

NE STORMS UNIT AGREEMENT

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

October 27, 2005

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## **I. INTRODUCTION AND BACKGROUND**

On August 31, 2005, Pioneer Natural Resources Alaska, Inc. (Pioneer), as the designated NE Storms unit operator, filed the NE Storms Unit application (Application) with the State of Alaska, Department of Natural Resources (DNR), on behalf of itself and the other majority working interest owner (WIO), ConocoPhillips Alaska, Inc. (ConocoPhillips). The proposed unit is located on the North Slope, approximately 1-2 miles southwest of the Prudhoe Bay Unit (PBU). The proposed unit area covers approximately 16,456 acres within seven individual State of Alaska oil and gas leases. Approval of the proposed NE Storms Unit Agreement (Agreement) would conform and modify the lease contracts to be consistent with the Agreement, and extend the term of leases for as long as they are subject to the Agreement.

Five of the leases in the proposed unit area were offered in the North Slope Areawide 2003 Oil and Gas Lease Sale, held on October 29, 2003. DNR issued oil and gas leases ADL 390472 (Tract 1), ADL 390473 (Tract 2), ADL 390492 (Tract 5), ADL 390497 (Tract 6), and ADL 390496 (Tract 7), effective May 1, 2004, on State of Alaska lease form number DOG 200204 (rev. 10/2003), which reserves a 16.66667 percent royalty to the State of Alaska. The seven-year primary lease term of these leases expires on April 30, 2011.

The remaining two leases in the proposed unit area were offered in State of Alaska Lease Sale 87, held on June 24, 1998. DNR issued oil and gas leases ADL 389096 (Tract 4) and ADL 389097 (Tract 3), effective November 1, 1998, on State of Alaska lease form number DOG 9609 (rev. 6/97), which reserves a 12.50 percent royalty to the State of Alaska. The seven-year primary lease term of these leases expires on October 31, 2005.

## **II. APPLICATION FOR THE FORMATION OF THE NE STORMS UNIT**

Pioneer submitted the Application on August 31, 2005, and simultaneously paid the \$5,000.00 unit application filing fee, in accordance with 11 AAC 83.306 and 11 AAC 05.010(a)(10)(D), respectively. The Application includes: the Agreement; Exhibit A legally describing the proposed unit area, its leases, and ownership interests; Exhibit B, a map of the proposed unit; and Exhibit G, the proposed Plan of Exploration (Initial POE). The Application also includes the NE Storms Unit Operating Agreement, and technical data in support of the Application. The Agreement is based on DNR's State Only Royalty Owner model unit form dated June 2002 (Model Form) with no modifications.

Pioneer requested that only portions of ADL 390472 and ADL 390496 be committed to the NE Storms Unit. Under 11 AAC 83.373, these commitments constitute severance of the leases as to the unitized and non-unitized portions of the lease. The non-unitized

portion of the leases will be treated as separate and distinct leases having the same effective date and term as the original leases and maintained only in accordance with the terms and conditions of the original leases, statutes and regulations. Pioneer proposed that the severance of the two leases become effective contemporaneously with the approval of the NE Storms Unit.

The Agreement requires the unit operator, Pioneer, to file unit plans describing the activities planned for the proposed unit area. Pioneer must consider how it can best develop the resource underlying the entire unit area, without regard to internal lease boundaries. Pioneer filed a proposed four-year Initial POE. The Initial POE is discussed further in Section III. A. 3.

The Agreement defines the relationship between the unit operator, the working interest owners (WIOs), and the royalty owners. It describes the rights and responsibilities, in addition to those imposed by state law and the leases, of the unit operator, WIOs and royalty owners for exploration 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 suggests 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.

The Division of Oil and Gas (Division) determined that the Application was complete and published a public notice in the "*Anchorage Daily News*" and in the "*Arctic Sounder*" on Thursday, September 8, 2005, under 11 AAC 83.311. Copies of the Application and the public notice were provided to interested parties under 11 AAC 83.311. DNR provided public notice to the Alaska Department of Environmental Conservation, the DNR Office of Habitat, Management and Permitting, the North Slope Borough, the City of Nuiqsut, the City of Barrow, the Kuukpik Village Corporation, Arctic Slope Regional Corporation, the Nuiqsut Postmaster, the radio station KBRW in Barrow, the U.S. Department of the Interior, Bureau of Land Management (BLM), and the Alaska Oil and Gas Conservation Commission (AOGCC). The notice was also published on the State of Alaska Public Notice website and the Division's website.

The public notices invited interested parties and members of the public to submit comments by October 10, 2005. DNR received one comment regarding the Application. The comment is addressed in Section III. B. 3. of this Findings and Decision.

### **III. DISCUSSION OF DECISION CRITERIA**

AS 38.05.180(p) gives DNR the authority to approve an oil and gas unit. The Commissioner of DNR (Commissioner) reviews unit applications under 11 AAC 83.301 – 11 AAC 83.395. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003 and delegated this authority to the Director of the Division of Oil and Gas. 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. The Environmental Costs and Benefits of Unitized Exploration or Development**

The proposed NE Storms Unit area is habitat for a variety of land and marine mammals, waterfowl and fish. Area residents may use this area for subsistence hunting and fishing. Oil and gas activity in the proposed unit area may affect some wildlife habitat and some subsistence activity. Mitigation measures, including seasonal restrictions on specific activities, reduce the impact on fish, wildlife, and human populations. Mitigation measures specifically address potential impacts to subsistence access and harvests.

DNR develops lease stipulations through the lease sale process to mitigate the potential environmental impacts from oil and gas activity. Alaska statutes require DNR to give public notice and issue a written finding before disposal of the State's oil and gas resources. AS 38.05.035(e), AS 38.05.945, 11 AAC 82.415. In the written best interest finding, the commissioner may impose additional conditions or limitations beyond those imposed by law. AS 38.05.035(e).

DNR considered all comments submitted before holding Lease Sales 87 and the North Slope Areawide 2003. DNR included mitigation measures in the leases. The proposed NE Storms Unit leases contain stipulations designed to protect the environment and address any outstanding concerns regarding impacts to the area's fish and wildlife species and to habitat and subsistence activities. They address issues such as the protection of primary waterfowl areas, site restoration, construction of pipelines, seasonal restrictions on operations, public access to, or use of, the leased lands, and avoidance of seismic hazards. Including the leases in the NE Storms Unit will neither change these protective measures, nor result in additional restrictions or limitations on public access to the lands or to public and navigable waters. Further, leases operations both before and after unitization are subject to a coastal zone consistency determination, and must comply with the terms of both the State Coastal

Management Program and North Slope Borough Coastal Management Plan. Lease and unit operations also require State approval of a plan of operations application.

Ongoing mitigation measures such as seasonal restrictions on specific activities in certain areas will reduce the impact on bird, fish, and mammal populations. Designating primary waterfowl areas and restricting activities within these areas is one method of protecting the bird habitat. DNR requires consolidation of facilities to minimize surface disturbances. Regulating waste disposal is another way to limit environmental impacts. With these mitigating measures, the anticipated exploration and development related activity is not likely to significantly impact bird, fish, and mammal populations. The anticipated activity under the Agreement will impact wildlife, habitat and subsistence activity less than if the lessees developed the leases individually. Unitized exploration, development and production will minimize surface impact.

The approval of the NE Storms Unit itself has no environmental impact because the commissioner's approval of the unit is an administrative action, which, by itself, does not convey any authority to conduct any operations within the unit. The unit formation does not entail any environmental costs in addition to those that may occur when permits to conduct lease-by-lease exploration or development are issued. Unitization does not waive or reduce the effectiveness of the mitigating measures that condition the lessee's right to conduct operations on these leases. DNR's approval of the Unit plan of exploration or plan of development is only one step in the process of obtaining permission to drill a well or wells or develop the potential and known reservoirs within the unit area. The Unit Operator must still obtain approval of a Plan of Operations from the State and permits from various agencies on State leases before drilling a well or wells or initiating development activities to produce reservoirs within the unit area. 11 AAC 83.346.

A proposed Plan of Operations must describe the operating procedures designed to prevent or minimize adverse effects on natural resources. Plans of Operation are subject to extensive technical review by a number of local, State, and federal agencies. They are also subject to consistency with the Alaska Coastal Management Program and local coastal district plans, if the affected lands are within the coastal zone. The unit operator must guarantee full payment for any damage sustained to the surface estate before beginning operations, and the Plan of Operations must include plans for rehabilitation of the unit area. Furthermore, when the lessees propose to explore or develop the expansion area and submit a Unit Plan of Operations, the DNR may require that it comply with the lease stipulations and lessee advisories developed for the most recent lease in the NE Storms Unit or the region.

The Initial POE requires the drilling of two new exploratory wells within the unit area. When Pioneer applies for permits and authorizations for the wells from the various federal, State, and local agencies, interested parties will have the opportunity to comment during the permit review process.

## **2. The Geological and Engineering Characteristics of the Reservoir and Prior Exploration Activities in the Unit Area**

State regulation requires that a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or potential hydrocarbon accumulations. 11 AAC 83.356(a). Division technical staff evaluated all data provided by Pioneer to determine if the proposed unit area met those criteria.

The NE Storms Unit encompasses seven two-by-two mile tracts that lie one-two miles southwest of the PBU and 0.5 miles northwest of the Hemi Springs Unit 3 well. The primary exploration target is the Ivishak sandstone, with the possibility of encountering other hydrocarbon-bearing sandstones. No wells currently exist within the proposed unit area. Prospects consist of structural closures in the Ellesmerian that have been defined by 3D seismic mapping. The principle 3D seismic coverage for the unit area is provided by BP Exploration Alaska, Inc.'s (BPXA) HS96 survey (MLUP permit 95-014-01). Pioneer submitted relevant seismic strike and dip lines over the prospect along with a top structure map and isopach map and a cross-section through the unit area. Pioneer requested that all pertinent geological and geophysical data be held confidential under AS 38.05.035 (a)(9)(C). This geological, geophysical and engineering discussion is limited to publicly available well, test, geological, geophysical, and engineering information within and adjacent to the NE Storms Unit.

The initial phase of exploration in the vicinity of the proposed NE Storms Unit began in 1969 with the drilling of two wells with Cretaceous exploration objectives. The first well, Mobil Hemi State 3-09-11 (Sec. 3, T9N, R11E, U.M.), approximately six miles to the west of the proposed NE Storms Unit, was drilled to a total measured depth of 6,032', bottoming in the Middle Cretaceous Brookian section. Although conventional cores were attempted in both the West Sak and Brookian sections, only 13 feet of core was recovered in the Lower Brookian section. Conventional sidewall cores were taken in the West Sak interval, recovering oil saturated sands with fair to good shows. The well was plugged and abandoned without testing. The second well, ARCO Toolik Fed 2 (Sec. 5, T8N, R12E, U.M.), located approximately nine miles southwest of the NE Storms Unit, was drilled to a total measured depth of 6,032', bottoming in the Kingak formation. A thin (~10' thick) Kuparuk "C" sandstone was present. Thirty one sidewall cores were recovered between the intervals of 2,330' and 7,698', and there were some mudlog shows in the West Sak and Brookian intervals. No commercial accumulation of hydrocarbons was found in the well.

Several subsequent exploration wells, outside of the PBU and in the vicinity of the NE Storms Unit, were drilled to Ivishak (Sadlerochit) and/or Kuparuk primary exploration objectives. In 1984, the Arco Hemi Springs State 1 well (Sec.12, T10N, R11E, U.M.),

located approximately five and one-half miles to the northeast of the proposed NE Storms Unit, was drilled to 10,370'tvd, bottoming in the Lisburne formation. The primary exploration objectives of the well were the West Sak Sands and the Sadlerochit formation with the Lisburne as a secondary objective. The West Sak sands were cored between the depths of 4,527' and 4,856', and 30 sidewall cores were also taken. The West Sak interval had marginal shows with an apparent oil/ water contact (~ -4,200'ss) within one of the upper Schrader Bluff sands. ARCO conducted two production tests in the lower sands of the West Sak Interval, and both recovered water. The Ivishak tested wet, the Lisburne looks wet based on logs and the Kuparuk C sand tested some gas and oil.

The H G & G Hemi Springs Sag River 1 well (Sec. 14, T9N, R14E, U.M.) was drill to the Ivishak formation. Twenty-seven sidewall cores were recovered between the depths of 6,080' and 8,760', sampling sections of the West Sak, Colville (Brookian), Albian, and Pebble Shale (HRZ) intervals. The Kuparuk sandstone was not present and the Ivishak sandstone was wet. No tests were conducted and no commercial hydrocarbons appeared present based on the well logs. The well was plugged and abandoned on February 6, 1984.

The Burglin 33-1 well (Sec.33, T10N, R14E, U.M.) was drilled to a total depth of 9,458' in the Sadlerochit formation. The well was cored, logged, and tested in several formations throughout the well, including sandstone intervals within the West Sak, Colville, and Sadlerochit sands. The well appeared to encounter no commercial hydrocarbons.

In 1985, ARCO Alaska, Inc. drilled the Hemi Springs 3 well (Sec 13, T9N, R13E, U.M.), located approximately 0.5 miles south of the proposed NE Storms Unit, to a total depth of 10,059', bottoming in the Sadlerochit Formation. The Kuparuk formation was the primary objective, but it was not present and the interval from 8,567'to 8,833' that was cored consisted predominantly of mudstone. Well logs indicated that the Ivishak interval was wet.

Exploration continued in 1991 when the Rock Flour 1 well (Sec 4, T10NE, R11E, U.M.) was drilled, approximately four and one-half miles to the northeast of the Hemi Springs 1 well, and to a depth of 9,131'tvd. The well encountered wet Ivishak sands. The Cretaceous Kuparuk "C" had hydrocarbon shows, but well log analysis indicated that the interval appeared wet. Sidewall cores taken from the West Sak interval contained oil saturated sands and appeared to contain oil, based on well log analysis.

The first planned exploration well within the proposed NE Storms Unit area is to drill through a portion of the Ivishak formation, correlative to the interval from 9,803' to 9,903' md in the Hemi Springs Unit 3 well. The Ivishak formation consists of conglomerate and sandstone layers that were deposited by braided streams during the late



Permian and early Triassic time. Reservoir properties in the Ivishak are generally very good (>15% porosity), but some of the porosity is microporosity that is distributed in the microporous chert rock fragments. The trap appears isolated from the main Prudhoe Bay field, one to two miles to the northeast.

Pioneer provided sufficient geology, geophysical, and engineering data, and has proposed an Initial POE to evaluate the identified prospects within the proposed unit area for the Division to justify the formation of the NE Storms Unit.

### **3. Plans for Exploration and Development of the Proposed Unit Area**

The Initial POE includes plans to drill an exploration well in each of the two identified prospects, with the following requirements: Pioneer shall (1) complete drilling operations on the Hailstorm Well by June 1, 2006; (2) commit in writing to drill the Thunderhead Well by September 1, 2007; and 3) drill the Thunderhead Well to completion by June 1, 2008.

The Initial POE sets out a timely sequence of reservoir delineation activities that will facilitate the ultimate development and production of the reservoir, if oil or gas is discovered in commercial quantities. Completion of these exploration activities as scheduled will satisfy the performance standards and diligence requirements that DNR and Pioneer agreed to as a condition for approval of the Agreement. If Pioneer fails to drill the Hailstorm Well to completion by June 1, 2006, the NE Storms Unit will be in default, the Agreement will terminate, the WIOs shall surrender the lease acreage in the unit that is past its primary term, and pay the State \$25,600 for ADL 389096 and \$25,330 for ADL 389097. If Pioneer completes the Hailstorm Well as scheduled but fails to commit to drill the Thunderhead Well by September 1, 2007, ADLs 389096, 389097, 390492 and 390497 will contract out of the NE Storms Unit and the WIOs shall surrender the lease acreage in the unit that is past its primary term, and pay the State \$51,200 for ADL 389096 and \$50,660 for ADL 389097.

If Pioneer completes the Hailstorm Well as scheduled and commits to drill the Thunderhead Well but fails to drill the Thunderhead Well to completion as scheduled, ADLs 389096, 389097, 390492 and 390497 will contract out of the NE Storms Unit, the WIOs shall surrender the lease acreage in the unit that is past its primary term, and the WIOs pay the State \$76,800 for ADL 389096 and \$75,990 for ADL 389097 by June 1, 2008. In this case, a new plan of exploration will be due August 1, 2008.

If Pioneer drills both the Hailstorm and Thunderhead Wells as scheduled, the term of the Initial POE is extended another year and a new unit plan of exploration or a plan of development will be due by August 1, 2009. These provisions ensure that the lease

extensions resulting from unitization under 11 AAC 83.336(a)(2) continue only so long as Pioneer proceeds diligently with exploration and development.

Pioneer shall report annually on its progress under the plan, and submit another unit plan, for further exploration or development of the unit area, at least 90 days before the Initial POE expires. Although the regulation requires a new plan of exploration at least 60 days before the expiration date of the previously approved plan, the Initial POE provides for submittal of a second Plan of Exploration for the NE Storms Unit 90 days before the Initial POE expires. 11 AAC 83.341 (b).

The working interest owners have agreed to waive the extension provisions of 11 AAC 83.140 and Article 15.2 of the Agreement, and the notice and hearing provisions of 11 AAC 83.374 applicable to default and termination or any contraction of the NE Storms Unit.

Unitization provides a comprehensive plan for exploration of the unit area. Pioneer's Initial POE allows for earlier exploration and confirmation of the prospect in the NE Storms Unit area than would occur under the individual leases.

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

Approval of the Agreement in combination with the Initial POE will result in both short-term and long-term economic benefits to the state. The assessment of the hydrocarbon potential of the leases will create jobs in the short-term. If the WIOs make a commercial discovery and begin development/production from the NE Storms Unit, the state will earn royalty and tax revenues over the long-term life of the field. The Initial POE with the agreed-to terms and conditions advances exploration and evaluation of the prospects in the expansion area sooner than would occur under any individual lease exploration effort.

Some of the leases in the proposed unit area will expire on October 31, 2005, if they are not extended by unitization. If the leases expire, the leasehold interest will return to the state. The earliest that DNR could re-offer the land, under the current Five-Year Oil and Gas Lease Sale Schedule, is February 2006. There is no certainty that anyone would bid on the tracts or pursue exploration of this area. If DNR leased the tracts again in 2006, the state would receive bonus payments and rentals for the primary term of the new leases. However, it could be years before the new lessees would propose exploration of the area. Under the proposed Agreement and Initial POE, the unit operator commits to drill the Hailstorm Well during the 2005-2006 winter drilling season and make a commitment to drill the Thunderhead Well by September 1, 2007, and drill the well by

June 1, 2008. These commitments provide the state with the opportunity to receive royalties from the leases sooner than if the acreage were re-offered.

The seven leases proposed for the NE Storms Unit are written on a variety of forms, containing a variety of provisions. Including the leases in the NE Storms Unit Agreement would conform and modify the lease contracts to be consistent with the Agreement. Consistent lease provisions allow the WIOs and the state to reduce the administrative burdens of operating and regulating this unit. Conforming the terms of the older leases to the Agreement allows the state to avoid costly and time-consuming re-litigation of some problematic lease provisions in the older forms.

During the Agreement negotiations and the discussions for this Application, the parties bargained for amendments to the terms and conditions of the various lease contracts to harmonize them. The WIOs have agreed to lease amendments requested by the Division as a condition of including the leases into the NE Storms Unit. The agreed-to lease amendments are:

- 1) Paragraph 36(b) of lease form DOG 200204 (rev. 10/2003) will replace the existing paragraph 36(b) of lease form DOG 9609 (rev. 6/97); and
- 2) No ANS Royalty Settlement Agreement will apply to the NE Storms Unit leases.

The WIOs have provided technical data sufficient to define the prospect under consideration, have committed their diverse lease interests to the proposed unit and have agreed to an Initial POE that ensures a timely sequence of drilling and development activities in order to evaluate and develop all the acreage within the proposed unit area. The Initial POE with the agreed-to terms and conditions advances exploration and evaluation of the prospects in the unit area sooner than would occur under any individual lease exploration effort.

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

### **1. The Conservation of All Natural Resources**

DNR recognizes unitization of the leases overlying a reservoir as a prudent conservation mechanism. Without unitization, the unregulated development of reservoirs can become a race for possession by competing operators. This race can result in: 1) unnecessarily dense drilling, especially along property lines; 2) rapid dissipation of reservoir pressure; and 3) irregular advance of displaced fluids, all of which contribute to the loss of ultimate recovery or economic waste. The proliferation of surface activity, duplication of production, gathering, and processing facilities, and haste to get oil to the surface also

increase the potential for environmental damage. Lessee compliance with conservation orders and field pool rules issued by the AOGCC would mitigate some of these impacts without an agreement to unitize operations. Still, unitization is the most efficient method for maximizing oil and gas recovery, while minimizing negative impacts on other resources. Formation of the unit will provide the state with a comprehensive plan for exploring and developing the entire unit area. Formation of the NE Storms Unit and implementation of the Initial POE will ensure that WIOs prudently explore the acreage included in the unit.

The Agreement will promote the conservation of both surface and subsurface resources through unitized (rather than lease-by-lease) development. Unitization allows the unit operator to explore the area as if it were one lease. Without the Agreement the lessee would be compelled to seek permits to drill wells on each individual lease in order to extend the leases beyond their primary terms. Unitization reduces both the number of facilities required to develop reserves that may be discovered and the aerial extent of land required to accommodate those facilities. Review and approval of exploration and development permits under a unit agreement will also ensure that rational surface-use decisions are made without consideration of individual lease ownership or expense. After unitization, facilities can be designed and located to maximize recovery and to minimize environmental impact, without regard to lease ownership. Although the applicant has not determined the extent of any oil and gas contained in the prospective reservoir, the Agreement will ensure that the acreage is explored and recovery from the leases is maximized if a commercial hydrocarbon accumulation is discovered.

## **2. The Prevention of Economic and Physical Waste**

The unit will prevent economic and physical waste because the unit operator must have a cost sharing agreement, a coordinated exploration plan, and if a commercial discovery is made, a comprehensive reservoir depletion model. A cost-sharing agreement promotes efficient development of common surface facilities and operating strategies. With a cost-sharing agreement and reservoir model in place, the WIOs in the unit can rationally decide well spacing requirements, injection plans, and the proper joint-use of surface facilities. Unitization prevents economic and physical waste by eliminating redundant expenditures for a given level of production, and by avoiding loss of ultimate recovery with the adoption of a unified reservoir management plan.

Unitized operations improve development of reservoirs beneath leases that may have variable or unknown productivity. Marginally economic reserves, which otherwise would not be produced on a lease-by-lease basis, can be produced through unitized operations in combination with more productive leases. Facility consolidation lowers capital costs and promotes optimal reservoir management for all WIOs. Pressure maintenance and secondary recovery procedures are easier to design and achieve through

joint, unitized efforts than would otherwise be possible. In combination, these factors allow less profitable areas of a reservoir to be developed and produced in the interest of all parties, including the state.

The total cost of exploring and developing the NE Storms Unit leases would be higher on a lease-by-lease basis than it would be under unitization terms. Drilling and facilities investment costs will be minimized as a consequence of eliminating a need for numerous sites within the unit area. Locations of individual wells and surface facilities will be selected to optimize ultimate oil and gas recovery, while minimizing or completely avoiding adverse impacts to the environment.

Reducing 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 production taxes and 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. It benefits the local and state economy, and provides revenues to the state's general, school, constitutional budget reserve, and permanent funds.

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

The Agreement, in combination with the Initial POE with the agreed-to terms and conditions outlined in Section III.A.3 and 4 promotes the state's economic interests because exploration will likely occur earlier than without unitization. Diligent exploration under a single approved unit plan without the complications of competing operators is in the state's best interest. It advances evaluation of the state's petroleum resources, while minimizing impacts to the region's cultural and environmental resources. A commercial discovery will stimulate the state's economy with production-based revenue, oil and gas related jobs, and service industry activity.

The 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, all of which will further the state's interest. The modifications to the varying provisions of some of the leases will economically benefit the state, and reduce the administrative burdens of operating and regulating this unit.

The formation of the NE Storms Unit protects the economic interests of all WIOs and royalty owners of a common reservoir. Operating under a unit agreement and unit operating agreement assures each individual WIO an equitable allocation of costs and revenues commensurate with the value of its leases. The provisions of the Agreement

and state law that provide for notice and an opportunity to be heard if they disagree with a unit management decision made by the state also protect the WIOs.

The public notice required under 11 AAC 83.311 invited interested parties and members of the public to submit comments regarding the Application. Richard E. Wagner, an Overriding Royalty Interest (ORRI) in ADL 380066, submitted comments on the Application during the public comment period via e-mail and facsimile letter, dated October 9, 2005. Mr. Wagner's comments expressed concerns that (1) the Application does not comply with the Alaska Statutes and DNR regulations as well as the Alaska Constitution; (2) his interest in ADL 380066 will not be fully protected under 11 AAC 83.303 as well as other State laws and unit agreement provisions; (3) the subsurface location of the Hemi Springs #1 Well on ADL 28249 is within 66 feet of his lease interest; and (4) his real property rights and correlative rights are required to be protected by the State of Alaska as mandated in law. Mr. Wagner's comments neither specified how the Application failed to comply with Alaska Statutes, DNR regulations and the Alaska Constitution, nor specified what his "real property rights and correlative rights" are as an ORRI, and how they should be protected by the State.

The Division responded to Mr. Wagner via e-mail on October 10, 2005, informing him that ADL 380066 expired on January 31, 2003 and that the lease no longer exists. Mr. Wagner's ORRI expired when the lease expired. Further, even if ADL 380066 did exist, it would be more than five miles from the proposed NE Storms Unit. The Hemi Springs #1 Well on ADL 28249 is even farther from the proposed NE Storms Unit. Given that the lease ADL 380066 expired, the Division requested additional information from Mr. Wagner in order to understand the relevance of the information in his letter to the proposed NE Storms Unit. Mr. Wagner has not responded to the Division's request.

#### **IV. FINDINGS AND DECISION**

##### **A. The Conservation of All Natural Resources**

1. The Agreement will conserve all natural resources, including hydrocarbons, gravel, sand, water, wetlands, and valuable habitat.
2. The unitized development and operation of the leases in this proposed unit will reduce the amount of land and fish and wildlife habitat that would otherwise be disrupted by individual lease development. This reduction in environmental impacts and preservation of subsistence access is in the public interest.

3. If the exploration 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 state and local agencies for review and approval. The lessees may not commence any drilling or development operations until all agencies have granted the required permits. DNR 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.

**B. The Prevention of Economic and Physical Waste**

1. Pioneer submitted geological, geophysical and engineering data to the Division in support of the Application. Division technical staff determined that the NE Storms Unit area encompasses all or part of one or more potential hydrocarbon accumulations. The available geological, geophysical and engineering data justify including the proposed lands, described in Exhibit A to the Application, in the NE Storms Unit.
2. The Initial POE provides for the reasonable exploration of potential hydrocarbon accumulations in the unit area. If the WIOs discover oil or gas in commercial quantities, the Agreement will prevent the waste of oil and gas, and increase the probability of recovering more hydrocarbons from the unit area. The Division must approve a plan of development before the unit operator produces any hydrocarbons in commercial quantities.

**C. The Protection of All Parties in Interest, Including the State**

1. Pioneer provided evidence of reasonable effort to obtain joinder of any proper party to the Agreement.
2. Pioneer and ConocoPhillips, the WIOs in the NE Storm Unit, hold sufficient interest in the unit area to give reasonably effective control of operations, and seven State of Alaska leases are proposed for the NE Storms Unit.

3. The Agreement, conditioned upon the performance of the Initial POE, adequately and equitably protects the public interest, and is in the state's best interest.
4. The Agreement meets the requirements of 11 AAC 83.303.
5. The Division complied with the public notice requirements of 11 AAC 83.311.
6. 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.
7. The Agreement provides for expansions and contractions of the unit area in the future, as warranted by data obtained by exploration or otherwise. The Agreement thereby protects the public interest, the rights of the parties, and the correlative rights of adjacent landowners.
8. The applicant's Initial POE, subject to the terms and conditions discussed in Section III.A.3, meets the requirements of 11 AAC 83.303 and 11 AAC 83.341. The Initial POE, Exhibit G to the Agreement, is approved until October 31, 2009. The unit operator must 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.
9. 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.
10. The NE Storms Unit will expedite exploration and potential development of the unit area. With the formation of the NE Storms Unit, economic benefits to the state outweigh the economic costs of extending the primary term of the state leases committed to the unit.

For the reasons discussed in this Findings and Decision, I hereby approve the Agreement subject to the conditions specified herein. The Agreement will become effective as of the day approved by the Director.

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this



decision, as defined in 11 AAC 02.040(c) and (d) and may be mailed or delivered to Tom Irwin, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to [dnr\\_appeals@dnr.state.ak.us](mailto:dnr_appeals@dnr.state.ak.us). 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.

*//signed*

*10/27/2005*

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Mark D. Myers, Director  
Division of Oil and Gas

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Date

- Attachments: 1. Exhibit A, NE Storms Unit Tracts/Leases  
2. Exhibit B, Map of the Unit Boundary

**EXHIBIT "A"**

Attached to and made a part of that certain NE Storms Unit Agreement

UNIT TRACT #	LESSOR LEASE #	WORKING INTEREST OWNERS	WORKING INTEREST	EFFECTIVE DATE	DESCRIPTION	ACREAGE	ROYALTY BURDEN	ORR BURDEN
1	STATE OF ALASKA ADL 390472	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC	50.00000%  50.00000%	05/01/04	<u>T9N, R13E, UMIAT MERIDIAN</u> Sec 1: Unsurveyed, SW/4NW/4, SW/4, NW/4SE/4, S/2SE/4 (320 acres). Sec 2: Unsurveyed, All. (640 acres). Sec 11: Unsurveyed, All. (640 acres). Sec 12: Unsurveyed, All. (640 acres).	2,240.00 Acres	16.66667%	None
2	STATE OF ALASKA ADL 390473	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC.	50.00000%  50.00000%	05/01/04	<u>T9N, R13E, UMIAT MERIDIAN</u> Sec 3: Unsurveyed, All. (640 acres). Sec 4: Unsurveyed, All. (640 acres). Sec 9: Unsurveyed, All. (640 acres). Sec 10: Unsurveyed, All. (640 acres).	2,560.00 Acres	16.66667%	None
3	STATE OF ALASKA ADL 389097	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC.	50.00000%  50.00000%	11/01/98	<u>T9N, R13E, UMIAT MERIDIAN</u> Sec 5: Unsurveyed, All (640 acres). Sec 6: Unsurveyed, All (625 acres). Sec 7: Unsurveyed, All (628 acres). Sec 8: Unsurveyed, All (640 acres).	2533.00 Acres	12.50000%	None
4	STATE OF ALASKA ADL 389096	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC.	50.00000%  50.00000%	11/01/98	<u>T9N, R12E, UMIAT MERIDIAN</u> Sec 1: Unsurveyed, All (640 acres). Sec 2: Unsurveyed, All (640 acres). Sec 11: Unsurveyed, All (640 acres). Sec 12: Unsurveyed, All (640 acres).	2,560.00 Acres	12.50000%	None
5	STATE OF ALASKA ADL 390492	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC.	50.00000%  50.00000%	05/01/04	<u>T10N, R12E, UMIAT MERIDIAN</u> SEC 25: Unsurveyed, All, including the beds of all meanderable waterbodies (640 acres). SEC 26: Unsurveyed, All, including the beds of the Kuparuk River and all meanderable waterbodies (640 acres). SEC 35: Unsurveyed, All, including the beds of the Kuparuk River and all meanderable waterbodies (640 acres). SEC 36: Unsurveyed, All, including the beds of all meanderable waterbodies (640 acres).	2,560.00 Acres	16.66667%	None
6	STATE OF ALASKA ADL 390497	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC.	50.00000%  50.00000%	05/01/04	<u>T10N, R13E, UMIAT MERIDIAN</u> SEC 29: Unsurveyed, All, including the beds of all meanderable waterbodies (640 acres). SEC 30: Unsurveyed, All, including the beds of all meanderable waterbodies (620.00 acres). SEC 31: Unsurveyed, All, including the beds of all meanderable waterbodies (623.00 acres). SEC 32: Unsurveyed, All, including the beds of all meanderable waterbodies (640.00 acres).	2,523.00 Acres	16.66667%	None
7	STATE OF ALASKA ADL 390496	PIONEER NATURAL RESOURCES ALASKA, INC. CONOCOPHILLIPS ALASKA, INC.	50.00000%  50.00000%	05/01/04	<u>T10N, R13E, UMIAT MERIDIAN</u> SEC 28: Unsurveyed, NW/4NW/4, S/2NW/4, SW/4, NW/4SE/4, S/2SE/4 (400.00 acres). SEC 33: Unsurveyed, All (640 acres). SEC 34: Unsurveyed, .NW/4NW/4, S/2NW4, SW/4, SE/4 (440.00 acres).	1,480.00 Acres	16.66667%	None

**WORKING INTEREST OWNERS**

Pioneer Natural Resources Alaska, Inc.  
700 G St., Suite 600  
Anchorage, AK 99501

ConocoPhillips Alaska, Inc  
ATO 1470  
PO Box 100360,  
Anchorage, AK 99510-0360

**ROYALTY INTERESTS/OWNERS**

State of Alaska  
Department of Natural Resources  
Division of Oil and Gas  
550 West 7<sup>th</sup> Avenue, Suite 800  
Anchorage, AK 99501-3560

Exhibit "B"  
Attached to and made a part of that certain NE Storms Unit Agreement

