **ARTICLE 3: CREATION AND EFFECT OF UNIT**

3.1 All Oil and Gas Rights in and to the lands described in Exhibit A and shown in Exhibit B are subject to this Agreement.

3.2 Except as otherwise provided in this Agreement, where only a portion of a lease is committed to this Agreement, that commitment constitutes a severance of the lease into unitized and non-unitized portions. The portion of the leased area not committed to this Agreement will be treated as a separate and distinct lease and may be maintained only in accordance with the terms and conditions of the lease, statutes, and regulations. Any portion of the leased area not committed to this Agreement will not be affected by the unitization, by operations in the Unit Area, or by a suspension approved or ordered by the Commissioner.

3.3 Production of Unitized Substances from any part of a Participating Area will be considered production from each Unit Tract in the Participating Area as if a well were producing from each Unit Tract in the Participating Area.

3.4 The provisions of a Lease committed to this Agreement and of any other agreement regarding that Lease are modified to conform to the provisions of this Agreement but only to the extent that there is conflict in provisions and only for so long as the Lease remains committed to this Agreement. Otherwise, the provisions of such a Lease and agreements will remain in full force and effect.

3.5 This Agreement is not intended to transfer title to Oil and Gas Rights by any party to any other party or to the Unit Operator.

3.6 All data, information, and interpretations of those data and information determined by the Commissioner to be necessary for the administration of this Agreement or for the performance of statutory responsibilities related to this Agreement must be provided by the Unit Operator, or Working Interest Owners, or both, upon written request. The Commissioner shall keep confidential all such data and information provided to the Commissioner, if the data or information is of a type entitled to confidentiality protection, in accordance with applicable law.

### **ARTICLE 4: DESIGNATION OF UNIT OPERATOR**

4.1. ASRC Exploration LLC (AELLC) is designated as the Unit Operator until such time, if any, that a successor Unit Operator is designated under the terms and provisions of this Agreement. AELLC agrees to accept the rights and obligations of the Unit Operator



to conduct Unit Operations and to explore for, develop and produce Unitized Substances as provided in this Agreement.

4.2. Except as otherwise provided in this Agreement, including but not limited to Article 7.4, and subject to the terms and conditions of Approved Unit Plans, the exclusive rights and obligations of the Working Interest Owners to conduct operations to explore for, develop and produce Unitized Substances in the Unit Area are delegated to and shall be exercised by the Unit Operator. This delegation does not relieve a lessee of the obligation to comply with all Lease terms. The Unit Operator shall notify the other Working Interest Owners and the Commissioner of actions taken by the Unit Operator under this Agreement as may be required under a Lease, this Agreement, the Unit Operating Agreement, or applicable laws or regulations.

4.3. The Unit Operator shall minimize and consolidate surface facilities to minimize surface impacts. The Unit Operator must provide performance guarantee, surety bonds, or other mechanisms approved by the Commissioner, adequate to protect of the Unit Area and the State's interests.

4.4. When a Working Interest Owner assigns an interest in a Lease, the Working Interest Owner will provide a copy of the approved assignment to the Unit Operator within 15 days after the Commissioner approves it.

## **ARTICLE 5: RESIGNATION OR REMOVAL OF UNIT OPERATOR**

5.1 The Unit Operator will have the right to resign at any time; however, the resignation will not become effective until: 1) 60 days have passed since the Unit Operator delivers a written notice of an intention to resign to the Working Interest Owners and the Commissioner; and 2) all artificial islands, installations and other devices, including wells, used for operations in the Unit Area are in a condition satisfactory to the Commissioner for suspension or abandonment of operations. However, if a successor Unit Operator is designated and approved under Article 6 of this Agreement, the resignation is effective when approved by the Commissioner.

5.2 The Unit Operator may be removed as provided in the Unit Operating Agreement. This removal will not be effective until: 1) the Working Interest Owners notify the Commissioner and the Unit Operator; and 2) the Commissioner approves a successor Unit Operator.

5.3 The resignation or removal of the Unit Operator will not release it from liability for any failure to meet obligations that accrued before the effective date of the resignation or removal.

5.4 The resignation or removal of the Unit Operator does not terminate its rights, title, interest or obligations as a Working Interest Owner or other interest in the Unit Area. A termination of the Unit Operator's rights, title, interest or obligations may occur

independently under the terms of the Leases and governing law. When the resignation or removal of the Unit Operator becomes effective, the Unit Operator shall relinquish possession of all Unit Equipment, artificial islands, wells, installations, devices, records, and any other assets used for conducting Unit Operations, whether or not located in the Unit Area, to the successor Unit Operator.

## **ARTICLE 6: SUCCESSOR UNIT OPERATOR**

6.1. Whenever the Unit Operator tenders its resignation as Unit Operator or is removed as provided in Article 5 of this Agreement, a successor Unit Operator may be designated as provided in the Unit Operating Agreement. The successor Unit Operator shall accept the rights and obligations of a Unit Operator in writing. The successor Unit Operator will file an executed copy of the designation of successor with the Commissioner. The designation of successor Unit Operator will not become effective until approved by the Commissioner.

6.2. If no successor Unit Operator is designated within 60 days after notice to the Commissioner of the resignation or removal of a Unit Operator, the Commissioner may designate another Working Interest Owner as successor Unit Operator, or declare this Agreement terminated.

## **ARTICLE 7: UNIT OPERATING AGREEMENT**

7.1 The Working Interest Owners and the Unit Operator shall enter into a Unit Operating Agreement. The Unit Operating Agreement shall apportion all costs and liabilities incurred, and all benefits accrued, in maintaining or conducting Unit Operations among the Working Interest Owners.

7.2 Any allocation described in the Unit Operating Agreement will not bind the State in determining or settling royalties and net profit share payments. Allocations of Unit Expense, Participating Area Expense, or Unitized Substances for determining, settling and paying royalties and net profit share payments will be based on Exhibits C, E and F of this Agreement, and must be approved by the Commissioner in writing before taking effect. An original or revised conforming Exhibit C and F shall be submitted to the Commissioner within 30 days of any change in the division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area.

7.3 The Working Interest Owners and the Unit Operator may establish, through the Unit Operating Agreement and amendments, including any other agreement between the Working Interest Owners concerning Unit Operations, other rights and obligations between the Unit Operator and the Working Interest Owners, in addition to those set out in Article 7.1 of this Agreement. Neither the Unit Operating Agreement nor any other

agreement between the Working Interest Owners modifies this Agreement. If the terms of this Agreement and the Unit Operating Agreement conflict, this Agreement will prevail.

7.4 With the approval of the Commissioner, any Working Interest Owner is entitled to drill a well on the unitized portion of its Lease when the Unit Operator declines to drill that well. A Working Interest Owner shall have an approved permit to drill before commencement of drilling operations and the well must be part of an Approved Unit Plan. If the Commissioner determines any such well to be capable of producing Unitized Substances in Paying Quantities, the land upon which that well is situated must be included in a Participating Area. The Participating Area will be formed or an existing Participating Area enlarged as provided in this Agreement. The Unit Operator shall thereafter operate the well in accordance with this Agreement and the Unit Operating Agreement.

7.5 The Unit Operator shall file a copy of the Unit Operating Agreement with the Commissioner when this Agreement is submitted for approval. The copy of the Unit Operating Agreement is for informational purposes only. Approval of the Unit Agreement is not approval of the Unit Operating Agreement. Complete copies of any amendments to the Unit Operating Agreement, including all other agreements between the Working Interest Owners that affect the rights and duties of some or all of the parties to this Agreement, must also be filed with the Commissioner within 30 days of execution and at least 30 days before their effective dates.

## **ARTICLE 8: PLANS OF EXPLORATION, DEVELOPMENT AND OPERATIONS**

8.1. Any Unit Plan and any amendment to a Unit Plan will not be effective until the Commissioner approves it. Unit Plans are incorporated into this Agreement and become effective on the date of their approval.

8.1.1. Unless a unit plan of development is filed under 11 AAC 83.343, a unit plan of exploration (“Plan of Exploration”) shall be filed for approval with the Commissioner. Plans of Exploration must comply with 11 AAC 83.341 and any successor regulation.

8.1.2. A unit plan of development (“Plan of Development”) shall comply with 11 AAC 83.343 and any successor regulation.

8.1.3. A unit plan of operations (“Plan of Operations”) shall comply with 11 AAC 83.346 and any successor regulation.

8.1.4. When this Agreement is submitted to the Commissioner for approval, the Unit Operator shall submit an initial Plan of Development or an initial Plan of Exploration (collectively called the “Initial Unit Plan”) for approval by the Commissioner.

8.2. The Unit Operator shall not explore, develop or produce on the Unit Area except in accordance with an Approved Unit Plan. The Unit Operator shall obtain a Plan of Operations approval, and any other permits and approvals required before operations begin. A Plan of Operations approval must be consistent with the mitigation measures and lessee advisories developed for the most recent State area wide lease sale in the region that includes the Unit Area as deemed necessary by the Commissioner to protect the resources of the State. The Unit Operator shall submit a complete copy of all such applications to the Commissioner. The Unit Operator shall give the Commissioner written notice before beginning testing, evaluation, or pilot production from a well in the Unit Area.

8.3. After Sustained Unit Production in Paying Quantities begins, Unit Operations shall be maintained with lapses of no more than 90 days per lapse between operations. The lapse may be longer if suspension of operations or production has been ordered or approved by the Commissioner. Approved Unit Plans may provide for a suspension of Unit Operations.

8.4. After giving written notice to the Unit Operator and an opportunity to be heard, the Commissioner may require the Unit Operator to modify from time-to-time the rate of prospecting and development and the quantity and rate of production.

8.5. The Commissioner may approve any injection of Outside Unit Substances or Outside PA Substances within the Unit Area. Any injection of Outside Unit Substances or Outside PA Substances within the Unit Area must be part of an Approved Unit Plan.

## **ARTICLE 9: PARTICIPATING AREAS**

9.1. The Unit Operator shall submit a request for approval of the proposed initial Participating Area to the Commissioner at least 90 days before Sustained Unit Production from a Reservoir in the Unit Area. A Participating Area: 1) shall include only land that is reasonably known to be underlain by Unitized Substances; 2) must be known or reasonably estimated through the use of geological, geophysical and engineering data to be capable of producing or contributing to production of Unitized Substances in Paying Quantities; and 3) must be supported by an approved plan committing the Unit to sustained production. The Unit Operator must receive approval from the Commissioner of a Participating Area before commencement of Sustained Unit Production.

9.2. Each application for approval of a Participating Area shall include Exhibits C, D, E, and G. Exhibit F is also required if the Unit Area includes net profit share leases. If approved by the Commissioner, the area described in Exhibit C and shown in Exhibit D will be a Participating Area, and the allocation of Participating Area Expenses and Unit Expenses described in Exhibits E and F will be effective on the effective date of the Participating Area.

9.3. A separate Participating Area shall be established for each Reservoir in the Unit Area. If one Reservoir underlies another Reservoir in whole or in part, separate Participating

Areas may be created for each Reservoir. Any two or more Reservoirs or Participating Areas may be combined into one Participating Area if approved by the Commissioner.

9.4. At the Unit Operator's election or if so directed by the Commissioner, the Unit Operator shall apply to expand or contract the Participating Area if expansion or contraction is warranted by geological, geophysical, or engineering data. Each application for expansion or contraction shall include Exhibits C, D, E, and G. Exhibit F is also required if the Unit Area includes net profit share leases. The application must be submitted to the Commissioner for approval. Before any directed expansion or contraction of the Participating Area, the Commissioner will give the Unit Operator reasonable notice and an opportunity to be heard.

9.5. The Commissioner will establish the effective date of the initial Participating Area. That effective date will be no later than the date of the first Sustained Unit Production. The Commissioner will establish the effective date of each later Participating Area.

9.6. Land in a Participating Area shall remain in that Participating Area even if its Unitized Substances are depleted.

9.7. A Unitized Substance produced from one Participating Area ("Originating Participating Area") may be used as an Outside PA Substance ("Injected Substance") for repressuring, recycling, storage or enhanced recovery purposes in another Participating Area ("Receiving Participating Area") only if the State is paid royalty as if the Unitized Substance was saved, removed, or sold by the Working Interest Owners, except as follows.

9.7.1. If the Commissioner consents to the transfer of Unitized Substances between Participating Areas without immediate payment of royalties, the Unit Operator shall provide monthly reports to the State of the transferred Unitized Substance volumes in both the Originating and Receiving Participating Areas as specified in 11 AAC 04. These monthly reports shall reflect the volumes of any Unitized Substance transferred and the British thermal units ("Btus") in any natural gas Unitized Substance transferred as an Outside PA Substance during the preceding month.

9.7.2. If the Commissioner consents to the transfer of Unitized Substances between Participating Areas without immediate payment of royalties, the royalties shall be paid when the Injected Substances are produced and sold from the Receiving Participating Area. The first natural gas Unitized Substances produced and sold from the Receiving Participating Area shall be considered to be the Injected Substances until a volume of natural gas containing Btus equal to the Btus contained in the Injected Substances is produced and sold from the Receiving Participating Area. All the Unitized Substances produced and sold from a Receiving Participating Area that are considered to be the Injected Substance shall be allocated to the Originating Participating Area. The Working Interest Owners shall pay the State royalties on Injected Substances produced and sold from a Receiving Participating Area as if those Injected Substances were produced and sold from the Originating Participating Area when they were produced from the Receiving Participating Area.

9.8. All liquid hydrocarbons removed in any equipment or facility in Alaska from produced Injected Substances and not used for fuel shall be allocated to the Receiving Participating Area. If liquid hydrocarbons are removed from the natural gas, the Btu content of the natural gas shall be measured after liquid hydrocarbons are removed.

9.9. The Commissioner's approval must be obtained for the proposed recovery rate and commencement date for recovery before any Outside Unit Substance is injected within the Unit Area.

9.10. After giving written notice to the Unit Operator and an opportunity to be heard, the Commissioner may require the Unit Operator to modify from time-to-time the rate of prospecting and development and the quantity and rate of production from a Participating Area.

9.11. Underground storage will be covered by separate agreement with the Commissioner.

## **ARTICLE 10: OFFSET WELLS**

10.1. Whenever there is a risk of drainage from production operations on property outside the Unit Area, the Unit Operator shall drill wells to protect the State from loss by reason of drainage. The Commissioner may issue a written demand if oil or gas is produced in Paying Quantities, as defined in 11 AAC 83.105, for 30 consecutive days in a well on other land not owned by the State or on which the State receives a lower rate of royalty than under any Lease in the Unit Area, and that well is within 500 feet in the case of an oil well or 1,500 feet in the case of a gas well of lands then subject to this Agreement. If, after notice to the Unit Operator and an opportunity to be heard, the Commissioner finds that production from that well is draining lands then subject to this Agreement, the Unit Operator shall within 30 days after written demand by the Commissioner, begin in good faith and diligently prosecute drilling operations for an offset well on the Unit Area. In lieu of drilling any well required by this paragraph, the Working Interest Owners must compensate the State in full each month for the estimated loss of royalty through drainage in the amount determined by the Commissioner.

## **ARTICLE 11: ALLOCATION OF PRODUCTION**

11.1 Production and costs will be allocated under 11 AAC 83.371 and any successor regulation. The Unit Operator shall submit a proposed allocation plan, with supporting data, to the Commissioner for approval. The allocation plan must be revised whenever a Participating Area is expanded or contracted. Within 30 days after approval by the Commissioner of any division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area, the Unit Operator shall submit revised Exhibits C and F to the Commissioner. The Unit Operator may submit a revised Exhibit F anytime, but any revisions to Exhibit F are not effective until approved by the Commissioner.

11.2 The Working Interest Owners shall pay royalties for each Unit Tract in proportion to each Working Interest Owner's ownership in that Unit Tract. The amount of Unitized Substances allocated to each Unit Tract will be deemed to have been produced from that Unit Tract.

11.3 The Working Interest Owners may allocate Unitized Substances, Participating Area Expense, and Unit Expense differently than described in Exhibits C, E and F. However, that allocation will not be effective for determining royalty or net profit share payments. The Unit Operator shall submit any allocation that is different than the allocations required in Exhibit C, E or F to the Commissioner under 11 AAC 83.371(b) for the State's information within 10 days of its effective date with a statement explaining the reason for the different allocation.

11.4 Royalties will not be due or payable to the State for the portion of Unitized Substances unavoidably lost or used in the Unit Area for development and production in accordance with prudent industry practices. Gas that is flared for any reason other than safety purposes as allowed by the AOGCC will not be deemed to be unavoidably loss, and the Working Interest Owners shall pay royalties for such flared gas as if it had been produced. This exemption does not apply to Unitized Substances that are sold, traded or assigned, including sales, transactions, or assignments among the Working Interest Owners.

11.5 If a Lease provides for a discovery royalty rate reduction for the first discovery of oil or gas, that Lease provision will not apply to a well spudded after the Effective Date.

## **ARTICLE 12: LEASES, RENTALS AND ROYALTY PAYMENTS**

12.1 The Working Interest Owners shall pay rentals and royalty payments due under the Leases. Payments to the State must be made under 11 AAC 04 and 11 AAC 83.110 and any successor regulations.

12.2 Each month, the Unit Operator shall furnish a schedule to the Commissioner. That schedule shall specify, for the previous month: 1) the total amount of Unitized Substances produced; 2) the amount of Unitized Substances used for development and production or unavoidably lost; 3) the total amount of Unitized Substances allocated to each Unit Tract; 4) the amount of Unitized Substances allocated to each Unit Tract and delivered in kind as royalty to the State; and 5) the amount of Unitized Substances allocated to each Unit Tract for which royalty is to be or has been paid to the State. If any of the Leases subject to this Agreement require net profit share payments, the operator shall provide the schedule of development costs in accordance with 11 AAC 83.219.

12.3. Each Working Interest Owner shall pay its share of royalties to the State on Unitized Substances as provided in the Lease, except that any reference in the Lease to the "leased area" will mean the Unit Area.

12.4. Notwithstanding any contrary Lease term, royalties and the share of Unitized Substances attributable to royalties and any payment due must be paid free and clear of all Lease expenses, Unit Expenses and Participating Area Expenses. These excluded expenses include, but are not limited to, separating, cleaning, dehydration, saltwater removal, processing, compression, pumping, and manufacturing costs. These excluded expenses include the costs of preparing the Unitized Substances for transportation off the Unit Area and gathering and transportation costs incurred before the Unitized Substances are delivered to a common carrier. No lien for any expenses will attach to royalty Unitized Substances. The royalty share will bear a proportionate part of any gas shrinkage that occurs during gas processing and blending.

12.5 Notwithstanding any contrary Lease term or provision in 11 AAC 83.228—11 AAC 83.229, all royalty deductions for transportation, including, but not limited to, marine, truck and pipeline transportation, from the Unit Area to the point of sale are limited to the actual and reasonable costs incurred by the Working Interest Owners. Transportation deductions for oil are only allowed for sales quality oil. These transportation costs must be determined by taking into account all tax benefits applicable to the transportation.

12.6. The Unit Operator shall give the Commissioner notice of the anticipated date for commencement of production at least six months before the commencement of Sustained Unit Production from a Participating Area. Once Sustained Unit Production has commenced, every month the Unit Operator shall provide the Commissioner an estimate of Unit production for the following ninety (90) days. The Commissioner may take the State's share of Unitized Substances in-kind in accordance with the following. The Commissioner will give the Unit Operator 90 days written notice of the State's initial election to take all or a portion of its share of Unitized Substances in-kind. After taking has commenced, the Commissioner may increase or decrease the amount of Unitized Substances taken in-kind.

12.6.1. The Commissioner may elect to specify the Unit Tracts from which Unitized Substances taken in-kind are to be allocated. If the Commissioner does not specify any Unit Tracts in the written notice to the Unit Operator, the Unitized Substances taken in-kind will be allocated to all Unit Tracts in accordance with the Unit Tract Participation shown on Exhibit C to this Agreement.

12.6.2 The Unit Operator shall deliver the State's royalty Unitized Substances at the custody transfer meter at a common carrier pipeline capable of carrying those substances, or at any other mutually agreeable place. The Commissioner may designate any individual, firm or corporation to accept delivery.

12.6.3. The State's share of Unitized Substances delivered in-kind shall be delivered in good and merchantable condition and be of pipeline quality. Those substances will be free and clear of all Lease expenses, Unit Expenses, and Participating Area Expenses, and free of any lien for these excluded expenses. These excluded expenses include, but are not limited to, separating, cleaning, dehydration, saltwater removal, processing, compression, pumping, and manufacturing costs. These excluded expenses include the costs of preparing the



Unitized Substances for transportation off the Unit Area and gathering and transportation costs incurred before the Unitized Substances are delivered to a common carrier. If a Working Interest Owner processes the Unitized Substances to separate, extract or remove liquids from a Working Interest Owner's share of natural gas Unitized Substances, the Commissioner may require that a Working Interest Owner also process the State's share of natural gas being taken in-kind in the same manner without cost to the State. Under these circumstances, the State, or its buyer, shall only pay any tariffed transportation costs and shrinkage of the volume of gas resulting from processing.

12.6.4 Each Working Interest Owner shall furnish storage in or near the Unit Area for the State's share of Unitized Substances to the same extent that the Working Interest Owner provides storage for its own share of Unitized Substances.

12.7. If a purchaser of the State's share of Unitized Substances does not take delivery of Unitized Substances, the Commissioner may elect, without penalty, to underlift for up to six months. The State may underlift all or a portion of those substances. The State's right to underlift is limited to the portion of those substances that the purchaser did not take delivery of or what is necessary to meet an emergency condition. The Commissioner will give the Unit Operator written notice 30 days before the first day of the month in which the underlifted Unitized Substances are to be recovered. The State may recover at a daily rate not exceeding 25 percent of its share of daily production, unless otherwise agreed.

12.8. The Unit Operator shall maintain records, and shall keep and have in its possession books and records including expense records, of all exploration, development, production, and disposition of all Unitized Substances and Outside Unit Substances and Outside PA Substances. Each Working Interest Owner shall maintain records of the disposition of its portion of the Unitized Substances and Outside Unit Substances and Outside PA Substances including sales prices, volumes, and purchasers. The Unit Operator and the Working Interest Owners shall permit the Commissioner to examine those books and records at all reasonable times. Upon request by the Commissioner, the Unit Operator and the Working Interest Owners shall make the books and records available to the Commissioner at the Commissioner's designated office. They may provide these books and records in a mutually agreeable electronic format. These books and records of exploration, development, production, and disposition must employ methods and techniques that will ensure the most accurate figures reasonably available. The Unit Operator and the Working Interest Owners shall use generally accepted and internally consistent accounting procedures. At the request of the lessee, all books and records provided to the Commissioner shall be protected from disclosure if the data or information is of a type entitled to confidentiality protection under applicable law.

12.9. To the extent that the rental provision of a Lease is inconsistent with AS 38.05.180(n), the Lease is amended and rentals will be calculated under AS 38.05.180(n) and paid under 11 AAC 04. If a Lease requires payment of minimum royalty, the Lease is amended to delete that minimum royalty obligation.

12.10. All rights and obligations relating to the State's net profit share will be determined under 11 AAC 83.201 – 11 AAC 83.295. The State may audit the net profit share reports or payments due for any Lease within 10 years of the year of production. The

period of limitations for the State to file a lawsuit relating to an audit of a net profit share report or payment will be three years longer than the audit period. The Working Interest Owners holding interests in net profit share Leases shall maintain the records relevant to determination of net profit share for 13 years.

### **ARTICLE 13: UNIT EXPANSION AND CONTRACTION**

13.1. The Unit Operator, at its own election may, or at the direction of the Commissioner shall, apply to expand the Unit Area to include any additional lands determined to overlie a Reservoir that is at least partially within the Unit Area, or to include any additional lands that facilitate production. The Unit Operator shall notify the Working Interest Owners of any expansion proposed by the Unit Operator or any third party, or proposed or directed by the Commissioner. Any Unit Area expansion will not be effective until approved by the Commissioner.

13.2. A Plan of Exploration or Plan of Development may divide the Unit Tracts into Exploration Blocks and provide a plan for the sequential exploration of the Exploration Blocks by the drilling of a series of Unit Wells, as specified in the Plan of Exploration or Plan of Development proposed by the Unit Operator and accepted by the Commissioner. If the Unit Operator fails to drill a Unit Well specified in an approved Plan of Exploration or Plan of Development in an Exploration Block by the date required, then any Exploration Blocks not previously having a Unit Well drilled within it shall be contracted from the Unit Area as of that date, without judicial proceedings, except that any acreage that is contained within the boundary of an approved or pending Participating Area shall not be subject to contraction. When an Exploration Block or any portion of an Exploration Block contracts out of the Unit Area, the Working Interest Owners shall surrender all such acreage within Leases whose primary terms have expired to the Commissioner, effective the day that the Unit contracts.

13.3. Ten years after Sustained Unit Production begins, the Unit Area must be contracted to include only those lands then included in an approved Participating Area and lands that facilitate production including the immediately adjacent lands necessary for secondary or tertiary recovery, pressure maintenance, reinjection, or cycling operations. The Commissioner may, after considering the provisions of 11 AAC 83.303, delay contraction of the Unit Area if the circumstances of a particular unit warrant. If any portion of a Lease is included in the Participating Area, the portion of the Lease outside the Participating Area will neither be severed nor will it continue to be subject to the terms and conditions of this Agreement. The portion of the Lease outside the Participating Area will continue in full force and effect so long as production is allocated to the unitized portion of the Lease and the lessee satisfies the remaining terms and conditions of the Lease.

13.4. Not sooner than 10 years after the effective date of this Agreement, the Commissioner will, in the Commissioner's discretion, contract the Unit Area to include only that land covered by an Approved Unit Plan, or that area underlain by one or more oil or gas Reservoirs or one or more potential hydrocarbon accumulations and lands that facilitate

production. Before any contraction of the Unit Area under this Article 13.4, the Commissioner will give the Unit Operator, the Working Interest Owners, and the Royalty Interest owners of the Leases or portions of Leases being excluded reasonable notice and an opportunity to be heard.

13.5. The Unit Area may be contracted with the Commissioner's approval and an affirmative vote of the Working Interest Owners.

13.6. Within 30 days after approval by the Commissioner of any expansion or contraction of the Unit Area, the Unit Operator shall submit revised Exhibits A and B to the Commissioner.

#### **ARTICLE 14: UNIT EFFECTIVE DATE, TERM AND TERMINATION**

14.1. Upon Commissioner's approval, this Agreement is effective as of 12:01 a.m. on the date the Commissioner designates. At least one copy of this Agreement shall be filed with the Department of Natural Resources, Anchorage, Alaska and one copy shall be filed with the AOGCC.

14.2. Subject to the terms and conditions of the Approved Unit Plan, this Agreement automatically terminates five years from the Effective Date in accordance with 11 AAC 83.336.

14.3. If the Commissioner orders or approves a suspension of production or other Unit Operations, this Agreement will continue in force during the authorized suspension.

14.4. Nothing in this Article holds in abeyance the obligations to pay rentals, royalties, or other production or profit-based payments to the State from operations or production in any part of the Unit Area. Any seasonal restriction on operations or production or other condition required in the Lease is not a suspension of operations or production required by law or force majeure.

14.5. This Agreement may be terminated by an affirmative vote of the Working Interest Owners and the Commissioner's approval. The Working Interest Owners obligation to restore the Lease area, to remove equipment, and to remediate contamination survive unit termination.

#### **ARTICLE 15: EFFECT OF CONTRACTION AND TERMINATION**

15.1. If a Lease or portion of a Lease is contracted out of the Unit Area under this Agreement, then it will be maintained only in accordance with State law and the Lease.

15.2. Each Lease committed to this Agreement on the day that this Agreement terminates will remain in force for an extension period of 90 days, or any longer period that the Commissioner may approve. After the extension period expires, the Lease will be maintained only in accordance with State law and the Lease.

15.3. Upon the expiration or earlier termination of this Agreement, the Unit Operator will have the right at any time within a period of one year after the termination, or any extension of that period as may be granted by the Commissioner, to remove from the Unit Area all machinery, equipment, tools, and materials. Upon the expiration of that period or extension of that period and at the option of the Commissioner, any machinery, equipment, tools, and materials that the Unit Operator has not removed from the Unit Area become the property of the State or may be removed by the State at the Working Interest Owners' expense. At the option of the State, improvements such as roads, pads, and wells must either be abandoned and the sites rehabilitated by the Unit Operator to the satisfaction of the State, or be left intact and the Unit Operator absolved of all further responsibility as to their maintenance, repair, and eventual abandonment and rehabilitation. Subject to the above conditions, the Unit Operator shall deliver up the Unit Area in good condition.

#### **ARTICLE 16: COUNTERPARTS**

16.1. The signing of counterparts of this Agreement will have the same effect as if all parties had signed a single original of this Agreement. Within 30 days after approval by the Commissioner of any change of the Working Interest ownership of Oil and Gas Rights in any Unit Tract, the Unit Operator shall submit a revised Exhibits A and C to the Commissioner.

#### **ARTICLE 17: LAWS AND REGULATIONS**

17.1. This Agreement is subject to all applicable State and federal statutes and regulations in effect on the Effective Date of this Agreement, and insofar as is constitutionally permissible, to all statutes and regulations placed in effect after the Effective Date of this Agreement. A reference to a statute or regulation in this Agreement includes any change in that statute or regulation whether by amendment, repeal and replacement, or other means. This Agreement does not limit the power of the State of Alaska or the United States of America to enact and enforce legislation or to promulgate and enforce regulations affecting, directly or indirectly, the activities of the parties to this Agreement or the value of interests held under this Agreement. In case of conflicting provisions, statutes and regulations take precedence over this Agreement.

#### **ARTICLE 18: APPEARANCES AND NOTICES**

18.1. If the State gives the Unit Operator a notice or order relating to this Agreement it will be deemed given to all Working Interest Owners and all persons whose interest in the Unit Area derived from a Working Interest. All notices required by this Agreement shall be given in writing and delivered personally, or by United States mail or by facsimile machine to the Unit Operator at the address or facsimile number listed below. All notices actually received will also

be deemed properly given. The Unit Operator shall change its notice address by giving 30 days written notice to the State and the other Working Interest Owners. The State will change its notice address by giving 30 days written notice to the Unit Operator.

**Address of the Unit Operator:**

ASRC Exploration LLC  
Attn: Teresa Imm, Manager  
3900 C. Street, Suite 801  
Anchorage, Alaska 99516  
Fax: (907) 339-6028

**Address of the State:**

Commissioner, Department of Natural Resources  
550 West Seventh Avenue, Suite 1400  
Anchorage, Alaska 99501-3554  
Fax: (907) 269-8918

with a copy to:

Director, Division of Oil and Gas  
550 West Seventh Avenue, Suite 1100  
Anchorage, Alaska 99501-3560  
Fax: (907) 269-8938

**ARTICLE 19: JOINDER**

19.1. The Commissioner may order or, upon request, approve a joinder to this Agreement under the expansion provisions of Article 13 of this Agreement. The Unit Operator shall submit a request for joinder with a signed counterpart of this Agreement and a notice of proposed expansion under Article 13 of this Agreement. A joinder is subject to the requirements of the Unit Operating Agreement.

**ARTICLE 20: DEFAULT**

20.1 The Commissioner may determine that failure of the Unit Operator or the Working Interest Owners to comply with any of the terms of this Agreement, including any Approved Unit Plan or Plan of Operations, is a default under this Agreement. The failure to comply because of force majeure, as defined in 11 AAC 83.395, is not a default, so long as the Unit Operator is working diligently to overcome the force majeure condition.

20.2 The Commissioner will give notice to the Unit Operator and the Working Interest Owners of the default. The notice will describe the default, and include a demand to cure the default by a certain date. The cure period will be at least 30 days for a failure to pay rentals or royalties and 90 days for any other default.

20.3 This Article's remedies are in addition to any other administrative or judicial remedy provided for by Lease, this Agreement, or federal or State law.

IN WITNESS OF THE FOREGOING, the parties have executed this Placer Unit Agreement on the dates opposite their respective signatures.

**WORKING INTEREST OWNERS**

ASRC Exploration, LLC

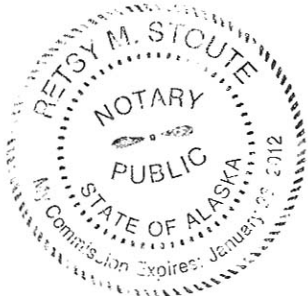
By: Teresa Imm  
Teresa Imm, Manager

Date: 8/17/11

STATE OF ALASKA )  
 )ss.  
THIRD JUDICIAL DISTRICT )

This certifies that on the 17 of August, 2011, before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared \_\_\_\_\_, known to me to be the person described in, and who executed the foregoing agreement, who then after being duly sworn according to law, acknowledged to me under oath that he executed same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal the day and year in this certificate first above written.



[Signature]  
NOTARY PUBLIC in and for Alaska  
My Commission Expires: 1/20/2012