

FINDINGS AND DECISION

of the  
Director, Division of Oil and Gas  
approving the

SECOND EXPANSION of the TRADING BAY UNIT

Under Delegation of Authority  
From the Commissioner of the State Of Alaska,  
Department of Natural Resources

August 23, 2013

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## **I. DECISION SUMMARY**

The Trading Bay Unit (TBU) includes four participating areas: the Hemlock Oil Pool Participating Area (Hemlock PA), the West Foreland Oil Pool Participating Area (West Foreland PA), the Middle Kenai “G” Oil Pool Participating Area (Middle Kenai PA), and the Grayling Gas Sands Participating Area (Grayling PA). On July 2, 2013, Hilcorp Alaska LLC (Hilcorp), the TBU Operator, submitted an application to expand the TBU to include the remainder of the partially committed ADL 18731 and the entirety of ADL 392193.

The proposed Second (2<sup>nd</sup>) TBU expansion area includes the addition of two state oil and gas leases that comprise the Trading Bay Field (TBF). The application includes the addition of approximately 3,280 acres within oil and gas lease ADL 18731, of which 560 acres are currently committed to the TBU Hemlock PA designated as Tract 12 and the addition of approximately 2,000 acres within oil and gas lease ADL 392193 for combined total of 5,280 acres proposed for expansion. Both leases have a royalty rate of 12.5 percent and are held by production. Hilcorp has 100 percent working interest in both leases.

The Alaska Department of Natural Resources, Division of Oil and Gas (Division) reviewed the statutes, oil and gas unitization regulations, the TBU Agreement, and materials supplied by Hilcorp in support of the application. The Division finds that the application meets the criteria set out in 11 AAC 83.303. Its approval is necessary and advisable in the public interest to conserve natural resources, avoid waste, and protect the interest of all interested persons including the State and the public. The 2<sup>nd</sup> TBU Expansion is approved, adding 5,280 acres to the TBU, which now encompasses 23,139.5 acres within twelve State of Alaska oil and gas leases.

## **II. APPLICATION AND BACKGROUND SUMMARY**

On July 2, 2013, Hilcorp submitted an application to expand the TBU. Hilcorp paid the \$500 unit expansion application filing fee on July 3, 2013. The application includes: Exhibit A, a map of the proposed unit expansion area; Exhibit B, a schedule describing the TBU leases, and supporting geological, geophysical, and engineering data.

Prior to submittal, Hilcorp and the Division met on June 26, 2013 where Hilcorp provided a geologic and engineering presentation on the rationale for unitizing the TBF and its plan for exploration (POE) and development (POD) of both fields under a consolidated POE/POD. The TBU 48<sup>th</sup> POD and TBF 2<sup>nd</sup> POD were submitted separately to the Division on June 7, 2013. Hilcorp requested these PODs be combined for review and consideration as the proposed POD for the expanded TBU. These PODs are further described in section III.B.3 of this decision.

The Division published a public notice under 11 AAC 83.311 on July 11, 2013, requesting comments on the proposed expansion application by August 12, 2013. The Division received one response to the public notice from the Alaska Department of Fish and Game notifying the Division that any activities within the expanded TBU that may be incompatible with the Trading Bay State Game Refuge are subject to the special areas notification requirement (5 AAC 95.410). The Division notes that there are no surface activities proposed in the expansion application and

any proposed surface activities within the expanded unit requiring a permit from the DNR would be reviewed in coordination with ADF&G.

The Division approved the formation of the TBU effective February 27, 1967. The initial unit area encompassed approximately 39,573.43 acres within 18 leases, including all 3,840 acres within ADL 18731, Tract 12.

On May 8, 1967, the Division approved the formation of the initial 800-acre Hemlock PA, effective February 27, 1967, to develop oil in the Hemlock Conglomerate within the McArthur River Field. On April 14, 1970, the Division approved the formation of the Middle Kenai PA (160 acres) and the West Foreland PA (640 acres), effective July 20, 1969, to develop oil in the Middle Kenai G reservoir and the West Foreland reservoir. Effective May 28, 1970, the First Contraction of the TBU reduced the unitized area by 160 acres within ADL 18731, Tract 12. The Second Contraction of the TBU deleted ADL 18777, Tract 16, from the unit area in its entirety, effective July 1, 1971. All three participating areas expanded with numerous revisions between 1967 and 1972.

In accordance with Article 2(e) of the TBU Agreement, five years after the formation of the initial participating area, the Hemlock PA, the TBU automatically contracted to exclude all legal subdivisions of unitized land, which were not entitled to be in a participating area. Effective March 1, 1972, the automatic contraction excluded all or portions of sixteen leases (21,154 acres) from the TBU. ADL 18731, Tract 12, was one of seven leases contracted from the TBU.

On February 13, 1987, the Division approved the formation of the Grayling PA, effective October 1, 1986, to develop the Grayling Gas Sands reservoir in the upper portion of the Tyonek Formation. The initial Grayling PA included 3,320 acres in three TBU leases. Production of Grayling PA gas from the Steelhead platform began on September 30, 1988. In 1990, Marathon, as sub-operator of the Steelhead platform, drilled additional wells to test the extent of the Grayling Gas Sands reservoir. The Alaska Oil and Gas Conservation Commission (AOGCC) approved an expansion of the Middle Kenai Gas pool area, which encompasses the Grayling Gas Sands reservoir, and the TBU working interest owners began allocating production to the larger area in 1991.

In 2002, Union Oil Company of California (Unocal) drilled several sidetracks of the A-15 well from the Monopod platform located in the TBF. One sidetrack, A-15RD2L2 (API# 507332010561), extended south into lease ADL 18772, Tract 14 of the TBU. This sidetrack crossed the lease line and produced oil from the Hemlock reservoir both inside and outside of the existing unit boundary. On March 29, 2002, the Division approved Unocal's request to allocate test production from the A-15 well based on the proportion of the productive portion of the wellbore on each side of the lease line. On June 1, 2002, Unocal submitted completion reports and directional surveys for the original A-15 borehole and several sidetracks to support its allocation methodology. On June 19, 2002, the Division conditionally approved Unocal's proposal to allocate 15.73 percent of the production from the A-15 well to ADL 18731 and 84.27 percent to ADL 18772. The Division required that Unocal submit an application to expand the TBU and the Hemlock PA to encompass the portion of ADL 18731 that produces from the Hemlock reservoir in the McArthur River Field.

The first expansion of the TBU was approved on June 25, 2003, that included 560 acres of ADL 18731 and expanded the Hemlock PA and the Grayling PA. On September 15, 2004, the Division amended the first expansion of the TBU decision to define the vertical limit of the Grayling PA to the “accumulation of gas occurring within an interval that is stratigraphically equivalent to the interval in the TBU State K-2 between the measured depths of 1,780 and 10,128 feet.”

The TBF is a non-unitized off-shore oil and gas field located within Cook Inlet approximately 63 air miles southwest of Anchorage, Alaska. The field's discovery well, Trading Bay 1-A, was drilled from a floating vessel in 1965 and was completed in the Tertiary, Upper Hemlock Pool. Additional exploratory wells were drilled in 1956-1966 to delineate the field limits. The Monopod Platform was completed in October 1966 and has since served as the field's permanent exploration and production platform.

In 2012, Hilcorp acquired Unocal's 53.2 percent working interest and Pacific Energy Alaska Operating, LLC's 46.8 percent working interest in all production from the Monopod Platform. In February 2013, Hilcorp acquired Marathon's interest in the North Trading Bay Unit, ADL 17597 Segment 2, which was segregated in 2011 and assigned a new lease number ADL 392193. As a result of these acquisitions, Hilcorp is the exclusive working interest owner and operator in the TBF. As a condition of the lease assignments, Hilcorp was required to submit a First (1<sup>st</sup>) POD for the TBF, which was approved by the Division on July 12, 2012. Hilcorp submitted the Second (2<sup>nd</sup>) TBF POD on June 7, 2013, as required by the 1<sup>st</sup> TBF POD approval decision, and also to serve as the POD for the proposed TBU expansion, in combination with the 48<sup>th</sup> POD for the TBU.

In April 2013, Hilcorp applied to the AOGCC for unlimited well spacing in the TBF for the purpose of improving the ultimate recovery of the remaining hydrocarbons throughout the field. As of the date of this decision, the AOGCC has not yet issued a decision on this application.

On July 12, 2013 Hilcorp was granted a provisional approval by AOGCC for the installation, commissioning, and use of custody transfer measurement equipment for Monopod Platform gas production. The provisional approval expires August 31, 2013.

DNR issued all of the TBU leases on lease form DL-1 (Revised April 1961). In 2003, as part of the first TBU expansion, the Division amended all TBU lease agreements by deleting Paragraph 10 to eliminate the Minimum Royalty provision. This amendment applies to all eleven of the TBU DL-1 leases: ADL 17579, ADL 17594, ADL 17602, ADL 18716, ADL 18729, ADL 18730, ADL 18731, ADL 18758, ADL 18772, ADL 18777, and ADL 21068. The amendment remains in effect until the TBU terminates or the leases are contracted out of the unit. TBF lease ADL 392193 retains the terms and conditions of the DL-1 parent lease, ADL 17597 Segment 2, the Division is amending ADL 392193 to delete Paragraph 10 Minimum Royalty as part of this approved second TBU expansion decision.

### **III. ANALYSIS OF THE APPLICATION**

#### **A. Unit Agreement Standard for Expansion**

Article 2 of the TBU Agreement provides for expansion of the unit area.

The above-described unit area shall, when practicable, be expanded to include therein any additional tract or tracts regarded as reasonably necessary or advisable for the purposes of this agreement . . . .

#### **B. Discussion of Decision Criteria**

The DNR Commissioner (Commissioner) reviews applications related to units under 11 AAC 83.303 - 11 AAC 83.395. By memorandum dated December 21, 1998, the Commissioner delegated this authority to the Division Director.

When reviewing a unit expansion application under 11 AAC 83.356, the Director considers the criteria in 11 AAC 83.303(a) and (b). 11 AAC 83.303(c). Accordingly, the Director must find that the expansion 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. 11 AAC 83.303(a). The Director also considers (1) the environmental costs and benefits of unitized exploration or development; (2) the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization; (3) prior exploration activities in the proposed unit area; (4) the applicant's plans for exploration or development of the unit area; (5) the economic costs and benefits to the state; and (6) any other relevant factors DNR determines necessary or advisable to protect the public interest. 11 AAC 83.303(b). Ultimately, the Director must determine whether the expansion is necessary and advisable to protect the public interest. 11 AAC 83.303(a).

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.

#### **Decision Criteria considered under 11 AAC 83.303(b)**

##### **1. Environmental costs and benefits of unitized exploration or development**

The open waters of Cook Inlet support a variety of marine mammals, waterfowl and fish. Residents use this area for recreation, sport and commercial fishing, and subsistence hunting and fishing. However, because Hilcorp performs all exploration and development activities within the TBU and TBF from existing offshore platforms and no new platforms are planned in Hilcorp's POD, new exploration and development in the expanded TBU will have little if any incremental effect on day-to-day activities. The Division considered environmental issues during the lease sale process and attached mitigation measures to the leases. Mitigation measures, including seasonal restrictions on specific activities, reduce the impact of oil and gas development on fish, wildlife, and human populations. Mitigation measures specifically address

potential impacts to subsistence access and harvesting. Unitization does not negate or reduce the mitigating measures that condition the lessee's right to conduct operations on the leases.

Expanding the unit area will optimize drilling operations thereby minimizing surface impacts by consolidating facilities and reducing activity in the field. Unitization allows the unit operator to explore for and develop the resources under a single unit plan rather than on a lease-by-lease basis. Unitization is the most efficient method for maximizing oil and gas recovery, while minimizing negative impacts on other resources.

The application includes a commitment to fully develop the expanded TBU using existing infrastructure while reducing redundant lease operations. Unitization of the expansion acreage minimizes the environmental impacts and costs of exploration and development of the unit area, which meets the section 11 AAC 83.303(b)(1) criteria and supports approval of the application.

## **2. Geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization and prior exploration activities in the proposed unit area**

Since inception, production from the TBU has come from the McArthur River field. The main structural features of the TBU and the proposed expansion area are the McArthur River anticline, the Trading Bay fault (the major bounding fault that separates the McArthur River Field from the TBF), and the Trading Bay anticline. The McArthur River anticline is a broad asymmetrical fold with 1,000 feet of closure that plunges both north and south from its crest at about 9,000 feet subsea. The Trading Bay anticline is a highly faulted asymmetrical fold that is bounded on the southeast by a series of northeast-trending high angle reverse faults.

The McArthur River Field was discovered in 1965 with the drilling of Unocal's Grayling 1A well. Unocal's primary exploration objective with the Grayling 1A well was oil in the Hemlock Conglomerate, with oil and gas in the Tyonek Formation as a secondary target. In 1966, the northern, eastern, and northwestern limits of the Hemlock reservoir were established with the drilling of the Arco McArthur State 1, the Pan Am North Redoubt State 1, and the Arco West Foreland Unit 3 wells.

In 1967, Unocal installed three offshore platforms (King Salmon, Grayling, and Dolly Varden) and formed the TBU and the Hemlock PA to optimize development of the Hemlock reservoir in the McArthur River Field. The Hemlock reservoir is Oligocene in age and consists predominantly of conglomerate and sandstone. Seven individual intervals or 'benches' have been identified in the field based on the presence of interbench siltstone/claystone and limited coal deposits. The gross thickness of the Hemlock ranges from 600 to 700 feet. The Hemlock reservoir has a gradational contact with the overlying Kenai G Oil Pool and unconformably overlies the West Foreland Oil Pool. As of December 2012, there were 27 production wells in the Hemlock PA. Cumulative production to date is 543 MMSTB.

The Middle Kenai PA, formed in 1970, produces oil from the Middle Kenai G Pool which is the basal unit of the Middle Ground Shoals Member of the Tyonek Formation. The Middle Kenai G reservoir is lower Miocene age and consists of firm, silty and clayey sand and conglomerate

interbedded with siltstone and coal. The gross thickness of the Middle Kenai G reservoir is about 600 feet. As of December 2012, there were 24 wells in the Middle Kenai PA producing oil from the Middle Kenai G reservoir in the McArthur River Field. Cumulative production to date is 66 MMSTB.

The West Foreland PA produces oil from the West Foreland Oil Pool. The West Foreland reservoir is Eocene to Oligocene in age and consists of fine to coarse grained, clayey and silty sands ranging to fairly clean sands, pebbly sands and conglomerate interbedded with siltstone and minor coal. The West Foreland is characteristically tuffaceous and overlies Pre-Tertiary volcanic rocks. The gross reservoir thickness of the West Foreland is 500-600 feet thick. As of December 2012, there were 5 oil wells producing from the West Foreland PA in the McArthur River Field. Cumulative production to date is 25 MMSTB.

The Grayling PA, formed in 1987, is composed of the Grayling Gas Sands. The Grayling Gas Sands are in the upper portion of the Tyonek Formation and are predominately composed of fine sandstone, with siltstone and claystone, and thick expansive coal beds. The gross reservoir interval is 500-600 feet thick. Marathon and Unocal installed the Steelhead platform in 1986 to produce the gas from the Grayling Gas Sands, however, unit gas production began in 1968. As of December 2012, the Grayling Gas Sands reservoir produced gas from 22 wells in the upper portion of the Tyonek Formation in the McArthur River Field. Cumulative production to date is 1.19 TCF.

The TBF was discovered in 1965 with the drilling of Unocal's Trading Bay 1A. The Monopod platform was installed in 1966. TBF has been produced as a lease plan of operations so there are no existing PAs. Pool rules were initially established in 1968 (Conservation Order number 57) and then redefined in 1970 (Conservation Order number 93). Production has been allocated to one oil pool in the Hemlock (Hemlock Oil Pool) and five oil pools in the Tyonek formation at TBF: Middle Kenai B Oil Pool, Middle Kenai C Oil Pool, Middle Kenai D Oil Pool, Middle Kenai E Oil Pool, and an Undefined Oil Pool. One gas pool exists at TBF, Trading Bay Undefined Gas Pool.

The Hemlock at TBF has a similar composition as McArthur River field. It is Oligocene in age, dominated by coarse-grained sandstones and pebble conglomerates, and commonly interspersed with thin siltstone beds or tightly cemented impermeable layers. There are rare coal beds. The gross thickness of the Hemlock at TBF is less than McArthur River field and ranges from 300 to 450 feet.

The Tyonek at TBF is Oligocene-Miocene in age and consists of 4,700 to 6,000 feet of interbedded thick, blocky sandstones which alternate with thinner siltstones, mudstones, and relatively thick coals. The Tyonek Formation has been subdivided into five zones which have been named alphabetically from "A" through "E", "A" being the shallowest and "E" being the deepest Tyonek, which rests on top of the Hemlock. These alphabetically named zones only apply to TBF. The cumulative production to date from all pools is 80 MMSTB.

Hilcorp submitted the following technical data in support of the application: a Tyonek structure map; interpreted and un-interpreted seismic lines (strike and dip); cross sections through the

TBF; correlations between TBF and McArthur River field; and tops of the producing horizons in the proposed expansion area.

The data presented by Hilcorp show that the expansion area includes productive sands. The confidential well and geophysical data provided with the application, and otherwise available to the Division, supports inclusion of the proposed unit expansion acreage in the TBU.

Evaluation of prior exploration activities and the geological and engineering characteristics of the proposed expansion area fulfill the criteria in 11 AAC 83.303(b)(2) and .303(b)(3), and support approval of the application.

### **3. Plan for exploration or development of the unit area**

Hilcorp submitted PODs for TBU (48<sup>th</sup> POD) and TBF (2<sup>nd</sup> POD) as required under 11 AAC 83.343 and the TBF 1<sup>st</sup> POD approval. In the application, Hilcorp requested that the Division combine the separate POD filings to serve as the POD for the TBU Expansion.

Under the 48<sup>th</sup> TBU POD, Hilcorp plans to employ a rig purpose-built for the Grayling, Dolly Varden, and King Salmon platforms to repair broken injectors, install electric submersible pumps (ESPs) in producing wells, and that would be available for recompletion candidates. Hilcorp will continue to focus on optimizing existing completions to maximize efficient recovery and conservation of unitized substances from the Hemlock, Middle Kenai G-Zone, and West Foreland oil pools. In addition, Hilcorp plans to study the Jurassic Undefined Oil Pool as a possible candidate for a deep tail off of a development well. Hilcorp will continue well work in the Grayling Gas Sands for the purpose of reservoir management and maximizing recovery of reserves. Major facilities projects proposed in the 48<sup>th</sup> POD include electrical system optimization and an ESP drive system upgrade for the Dolly Platform, and various projects for the King Salmon and Dolly Varden platforms.

Under the 2<sup>nd</sup> TBF POD, Hilcorp plans to continue the ongoing work of repairing broken injection and shut-in production wells while continuing evaluation of other areas of the field. For the Undefined Oil Pool the focus will be on optimization of the “A-Zone” Oil Pool completions. Optimizations of Tyonek B, C, D, and E-Zone Oil Pools and the Hemlock Oil Pool include continuing focus on completion efficiencies while identifying side track candidates and candidate areas for new wells. Hilcorp plans to continue various work activities on the Monopod platform during the 2<sup>nd</sup> POD.

The PODs that will apply to the proposed unit expansion area fulfill the criteria in 11 AAC 83.303(b)(4) and support approval of the application.

### **4. Economic Costs and Benefits**

All production from the TBF must be measured before it leaves the lease property boundary under 20 AAC 25.228. Hilcorp proposes to reduce operational redundancies for TBU and TBF and to consolidate infrastructure at the Trading Bay Production Facility (TBPF) to test newly discovered gas from the Monopod platform, which is located on the TBF. Hilcorp seeks to

manage the TBU and TBF under a consolidated POE/POD. The TBPF services the four TBU platforms and the TBF Monopod. The Steelhead platform within TBU currently provides fuel gas for all facilities, including the Monopod. Unitizing the TBF would alleviate the requirement to measure TBF gas production at the lease boundary and facilitate management of fuel gas for shared TBU and TBF platforms.

The State's primary interest in oil and gas leases is in the royalty and taxes received on production. The cost to the State and the public of approving the proposed expansion of the TBU is the loss of royalties from fuel gas produced at TBU and used at the TBF. Over a four month production period from March 2013 through June 2013, the average monthly royalty was about \$15,000. On the other hand, if TBU is not expanded and TBF becomes a net gas exporter, as asserted by Hilcorp, gas produced at the TBF and not used there would bear royalty even if it is used at the TBPF or the TBU. Furthermore, the Division finds it likely that Hilcorp will be able to produce gas from the TBF even if the TBU is not expanded. However, expanding the TBU will further reduce the cost of producing gas from TBF by eliminating the requirement to install another metering device as required by the AOGCC. As a result of this unit expansion, only the gas exported from the expanded TBU will be royalty bearing.

TBF and TBU infrastructure is highly interconnected. Production from both the TBF and the TBU is processed at the TBPF. Gas is distributed among the four TBU platforms and TBF Monopod platform. All of the platforms are relatively comparable distances from the TBPF. Given these similarities, asymmetric application of royalties can lead the producer to choose a less efficient development path in an attempt to reduce royalty payment. The potential adverse impact of this distortion on total production from TBU and TBF and loss of royalties associated with this lower production is difficult to quantify. The distortion could increase the likelihood of economic waste.

Expanding the TBU to include the TBF will also reduce administrative costs associated with staff time required to review and process two separate sets of royalty filings.

Recognizing the cost associated with the loss of royalties from fuel gas but considering the benefits described above and taking into consideration other 11 AAC 83.303 criteria the Division's evaluation of the economic criteria in section 11 AAC 83.303(b)(5) supports approval of the application.

#### **IV. FINDINGS**

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

The application to expand the unit boundary facilitates conservation all natural resources, including hydrocarbons. Drilling high departure wells from existing platforms to extract natural gas and oil from beneath the seafloor should have little or no impact on the abundance, quality, and value of other natural resources.

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 for review and the lessees may not commence exploration or development operations until approval of the plan by the Division, in coordination with other agencies that may require permits. The Division may condition its approval of a unit plan of operations on performance of mitigation measures in addition to those in the leases, if necessary or appropriate. Compliance with the mitigation measures will minimize, reduce, or completely avoid adverse environmental impacts.

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

Unit expansion will prevent economic and physical waste because the unit operator must have a comprehensive exploration and development reservoir management plan. 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. Royalty assessed on fuel gas from the TBU to the TBF makes the TBF fuel gas more expensive compared to fuel gas used on other platforms. Similarly, if the TBF was to become a net gas exporter, the TBF gas used at the TBU for fuel will be more expensive than the TBU gas used in the TBU. Since rational producers respond to incentives it is possible that a development path of the TBU and the TBF could be impacted by this differential treatment. The potential adverse impact of uneven royalty burden increases the likelihood of economic waste. Expanding the TBU to include the Monopod will reduce the likelihood of economic waste by leveling the royalty impact on the expanded TBU economics.

Hilcorp submitted geological, geophysical, and engineering data supporting the application. The available data indicates the expansion acreage encompasses all or part of one or more potential hydrocarbon accumulations and justifies including the proposed lands in the TBU. The application along with the PODs for the TBU and the TBF approved by the division on August 8, 2013, meets the requirements of 11 AAC 83.303 and .343.

### **C. Provide for the Protection of All Parties of Interest, Including the State**

Hilcorp holds 100 percent working interest for both the TBU and the TBF. The State of Alaska is the sole royalty owner of the leases within the TBU and the TBF. Unitization of the TBF protects the economic interests of Hilcorp and the State. The Unit Agreement provides for expansions and contractions of the unit area in the future, as warranted by data obtained by exploration or otherwise. The Unit Agreement thereby protects the public interest, the rights of the parties, and the correlative rights of adjacent landowners. Approval of this unit expansion will not diminish access to public and navigable waters beyond those limitations (if any) imposed by law or already contained in the unitized oil and gas leases.

The application adequately and equitably protects the public interest. The application is in the State's best interest, and it protects the State's interests through reasonable assurances that the

lessees will develop and produce the hydrocarbons underlying the unit area. The application meets the requirements of AS 38.05.180(p) and 11 AAC 83.303.

## V. DECISION

1. The Division approves the TBU expansion application effective August 1, 2013. The expanded TBU now includes 23,139.5 acres within twelve oil and gas leases, which are depicted in Exhibit A and described in Exhibit B to the Agreement (attachments 1 and 2).
2. Approved TBU Expansion Area:

### **Tract 12, ADL 18731**

Township 9 North, Range 13 West, Seward Meridian, Alaska

Section 3: All

Section 4: All

Section 5: All

Section 8: W1/2, NE1/4, NW1/4 SE1/4

Section 9: N1/2, E1/2 SW1/4, W1/2 SE1/4, NE1/4 SE1/4

Section 10: W1/2 NW1/4, NE1/4 NW1/4, NE1/4 NE1/4, E1/2 E1/2

Containing approximately 3,280.00 acres.

### **Tract 20, ADL 392193**

Township 10 North, Range 13 West, Seward Meridian, Alaska

Section 27: N1/2NE1/4; W1/2

Section 28: All;

Section 33: All;

Section 34: W1/2

Containing approximately 2,000.00 acres.

3. The Division amends one of the expanded TBU lease agreements by deleting Paragraph 10 and eliminating the Minimum Royalty provision for ADL 392193. This amendment to the lease agreement will remain in effect until the TBU terminates or the leases contract out of the unit area.
4. Annual rental payments, at the rate of \$1.00 per acre or fraction thereof, will be due on the TBU leases anniversary dates each year as specified in Paragraph 9 of the lease agreements.
5. The accounting unit code for the two lease operations in the TBF (LC04 and LC05) are changed to TB02 and TB03
6. The proposed POD satisfies the requirements of 11 AAC 83.343 and protects the public interest.

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, Department of Natural Resources, 550 W. 7<sup>th</sup> Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; 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  
Division of Oil and Gas

8/23

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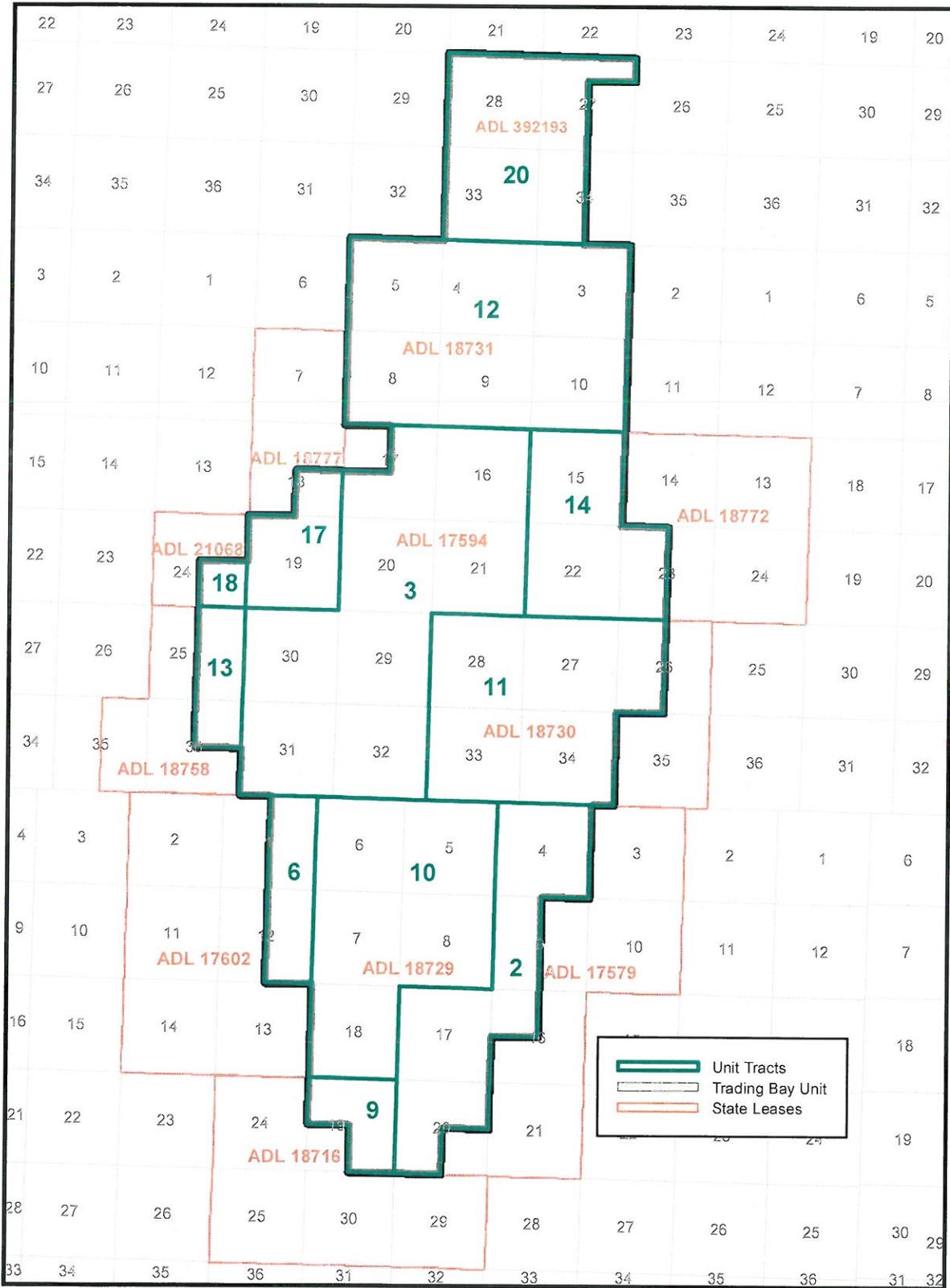
Date

cc: John Norman, Commissioner AOGCC

**VI. ATTACHMENTS:**

TBU Exhibit A  
TBU Exhibit B

# EXHIBIT A Trading Bay Unit



**EXHIBIT "B"**  
**TRADING BAY UNIT**  
 Effective July 1, 2013

<u>Tract Number</u>	<u>Legal Description</u>	<u>Acreage</u>	<u>Lease Number</u>	<u>Royalty Owner Percentage</u>	<u>Overriding Royalty Interest Owners</u>	<u>Formation</u>	<u>Working Interest Owners</u>	<u>Working Interest Percentage</u>
2	T8N, R13W, SM, AK Section 04: All Section 09: W1/2 Section 16: NW1/4 Section 17: All Section 20: N1/2, SW1/4	2,240.00	ADL-17579	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
3	T9N, R13W, S11, AK Section 16: All Section 17: S1/2, NE1/4 Section 20: All Section 21: All Section 29: All Section 30: All Section 31: All Section 32: All	4,956.00	ADL-17594	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
6	T8N, R14W, SM, AK Section 01: E1/2 Section 12: E1/2	640.00	ADL-17602	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
9	T8N, R13W, S.M. Sec 19: N/2, SE/4	462.50	ADL-18716	State of Alaska 12.5%	Lloyd Powers 2.250% Raymond M. Thompson .375% Frank L. Shogrin .375%	All Depths	Hilcorp Alaska, LLC	100%

<u>Tract Number</u>	<u>Legal Description</u>	<u>Acreage</u>	<u>Lease Number</u>	<u>Royalty Owner Percentage</u>	<u>Overriding Royalty Interest Owners</u>	<u>Formation</u>	<u>Working Interest Owners</u>	<u>Working Interest Percentage</u>
10	T8N, R13W, S.M. AK Sec 5: All Sec 6: All Sec 7: All Sec 8: All Sec 18: All	3,085.00	ADL-18729	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
11	T9N, R13W, S.M. Sec 26: W1/2 Sec 27: All Sec 28: All Sec 33: All Sec 34: All	2,880.00	ADL-18730	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
12	T9N, R13W, SM, AK Section 03: All Section 04: All Section 05: All Section 08: All Section 09: All Section 10: All	3,640.00	ADL-18731	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
13	T9N, R14W, S.M. Sec 25: E1/2 Sec 36: NE1/4	460.00	ADL-18758	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
14	T9N, R13W, S.M. Sec 15: All Sec 22: All Sec 23: W1/2	1,600.00	ADL-18772	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%

<u>Tract Number</u>	<u>Legal Description</u>	<u>Acreage</u>	<u>Lease Number</u>	<u>Royalty Owner Percentage</u>	<u>Overriding Royalty Interest Owners</u>	<u>Formation</u>	<u>Working Interest Owners</u>	<u>Working Interest Percentage</u>
17	T9N, R13W, S.M. Sec 18: SE1/4 Sec 19: All	786.00	ADL-18777	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
18	T9N, R14W, S.M. Sec 24: SE1/4	160.00	ADL-21068	State of Alaska 12.5%		All Depths	Hilcorp Alaska, LLC	100%
20	T, 10 N., R, 13 W., Seward Meridian, Alaska.  Section 27: N1/2NE1/4, W1/2 Section 28: All Section 33: All Section 34: W2	2,000.00	ADL-392163	State of Alaska 12.5%	Donkel Oil and Gas LLC .5%*	All Depths	Hilcorp Alaska, LLC	100%

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**State Land: 23,139.50 Acres**

\* Only applies to new wells drilled after January 29, 2010, when the overriding royalty interest was created. To date, no new wells have been drilled since January 29, 2010.