

Preliminary Best Interest Finding and Determination
for the
Sale of Alaska North Slope Royalty Oil
to Petro Star Inc.

Division of Oil and Gas
Alaska Department of Natural Resources
July 27, 2016

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I. Introduction

The commissioner of the Department of Natural Resources (DNR), on behalf of the State of Alaska, has negotiated two contracts to sell a portion of the State's North Slope royalty oil to Petro Star Inc. ("Petro Star"), as buyer, and Arctic Slope Regional Corporation ("ASRC"), as guarantor. Petro Star is a wholly owned subsidiary of ASRC. The first contract will have a term of one year, beginning with first deliveries estimated, after a comment period, Royalty Board consideration, and nominations, to be on December 1, 2016 and ending with deliveries a year later, estimated to be on November 30, 2017. Additionally, DNR is proposing a second contract, which will have a term of four years, with an estimated start, following the first contract, of December 1, 2017 and ending on November 30, 2021. This second contract must be approved by the Legislature. The buyer, Petro Star, was formed in 1984. It owns and operates two commercial refineries, one in North Pole and another in Valdez. The North Pole refinery was built in 1985, while the Valdez refinery was completed in 1993¹.

DNR proposes the sale of a portion of its expected North Slope royalty in-kind (RIK) oil under a one-year term contract, with the objective to relieve market conditions under 11 AAC 03.024(3), and a subsequent sale under a four-year term with an emphasis on maximizing the benefits to the citizens of Alaska under AS 38.05.183(e)(1). Both proposed RIK sales are intended to meet in-state need for crude and help facilitate continued operations of Petro Star's two refineries with the attendant benefits to Alaskans. The negotiations for the attached proposed contracts have been carried out under the procedures for a non-competitive disposition of royalty oil set out in 11 AAC 03.030 – 11 AAC 03.070. Consistent with its obligations under 11 AAC 03.026(b) and 11 AAC 03.024, under the terms of these contracts, the State will receive a price for its royalty oil that provides the maximum benefit to the citizens of the state under AS 38.05.183(e).

This "Preliminary Best Interest Finding and Determination for the Sale of Alaska North Slope Royalty Oil to Petro Star Inc." (Preliminary Finding and Determination) provides a summary of DNR's proposed royalty in-kind contracts with Petro Star. After an in-depth consideration of the potential economic, environmental, and social impacts, and the various requirements for sale of the State's royalty oil, with a focus on the criteria specified under the terms of AS 38.05.183(e) and AS 38.06.070(a), DNR finds that the negotiated RIK contracts for the sale of the State's royalty oil to Petro Star are in the State's best interest.

II. RIK Background

The State of Alaska owns the mineral estate, including oil and gas, under State-owned lands. To monetize the value of this estate, the State has entered into lease agreements with third parties who explore for, develop, and produce oil and gas from these lands. The State receives a royalty share of 12-1/2 to as much 33-1/3 percent of the oil and gas produced from these leased lands on the North Slope. The State may take its royalty either "in-kind" or "in-value" (RIV). When the State takes its royalty as RIV, the lessees who produce the oil market the State's share along with their own production and pay the State the value of its royalty share. When the State takes its royalty share as RIK, it assumes ownership of the oil, and the commissioner disposes of it through sale procedures, either "competitive" or "non-competitive," under AS 38.05.183.

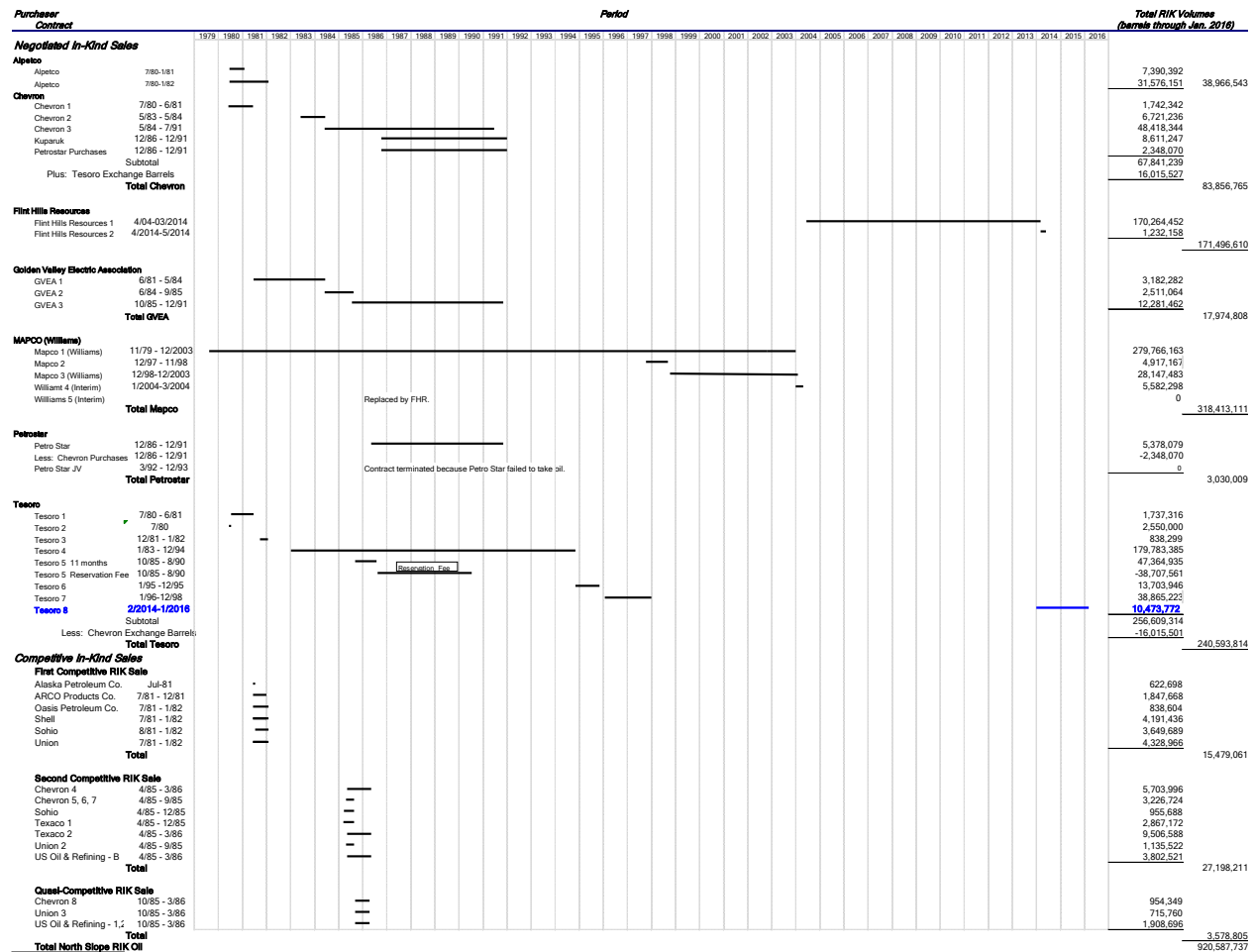
Figure 1 shows that between November 1979 and January 2016 the State disposed of 920.59 million barrels through in-kind sales, approximately 45% of its North Slope royalty oil². Through the

¹ See <http://www.petrostar.com/divisions/refining>.

² For that period, total North Slope royalty oil was 2,044.62 million barrels.

combination of both competitive and non-competitive RIK sales, the State has sold its royalty oil to in-state refineries, and occasionally has auctioned its royalty oil to customers in the Lower 48. Figure 1 summarizes the many North Slope RIK contracts since 1979, and Figure 2 illustrates the monthly volumes of royalty oil committed to these contracts during this period. It should be noted that since 1986 the State has disposed of its RIK oil through negotiated non-competitive sales.

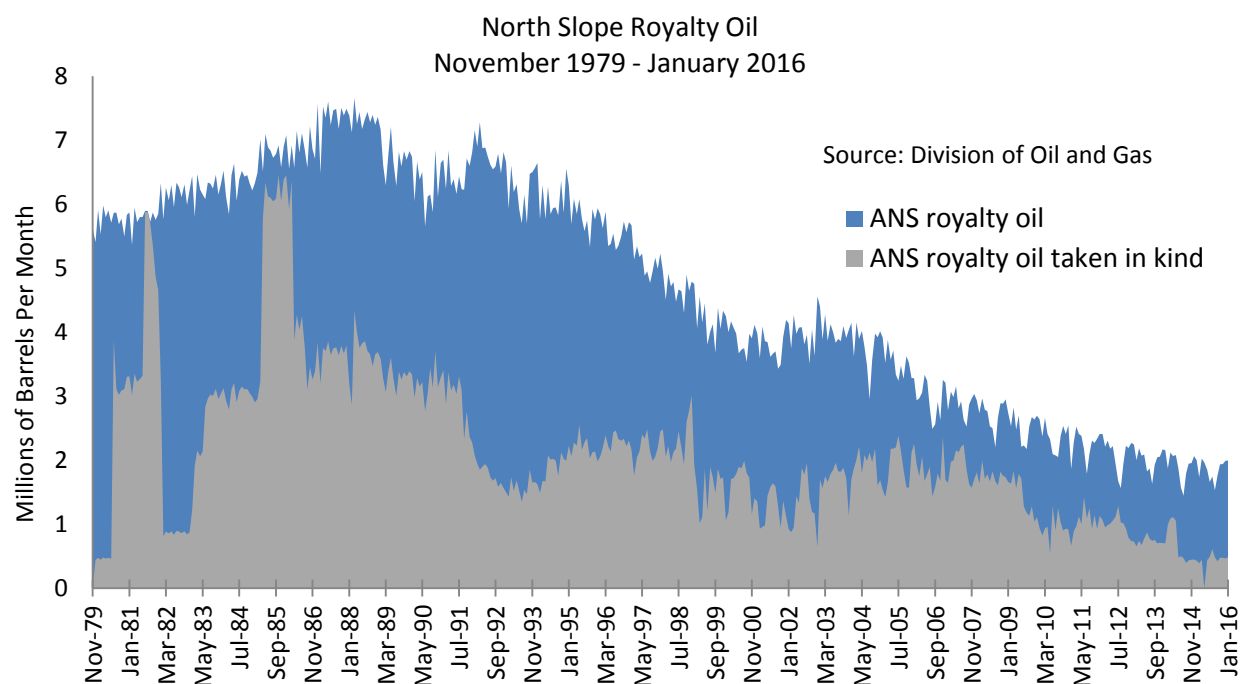
Figure 1: Royalty In-Kind Sales History³



Source: Alaska Department of Natural Resources, Division of Oil and Gas

³ Highlighted in blue is the latest RIK contract in place, which expired on January 31, 2016. Since February 1, 2016, the State has not had an RIK contract in place. The recently approved RIK contract with Tesoro will begin deliveries on August 1, 2016.

Figure 2: Historical Total ANS Oil⁴ Royalty Volume and In-Kind Volumes



A. Royalty Oil Available For Taking In Kind

The volume of royalty oil the State receives depends on the volume of oil produced from State lands, which has been steadily declining. As the volume of Alaskan North Slope (ANS) oil continues to decline, the volume of ANS royalty oil available for taking in-kind will also decline. The proposed RIK contracts with Petro Star obligate the State to deliver ANS royalty oil according the following schedule:

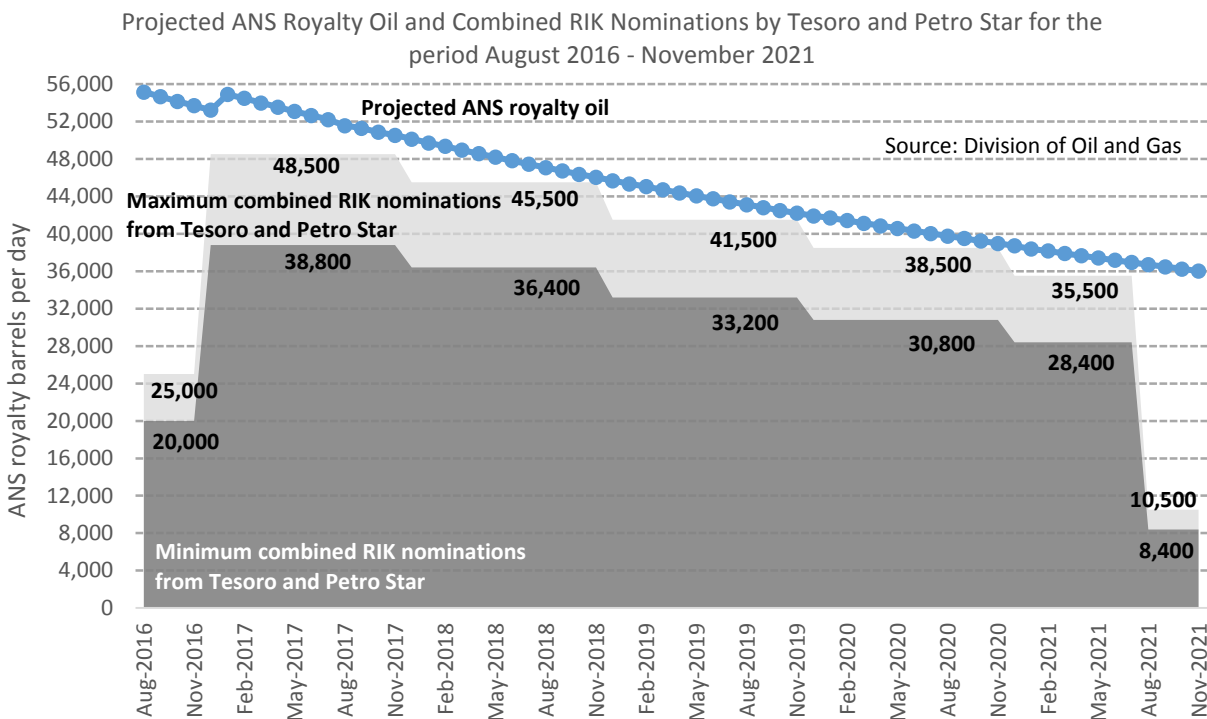
Table 1: Schedule of proposed RIK contracts with Petro Star

	Estimated starting date	Estimated ending date	Minimum nomination (in barrels per day)	Maximum nomination (in barrels per day)
Petro Star RIK contract 1	Dec 1, 2016	Nov 30, 2017	18,800	23,500
Petro Star RIK contract 2	Dec 1, 2017	Nov 30, 2018	16,400	20,500
	Dec 1, 2018	Nov 30, 2019	13,200	16,500
	Dec 1, 2019	Nov 30, 2020	10,800	13,500
	Dec 1, 2020	Nov 30, 2021	8,400	10,500

⁴ The types of hydrocarbons considered as “ANS oil” are oil, condensates, load diesel, and NGLs.

Based on average forecast volumes⁵, the State is expected to have between 50,000 barrels per day (bpd) and 54,900 bpd of total ANS royalty oil available for taking in kind for the one-year RIK contract. For the four-year RIK contract, the expected ANS royalty oil available will range between 36,000 bpd and 50,000 bpd. Put differently, based on monthly average forecasts, Petro Star's nominations could represent between 21% and 46% of the State's ANS royalty oil for the duration of both contracts. Given that the State has entered into an RIK contract with Tesoro (Tesoro 2016) for the sale of ANS royalty oil for the period August 1, 2016 to July 31, 2021, the combined nominations of Tesoro and Petro Star for the period when both RIK contracts are in place could represent between 70% and 99%⁶ of the State's North Slope royalty oil.

Figure 3



When considering the volume of royalty oil that will be available to the State for taking in kind, there are three key considerations. First, the State wants to keep a small percentage of royalty oil dispositions in value due to higher royalty values for certain leases, and to obtain pricing and other information from in-value dispositions for comparison purposes. For this reason, total nominations declared by Petro Star and any other RIK buyer will contractually be limited to 95% of the total North Slope royalty oil available. In other words, up to 95% of the State's royalty oil will be available to be nominated under RIK sales contracts, with the remainder kept in-value.

⁵ The forecasted royalty volumes are based on a production forecast performed by the Alaska Department of Revenue (DOR) and consider future production of currently producing fields only, excluding from this calculation fields under development and under evaluation.

⁶ This depends on the quantities nominated from each RIK buyer. The Tesoro 2016 RIK contract allows the RIK buyer to nominate between 20,000 bpd and 25,000 bpd for the period August 2017 – July 2021. Thus, if Tesoro and Petro Star both nominate their minimum quantities, then that sum will at least represent approximately 70% of the expected ANS royalty oil available for the period August 1, 2016 to July 31, 2021. In turn, if they both nominate their maximum quantities, then the total nominations could be as much as 99% of the expected ANS royalty oil available.

Second, expected royalty oil production is based on a forecast. Even the best forecasts will undoubtedly be incorrect, with the magnitude of the error greatest in the later years of the forecast. Historically, the State's production forecast from which the royalty forecast is derived has been quite optimistic, with realized production often falling well below forecasted levels.⁷ That being said, on an average basis, the State's royalty forecast would need to be seriously deficient during the combined term of the contracts for the State to struggle to meet its volume obligation under the proposed sale. In the event the actual State's royalty oil exceeds the forecast, the Tesoro and Petro Star RIK contracts allow for additional nominations over and above the current contract volumes. See Section III B.

Third, royalty forecasts provide an expected daily royalty volume for the entire year. However, there is substantial seasonality in the observed level of production from the North Slope, with daily production peaking during winter months and declining to its lowest levels during summer months. As a consequence, between 2008 and 2015, summer royalty volumes were considerably lower than the annual average values. For instance, in 2014, July and August royalty volumes were 19% and 26% below the annual average. This translates into a reduction of approximately 12,000 and 16,000 royalty barrels per day (bpd) from the 2014 annual average of 62,000 bpd. Based on the expected royalty available for the duration of the two proposed RIK contracts with Petro Star and the observed seasonality, the combined nominations by Tesoro and Petro Star could represent as much as 155% of the expected average daily summer royalty production. In such scenario, the contract proration provision will take place, and the quantities of ANS royalty oil delivered to the RIK buyers will be capped at 95% of all ANS royalty oil available for that particular month.

B. State Receives Much More Revenue From RIK Sales Than RIV Sales

The State attempts to maximize the benefits of oil production to the citizens of Alaska when it decides to sell its oil in-kind. One important benefit of the sale of royalty oil in-kind is that it provides the State with higher revenue. The commissioner shall "consider the cash value offered" for RIK oil when evaluating a purchase proposal (see AS 38.05.183(e)). In evaluating a sale, the Royalty Board should consider "the revenue needs and projected fiscal condition of the state" (see AS 38.06.070(a)(1)). The State's projected fiscal condition has deteriorated with respect to previous projections⁸. Based on the latest DOR forecasts, oil and gas revenues are expected to remain below 2015 levels and be even lower than previous forecasts. In this projected scenario, the State will need to continue to draw funds from the Constitutional Budget Reserve Fund (CBRF) and the Statutory Budget Reserve Fund (SBR) in the next fiscal year⁹. While the State has other important interests, such as encouraging in-state refining, it also has a duty to all its citizens to generate as much revenue as it can from its royalty oil, which is especially critical in the current fiscal situation.

In the past few years the State has received more revenue from the sale of each RIK barrel than from each RIV barrel. Figure 4 shows that, during the period January 2008 to January 2016, the price per RIK

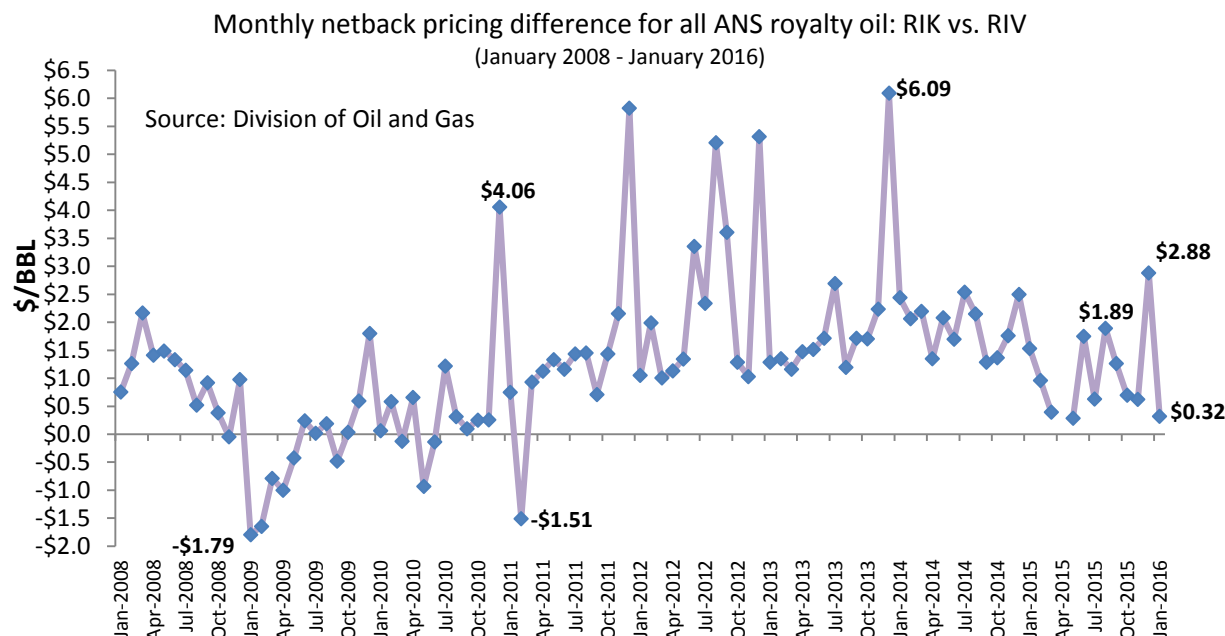
⁷ The Department of Revenue (DOR), which develops the North Slope production forecast, has recently transitioned to a new, potentially more realistic forecasting approach.

⁸ When compared to the *2015 Fall Revenue Sources Book*, DOR forecasts a lower Unrestricted General Fund Revenue for the next two fiscal years. See page 3 of the *2016 Spring Revenue Sources Book*.
<http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

⁹ As of June 30, 2016, the CBRF balance was \$7.33 billion, a decline from the balance in May 31, 2016 of \$7.80 billion (See <http://treasury.dor.alaska.gov/Investments/Constitutional-Budget-Reserve.aspx>). The estimated draw of funds from the CBRF for FY 2016 is \$3.92 billion. The fiscal condition continues to be challenging as the low-price environment remains in effect. In its enacted FY 2017 Fiscal Summary issued July 1, 2016 (see https://www.omb.alaska.gov/ombfiles/17_budget/PDFs/Enacted_Fiscal_Summary_07_01_2016.pdf), the Office of Management and Budget (OMB) estimated a combined draw from the SBR and the CBRF of \$3.17 billion.

barrel¹⁰ was higher than that of an RIV barrel¹¹ for 86 months. In fact, since March 2011, this difference averaged approximately \$1.92 per barrel of ANS royalty oil in favor of the RIK price. In that 97-month period, the State sold approximately 96.56 million barrels of royalty oil in-kind under three different contracts: the Flint Hills Resources RIK contract from April 2004 to March 2014 (FHR 2004); the Flint Hills Resources RIK contract from April 2014 to May 2014 (FHR 2014); and the Tesoro RIK contract from February 2014 to January 2016 (Tesoro 2014). The sale of those 96.56 million barrels in-kind generated about \$107.7 million of additional revenue to the State, which would not have been realized had this volume of royalty oil been taken in value.

Figure¹² 4



The difference in the netback prices of RIK and RIV shown in Figure 4 arose as a result of the differences in the values of the components of the netback pricing formula for RIK and RIV. As discussed in more detail in sections III and IV below, the three previously mentioned contracts, the recently approved contract with Tesoro (Tesoro 2016), and the currently proposed RIK contracts with Petro Star utilize the following pricing structure:

$$\text{RIK netback price} = \left[\frac{\text{ANS}}{\text{USWC price}} \right] - \left[\frac{\text{RIK}}{\text{differential}} \right] - \left[\frac{\text{Tariff}}{\text{allowance}} \right] \pm \left[\frac{\text{Quality bank}}{\text{adjustment}} \right] - \left[\frac{\text{Line}}{\text{loss}} \right]$$

The proposed RIK contracts with Petro Star price the RIK barrel at the point of production¹³ to the RIK buyer. To accomplish this, the netback pricing formula above starts with the value of ANS at its most

¹⁰ This is a calculated weighted-average “netback” price. Specifically, it uses the RIK-volumes from all RIK contracts in place for a given month as weights and values them following their netback pricing terms.

¹¹ Similar to the RIK price, this is also a calculated weighted-average “netback” price. However, now the weights are the RIV volumes from all State-leases for a given month. The valuation in this case is determined by each of the State-lease terms or the applicable royalty settlement agreements.

¹² In April 2015, Tesoro nominated zero barrels of ANS royalty oil. Thus, the graph shows a value of \$0/bbl.

¹³ For royalty coming from Prudhoe Bay Unit, this is Pump Station No. 1 (PS1). For royalty from other fields in the North Slope, this would take place upstream of PS1 and consider the pipeline tariffs upstream of TAPS.

common destination, the U.S. West Coast (USWC). From this, the formula deducts the RIK differential, a negotiated value used to adjust the price of ANS at its destination market (mainly, the U.S. West Coast) to arrive at the price of the RIK barrel in Alaska. Next, the formula subtracts a calculated value representing the average transportation cost of oil via pipelines from the point of sale to Valdez. Additionally, an adjustment is made based on the difference in the quality of the royalty oil taken in kind at the point of sale versus that of all oil in Valdez. Lastly, it contemplates a reduction in the price resulting from the differences in the metered volumes between the two ends of the Trans-Alaska Pipeline System (TAPS).

Similar in spirit to the case of RIK, the netback methodology for RIV is also designed to price that ANS at the point of production. However, it differs from the methodology used for RIK in that (1) the valuation of the ANS royalty oil is subject to the lease provisions¹⁴ or the applicable royalty settlement agreements (RSAs) between the State and some producers¹⁵, which supersede the provisions of leases issued before 1979; and (2) the marine transportation deduction or a location adjustment (also called “location differential”) is applied to the price of ANS at its destination, depending on whether the sale of ANS occurs inside or outside the state. In general, an RIV barrel follows this netback pricing structure¹⁶:

$$\begin{array}{l} \text{RIV netback} \\ \text{price} \\ \text{(out of state)} \end{array} = \left[\begin{array}{c} \text{Destination} \\ \text{value} \end{array} \right] - \left[\begin{array}{c} \text{Marine} \\ \text{transportation} \\ \text{allowance} \end{array} \right] - \left[\begin{array}{c} \text{Tariff} \\ \text{allowance} \end{array} \right] \pm \left[\begin{array}{c} \text{Quality bank} \\ \text{adjustment} \end{array} \right] - \left[\begin{array}{c} \text{Line} \\ \text{loss} \end{array} \right]$$

or

$$\begin{array}{l} \text{RIV netback} \\ \text{price} \\ \text{(in - state)} \end{array} = \left[\begin{array}{c} \text{Destination} \\ \text{value} \end{array} \right] - \left[\begin{array}{c} \text{Location} \\ \text{differential} \end{array} \right] - \left[\begin{array}{c} \text{Tariff} \\ \text{allowance} \end{array} \right] \pm \left[\begin{array}{c} \text{Quality bank} \\ \text{adjustment} \end{array} \right] - \left[\begin{array}{c} \text{Line} \\ \text{loss} \end{array} \right]$$

For the period January 2008 to January 2016, Figure 5 shows two features of the ANS royalty oil. First, on average, about 94.58% of all ANS royalty oil came from leases subject to RSA terms. The graph

¹⁴ When the valuation of royalty is for in-state sales of non-RSA oil, the valuation of the sale follows the lease-form provisions, and the netback price formula uses the *location differential*. In turn, when this valuation is subject to the RSA terms or is a non-RSA sale outside of Alaska, it uses the *marine transportation allowance*.

¹⁵ These are

BP Exploration (Alaska) Inc. (BP): *ANS Royalty Litigation Settlement Agreement between BP Exploration (Alaska) Inc. and State of Alaska*, December 31, 1991;

ConocoPhillips Alaska Inc. (CPAI): *ANS Royalty Settlement Agreement between ARCO Alaska, Inc. and the State of Alaska*, September 11, 1990;

ExxonMobil Alaska Production Inc. (Exxon): *ANS Royalty Litigation Settlement Agreement between Exxon Corporation and State of Alaska*, December 31, 1991; and

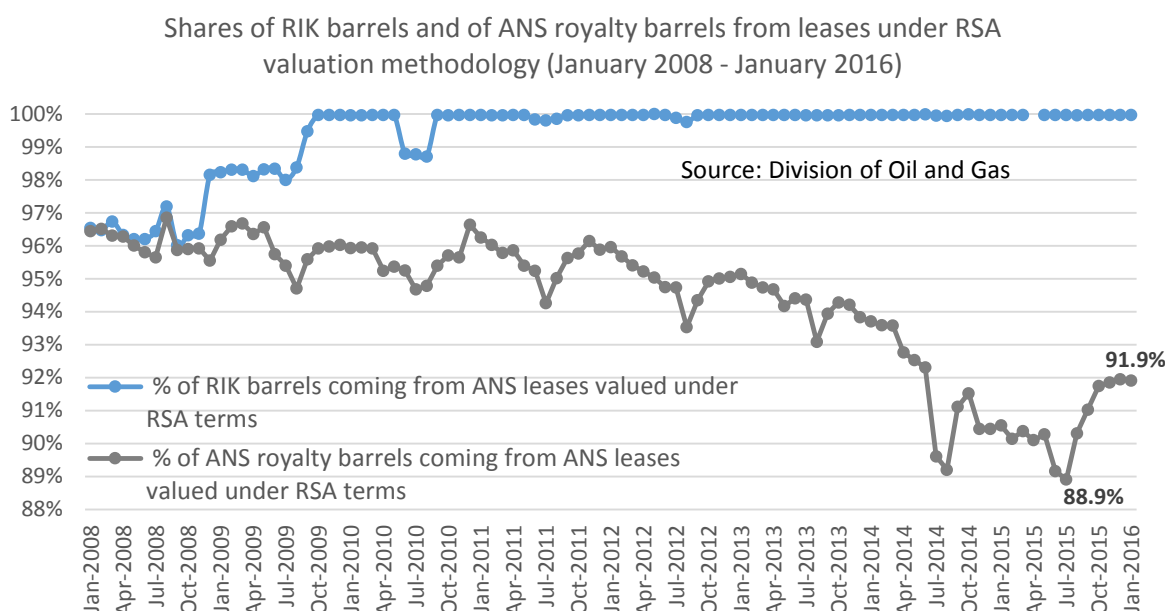
Chevron U.S.A. Inc. (Chevron): *ANS Royalty Settlement Agreement between the State of Alaska and Chevron U.S.A. Inc.*, January 1, 1992.

Additionally, in late 2014, BP assigned a portion of its interest in Milne Point, Duck Island, and Northstar to Hilcorp Alaska, LLC (Hilcorp). Part of the royalty from that assignment is still valued in terms of the BP royalty settlement agreement.

¹⁶ It is worth noting that, in some leases, the valuation of ANS royalty qualifies for field cost deductions. In this case, the price of an RIV barrel will contain another component: the field cost deduction. However, if royalty from such leases is taken in kind, the price methodology for an RIK barrel described above will not reflect the adjustment corresponding to the field cost deduction. To account for this, the remaining volume of royalty that is taken in value from those leases will be subject to an additional adjustment reflecting the field cost deductions not considered in the valuation of the royalty taken in kind.

shows a declining path due to the increased contribution of royalty volumes from non-RSA leases like those making up the Oooguruk and Nikaitchuq units. Second, the total royalty taken in-kind came primarily (an average of 98.95%) from leases where, had that royalty been taken in value, those barrels would have been transported outside Alaska, and the valuation of those volumes would have used the marine transportation allowance prescribed by the applicable RSAs. In fact, since September 2010, this percentage has been at least 99.8%. As a result of these two characteristics, for the overwhelming majority of cases, the differences in the netback pricing of RIK and RIV observed in Figure 4 came from the different values of the netback-pricing formula components between the RIK contracts in place and those of the RSAs.

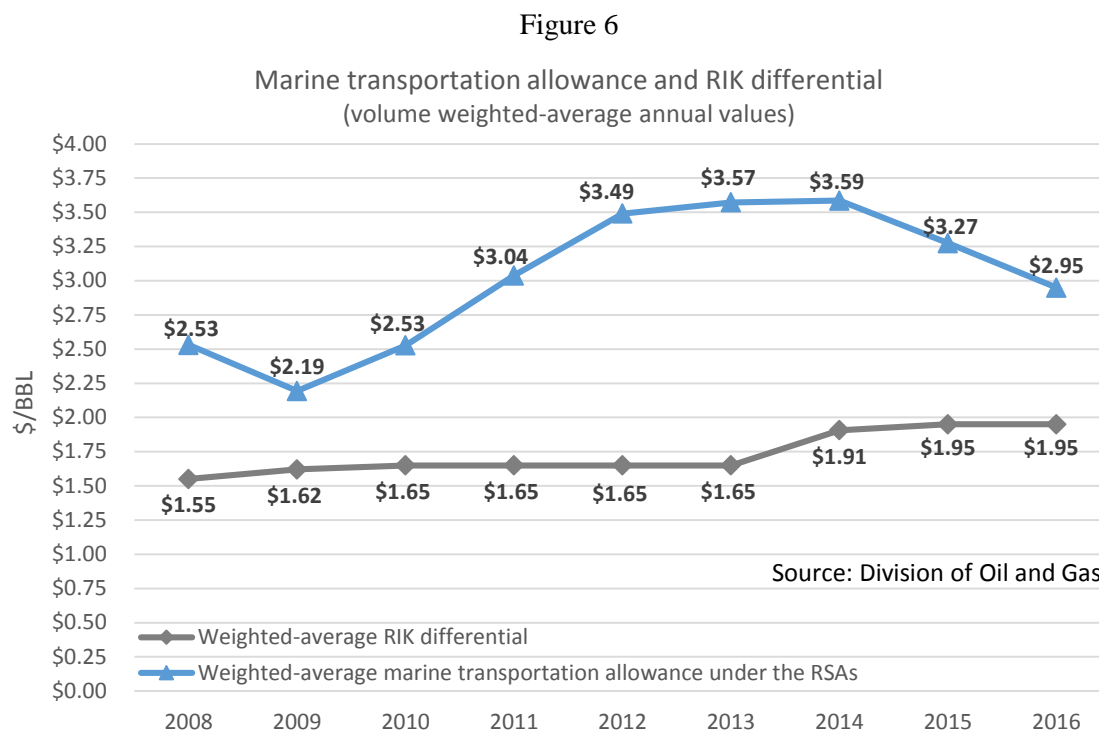
Figure 5



As shown later in this finding, from the netback pricing formulas, the element that contributed the most to the superiority of the RIK price over the RIV price, observed in Figure 4, was the RIK differential, a variable intended to represent the market value of the location differential for in-state sales of crude oil. For oil that is sold within the state, as is also the case of ANS royalty oil sold in-kind in the proposed RIK contracts, the seller and the buyer agree on a location deduction that is used to determine the price difference for the oil sold on the U.S. West Coast versus the oil sold in Alaska, which is later used to calculate the price at the point of production. In contrast, the marine transportation allowance is intended to represent the average cost incurred by lessees in physically carrying the ANS crude from Valdez to an out-of-state location. Although in some cases, previous out-of-state sales of ANS oil took place in Asia and Hawaii, the vast majority of it was delivered in the USWC. Furthermore, Figure 5 shows that, in 2015, at least 88.9% of the ANS royalty oil was delivered out of state and came from leases using the valuation methodology of the RSAs. Therefore, the observed price difference in Figure 4 originated mostly from the fact that, as Figure 6 below shows, during the 97-month period of analysis, the marine transportation allowance from the RSAs was consistently greater than the deductions coming from the RIK differentials resulting from the RIK contracts in place.

As expressed before, the elements making up the netback pricing methodology for both RIK and RIV usually differ in value. However, the observed difference between the RIK differential and the marine transportation allowance was the major contributor to the pricing superiority of RIK over RIV from

January 2008 to January 2016, despite the variation in the other elements of the netback pricing formulas such as destination value, tariffs, quality bank, and line loss.



For the period under evaluation (January 2008 to January 2016), the RIK-RIV variations in the tariff allowance, quality bank adjustment, and line loss either tended to cancel out or were relatively small in comparison with the variation of the other netback price components. Figure 5 above showed that almost all of the RIK came from leases following the valuation method prescribed in the RSAs. In particular, since 2013, the RIK has come entirely from Prudhoe Bay Unit. In this way, Figure 7 below shows the RIK-RIV variations in the tariff allowance, quality bank adjustment, and line loss for the RIK and RIV volumes from Prudhoe Bay Unit. Except for two months, July 2012 and May 2015, these variations were less than \$0.90/bbl. For example, in this graph, a positive value for the quality bank adjustment means that the RIK barrel was of relatively better quality than the RIV barrel. A positive value for “loss” means that the RIK barrel was subject to a smaller loss adjustment than the RIV barrel. Lastly, a positive value for “tariffs” means that the tariff deductions in pricing the RIV barrel were much larger than those for the RIK barrel.

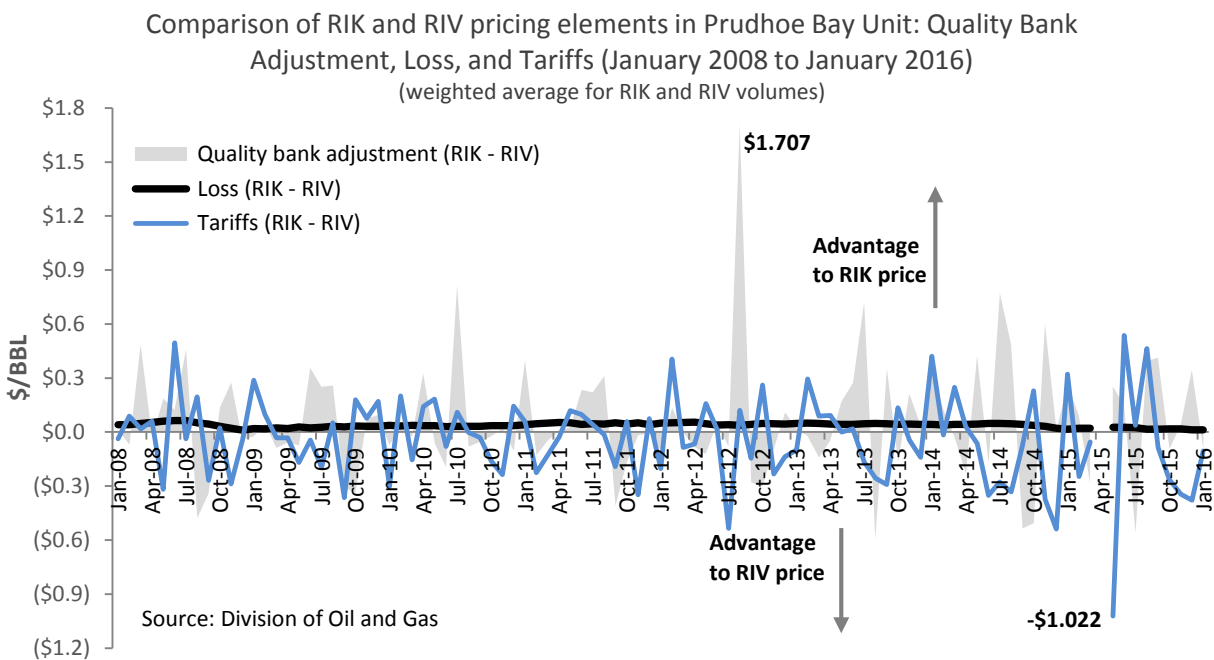
The differences in the tariff allowance used for RIV and RIK stem from the definitions used in the RSAs versus those used in the corresponding RIK contracts. The RSA with BP defines the TAPS tariff allowance as the ownership-weighted average interstate TAPS tariff filed with the Federal Energy Regulatory Commission (FERC)¹⁷. In turn, the RSA with ConocoPhillips defines the TAPS tariff allowance as the minimum of two amounts: (1) its actual average interstate tariff paid, and (2) the volume-weighted average of different interstate tariffs needed to transport all production shipments, allocating such volumes with priority to the carriers with the lowest tariffs¹⁸. Additionally, the RSA with

¹⁷ See Article III, section 3.4, subsection (b) of the *ANS Royalty Litigation Settlement Agreement between BP Exploration (Alaska) Inc. and State of Alaska*, December 31, 1991.

¹⁸ See section B, subsection III.A.5 of the *Thirteenth Amendment to ANS Royalty Settlement Agreement between ConocoPhillips Alaska, Inc. and the State of Alaska*, March 1, 2008.

Exxon multiplies the amount defined in the BP RSA by a ratio of the volumes delivered from the common-carrier pipelines at destination to the volumes received by the common-carrier pipelines at the applicable LACT units¹⁹, thereby introducing another element of variability. In the case of the RIK contracts in place during the period January 2008 through January 2016²⁰, similarly to the case of the BP RSA, the TAPS tariff allowance is defined as the ownership weighted-average of the minimum interstate TAPS tariff on file with FERC²¹. Therefore, for some months, the weighted-average TAPS tariff allowance used in the valuation of RIV was smaller than that for RIK given these different methodologies. But, as a result of a TAPS litigation²², DNR expects these differences to become less pronounced, if not disappear completely.

Figure 7



Also, in general, the valuation of the quality of the average barrel of RIK was different than that of the average value of RIV. These discrepancies arise from (1) the administrative fee that lessees pay to the Quality Bank Administrator, and (2) the timing of when the quality bank adjustments are actually applied.

¹⁹ See Article III, section 3.4, subsection (b) of the *ANS Royalty Litigation Settlement Agreement between Exxon Corporation and State of Alaska*, December 31, 1991.

²⁰ This is also the case for the recently approved Tesoro 2016 RIK contract and the currently proposed RIK contracts with Petro Star.

²¹ See, for instance, Article II, section 2.3 of the proposed final contract in the *Final Best Interest Finding and Determination for the Sale of Alaska North Slope Oil to Tesoro Refining & Marketing Company, LLC*, Alaska Department of Natural Resources, October 24, 2013.

²² *BP Pipelines (Alaska) Inc.*, Opinion No. 502, 123 FERC ¶ 61,287 (2008) stated that the TAPS Carriers should charge a uniform rate for interstate transportation service. Additionally, Opinion No. 544, 153 FERC ¶ 61,223 stated that the TAPS Carriers should be denied full recovery of the Strategic Reconfiguration Project costs through pipeline rates. Furthermore, by order issued January 13, 2010, the Chief Administrative Law Judge severed the issues raised in previous filings into two phases: the Strategic Reconfiguration (SR) Phase (Docket No. IS09-348-004) and the Non-SR Phase (Docket No. IS09-348-000). The first docket covers the Initial Decision on the Strategic Reconfiguration Project of TAPS, while the second docket includes previous and current TAPS rates filings by the TAPS Carriers. However, the FERC has accepted and suspended filings, subject to refund, consolidated them, and held them in abeyance pending the outcome of the proceedings in Docket No. IS09-348-004.

For instance, ConocoPhillips uses a quality bank adjustment value with a lag of two months in relation to the corresponding production month; BP files a temporary number subject to a true-up adjustment performed twice a year; and Exxon provides a contemporaneous number in relation to the production month. The average barrel of RIK is also calculated contemporaneously for the corresponding production month. Lastly, the deductions resulting from the reduction in the measurement of volume from the Pump Station No. 1 to the Valdez Marine Terminal for the average RIK barrel were lower than for the average RIV value. For the case of ConocoPhillips and BP, their corresponding RSAs prescribe that the valuation of the RIV barrel use a loss factor of 0.0013²³, whereas the Exxon RSA establishes a loss factor of 0.0016²⁴. In contrast, the previous RIK contracts utilize a much smaller loss factor: 0.0009²⁵. As a result, when considering the combined effects of the variations in these components of the netback pricing formula, they have accounted for \$0.057/bbl in favor of the average RIK barrel for the royalty barrels coming from Prudhoe Bay unit for the period January 2008 to January 2016.

Like the three previous RIK contracts and the Tesoro 2016 RIK contract, the currently proposed RIK contracts with Petro Star define the destination value as the monthly average of the daily average ANS price assessments at the USWC by reporting firms Platts and Reuters²⁶. In contrast, RIV oil, which is valued pursuant to the lease provisions or RSAs terms, may use other ANS reporting firms' assessments or even use different valuation methodologies than those found in the RIK contracts. For this reason, there will be some divergence between the destination value assessments for RIK and those used for RIV. For instance, in addition to Platts and Reuters, the valuation of some ANS production coming from non-RSA leases is based on the ANS USWC price assessments from Argus, another price reporting firm. Another source of divergence is, for instance, the valuation of Exxon's royalty corresponding to its RSA-leases. In Exxon's RSA, the destination value is determined by a comparison between the assessment of ANS at the USWC and a basket of non-Alaskan crudes. Lastly, although much less frequent than the previous cases, some ANS production from non-RSA leases is valued using the NYMEX's daily settle quoted price for Light Sweet Crude Future for the delivery month average as the destination value. Figure 8 below shows the differences in the destination value for RIK and RIV in the Prudhoe Bay Unit for the period January 2008 to January 2016. In this case, the destination values for RIK and RIV are comparable since royalty in both cases use the ANS price assessment at the USWC. In particular, positive values in the graph indicate that the destination value of the RIK barrel was greater than that of the RIV barrel. It is also important to note that, from November 2008 to February 2011, the destination value for RIK was consistently and considerably lower than that for RIV. As a result, these unfavorable destination value assessments reduced any RIK price advantage over RIV obtained through the RIK differential.

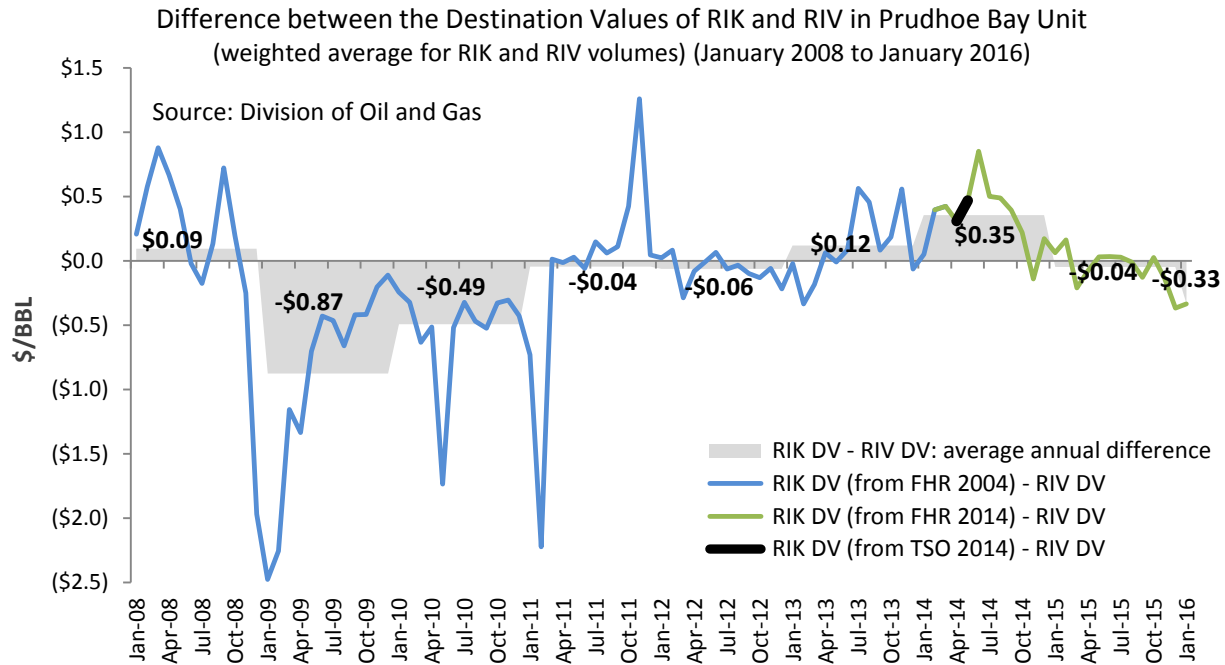
²³ See section B, subsection 5, III.A.(g) of the *Eighth Amendment to ANS Royalty Settlement Agreement between Phillips Alaska, Inc. and the State of Alaska*, August 1, 2002; and section III, subsection B.2 of the *BP 2002 Royalty Destination Value Settlement and June 2002 Amendment to the 1991 BP Royalty Settlement Agreement as Amended*, June 2002.

²⁴ See section A, subsection (5).3.6 of the *Agreement Regarding the 2001 Exxon RSA Reopeners*, September 20, 2006.

²⁵ See, for instance, Article II, section 2.3 of the proposed final contract in the *Final Best Interest Finding and Determination for the Sale of Alaska North Slope Oil to Tesoro Refining & Marketing Company, LLC*, Alaska Department of Natural Resources, October 24, 2013. The recently approved Tesoro 2016 RIK contract and the proposed RIK contracts with Petro Star utilize the same loss factor.

²⁶ *Ibid.*

Figure 8



Even though Figure 8 shows that the destination value for RIK could be lower than for RIV, the negotiated values of the RIK differential from each RIK contract in place during the period of January 2008 to January 2016 were generally low enough to absorb these differences in 89% of the months. (see Figure 4). The RIK price was generally still higher than the RIV price even for those months when the destination value for RIV was greater than that for RIK; when the tariff allowance was lower for RIV; when the quality bank adjustments were greater (if positive) or smaller (if negative) for RIV; or when the line loss was lower for RIV. As explained in more detail in sections III and IV below, DNR expects that, for the combined term of the contracts in consideration, (i) the majority of the future ANS royalty available to take in-kind will still come from leases subject to the valuation methodology of the RSAs, and that (ii) the deduction from the proposed RIK differential will be lower than the one from the projected marine transportation allowance per barrel, and thus make it extremely likely that the RIK price will be greater than the RIV price.

As stated previously, DNR proposes the sale of a portion of its expected royalty in-kind to Petro Star under two separate RIK contracts. The proposed sale of ANS royalty for the one-year contract is intended to relieve market conditions under 11 AAC 03.024(3). This translates into the usage of such royalty oil to meet in-state needs for crude oil and into the achievement of at least a pricing parity between the RIK and RIV barrel of oil, which represents a necessary condition for disposing of royalty oil in-kind rather than in-value. However, besides meeting this minimum pricing threshold, DNR also seeks to maximize the benefits of oil production, under 38.05.183(e)(1) to the citizens of Alaska, when selling its royalty oil in-kind. In this sense, while still designed to meet in-state need for crude and help facilitate continued operations of in-state refineries, the sale of ANS royalty contemplated in the proposed four-year contract also attempts to maximize the State's revenue from its royalty. Now, given that the RIK differential plays a major role in this pricing comparison, DNR attempts to reach this maximum benefit by negotiating the lowest possible value for the RIK differential. As expressed before, the negotiated value of the RIK differential in the RIK contracts aims to resemble the average market value of the location differential used for sales of ANS oil within the state among private parties. Since the currently proposed RIK contracts with Petro Star will sell volumes of royalty oil to an in-state refinery, the value of the RIK

differential should then fall within the range of negotiated values of the Alaska location differential, by buyers and sellers of ANS within the state, instead of resembling the average transportation deduction from Valdez to the USWC, used by ANS producers capable of transporting ANS outside Alaska in their royalty in-value filings.

Table 2: Values of Marine Transportation Cost, RIK Differential, Location Differential, and Marine Transportation Allowance
(weighted-average values; in \$/bbl) (Source: DOR and Division of Oil and Gas)

<i>Fiscal year t : from July 1, year t-1 to June 30, year t</i>														
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Marine transportation cost (for production tax)	\$1.93	\$2.05	\$2.21	\$2.44	\$3.24	\$3.64	\$3.70	\$3.25	\$3.28*	\$3.37*	\$3.47*	\$3.55*	\$3.60*	\$3.70*
RIK differential: FHR 2004	\$1.55	\$1.57	\$1.65	\$1.65	\$1.65	\$1.65	\$1.65	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
RIK differential: FHR 2014	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	\$2.15	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
RIK differential: Tesoro 2014	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	\$1.95	\$1.95	\$1.95	n.a.	n.a.	n.a.	n.a.	n.a.
RIK differential: Tesoro 2016	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	\$1.95	\$1.95	\$1.95	\$1.95	\$1.95

<i>Calendar Year</i>									
	2008	2009	2010	2011	2012	2013	2014	2015	2016
Location differential (for production tax)	\$1.34	\$1.67	\$1.88	\$1.73	\$1.77	\$2.12	\$1.55	\$1.59	
Marine transportation allowance (for RIV)	\$2.53	\$2.19	\$2.53	\$3.04	\$3.49	\$3.57	\$3.59	\$3.27	\$2.95**

Notes: Marine transportation costs come from the DOR Fall 2015 Revenue Sources Book (RSB), pages 90-91. The Spring 2016 RSB does not present revised forecasts for such deductions.

* Projected values by DOR.

Location differential values come from <http://www.tax.alaska.gov/programs/oil/prevaling/marine.aspx>.

Per 15 AAC 55.171 (f), the volume-weighted average location differential between the Port of Valdez and the U.S. West Coast is calculated using the values from contracts for the sale of ANS oil entered into the 18-month period ending November 30 of the previous calendar year and delivered in the state during the previous calendar year. For example, in DOR's Tax Division website, the weighted-average location differential of \$1.55 is shown for year 2015, but it was calculated using the values of the location differential found in contracts between June 1, 2013 and November 30, 2014 and using the volumes of calendar year 2014.

** Year-to-date value of the marine transportation allowance as reported in the royalty in-value reports following the RSAs.

Table 2 above presents the values of the RIK differential used in the most recent three RIK contracts (FHR 2004, FHR 2014, and Tesoro 2014), as well as annual volume weighted-average values of the location differential, the marine transportation cost per ANS barrel, and the marine transportation allowance per ANS royalty barrel.

Depending on the location of the sale of ANS oil, either in Alaska or outside the state, the ANS producers will use the location differential or the marine transportation cost in the calculation of their production tax obligations. One component of this calculation is the prevailing value²⁷ for ANS oil. The ANS producers will deduct the location differential, for ANS sold in the state, or the marine transportation cost, for ANS sold outside Alaska, from the prevailing value of ANS oil to calculate the gross value at the point of production²⁸. The values of the location differential, observed in the contracts between sellers and buyers

²⁷ See 15 AAC 55.171

²⁸ See 15 AAC 55.151 (b)

of ANS within the state, vary considerably depending on their respective market power. On the other hand, the marine transportation cost is a deduction representing the expense of carrying ANS from Valdez to its out-of-state destination market. Instead of using the marine transportation cost, the ANS producers that sell ANS oil outside the state use the marine transportation allowance to calculate their royalty in-value obligations with the state. The marine transportation allowance is a deduction taken from the destination value of ANS oil and corresponds to the average cost of transporting ANS from Valdez to its destination market outside Alaska.

Table 2 also shows that the marine transportation deductions (i.e., both the marine transportation cost and the marine transportation allowance) were consistently greater than the values of the location differential. In addition, Table 2 indicates that, although having declined in 2015²⁹, the marine transportation deductions generally have shown and are expected to keep showing an upward trend. These deductions are in large part based on the fixed components of the costs to operate the tankers used in the marine transportation of ANS oil and a return on the capital invested in the construction of those tankers. As the number of barrels decrease due to the longstanding decline in North Slope oil production, the capital cost per barrel will increase. In contrast, the values of the location differential are the result of the negotiations between sellers and local buyers of ANS, and consequently are not related to deductions resulting from the marine transportation of ANS out of Alaska. Lastly, the observed values of the RIK differential for RIK contracts in place over the period from 2008 to 2016 have been within the range of values of the location differential. The RIK differential in the proposed contracts with Petro Star, namely \$1.95 per barrel of North Slope royalty oil, also fall within this range.

C. Commercial Refining in Alaska

Alaska currently has five active in-state refineries, operated by four organizations: BP, ConocoPhillips, Petro Star, and Tesoro. Of these five refineries, three produce refined petroleum products for the consumer market,³⁰ Tesoro's Kenai refinery³¹ and Petro Star's refineries in North Pole and in Valdez. All three of these refine Alaskan crude and supply the Alaska retail market with refined petroleum products.

Petro Star's North Pole and Valdez refineries both exclusively refine ANS drawn from TAPS. The North Pole refinery began operations in 1985 and has a maximum throughput capacity of 22,000 barrels per day, while the Valdez refinery went into service in 1993 and has a maximum throughput capacity of 60,000 barrels per day³². Each of these refineries will refine between 25% and 30% of the crude drawn from TAPS into refined product. Given their relatively lower technical sophistication in relation to the refineries in the U.S. West Coast, the Petro Star' owned refineries will reinject the remaining 70% to 75% of the volume drawn from TAPS into the pipeline since they are not equipped to upgrade the "bottom" or heavier portion of the crude oil barrel³³. As a consequence of its complete reliance on TAPS for taking and returning crude and the subsequent quality degradation of the ANS crude stream between Pump Station No. 1 and the Valdez Marine Terminal, Petro Star must pay a quality bank adjustment to the

²⁹ The decline of the marine transportation allowance observed in 2015 is associated with the decline in the price of the fuel used by tankers. The marine fuel expense, along with capital and operating expenses related to the tankers, is another component of the marine transportation allowance.

³⁰ BP and ConocoPhillips currently operate small topping plants on the North Slope that primarily support oil industry operations and are mostly geographically limited to the North Slope.

³¹ For a description of Tesoro's Kenai refinery, refer to the *Final Best Interest Finding and Determination for the Sale of Alaska North Slope Royalty Oil to Tesoro Refining & Marketing Company, LLC* (March 14, 2016): <http://dog.dnr.alaska.gov/AboutUs/PublicNotices.htm#DivisionWide>.

³² See page 16 of *The State of Alaska's Refining Industry. Report prepared for the Alaska Department of Natural Resources*. Econ One Research, Inc. March 2015 ("Econ One Report"). <http://dog.dnr.alaska.gov/Commercial/Documents/AlaskaRefiningIndustryReport.pdf>

³³ Econ One report, page 17.

shippers of ANS for removing the higher-valued light cuts and returning the lower-valued heavy cuts.

In a typical year, roughly 33% of the refined product produced by Petro Star will be ultra-low and low sulfur diesel, approximately 56% will be jet fuel, and the remainder will consist primarily of home heating fuel³⁴. Additionally, Petro Star began construction of an asphalt plant at its North Pole refinery in October 2015 to provide a local source of asphalt for road construction and repair in the Alaska Interior³⁵. The majority of the refined product produced by Petro Star will remain in Alaska, with some minor sales of refined product dedicated to some regions of Canada neighboring with Alaska. Petro Star supplies jet fuel to both military and civilian customers, with the majority of the civilian jet fuel being consumed at Ted Stevens Anchorage International Airport. Petro Star also supplies between 50% and 60% of the home heating fuel that is sold in the Interior, and supplies the Golden Valley Electric Association plant with naphtha for use as local power generation.

D. RIK's Role in Alaskan Commercial Refining

The State of Alaska's RIK has played a critical role in the development and continued operation of the Alaskan refining sector. All four commercial refineries in the state, the three currently operating refineries and FHR's North Pole refinery that closed in 2014, have had an RIK contract at various points in time. Three of these four refineries refined royalty oil, while a royalty contract backstopped financing for the fourth.

The State has a long history selling its North Slope RIK to the Tesoro refinery in Nikiski. The state supplied the Kenai refinery with ANS crude between July 1980 and January 1982, between January 1983 and December 1998³⁶, and recently between February 2014 and January 2016. In total, as of January 2016, the Kenai refinery has purchased 240.59 million barrels of Alaska North Slope royalty oil under eight separate RIK contracts.

Similarly, the State supplied FHR's North Pole refinery with royalty oil for 33 consecutive years between November 1979 and May 2014, and sold almost 490 million barrels of Alaska North Slope crude to the various owners of the North Pole refinery recently operated by FHR. The latest contract that State awarded to FHR intended to continue deliveries for an additional five-year term ending March 31, 2019, but terminated in June 2014 when FHR ceased refining operations.

The historical relationship between the sale of RIK and Petro Star's North Pole refinery is similar to the role played by royalty oil in FHR's North Pole refinery and Tesoro's Kenai refinery. The State sold North Slope royalty oil to Petro Star's North Pole refinery from December 1986 through December 1991. In total, the State supplied Petro Star's North Pole refinery with just over 3 million barrels of North Slope royalty oil under this five-year contract.

Perhaps the most interesting role played by a royalty oil contract was the 1992 contract with Petro Star Valdez Joint Venture. In mid-1991, Petro Star and its joint venture partners contacted DNR in order to secure a royalty oil contract for a proposed refinery in Valdez. DNR ultimately negotiated a ten-year contract with Petro Star and its joint venture partners to supply the proposed Valdez refinery with up to 30,000 barrels per day of royalty oil. With this contract in hand, the joint venture secured the needed financing and constructed the Valdez refinery. The royalty contract helped the joint venture secure financing by demonstrating guaranteed access to an on-going supply of feedstock. Ultimately, Petro Star

³⁴ Econ One report, page 24.

³⁵ See <http://www.petroleumnews.com/pnads/287375208.shtml>, Petroleum News, week of October 18, 2015.

³⁶ The State also supplied Tesoro's Kenai refinery with 22.1 million barrels of Cook Inlet royalty crude between January 1979 and September 1985.

Valdez Joint Ventures never took possession of a single barrel of royalty crude under the ten-year contract, preferring, rather, to secure its feedstock from the private market.

DNR believes that the proposed RIK contracts with Petro Star are crucial to meeting in-state demand for crude and to facilitate the continued operation of Petro Star's refineries, with the attendant positive implications on the economy of the state. Unlike the Tesoro Kenai refinery, which has access to waterborne crude oil and thus able to procure non-ANS crude oil, the Petro Star refineries can only access crude through TAPS. As ANS production declines, ANS producers capable of transporting such crude to destinations outside Alaska will have greater unused tanker capacity. In this scenario, they will prefer to keep their equity crude and compete more fiercely for more ANS crude from the small producers. As a consequence, the Petro Star refineries will find that securing the needed volumes of crude oil for the next years becomes less certain, with shorter-lived contracts. Additionally, given Petro Star's complete reliance on ANS crude, it will face a relatively costlier price for that crude. The U.S. West Coast refineries, tailored to run ANS, and facing diminishing ANS supplies, will keep ANS as a premium crude on the West Coast. Already, in-state sales of ANS are at a shrinking discount to USWC ANS prices (see values of the location differentials at Table 2). While Petro Star could probably obtain crude at higher prices, business challenges facing Petro Star have squeezed its estimated margins versus other refineries. Therefore, Petro Star may struggle to remain competitive while paying a relatively higher price for ANS oil. Another TAPS refiner, FHR, recently ended operation of its refinery, possibly due to low margins³⁷. In this way, the proposed RIK contracts with Petro Star for a combined term of five years will allow Petro Star a stable ANS supply through 2021 at a price that could help to maintain the economic viability of its refineries while maximizing the State revenues from the sale of its royalty.

E. Alaska's Fiscal Condition is Wedded to Oil and Gas

Both the economic and the fiscal health of Alaska are wedded to oil and gas. In 2015, the total market value of all goods and services produced in Alaska totaled \$52.8 billion³⁸. In 2014, approximately one out of every five of those dollars was generated by oil and gas.³⁹ Although having declined in value since fiscal year 2013 to fiscal year 2015, Table 3 shows that the revenues from the oil and gas sector accounted for and are projected to still represent the largest share of the Unrestricted General Fund Revenue. For the next five fiscal years (FY 2017 through FY 2021), which represent the combined terms of the two RIK contracts with Petro Star, the share of the Unrestricted General Fund Revenue coming from petroleum is projected to account for between 57% and 63%. Most notably, we can see in Table 3 that, despite the observed and projected reduction of the oil and gas royalties, their contribution to the Unrestricted General Fund Revenue remains vital, with projected shares of between 37% and 41% for the next five fiscal years. Oil and gas royalties become even more important in future fiscal years due to the projected continued low levels of oil and gas production tax revenues.

³⁷ Econ One report, page 42.

³⁸ U.S. BEA: <http://www.bea.gov/regional/index.htm>

³⁹ As of 06/16/2016, the U.S. Bureau of Economic Analysis has not yet published the contribution of the oil and gas extraction industry to the Alaska GDP for the year 2015.

Table 3: Oil and Gas Royalties and General Fund Unrestricted Revenues by Fiscal Year
(In millions of dollars)

<i>Fiscal year ---></i>	History			Forecast					
	2013	2014	2015	2016	2017	2018	2019	2020	2021
General Fund Unrestricted Non-Petroleum Revenue	\$576.5	\$627.3	\$568.6	\$535.7	\$541.8	\$558.8	\$573.3	\$583.7	\$598.1
Total Unrestricted Petroleum Revenue (TUPR)	\$6,352.0	\$4,762.8	\$1,687.9	\$801.1	\$704.7	\$787.5	\$872.7	\$938.9	\$1,007.5
Petroleum Property Tax	\$99.3	\$128.1	\$125.2	\$133.9	\$118.3	\$118.5	\$117.3	\$116.5	\$114.9
Petroleum Corporate Income Tax	\$434.6	\$307.6	\$94.8	\$0.0	\$30.0	\$105.0	\$135.0	\$165.0	\$195.0
Oil and Gas Production Tax	\$4,042.5	\$2,605.9	\$381.6	\$153.4	\$67.9	\$23.9	\$18.8	\$20.2	\$39.5
Oil and Gas Royalties-Net *	\$1,748.4	\$1,685.0	\$1,052.1	\$501.0	\$475.6	\$527.3	\$588.7	\$624.4	\$645.1
Other	\$27.2	\$36.2	\$34.2	\$12.9	\$12.9	\$12.9	\$12.9	\$12.9	\$12.9
Total Unrestricted General Fund Revenue (TUGFR)	\$6,928.5	\$5,390.1	\$2,256.5	\$1,336.8	\$1,246.5	\$1,346.3	\$1,446.0	\$1,522.6	\$1,605.6
TUPR as a share of TUGFR	92%	88%	75%	60%	57%	58%	60%	62%	63%
Royalties ** as a share of TUGFR	25%	31%	47%	37%	38%	39%	41%	41%	40%

Source: DOR Revenue Sources Book, Spring 2016. Numbers taken from Table 2-5 and Table A-3b.

* Oil and Gas Royalties-Net refers to the revenue from oil and gas royalties allocated to the General Fund and excludes the revenue from oil and gas royalties dedicated to the Permanent Fund.

** Royalties in this case refers to Oil and Gas Royalties-Net.

While the historical revenue generated by oil and gas royalties included those realized from sales of RIK under the RIK contracts in place at the time, the DOR forecast of the oil and gas royalty revenues shown in Table 3 considers the proceeds from the royalty in value and assumes that the most recent RIK contract (Tesoro 2014) remains in place until 2021. As stated previously, the Tesoro 2014 RIK contract expired in January 31, 2016. Now, given that the Tesoro 2016 RIK contract provides for larger volumes than the Tesoro 2014 RIK contract, and that the currently proposed RIK contracts with Petro Star involve the sale of additional ANS royalty volumes⁴⁰, DNR can expect larger dispositions of the ANS royalty volumes in kind over the next five fiscal years, which will result in even greater additional revenues. As a reference, in the period of fiscal years 2013 through 2015, the sale of approximately 24.8 million barrels (mmbbls) of ANS royalty oil in-kind translated into \$53.65 million of additional royalty revenue, which would not have been obtained had that royalty volume been taken as RIV. Although the potential additional revenue generated through RIK sales are small compared to the gap between the proposed budgets and the projected total Unrestricted General Fund Revenues in the next six fiscal years, it still represents a

⁴⁰ Additionally, the Tesoro 2016 and the two proposed Petro Star RIK contracts follow a similar pricing structure as the Tesoro 2014 RIK contract.

considerable source of revenue for the State.

F. RIK Oil Sale Procedure and Schedule

Before executing a contract for the disposition of RIK, the commissioner must find that the disposition is in the best interests of the State (11 AAC 03.010(b)). The commissioner establishes the terms, conditions, and methods of disposition of the State's RIK oil (11 AAC 03.010(a)). In addition, there exists a statutory presumption that taking RIK (AS 38.05.182(a)) with sale to in-state customers (AS 38.05.183(d)) accomplished through competitive means (AS 38.05.183(a)) is in the State's best interest. That being said, the State has many competing interests and the State's best interest may be served through a non-competitive disposition of the State's royalty in kind.

Given the statutory presumption that the State's best interest is served through a competitive disposition of royalty oil to in-state customers, DNR first sought to determine the level of interest on the part of in-state producers and refiners in purchasing the State's RIK oil. To gauge the level of interest in the market, DNR distributed an informal solicitation of interest in RIK oil in late-January 2015. Beyond simply gauging the market's interest in RIK oil, this solicitation outlined the State's desire to obtain "special commitments" that would meaningfully address the high cost of energy in Alaska or the need for a greater supply of crude oil for use in the state. This informal solicitation of interest was directly transmitted to five organizations: BP, ConocoPhillips, Petro Star, FHR, and Tesoro. Of these five, only two, Petro Star and Tesoro, currently use their in-state refining capabilities to make petroleum products for Alaska businesses and residents.

The informal solicitation generated five responses regarding the purchase of the State's RIK from BP, ConocoPhillips, FHR, Petro Star and Tesoro. Given that BP and ConocoPhillips operate in-state refineries that focus on lease activities only and that most of their crude production is sold out of state, they stated that they would be unable to meet the in-state commercial processing requirement set out in the informal solicitation, and would both require the ability to export RIK oil from the state. In order to permit the export of RIK crude, under 11 AAC 03.010, the commissioner would be required to "determine in writing that the oil, gas, or associated substances subject to export are surplus to present and projected intrastate domestic and industrial needs."⁴¹ Petro Star and Tesoro responded to the informal solicitation, as detailed below, with interest in volumes that, in combination, exceeded the projected volume of the State's royalty oil. Both stated that they were willing to comply with the in-state processing requirement. This response reflects domestic needs that negate the presence of a surplus needed to entertain an RIK sale to BP or ConocoPhillips of oil subject to export. In the case of FHR, since the company shut down all of its refining units at the North Pole facility in 2014, it had no interest in purchasing royalty oil from the State.

In response to its solicitation of interest, only Petro Star and Tesoro could potentially satisfy the in-state processing criteria. In addition, DNR's solicitation of interest also asked that the prospective buyers accept a maximum value of \$1.95 per barrel for the RIK differential, the value used in the Tesoro 2014 RIK contract⁴². Only Tesoro stated that it would accept this maximum value of the RIK differential. Further discussion with the two parties, Tesoro and Petro Star, indicated that competitive bidding would not likely yield the highest value to the State. First, although the initial volumes of royalty oil desired by the two respondents were very similar, Tesoro and Petro Star, initially, proposed contrasting netback pricing terms. While Tesoro expressed its willingness to continue with the same netback pricing methodology and RIK differential value as in the recent Tesoro 2014 RIK contract, Petro Star suggested

⁴¹ AS 38.05.183(d) places a similar requirement on the commissioner.

⁴² *Final Best Interest Finding and Determination for the Sale of Alaska North Slope Oil to Tesoro Refining & Marketing Company, LLC* (October, 2013): http://dog.dnr.alaska.gov/Royalty/Documents/RIKDocuments/FBIF_TSO_Contract_1_8_14.pdf.

pricing each barrel of RIK with a relatively small fixed premium over the weighted average RIV price.

Tesoro's approach to pricing concentrated on the value of the RIK differential to avoid future retroactive adjustments of the RIK price as a result of refiling by lessees or audits on the weighted average RIV price. Ultimately, this results in an uncertain difference between the RIK price and the weighted average RIV price, thereby highlighting the need of selecting a value for the RIK differential that will likely be low enough to compensate for any changes in the netback-pricing elements that may increase the weighted average RIV price compared to the RIK price over the life of the contracts. Figure 4 shows that, for 11 months during the period January 2008 to January 2016, the weighted-average RIV price was actually greater than the weighted-average RIK price. This difference in favor of RIV had a maximum value of \$1.79 per barrel of royalty oil. But, the last time that the weighted-average RIV price exceeded the weighted-average RIK price was in February 2011; and since March 2011, on average, RIK was consistently priced higher than RIV by \$1.92 per barrel. Given the relatively larger deduction of the marine transportation allowance included in the calculation of the average RIV price, the trend has been for the continuation of the positive price difference between RIK and RIV.

In contrast, while Petro Star's initial pricing proposal secured the fulfillment of the RIK price superiority through a specific premium over the RIV price, DNR determined that the value of this premium was not high enough to come close to match the *expected* price difference between RIK and RIV resulting from the maximum allowed value of the RIK differential (i.e. \$1.95 per barrel), as specified in the solicitation of interest. As a reference, the average price difference between RIK and RIV achieved in fiscal year 2015 was \$1.53 per barrel of royalty oil. Therefore, any proposal based on a fixed premium over the RIV price should approximate that observed value. In fact, the maximum observed price difference between RIK and RIV over the 97-month period (January 2008 to January 2016) was \$6.09 per barrel of royalty oil. In other words, DNR determined that agreeing to a proposed pricing mechanism based on a relatively small premium to the RIV price would have resulted in forgone additional revenues that could be expected to be much greater through the selection of a low RIK differential.

In this scenario of contrasting pricing proposals, a competitive disposition of the State's ANS royalty oil would have resulted in diminished value for the State. One potential bidder, Tesoro, had agreed to pay the established reserve price, an RIK differential of \$1.95, while the other potential bidder, Petro Star, had sought to use, through a relatively small premium over the RIV price, a much higher value of the RIK differential, albeit one that would guarantee the RIK price to exceed the RIV price. As a result, if DNR had made the RIK differential the bid variable, then in submitting a sealed bid Tesoro could have lowered its price, bid a higher RIK differential, and still had a good chance of having a higher value bid than Petro Star. If DNR had set a reserve price for the RIK differential of \$1.95 as a bidding condition, then it seemed likely that only one party would be interested-enough to bid.

DNR's policy is that the State has a duty beyond meeting a minimum necessary threshold when pricing an RIK barrel at least as much as an RIV barrel. This duty is to maximize the benefits of oil production to the citizens of Alaska. Based on this policy and on the low probability that competitive bidding would maximize total value to the State, DNR decided to separately pursue two non-competitive dispositions of its ANS royalty oil to Tesoro⁴³ and Petro Star, estimating that such type of disposition will generate higher expected royalty revenues than one done by competitive bid. At the time of the start of negotiations for the disposition of RIK oil to Tesoro, DNR also embarked on separate negotiations with Petro Star. One of the roadblocks for DNR in this process was Petro Star's initial reluctance to part from

⁴³ The analysis of the expected benefits from the non-competitive disposition of part of the projected ANS royalty oil to Tesoro for the period of fiscal years 2017 through 2021 can be found in the *Final Best Interest Finding and Determination for the Sale of Alaska North Slope Royalty Oil to Tesoro Refining & Marketing Company, LLC*, (March 14, 2016): <http://dog.dnr.alaska.gov/AboutUs/PublicNotices.htm#DivisionWide>.

its original pricing proposal. Failure to meet one of the main requirements of the solicitation of interest, namely a value for the RIK differential of at most \$1.95 or its equivalent under an alternative pricing methodology, meant an interruption of the negotiation process with Petro Star and the advancement in the agreement with Tesoro. By the time Petro Star transitioned into the pricing methodology included in the solicitation of interest, DNR had almost completed an agreement for the sale of RIK with Tesoro. Despite Petro Star's current concurrence with the pricing scheme established in the solicitation of interest, in DNR's view, a new potential competitive disposition was neither warranted nor likely advantageous to the State. Accordingly, DNR decided to proceed with the separate non-competitive dispositions of its royalty oil with Tesoro and Petro Star.

In DNR's view, as shown in Sections III and IV, Petro Star's concurrence with this pricing methodology ensures that, for the one-year term contract, (i) the sale of RIK oil relieves market conditions under 11 AAC 03.024(3); and that, for the subsequent four-year contract, which will need the approval of the Legislature, (ii) the State will receive a price for its royalty oil that provides the maximum benefit to the State under AS 38.05.183(e).

Consistent with his obligations under 11 AAC 03.040 and 11 AAC 03.020, this Preliminary Best Interest Finding represents the Commissioner's formal notification to the Alaska Royalty Oil and Gas Development Advisory Board of the intent to waive competitive bidding in its proposed disposition of royalty oil in kind, and that such disposition is intended to relieve market conditions and offer the maximum benefits to the citizens of the state.

The Commissioner also considered the criteria listed in AS 38.05.183(e) and AS 38.06.070(a). The Commissioner's analysis of these criteria is discussed in detail in following sections. As outlined in 11 AAC 03.060(a), an RIK contract must be awarded to the prospective buyer whose proposal offers maximum benefit to the citizens of the State.

Notice of the publication of the Preliminary Best Interest Finding and an invitation for public comment appeared in several newspapers including Alaska Dispatch News, Kenai Peninsula Clarion, and Fairbanks Daily News-Miner. A copy of the Preliminary Best Interest Finding and the proposed RIK contract were made available from the State by contacting:

Division of Oil and Gas
Attn: Alex Nouvakhov
550 W. 7th Ave, Suite 1100
Anchorage, Alaska 99501
Phone: (907) 269-8530
E-mail: alex.nouvakhov@alaska.gov

and it was also published on the Division of Oil and Gas website at: <http://dog.dnr.alaska.gov/>

A copy of the proposed RIK oil sale contracts and the State's informal letter of solicitation of interest are attached as exhibits to this Preliminary Best Interest Finding and Determination.

III. Discussion of Contract Terms

A. Price

The pricing strategy in the proposed sale, contemplated in the two separate RIK contracts with Petro Star, is intended to arrive at a value for the State's royalty oil that resembles the market value of a barrel of oil

sold in the state, at the point where ownership is transferred to Petro Star. In order to determine the monetary consideration the State receives for its royalty oil, the proposed sale uses a netback valuation methodology. The RIK netback value in the proposed sale is meant to represent the market value of ANS sold in the state as it enters TAPS or the regulated pipelines upstream of TAPS Pump Station No. 1.

Each element of the RIK netback value is discussed in greater detail below, but succinctly, there are five key elements to the netback value. The netback value begins by determining the value of royalty oil where the overwhelming majority of ANS is sold—the U.S. West Coast (USWC). In order to account for the difference in value associated with transactions on the USWC versus Valdez, a location differential⁴⁴ is subtracted (netted) out. Next, to account for the pipeline tariffs to ship royalty oil between the point of delivery on the North Slope and the Valdez Marine Terminal, pipeline tariffs are deducted. Fourth, an adjustment is made for the difference in quality between the royalty oil from the field in which the oil originated and the quality of the TAPS common stream received by the buyer. Finally, an adjustment is made to account for the value impact caused by the relatively small difference in the metered volume of oil put into the pipeline at TAPS Pump Station No. 1 and the metered volume of oil delivered to Valdez Marine Terminal. The per-barrel monetary consideration received by the state is represented formulaically as:

$$\begin{aligned} \text{RIK netback price} &= \text{ANS spot price} - \text{RIK differential} - \text{Taiff allowance} \pm \text{Quality bank adjustment} - \text{Line loss} \\ &= \text{ANS spot price} - \$1.95 - \text{Taiff allowance} \pm \text{Quality bank adjustment} - \text{Line loss} \end{aligned}$$

1. ANS Spot Price

Just like the Tesoro 2014 and Tesoro 2016 RIK contracts, the proposed RIK contracts with Petro Star define “ANS Spot Price” as the monthly average of the daily high and low assessments for the month for ANS traded at the USWC as reported by Platts Oilgram Price Report and Reuters online data reporting service.⁴⁵ The average of Platts and Reuters also forms the basis for the prevailing value calculation used by Alaska’s Department of Revenue (15 AAC 55.171 (m)).

If DNR or Petro Star determines that the true market value of ANS at the U.S West Coast is no longer accurately reflected by the monthly average of the Platts and Reuters daily mid-point assessment, then a good faith effort will be made to arrive at a mutually agreeable alternative source to establish the ANS Spot Price. If such a mutually agreeable alternative source cannot be identified, “the State will select the alternative source that most reliably represents the price for ANS.” The ANS Spot Price calculation does not include days in which either of the two reporting services does not assess the value of ANS on the USWC.

2. \$1.95 (“RIK Differential”)

As described previously, the State intends to use the currently proposed \$1.95 per barrel RIK differential mainly for two purposes. First, this value of the RIK differential will be used to satisfy the statutory

⁴⁴ In the case of RIK oil, the location differential is denominated the “RIK differential.”

⁴⁵ The ANS Spot Price in the 2014 FHR RIK contract (entered in early 2013) was the arithmetic average of Platts, Telerate, and Reuters. However, on August 2, 2013, Telerate ceased publishing an ANS USWC spot price. Under the terms of the FHR contract, after the loss of Telerate, the ANS Spot Price in that FHR contract became the simple average of Platts and Reuters, just as is the case for the 2014 Tesoro RIK contract.

condition for disposing of the State's royalty oil in kind: that the RIK price will be at least as much as the weighted average RIV price. While simple in statement, achieving this standard is challenging due to the way lessees report the RIV price. The RIV valuation methodology, i.e., the final value of the State's RIV, is defined by the lease contract provisions and the many royalty settlement agreements that further refined these provisions. In some cases, the price received by the State for RIV is not known until the lessees' royalty filing is audited several years after the initial filing and when the lessees refile their royalty reports. Thus, in order to satisfy its mandate, the State must choose a price term when selling its RIK that either directly references the volume-weighted average price of RIV subject to retroactive adjustment when the lessees refile, or anticipate the monthly difference between the reported and final price of RIV. As stated previously, and described in more detail in Section IV below, DNR has determined that the expected RIK price in the contracts proposed will be higher through the use of the proposed value of the RIK differential than the expected RIK price resulting from the use of a proposed relatively small premium over the final weighted average RIV price.

In its projection for ANS royalty oil available to take in kind for the period of fiscal years 2017 through 2021, DNR expects that approximately 90% of that royalty oil will come from leases to which the terms of the different RSAs are applied. In other words, if DNR decided to take all of its expected royalty in value, the valuation of approximately 90 out of every 100 barrels will use the marine transportation allowance as prescribed by the applicable RSA as a component of the netback pricing formula. In calculating their royalty obligation, the producers are allowed to deduct either their actual and reasonable costs or a formula-calculated proxy of their costs of transporting the State's RIV from the port of Valdez to the USWC. In attempting to achieve the required RIK price superiority over RIV for any projected royalty barrel to be taken in-kind from those leases subject to the RSAs terms, and holding the other elements of the netback pricing formula constant, DNR compares the currently proposed value of the RIK differential to the *expected* weighted average marine transportation allowance.

DNR anticipates that the average cost to physically transport a barrel of ANS oil from the port of Valdez to the USWC will increase, or at least remain at the recent levels, in the period FY 2017 – FY 2021 and beyond, as a result of two factors. The first factor is the expected continued decline in ANS oil production and the consequent lower carried volume of ANS oil by tankers. The total marine transportation cost includes both fixed and variable costs. Variable marine transportation costs are those expenditures that are directly related to and dependent on the carried volume of ANS oil. In turn, fixed marine transportation costs are the expenditures that do not vary with the carried volume of ANS oil. Fixed costs make up a large portion of the marine transportation allowance and include the expenses associated with fleet depreciation, return on capital, minimum staffing requirements, and overhead. These costs in the short run are unaffected by the total volume of crude oil transported. As tankers carry a lower volume of ANS oil, the fixed nature of many costs will make the *average* marine transportation cost (the total marine transportation cost divided by the total barrels of ANS oil carried) rise. The second factor that could further increase the average transportation cost is the introduction of federal regulations⁴⁶ requiring the use of a marine fuel with relatively lower sulfur content. Despite the recent declining trend in the overall price of fuel used by tankers, the marginal cost of transporting a barrel of ANS oil becomes higher due to the more expensive nature of such low-sulfur fuel oil when compared to its high-sulfur alternative. As Figure 6 shows, since the deduction resulting from the proposed value of the RIK differential is already smaller than the *current* deduction from the marine transportation allowance, even at the current scenario of lower fuel oil prices used by tankers, DNR maintains that the necessary price condition for disposing of

⁴⁶ The Environmental Protection Agency (EPA), in a rule published on April 30, 2010, adopted a regulatory program to implement Annex VI to the International Convention for the Prevention of Pollution from Ships (a treaty called "MARPOL") in the United States, including engine and fuel sulfur limits. All vessels subject to MARPOL will be required to utilize fuel oil with a sulfur content not exceeding 1% (10,000 ppm) while operating in the North American Emission Control Area (ECA).

the State's royalty oil in-kind will be satisfied in the period FY 2017 – FY 2021. In line with DNR's expectation, Table 2 and the Fall 2015 Revenue Sources Book show DOR's projections of the marine transportation cost⁴⁷, which are used in the calculation of the production tax liability for producers who physically transport ANS oil from the port of Valdez to the USWC. These marine transportation costs are still considerably higher than the proposed RIK differential.

The second purpose of using the proposed RIK differential of \$1.95 per barrel of royalty oil is to resemble the average market value of the location differential used for in-state sales of ANS crude oil. In pricing the oil sold in the state, the producer and buyer agree on a negotiated deduction with respect to the spot price of ANS oil sold in the USWC. Since oil sold to in-state refineries in Alaska is not transported to the West Coast, the location differential and the RIK differential need not equal the average cost of physically transporting oil to the West Coast. A refinery dependent on ANS as its only source of crude would bear a relatively inelastic demand and thus be compelled to offer ANS producers a netback price at a premium to what these producers would obtain from selling ANS outside of Alaska or from selling it to companies capable of transporting that crude out of the state. In contrast, for an ANS producer, the maximum discount to the ANS price that this producer would offer is the marginal marine transportation cost to its destination. Therefore, the actual location differentials from these negotiated contracts, in which the State is not a party, are bounded by these values, differ considerably, and depend mainly on the flexibility of the volumes sold, the length of the contract, and the market power exercised by each party. Additionally, as ANS production declines, a fleet built to transport a larger volume will find increasing excess capacity. The marginal cost of transporting barrels decreases, and the incentive to purchase smaller producers' barrels to fill those tankers increases. As a result, in-state refineries will have to compete for increasingly scarce ANS, which will be reflected in lower values of the location differential and, consequently, in a higher netback price for ANS oil. This illustrates that Alaska has its own oil market dynamics.

As stated previously, the State should balance the duty to maximize the value of its resources against charging an onerous price to an in-state refiner. This balancing requires more than just ensuring that the RIK price be at least as much as the expected weighted average RIV price. Since the State seeks to maximize the benefits of oil production to the citizens of Alaska, DNR sought an RIK differential that approximates the location differential used for other in-state sales of oil. This will also increase the resulting price difference (or premium) of RIK over RIV.

The use of a price structure that does not directly reference RIV evolved from both FHR and Tesoro's aversion to retroactive adjustment. With the exception of FHR's past two RIK contracts, the Tesoro 2014 and Tesoro 2016 RIK contracts, most past RIK sale agreements contained price provisions that allowed DNR to retroactively adjust the price of royalty oil when the lessees filed their final RIV value. Such retroactive adjustments complicated the refineries ability to price refined products when they were sold. To overcome this, the proposed Petro Star RIK contracts contain provisions that contain some limits on adjustments to prices for oil already delivered. These contracts include a sufficiently low value of the RIK differential that enables DNR and Petro Star to agree to limit such retroactivity to changes caused by refileing of royalty reports or audits while satisfying the State's objective to obtain more revenue than if royalty were taken in-value.

3. Tariff Allowance

The Tariff Allowance provides an additional deduction from the ANS Spot Price equal to the sum of the ownership-weighted average minimum interstate TAPS tariff filed with the Federal Energy Regulatory Commission (FERC), plus any tariffs on file with FERC for shipment of royalty oil on pipelines from

⁴⁷ Table 2 shows marine transportation costs up to 2021. In Appendix B1 (page 91), the 2015 Fall Revenue Sources Book includes the following projections for years 2022 to 2025: \$3.75, \$3.80, \$3.86, and \$3.92.

fields (units) on the North Slope upstream of Pump Station No. 1. Under the proposed RIK contracts with Petro Star, DNR has the option of providing royalty oil from any ANS unit⁴⁸, and the additional allowance for tariffs paid on pipelines upstream of TAPS Pump Station No.1 is intended to match a similar deduction taken by the lessees on RIV from those units.

The Tariff Allowance is one of the elements of the price term in the proposed RIK contracts with Petro Star that is subject to retroactive adjustments, limited to eight years. The Tariff Allowance may be adjusted if the tariff used in the calculation of the Tariff Allowance is changed (or subject to a refund order) by FERC at a later date.

4. Quality Bank Adjustment

The Quality Bank Adjustment is a positive or negative number that reflects the value of different streams of crude oil that are shipped in TAPS. The Quality Bank is administered by the owners of TAPS and regulated by the FERC. Oil tendered for shipment at TAPS Pump Station No. 1 is produced from several different production units and the shippers of oil of lesser value must reimburse the shippers of oil of greater value for the degradation of value of the comingled stream—the value that the shippers receive when they sell the oil. Similarly, the refineries in North Pole and Valdez also take oil out of TAPS, extract the valuable components of the oil in manufacturing petroleum products, and re-inject into the pipeline a mixture of lower valued components. The return streams from the refineries bear a quality bank payment to each of the owners of the passing TAPS stream.

The Quality Bank Adjustment in the proposed RIK contracts with Petro Star is calculated as the difference of the value of royalty oil where it is tendered at the point of sale—either at TAPS Pump Station No. 1 or at the entry into a pipeline upstream of TAPS Pump Station No. 1—and the value of the oil in TAPS downstream of the Petro Star Valdez refinery. Both proposed RIK contracts provide an example for how the Quality Bank Allowance is calculated for RIK oil produced at Lisburne. The Quality Bank Allowance is another element of the price term in the proposed contracts that is subject to retroactive adjustments, limited to eight years. DNR may readjust the Quality Bank Allowance if the Quality Bank administrator recalculates any of the values used in the calculation of the Quality Bank Allowance.

5. Line Loss

Line loss is a per barrel amount that is calculated as

$$0.0009 \times (\text{ANS Spot Price} - \$1.95 - \text{Tariff Allowance} \pm \text{Quality Bank Adjustment})$$

The line loss provision accommodates the impact on value caused by the small difference between the metered volume delivered into TAPS at Pump Station No. 1 and the metered volume delivered to the Valdez Marine Terminal.

B. Quantity

For the one-year term contract, DNR seeks to sell ANS royalty oil in kind to Petro Star from a minimum of 18,800 bpd to a maximum of 23,500 bpd. Subsequently, under the four-year term contract, DNR

⁴⁸ Unit is a term defined in regulation (11 AAC 83.395) as “a group of leases covering all or part of one or more potential hydrocarbon accumulations, or all or part of one or more adjacent or vertically separate oil or gas reservoirs, which are subject to a unit agreement.” In common use, the term “unit” may sometimes be equated to the term “field.”

proposes to sell ANS RIK to Petro Star according to amounts specified in Table 1. As discussed above, the maximum volume of oil sold under the proposed sale is set such that it is highly likely the State will be able to fulfill its quantity obligations to all RIK buyers. If Petro Star and Tesoro nominate the amounts contemplated under their corresponding RIK contracts over the period August 1, 2016 to July 30, 2021, the sum of those nominations could represent between 70% and 99% of the State's total forecast volume of North Slope royalty oil. DNR reserves the right, at the Commissioner's discretion, to limit the quantity of oil sold in the proposed sale such that the total royalty oil committed under all RIK contracts is not more than 95% of the total monthly North Slope royalty oil.

The maximum number of barrels per day outlined above represents an upper bound on the actual amount of royalty oil delivered daily under the proposed contracts. On the supply side, the number of barrels of royalty oil disposed of under these RIK contracts is limited by the State's agreements with its lessees – the State's ability to nominate royalty oil is bound by production and the Commissioner's discretion to nominate no more than 95% of total monthly North Slope royalty oil under all of its RIK contracts.

On the demand side, the delivered volume of royalty oil may be reduced through a quantity adjustment provision. The two proposed consecutive RIK contracts with Petro Star allows the buyer to nominate a volume of oil that falls inside of an agreed upon nomination range, according to the amounts displayed in Table 1. This allows Petro Star to adjust its royalty purchase on a monthly basis in a fashion that will allow Petro Star to purchase a volume of royalty oil that is consistent with its expectations about alternative crude oil supplies from private sellers and future demand for its refined products.

Moreover, in the event that the combined nominations from all RIK buyers are less than 95% of the ANS royalty oil available to take in-kind, the proposed RIK contracts with Petro Star (as well as the Tesoro 2016 contract) allow the RIK buyer to nominate an additional amount of ANS royalty oil. The actual amount of such additional royalty will be determined by the State in relation to the combined original nominations of all RIK buyers and the upper limit represented by 95% of the ANS royalty oil available to take in-kind. This additional royalty oil delivered to the RIK buyer is another element in the quantity provision whereby the RIK buyer could potentially obtain more royalty oil, and the State could sell as much RIK as possible.

In addition to the flexible quantity provision contained in the proposed RIK contracts with Petro Star, the buyer also retains the ability to temporarily reduce nominations below the above specified range to manage for planned refinery turnarounds—extensive and routine maintenance projects that could temporarily shut-in production—and provide an additional mechanism to terminate the contract. If Petro Star fails to nominate or nominates zero barrels for three consecutive months, and does not invoke the “refinery turnaround” provision, then the contract terminates. The “refinery turnaround” provision allows the buyer to nominate zero barrels for up to three consecutive months without termination of the contract. Thus, Petro Star can use this mechanism to terminate the contract and pursue alternative crude supply agreements.

C. General Discussion of Price and Quantity Terms

On the whole, the price and quantity terms in the proposed contracts offer attractive terms for Petro Star while also fulfilling the State's objectives. As discussed above, in order for the proposed RIK sale to relieve market conditions under 11 AAC 03.024 (3), (i) the royalty oil disposed of needs to be used to meet in-state needs for crude oil, and (ii) the sale of RIK needs to generate revenue at least as great as what would have been realized for the average barrel of RIV. As explained previously, DNR's analysis indicates that the proposed contracts will meet this standard. DNR also has a statutory duty to maximize the benefits from oil production for the citizens of Alaska. As discussed in detail in Section IV. A., DNR anticipates that the expected RIK price obtained through the proposed RIK differential will be greater

than the weighted average RIV price over the combined period of both contracts.

The proposed RIK contracts with Petro Star allow the realization of additional revenues by preserving DNR's ability to nominate RIK barrels from areas that generate the largest royalty volumes and would have yielded the lowest RIV price, which will necessarily be less than the volume-weighted average value. The difference between the RIK and RIV amount is additional revenue to the state that is preserved under the proposed contracts.

Finally, it is also worth noting that while it is the State's expectation that each barrel of RIK oil will be sold for more than its RIV amount, the price may not necessarily match its market value. As has been discussed, under the terms of the proposed contracts, the State offers Petro Star flexible quantity terms, as well as supply and price certainty. Petro Star's willingness to enter into the proposed contracts, modeled after the recently expired Tesoro 2014 RIK contract evidences that the terms offered by the state are no more onerous than those the buyer could have negotiated in the marketplace.

D. Other Contract Terms of Interest

1. Contract length

In its informal solicitation of interest, DNR sought to gauge potential demand for ANS royalty oil for a one-year or a multi-year contract, with a maximum length of five years. In past RIK contracts, such as the FHR 2004, DNR entered into longer-term agreements lasting ten years. The expected ANS royalty volumes were large enough back then to easily meet in-state refinery demand. Given the observed and expected decline of ANS production and the associated continued decline in ANS royalty oil available to take in kind, the possible overestimation of the projected volumes in the long term could imperil DNR's ability to fulfill its volumetric commitments to the buyers of RIK. Offering contracts with lengths shorter than ten years reduces the risk that overestimating the State's royalty oil will require prorated deliveries to the RIK buyer. Moreover, this shorter contract terms will also allow DNR to adjust the RIK contract pricing terms to match changes in the ANS market. For instance, if the majority of the RIV pricing terms were to change because a different reporting service were providing the assessment of the destination value of ANS at the USWC, DNR would seek to negotiate a similar change to the RIK pricing terms.

2. Force Majeure

DNR will make commercially reasonable efforts under its agreements with its lessees to accommodate a temporary reduction in the volume of RIK oil delivered to Petro Star if the reduction is necessitated by a Force Majeure event. The volume of royalty oil will be reduced by an amount equal to the reduction in Petro Star's requirements that is a direct result of the Force Majeure event. Petro Star will, however, accept delivery of all royalty oil nominated by the state under the proposed contracts. Importantly, changes in commercial or financial markets impacting the price of crude or refined petroleum do not constitute Force Majeure events. Volumes cannot be altered, and performance of other contract provisions cannot be suspended, due to changes in market conditions.

3. Retroactivity

The key terms in the proposed contracts subject to retroactive adjustments are the terms addressing the pipeline tariff allowance and the quality bank adjustment. If a tariff which has been used in the calculation of a Tariff Allowance is changed or subject to a refund order by the FERC, the Tariff Allowance will be recalculated using the changed FERC-ordered tariff, and the royalty oil price will be retroactively adjusted accordingly, but any such retroactive change will be limited to a period of eight years. Similarly, if the stream values used in the calculation of the Quality Bank Adjustment are

recalculated by the Quality Bank administrator, the Quality Bank Adjustment will be recalculated and royalty oil price will be retroactively adjusted accordingly, also limited to a period of eight years.

4. Security

When the State enters into a sale of RIK oil, the State is exposed to the risk that the buyer will default on its obligations to pay for the royalty oil delivered to, and nominated on the behalf of, Petro Star. There are two key elements of the “default risk” to which the state is exposed in an RIK sale. The first element is the total loss from royalty oil already delivered to Petro Star; the second is the so-called “denomination” risk. Under the proposed RIK contracts, DNR would be unaware of the buyer’s inability, or unwillingness, to pay for oil already delivered for up to 8 calendar days after the final delivery of the month. Assuming an immediate move on DNR’s part to declare the contract in default, the State could deliver up to 39 calendar days of royalty oil before it could declare the buyer in default (31 days of delivery, 5 calendar days to bill, and three calendar days for payment). The revenue from these 39 days of royalty oil would, in the absence of security or litigation, be a total loss.

In addition to this total loss, the State is also exposed to the losses that would likely stem from a distressed sale of previously nominated royalty oil – the “denomination risk.” In order to fulfill its obligations under the proposed contracts, the DNR must alert upstream producers of its intent to take RIK at least ninety days ahead of the date of delivery (i.e., it must nominate oil at least ninety days in advance). Thus, should the buyer default, DNR will have already nominated at least 90 days of RIK oil consistent with its obligations under the sale contracts. The amount consisting of 90 days of royalty oil must be disposed of by the State, likely at distressed prices.

In order to help insulate the State from the default risk that an RIK disposition generates, the State requires that either a letter of opinion from a financial analyst approved by the State is submitted to the State each year, or Petro Star provides an annually renewed, continuously maintained stand-by letter of credit or surety bond equal in value to 50 days of royalty oil. In order to waive the requirement for a letter of credit or surety bond, the buyer, or guarantor, must submit to a full review of the financial health of the buyer, or guarantor. If the financial analyst finds that the buyer’s, or guarantor’s, long term (and short term, if available) credit rating is likely to fall below, either Standard and Poor’s BBB-, Moody’s Baa3, or DBRS’ BBB (low) at any time during the next twelve months, then the state will immediately require an irrevocable stand-by letter of credit or surety bond.

5. In-State Processing

Under the proposed RIK contracts, Petro Star is bound to use “commercially reasonable efforts” to manufacture refined petroleum products from the State’s RIK oil in Alaska. While the spirit of this provision is attractive from the State’s perspective, it is unlikely to materially impact the behavior of the RIK buyer. Petro Star currently sources ANS crude oil from other North Slope suppliers, and the royalty oil sold under these contracts is likely to complement or even possibly displace some of these volumes.

6. Employment of Alaskans and Use of Alaska Companies

Petro Star agrees to employ Alaska residents and Alaskan companies to the extent they are available, willing, and at least as qualified as other candidates for work performed in Alaska in connection with the proposed sale.

7. Dispute Resolution

In the event that a dispute arises, both parties may avail themselves of the dispute resolution mechanism

contained in the proposed contracts. The dispute resolution mechanism can be triggered by either the State or Petro Star by giving notice of the dispute to the other party. Within 60 days of providing notice of the dispute, both parties shall submit their arguments and evidence to the Commissioner. After having received the arguments and evidence concerning the dispute from the parties, the Commissioner shall adjudicate the dispute, and the finding shall be considered a final administrative order. Both the State and Petro Star agree to abide by the findings of the Commissioner provided that the decision is “supported by substantial evidence in light of the whole record.”

8. Proration

Under the terms of the proposed contracts, the State reserves the right to prorate the Sale Oil that has been nominated for taking in kind. In the event that DNR is unable to supply the total volume of oil initially nominated by Petro Star and all other RIK buyers, DNR has reserved the right to prorate the nominated volumes of all RIK buyers in a proportional manner, where the proportion for each RIK buyer is the ratio of the Sale Oil nomination for that buyer to the sum of the Sale Oil nominations for all RIK buyers. As indicated before, DNR reserves the right to limit the total quantity of oil sold under all RIK contracts to 95% of the total monthly North Slope royalty oil.

Additionally, in the event that the sum of all initial nominations by all RIK buyers is less than 95% of the ANS royalty oil available to take in-kind, and the sum of all additional nominations by all RIK buyers exceeds such upper limit, then the State will enforce the proration of such additional demand for ANS royalty oil. The actual additional royalty oil delivered to the RIK buyers will be determined by the number and original amounts of the additional nominations, and also by the total additional royalty oil available.

IV. Analysis of State Benefits

A. Cash Value Offered – AS 38.05.183 (e)(1)

As described in Section III.A.2, under the terms of the proposed RIK contracts, the State estimates that it will receive a price for its RIK oil that will be greater than the price it would have received if it elected to keep its royalty oil in-value. This is due mainly to the difference between the proposed value of the RIK differential and the expected value of the marine transportation allowance to be used in the valuation of the vast majority of the forecasted ANS royalty volume. This difference is attained when the value of the RIK differential approximates the expected market value of the location differential used for in-state sales of ANS oil.

The RIK differential deduction and the marine transportation allowance represent only one component in the netback pricing formulas of RIK and RIV, respectively. The remaining components of those formulas (namely, the destination value, pipeline tariff deductions, line loss deductions and quality bank adjustments) also play a role in pricing RIK and RIV, especially since the valuation methodologies used in RIV are not necessarily equal to those used in RIK. In that sense, it is theoretically possible that the values of those remaining components may reduce some, if not all, of the initial price superiority of RIK over RIV, which is mainly obtained through the difference between the proposed RIK differential and the expected marine transportation allowance.

In the period from January 2008 to January 2016, the RIK differential was indeed the major contributor to the price superiority of RIK versus RIV. Figure 9 below shows the difference of each of the netback pricing elements between RIK and RIV for the period of analysis for the royalty volumes in Prudhoe Bay Unit. This graph displays the largest positive values for the difference between the RIK differential and the marine transportation allowance, meaning that the deduction resulting from the former was smaller

than that used for RIV valuation. Assuming that the other netback pricing elements are equal, this positive difference translates into a higher netback price for each RIK barrel than for each RIV barrel.

Figure 9 further shows that the difference in values of the other components (destination value, quality bank adjustments, tariff allowance, and line losses) in the RIK versus RIV formulas enhanced the initial advantage obtained through the RIK differential in some years, but also reduced it in others. This is particularly significant in the case of the destination value; that is, the reported price of ANS in the USWC. For example, in the years 2009-2012, Figure 9 shows that the RIK destination value was (on an annual average basis) lower than its RIV counterpart, thereby generating negative values in the graph. In other words, the valuation of the ANS crude at the USWC contemplated in the previous RIK contracts was lower in those three years than the valuation dictated by the RSA terms. On an annual average basis, in 2009, this negative difference was large enough to negate the advantages obtained from the other netback pricing elements, especially the RIK differential. In this way, the resulting RIK netback price for 2009 was lower than the RIV netback price by \$0.23 per each royalty barrel. In Figure 8, from January 2009 to February 2011, the different assessments of ANS at the USWC for each RIK and RIV barrel were large enough, in favor of RIV that for 10 months during this sub-period the resulting RIK netback price was actually lower than its RIV counterpart. This phenomenon arose from the different ways that the destination values are calculated for each RIK and RIV barrel. In the case of the recently approved Tesoro 2016 RIK contract, the destination value is the monthly average of the daily average ANS price assessments reported by Reuters and Platts⁴⁹. In turn, the calculation of the destination value for the great majority of royalty oil taken in value⁵⁰ follows the methodologies prescribed in the various RSAs. In particular, BP uses only the ANS USWC price assessment reported in Platts. ConocoPhillips uses an average of the ANS USWC price assessment reported by Platts and Reuters. ExxonMobil uses a market basket of crude values—including Brent, WTS, LLS, ANS, WTI, Isthmus (a Mexican crude), and Line 63 (a California crude)—as reported by Platts. The ExxonMobil market basket is constrained to be no greater than the Platts reported ANS USWC value plus fifty cents and no less than Platts reported ANS USWC value minus fifty cents. In sum, the RIV volume weighted average destination value is driven more strongly by Platts reporting than the destination value in the proposed RIK contracts.

⁴⁹ The RIK contract with FHR that started in 2004 and ended in March 2014 used the average of the ANS spot price reported values of Reuters, Platts, and Telerate. However, once Telerate stopped providing this information, the destination value was calculated using the values from the other two firms.

⁵⁰ As stated previously, during this 97-month period, royalty taken in kind came primarily (98.93%) from leases to which the terms of the RSAs were used. In fact, since September 2010, this percentage has been at least 99.8%. As a result, the most relevant comparison of the value of RIK is with respect to the value of RIV from those leases to which the RSAs terms were used.

Figure 9

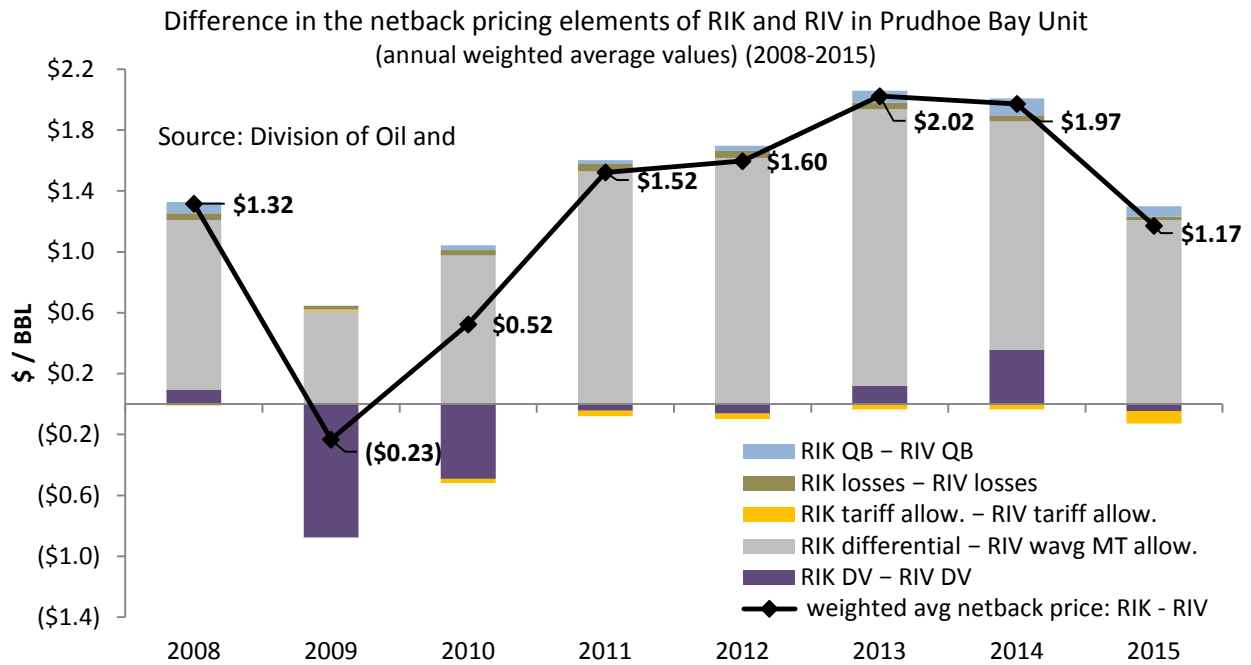
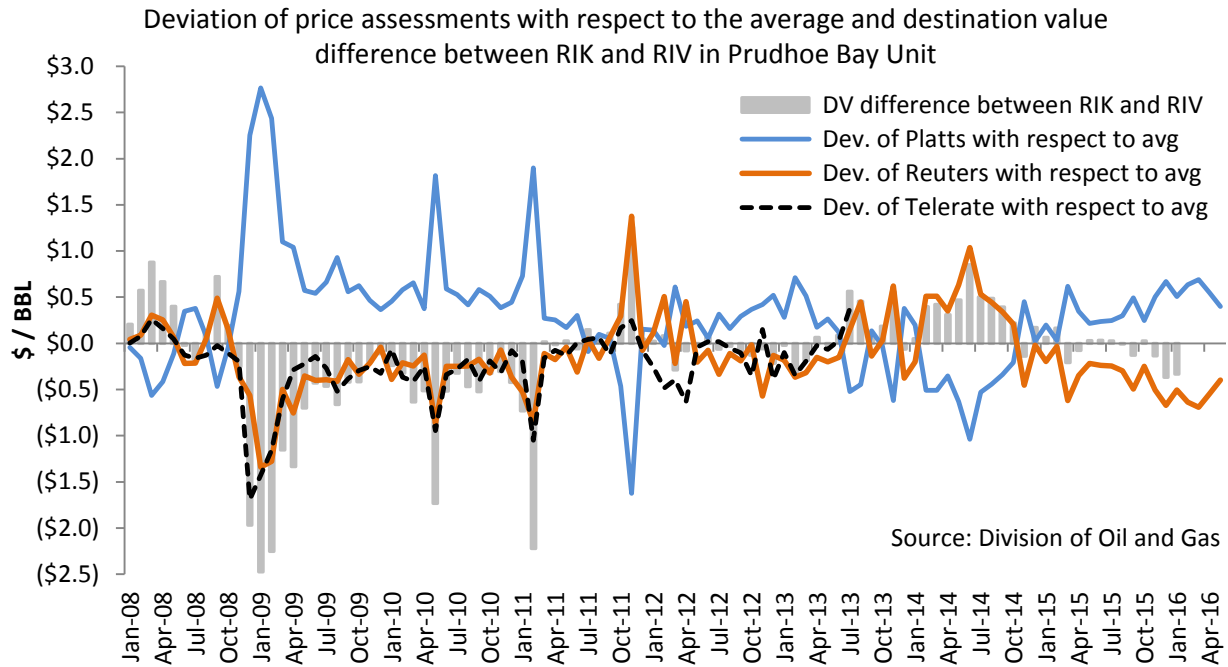


Figure 10 below presents the monthly deviations of the price assessments reported by Platts, Reuters, and Telerate with respect to their monthly average in comparison with the monthly difference in the destination values between RIK and RIV. Over the period January 2008 to May 2016, the price assessments of such reporting firms vary in both directions with respect to the average. In other words, except for the period October 2008 to July 2011, there is not a consistent or lasting difference in the reported values of one firm with respect to the others. From October 2008 to July 2011, Platts consistently reported higher ANS values than Reuters and Telerate. As stated previously, since most of the RIV destination value is driven by Platts, this resulted in an RIV destination value higher than RIK. However, from August 2011 to October 2015, this difference is no longer observed but also the deviations became less pronounced. Generally, even when variation in the price assessments reported by Platts and Reuters, as the one observed from October 2008 to July 2011, is still possible during the combined duration of the two proposed RIK contracts with Petro Star, the value of the RIK differential is expected to counteract any negative impact of such differences in assessments. Moreover, even if this turns out to be insufficient to guarantee the price superiority of RIK over RIV, the proposed contracts contemplate the modification of the destination value calculation to better reflect the price of ANS at the USWC.

Figure 10



With respect to the average annual values of the other components of the netback pricing formulas observed in Figure 9, that graph shows that although the deduction resulting from the tariff allowance used in the RIK valuation was greater than its equivalent for RIV, as indicated by the negative values, they were negligible. Similarly, in terms of the quality bank adjustments and line losses, although positive, these differences were also negligible.

Since DNR expects to achieve netback price superiority of RIK over RIV through the value of the RIK differential over the period of the proposed RIK contracts, it can ensure the highest possible revenue through the sale of the State's royalty oil in kind instead of choosing the RIV option. Maximizing cash value is consistent with the State's obligations as mandated in 11 AAC 03.026 and 11 AAC 03.024. Under the proposed contracts, the State would supply Petro Star amounts of North Slope royalty crude oil as described in Table 1. Based on the difference between the proposed value of the RIK differential and the projected marine transportation costs from Table 2, Table 4 below illustrates that, for the combined length of the two proposed RIK contracts with Petro Star, the State can expect between \$29.9 million and \$37.4 million in revenue that will be in addition to what would have been obtained had this proposed royalty volume been taken in value. The calculation of these numbers assumes that Petro Star will continuously make nominations within the proposed boundaries of initial nominations; that the royalty available to take in kind will be enough to satisfy Petro Star's nominations; and that any possible changes in the quality bank adjustments, tariff deductions, line loss, and destination value that might reduce the benefit brought about by the RIK differential will account, on average, for 22%⁵¹ of the difference between the marine transportation allowance and the value of the RIK differential.

⁵¹ In the period January 2008 to January 2016, the combined effect of the differences in the destination value, tariff allowance, line losses, and quality bank adjustments for RIK and RIV on average reduced the difference between the RIK differential and the marine transportation allowance by 22%. The maximum reduction occurred in January 2009, with a decrease of 4.5 times the initial advantage obtained through the RIK differential. However, since May 2011, these combined effects became considerably smaller and even positive, thus enhancing the previously mentioned initial advantage. Furthermore, assuming now that the future combined effects of all the netback pricing

Table 4: Expected Additional Revenue from the proposed RIK sale over Revenue from RIV
(Source of projected marine transportation cost: DOR Revenue Sources Book, Fall 2015)

Period	Marine transp. cost (\$/bbl)	78%*(marine trans. cost - \$1.95) (\$/bbl)	Min. nomination (in barrels per day)	Max. nomination (in barrels per day)	Additional revenue based on minimum nomination	Additional revenue based on maximum nomination
Dec 2016 to Nov 2017	\$3.37	\$1.11	18,800	23,500	\$7,600,351	\$9,500,439
Dec 2017 to Nov 2018	\$3.47	\$1.19	16,400	20,500	\$7,097,002	\$8,871,252
Dec 2018 to Nov 2019	\$3.55	\$1.25	13,200	16,500	\$6,012,864	\$7,516,080
Dec 2019 to Nov 2020	\$3.60	\$1.29	10,800	13,500	\$5,087,254	\$6,359,067
Dec 2020 to Nov 2021	\$3.70	\$1.37	8,400	10,500	\$4,185,090	\$5,231,363
<i>total ---></i>					\$29,982,560	\$37,478,201

B. Projected Effect of the Sale on the Economy of the State

The proposed RIK sale will provide the State, during the course of the sale, an estimated \$29.9 million to \$37.4 million in revenue additional to what would have been obtained through the selection of these ANS royalty volumes in value. The sale may also help facilitate the continued operation of the refineries at North Pole and Valdez with the economic benefits that accompany such operations. The North Pole and Valdez refineries can process up to 82,000 bpd of crude, with the majority of Petro Star's refined products consumed in Alaska. The Valdez refinery transports jet fuel and distillate to the Anchorage area on barges at a cost of \$0.10/gallon. It also trucks refined product from Valdez to the Fairbanks area at \$0.20/gallon. The North Pole refinery also sends product to Anchorage and the North Slope Borough via truck⁵². Overall, Petro Star's refineries employ 44⁵³ Alaskans in full-time, high paying positions. In addition, it is estimated that the Petro Star refineries contributed, as of 2014, approximately \$25 million of value added to the State's economy, represented by wages, employee benefits, profits, and economic impacts on the businesses that the refineries and their employees help support⁵⁴. As was noted above, by entering into the proposed contracts, Petro Star has signaled that the total value derived from the RIK contracts is at least equal to that which could be secured from the private market. Insofar as the incremental value in the proposed contracts helps facilitate continued operations at the North Pole and Valdez refineries, the proposed contracts benefit the Alaskan economy.

C. Projected Benefits of Refining or Processing the Oil in Alaska

The proposed sale of royalty oil will help ensure continued in-state processing with its potential price and labor market benefits. As discussed in Section II. D, the continued operation of the Petro Star refineries is increasingly challenged by their complete reliance on ANS as its only source of crude, their dependence on TAPS for returning the crude's lower-end components, and the increased competition for ANS crude they have to face as North Slope production declines. In this scenario, the proposed sale of RIK intends to provide the Petro Star refineries with a crude supply certainty over the combined length of the two contracts at a price that is neither too onerous to risk the economic survival of the refineries nor too low to prevent the maximization of the State's royalty. The North Pole and Valdez refineries supply a substantial

elements other than the RIK differential cancel out, then the State could expect an additional revenue from the proposed RIK contracts with Petro Star between \$38 million and \$48 million.

⁵² Econ One Report, page 47.

⁵³ Econ One Report, page 14.

⁵⁴ Econ One Report, page 33.

proportion of the state's needs for refined petroleum products. But, even when the proposed sale of royalty oil will likely substitute some private source of ANS crude and provide a potential economic benefit to Petro Star, this would not necessarily affect the production and or pricing of refined products in the state. However, in the event that the absence of the sale of ANS royalty oil to Petro Star generated a decline of the in-state refining capacity, it would have direct, indirect, and induced labor market impacts in Alaska: as of 2014, Petro Star employed 44 Alaskans⁵⁵ in its refining operations; positions that would not exist without the presence of the refinery.

D. Ability of Prospective Buyer to Provide Refined Products for Distribution and Sale in the State with Price or Supply Benefits to the Citizens of Alaska

Petro Star's North Pole and Valdez refineries began operations in 1985 and 1993, respectively. In 2014, they produced approximately 19,000 bpd⁵⁶ of refined product. Of this, 56% (roughly 10,640 bpd) was jet fuel, which is transported to Anchorage or provided to the Department of Defense. This refinery also produces approximately 41% (or 7,790 bpd) of distillate. The remaining refinery output is primarily a combination of kerosene, turbine fuel, and naphtha-blended fuel. Petro Star plays a crucial role in supplying energy for the Interior. Additionally, Petro Star began construction of an asphalt plant at its North Pole refinery in October 2015 to provide a local source of asphalt for road construction and repair in the Interior. Through its retail fuel oil subsidiary, Petro Star provides two thirds of the heating fuel for the Greater Fairbanks area. It also supplies naphtha for GVEA's power plant, and aviation fuel for the Air Force base.

E. Existence and Extent of Present and Projected Local and Regional Needs for Oil and Gas Products

As stated in the Final Best Interest Finding for the Tesoro 2014 contract, on a per capita basis, Alaskans spent more on energy than residents of any other state in 2011⁵⁷. This high expenditure rate was driven in large part by the very high per unit cost paid by Alaskans for energy. Most pertinent for current purposes, Alaskans paid the highest rates in the country for gasoline, and some of the highest rates in the nation for distillate fuels including diesel and home heating fuel. The fact that Petro Star is willing to enter into these RIK contracts reveals the commercial appeal of the proposed terms. Any potential benefit obtained by Petro Star through these RIK contracts does not necessarily have to materialize into lower product prices, especially considering the market structure for refined products in Alaska. Thus, it is not likely that the proposed sale will materially reduce the price paid by Alaskan consumers for refined petroleum products.

F. Revenue Needs and Projected Fiscal Condition of the State

The current and projected fiscal condition of the State has been discussed in greater detail above, see Section II. E. To summarize, the State's fiscal condition has kept degrading in 2015 and 2016, and recent Office of Management and Budget projections indicate that the State will keep experiencing budget shortfalls in the coming fiscal years. The sale of royalty oil under the proposed contracts is projected to generate an estimated \$29.9 million to \$37.4 million in revenue additional to what would have been obtained through the selection of these ANS royalty volumes in value. The proposed sale may further improve the State's fiscal picture by generating increased revenue if the State selects RIK volumes from

⁵⁵ Econ One Report, page 17.

⁵⁶ Econ One Report, page 16.

⁵⁷ See page 4 of the *Final Best Interest Finding and Determination for the Sale of Alaska North Slope Oil to Tesoro Refining & Marketing Company, LLC* (October, 2013): http://dog.dnr.alaska.gov/Royalty/Documents/RIKDocuments/FBIF_TSO_Contract_1_8_14.pdf.

the leases with below-average RIV price. While the incremental revenue generated through the proposed sale represents only a small share of the deficits that are projected by the scenarios outlined by the Governor's Office of Management and Budget, the proposed sale will improve the State's revenue picture.

G. Desirability of Localized Capital Investment, Increased Payroll, Secondary Development and Other Possible Effects the Sale

The proposed sale of RIK will, in and of itself, require no additional capital investment, induce no change in payroll, yield no secondary development and have few other consequences. Royalty oil will likely partially replace private sources of ANS crude to run the operations at the North Pole and Valdez refineries.

By charging a price within the market range, DNR will avoid undercutting local, small producers' market position in Alaska. By taking oil in-kind rather than in-value, large producers will have less oil to transport to the West Coast. This might prompt them to purchase crude on more favorable terms from smaller producers. In addition to in-state refiners, smaller producers also benefit the State through their investment, production, and its attendant economic benefits.

H. Projected Positive and Negative Environmental Effects

The sale of RIK oil will, in and of itself, have no negative environmental effects and will not affect the volume of oil shipped in Alaska. If RIK oil simply replaces oil that would have been purchased from small producers, then there is no environmental impact. Taken as a whole, the proposed contracts are expected to have very little incremental environmental impact.

It should also be noted that the State transfers title and risk for RIK crude to the buyer at the point of delivery.⁵⁸ This legal construction does not change the volume of oil flowing through TAPS on a given day and does not impact environmental risk. However, it does insulate the State from the financial risk associated with an adverse environmental outcome.

I. Projected Social Impacts

Beyond the direct revenue impact, the proposed sale is unlikely to have any incremental social impact. The royalty oil sold under these contracts is unlikely to materially impact refinery operations. As such, no long-run population redistribution or change in the utilization of social services is expected.

J. The Projected Additional Costs and Responsibilities Which Could Be Imposed Upon the State and Affected Political Subdivisions by Development Related to the Transaction

The proposed sale of RIK, in and of itself, is expected to generate negligible, if any, additional cost or responsibilities for the State, the Fairbanks North Star Borough or the Valdez-Cordova census area. The State's royalty oil is expected to simply displace crude secured from the private market. The proposed contracts are unlikely to materially impact the operations of the North Pole or Valdez refineries. However, as was discussed above, when the State sells its RIK it faces counterparty risk. While the State had a previous RIK contract with Petro Star for the period 1986 to 1991, there still exists a possibility that Petro Star could, for a host of reasons, fail to fulfill its obligations under the proposed contracts. Such a failure could expose the State to financial loss. The proposed contracts recognize this risk and mitigates it

⁵⁸ Put differently, the state instantaneously passes the title and risk of royalty oil from the producer to the buyer at the point of delivery.

through a security arrangement that requires Petro Star, if its credit rating falls below a certain threshold, to post a stand-by letter of credit or surety bond equal to the expected value of fifty days of royalty oil. See Section III.D.4 above.

K. The Existence of Specific Local or Regional Labor or Consumption Markets or Both Which Should Be Met by the Transaction

The proposed contracts are unlikely to induce substantial new hiring. Refinery operations support multiple local labor and consumption markets. As of 2014, the Petro Star refineries directly employed 44 Alaskans. Petro Star also generates labor demand and satisfies the need of multiple local consumption and labor markets through its North Pacific Fuel and Sourdough Fuel subsidiaries dedicated to operate gas stations, convenience stores throughout the State, provide the marine industry with petroleum products and dockside services, distribute heating oil and diesel, and provide supplies of jet fuel to military facilities throughout Alaska.⁵⁹

Demand for refined product is quite seasonal. As was discussed above, the proposed contracts contain a valuable volumetric option. By exercising this option, Petro Star may align its crude oil inventory with seasonal fluctuations in demand for refined product. This alignment may be useful in meeting seasonal fluctuations in demand in an efficient fashion.

L. The Projected Effects of the Proposed Transaction upon Existing Private Commercial Enterprise and Patterns of Investment

The proposed contracts are unlikely to demonstrably impact the operations at the North Pole or Valdez refineries. As has been mentioned before, the crude supplied under the proposed contracts will likely simply displace crude from the private market. As such, they are expected to have very little impact on existing private commercial enterprise and patterns of investment. However, the continued operation of the North Pole or Valdez refineries will allow Petro Star to continue to supply refined product to its customers, including Ted Stevens Anchorage International Airport and regional wholesale and retail markets. The continued operation of those refineries will sustain the demand that Petro Star generates among its vendors and servicers.

V. Preliminary Finding and Determination

A. Disposal of Royalty Oil In-Kind is in the State's Best Interest

In accordance with AS 38.05.182(a), 11 AAC 03.010(b) and (d), and 11 AAC 03.060, DNR has published this Preliminary Finding and Determination. Subject to public review of, and comment on, this preliminary finding and the result of the Alaska Royalty Oil and Gas Development Advisory Board's public hearing and its review of the contract, the Commissioner has determined that it is in the best interest of the State to take its RIK in order to supply the Petro Star refineries at Valdez and North Pole with feedstock.

B. Competitive Bidding is Waived

Consistent with the results of the solicitation described in Section II. G. above and DNR's assessment of the potential benefits of the negotiated RIK contracts, the commissioner has determined, in

⁵⁹ Petro Star retail division: <http://www.petrostar.com/divisions/>

accordance with AS 38.05.183(a) and 11 AAC 03.030, that the best interests of the State will be served through the sale of its RIK to Petro Star under non-competitive procedures.

The proposed contracts will protect the State's interest and is estimated to generate a sale price throughout the term of the contract that will be higher than the volume-weighted average of the reported netback prices the lessees file for royalty purposes. The commissioner further considered that DNR has negotiated contracts that will permit a transparent and equitable allocation of the State's royalty oil across all RIK buyers should the State's volumetric expectations be incorrect.

A copy of this Preliminary Finding and Determination is being delivered to the Royalty Board as notification under AS 38.05.183(a) and 11 AAC 03.010(g)

C. The Proposed RIK Oil Sale Offers Maximum Benefits to the State

When RIK is sold through a process other than competitive bid, the commissioner shall award the disposal to the prospective buyer whose proposal offers the maximum benefits to the citizens of the State of Alaska. In making the award, the commissioner must consider the criteria set out in AS 38.05.183(e) and in AS 38.06.070(a). The commissioner's in-depth review and consideration of all of the required statutory criteria is set out above in Section IV of the Preliminary Finding and Determination. Subject to public review and comment, the commissioner finds that the proposed sale of North Slope royalty oil to Petro Star, under the terms and conditions of the attached proposed contracts, offers the maximum benefit to the state.

D. Alaska Royalty Oil and Gas Development Board

This Preliminary Finding and Determination and copies of the proposed contracts are being submitted to the Alaska Royalty Oil and Gas Development Board in compliance with AS 38.05.183(c), 11 AAC 03.024, and 11 AAC 03.040, which require the Commissioner to give written notice to the board of intent to waive competitive bidding in an RIK sale.

E. Legislative Approval


As mentioned previously, the proposed sale of royalty oil in-kind to Petro Star involves the realization of two contracts: the first contract would last one year, and the second contract would last for a period of four years. Under AS 38.06.055(b), the commissioner may enter into a sale of royalty oil without the prior approval of the legislature if the sale is for one year or less and is entered into to relieve storage or market conditions. But legislative approval is required for an RIK oil disposition with a term of more than one year and, specifically, AS 38.06.055(c) provides that an RIK sale "may not be continued after the end of one year or renewed with the same party without prior approval of the legislature." Legislation approving the proposed four-year contract will be prepared and will be submitted to the Alaska Legislature.

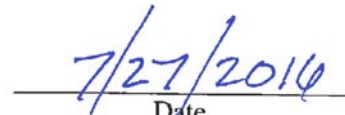
F. Applicable Criteria and Weights

For the purposes of the proposed contracts, as was outlined in Section IV, the commissioner considered all criteria outlined in AS 38.05.183(e). Subject to public review and comment, the commissioner finds that the proposed sale will positively impact, or affect no harm on, all of the criteria in AS 38.05.183(e). In the analysis of the proposed sale, the commissioner most heavily weighted the cash value offered, the projected effect of the sale on the economy of the state, and the ability of Petro Star to supply refined product to Alaskans. While all criteria in AS 38.05.183(e) received non-zero weight, the other criteria discussed in Section IV received less weight.

VI. Conclusion

The Commissioner is presenting this Preliminary Best Interest Finding and Determination to review and comment by the public and the Royalty Board before issuing its Final Best Interest Finding and Determination. Only after careful consideration of the circumstances of the proposed sale, material information and legal requirements will the Commissioner determine, in accordance with AS 38.05.183, that the best interest of the State does not require this RIK sale be made by competitive bid, and the that the proposed contracts with Petro Star offer maximum benefits to it citizens.


Andrew T. Mack
Commissioner


Date

Cc: Corri A. Feige, Director, Division of Oil and Gas
Alex Nouvakhov, Commercial Manager, Division of Oil and Gas
Mary Gramling, Department of Law

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Exhibit 1: 1-Year RIK Contract

**AGREEMENT FOR THE SALE OF
ROYALTY OIL
BETWEEN AND AMONG THE STATE OF ALASKA,
AND
PETRO STAR INC.
AND
ARCTIC SLOPE REGIONAL CORPORATION
[Month] [Day], 2016**

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**AGREEMENT FOR THE SALE AND
PURCHASE OF ROYALTY OIL**

This Agreement is between the State of Alaska (“State”), Petro Star Inc. (“Buyer”) and Arctic Slope Regional Corporation (“Guarantor”).

**ARTICLE I
DEFINITIONS**

As used in this Agreement, the terms listed below shall have the following meanings:

- 1.1 “Additional Sale Oil” is defined in Section 2.1.2.
- 1.2 “Affiliate” is defined in Section 21.1.
- 1.3 “ANS” means the Alaska North Slope.
- 1.4 “ANS Spot Price” is defined in Section 2.3.
- 1.5 “Assignee” is defined in Section 21.1.
- 1.6 “Business Day” means any day, or part of a day, during which federally chartered banks are open for business in the place designated in this Agreement for payment.
- 1.7 “Commissioner” means the Commissioner of the Alaska Department of Natural Resources or the Commissioner’s designee.
- 1.8 “Day” means a period of twenty-four consecutive hours, beginning at 12:01 a.m., Alaska Local Time.
- 1.9 “Day of First Delivery” is defined in Section 2.4.
- 1.10 “DBRS” means DBRS Inc., a nationally recognized statistical rating organization, a subsidiary of DBRS Limited, and its successors.
- 1.11 “Excess Royalty Oil” is defined in Section 2.1.2.
- 1.12 “Financial Analyst” is defined in Section 5.3.
- 1.13 “FERC” means Federal Energy Regulatory Commission.
- 1.14 “Force Majeure” is defined in Section 14.2.

1.15 “Leases” means the oil and gas leases issued by the State on the Alaska North Slope from which the State takes or may take Royalty Oil in-kind.

1.16 “Lessee” means a person owning a working interest in any of the Leases.

1.17 “Letter of Credit” is defined in Section 6.1.

1.18 “Line Loss” is defined in Section 2.3.

1.19 “Minimum Interstate TAPS Tariff” is defined in Section 2.3.

1.20 “Month” means a period beginning at 12:01 a.m., Alaska Local Time, on the first Day of the calendar Month and ending at 12:01 a.m., Alaska Local Time, on the first Day of the following calendar Month.

1.21 “Moody’s” means Moody’s Investor’s Services, Inc., a subsidiary of Moody’s Corporation, and its successors.

1.22 “Notice” means written notice in accordance with Article XV.

1.23 “Notice Effective Date” is defined in Section 15.2.

1.24 “Opinion Letter” is defined in Section 5.3.

1.25 “Parties” means, collectively, Buyer, Guarantor and State.

1.26 “Party” means Buyer, Guarantor or State, individually.

1.27 “Person” is defined in AS 01.10.060.

1.28 “Point of Delivery” means the transfer point at which the State receives Royalty Oil in-kind from the Lessees.

1.29 “Price” is defined in Section 2.3.

1.30 “Process” is defined in Section 4.1.

1.31 “PSVR Reference Stream” is the blended TAPS stream immediately downstream from the Petro Star Valdez Refinery.

1.32 “Refinery Turnaround” means a period not to exceed three months when Buyer, by notice to the State, may reduce the quantity of Sale Oil it nominates and purchases from the State to less than 18,800 barrels per Day because the Valdez, Alaska refinery or North Pole, Alaska refinery reduce the processing of Sale Oil for the purpose of performing planned or unplanned maintenance, repairs or capital improvements to the refinery.

1.33 “Quality Bank” means a system of calculations administered under the authority of the FERC that accounts for the differences in value between the individual tendered streams and the delivered co-mingled stream of TAPS.

1.34 “Quality Bank Adjustment” is defined in Section 2.3.

1.35 “Rating Agency” means Standard and Poor’s, Moody’s or DBRS.

1.36 “RIK Differential” means per barrel location differential used to determine the price of the Sale Oil and Additional Sale Oil under Section 2.3, and set at \$1.95 for this Agreement.

1.37 “Royalty Oil” means the total volume of crude petroleum oil and other hydrocarbons and associated substances from the Leases, including such substances as crude oil, condensate, natural gas liquids, or return oil from crude oil topping plants, that may be blended with crude oil before the Point of Delivery and tendered as a common stream to the State as Royalty Oil that the State may take in-kind, regardless of whether the State takes the Royalty Oil in-kind.

1.38 “Royalty Settlement Agreement” means any written royalty settlement agreement.

1.39 “Sale Oil” means the oil the State has agreed to sell to the Buyer, and the Buyer has agreed to purchase from the State under this Agreement.

1.40 “Standard and Poor’s” means Standard and Poor’s, a division of McGraw-Hill Companies, Inc. and its successors.

1.41 “Surety Bond” is defined in Section 6.4.

1.42 “TAPS” means the Trans-Alaska Pipeline System

1.43 “Tariff Allowance” is defined in Section 2.3.

1.44 “Term” is defined in Section 8.2.

1.45 “Unit” has the meaning defined in 11 AAC 83.395.

1.46 “Unit Agreement” means any unit agreement for a Unit from which the State takes or may take Royalty Oil.

ARTICLE II **SALE AND PURCHASE OF ROYALTY OIL**

2.1 Quantity.

2.1.1 Sale Oil Quantity. The State agrees to sell to Buyer, and Buyer agrees to purchase from the State, an initial Sale Oil quantity of a maximum of 23,500 barrels per Day and a minimum of 18,800 barrels per Day averaged for the Month of Sale Oil delivery, as nominated by Buyer in accordance with Section 2.1.2 through 2.1.6.

2.1.2 Monthly Sale Oil Nomination. In accordance with 2.1.1, Buyer shall nominate the quantity of Sale Oil for each Month of Sale Oil delivery by giving Notice of Buyer’s Sale Oil nomination. Except when the additional notice provisions of Section 2.1.6 are invoked by Lessees, Buyer’s nomination shall be effective on the first Day of the Month following expiration of a minimum of one hundred Days after the Notice of Buyer’s nomination. The State will make commercially reasonable efforts to nominate, in accordance with applicable Unit Agreements or Leases, percentages of the State’s estimated Royalty Oil volume from one or more Units or non-unitized Leases, at the State’s discretion, that will equal the Sale Oil quantity

nominated by the Buyer each Month of Sale Oil delivery. Notwithstanding Buyer's Monthly nominations, any time the total commitments for Royalty Oil under all of the State's royalty-in-kind contracts exceed 95 percent of Royalty Oil in a Month, Buyer agrees that the State may limit its total nomination of Royalty Oil to an amount that does not exceed 95 percent of Royalty Oil in that Month of Sale Oil delivery and may employ the proration provisions as per 2.1.3. Buyer agrees to accept the volume of Royalty Oil delivered in accordance with the State's nomination. See Appendix 1 for an illustration of the State's nomination procedure for Sale Oil nominated from the Prudhoe Bay Unit for July 2014.

The Buyer may choose to nominate in the Notice additional quantity of Royalty Oil defined as Additional Sale Oil. Except when the additional notice provisions of Section 2.1.6 are invoked by Lessees, Buyer's nomination shall be effective on the first Day of the Month following expiration of a minimum of one hundred Days after the Notice of Buyer's nomination. If the total commitments for Sale Oil under all of the State's royalty-in-kind contracts fall below 95 percent of estimated Royalty Oil in a Month, with this difference between 95 percent of estimated Royalty Oil in a Month and total commitments for Sale Oil under all of the State's royalty-in-kind contracts defined as Excess Royalty Oil, the State may in its sole discretion nominate fully or partially to satisfy Additional Sale Oil nominations up to the amount of Excess Royalty Oil. The State may nominate for each buyer up to the actual nominated volume of Additional Sale Oil. If total nominations for Additional Sale Oil under all of the State's royalty-in-kind contracts exceed Excess Royalty Oil, the State will allocate Excess Royalty Oil. If any buyer's actual nominated volume of Additional Sale Oil is not more than equal volumes of Excess Royalty Oil available to each buyer nominating Additional Sale Oil for that period determined by dividing Excess Royalty Oil by the number of nominations for Additional Sale Oil, that buyer will receive its full

nomination. Those buyers, whose Additional Sale Oil nominations are not fully met with the calculated equal volumes of Excess Royalty Oil, will equally split the remaining available volumes up to the amount of actual nominated volume of Additional Sale Oil for each buyer. If there are remaining available volumes of Excess Royalty Oil, they will be allocated to the buyers whose actual nominated volume of Additional Sale Oil has not been satisfied.

The Buyer agrees to accept full or partial volumes of nominated Additional Sale Oil as determined by the State. Notwithstanding the nominations for Additional Sale Oil and acceptance of such by the State, the Buyer acknowledges and agrees that the State may satisfy nominations for Additional Sale Oil only after it satisfies Sale Oil nominations under all of the State's royalty-in-kind contracts. See Appendix 5 for an illustration of the nomination for the Additional Sale Oil.

2.1.3 Sale Oil Proration. Notwithstanding Section 2.1.1, Buyer agrees that for any Month of Sale Oil delivery in which the Buyer and all other buyers of Royalty Oil under all of the State's royalty-in-kind contracts nominate more than 95 percent of the State's Royalty, the State may prorate the Buyer's Sale Oil nomination as well as Sale Oil nomination of the State's other purchasers.

If total Sale Oil nominations under all of the State's royalty-in-kind contracts exceed 95 percent of the Royalty Oil, then the State may reduce such nominations proportionately so that sum of such nominations does not exceed 95% of the Royalty Oil. The proration will occur according to this formula where a revised nomination under this contract is equal to $[(95\% * \text{Royalty Oil} / \text{Sum of nominations under the royalty in kind contracts}) * \text{Nomination submitted under 2.1.2.}]$. See Appendix 4 for an illustration of the proration process. For the

avoidance of doubt this proration clause does not apply to Additional Sale Oil nomination described in 2.1.2.

2.1.4 Buyer's Election to Reduce Sale Oil Quantity.

(a) Buyer may elect to reduce the Sale Oil quantity to zero barrels of Sale Oil per day for the Month of Delivery by giving Notice. If Buyer nominates zero barrels of Sale Oil for three consecutive Months, this Agreement shall terminate automatically, without Notice or further action by the State or the Buyer, on the last day of the third consecutive Month that the Buyer nominates zero barrels. If the Buyer in its Notice specifically cites “Refinery Turnaround” in section 1.32 as a reason for zero nominations, the Buyer may elect to reduce the quantity of Sale Oil it nominates and purchases from the State to zero for three consecutive Months without triggering automatic termination stipulated in this clause.

(b) Buyer’s elections to reduce Sale Oil quantities under this Section 2.1.4 are subject to the provisions of Section 2.1.6.

2.1.5 Temporary Sale Oil Quantity Reduction in Event of Force Majeure. In the event of a Force Majeure under Article XIV, Buyer may temporarily reduce the Sale Oil quantity by an amount equal to the reduction in Buyer's requirements that is a direct result of the Force Majeure event. To temporarily reduce the Sale Oil quantity in the event of Force Majeure, Buyer shall include a Notice of temporary reduction in Sale Oil quantity due to Force Majeure under this Section with Notice of Buyer's monthly Sale Oil nominations of Sale Oil. Each notice of temporary reduction due to Force Majeure shall include documentation of the nature of the Force Majeure event and quantification of the direct impact of the Force Majeure on Buyer's Sale Oil requirements for the Month of nomination. Temporary reductions in Sale Oil quantity under this Section shall be effective only to the extent that the State is able, through the State’s nomination

process set out in Section 2.1.2, to reduce the volume of Royalty Oil that the State receives for the Month of Sale Oil delivery, or to sell the volumes from the temporary reductions in Sale Oil quantity as Additional Sale Oil to other buyers under the same or better price terms. Buyer shall accept delivery of the total volume of Royalty Oil delivered to the State in accordance with the State's nominations of Royalty Oil, unless the State sells the volumes from the temporary reductions in Sale Oil quantity as Additional Sale Oil to other buyers under the same or better price terms.

2.1.6 Additional Notice Provisions. Buyer acknowledges that the Leases from which the State must nominate Royalty Oil require 90 Days' notice to the Lessee prior to decreasing the State's nomination of Royalty Oil to be taken in-kind in any Month. Buyer acknowledges that if a Lessee invokes the Force Majeure provisions of its Royalty Settlement Agreement or the Leases, the State may be required to give up to 180 Days' (*i.e.*, an additional 90 Days) notice to the Lessee prior to decreasing the State's nomination of Royalty Oil to be taken in-kind in any Month. If a Lessee invokes the Force Majeure terms of its Royalty Settlement Agreement as a result of a reduction in Buyer's nomination in the event of Buyer's Force Majeure, Refinery Turnaround, or for any other reason, Buyer's reduced nomination shall not become effective until the end of the additional 90 Day notice period. If a Lessee invokes the Force Majeure terms of its Royalty Settlement Agreement and extends the notice period an additional 90 Days, the State agrees to make commercially reasonable efforts to reduce the volume of its Royalty Oil nominations.

2.1.7 No Guarantee of Sale Oil Quantity. The State shall exercise its rights under the Leases and Royalty Settlement Agreements to request that Royalty Oil be delivered as Sale Oil. The State can deliver Sale Oil only to the extent it receives Royalty Oil from the Lessees.

The quantity of Royalty Oil available to the State may vary and may be interrupted from time to time depending on a variety of factors, including the rate of production from the Leases. The State disclaims, and Buyer waives, any guarantee, representation, or warranty, either express or implied, that a specific quantity of the total, daily, monthly, average, or aggregate Royalty Oil will be delivered as Sale Oil.

2.1.8 No Guarantee of Source of Sale Oil and Additional Sale Oil. The State will deliver, as Sale Oil and Additional Sale Oil, Royalty Oil produced from the Leases and delivered to the State as Royalty Oil in-kind. The availability to the State of Royalty Oil in-kind in any Month may vary depending on a variety of factors, including the rate of production from the Leases. The State disclaims, and Buyer waives, any guarantee, representation, or warranty, either express or implied, that Sale Oil and Additional Sale Oil delivered and sold by the State in any Month is from a certain Lease, Unit, or other area.

2.1.9 State's Warranty of Title. The State warrants that it has good and marketable title to the Royalty Oil delivered and sold as Sale Oil and Additional Sale Oil.

2.2 Quality.

2.2.1 No Guarantee of Quality of Sale Oil and Additional Sale Oil. The Royalty Oil the State delivers to Buyer as Sale Oil and Additional Sale Oil shall be of the same quality as the Royalty Oil delivered to the State at the Point of Delivery. The quality of the Royalty Oil delivered to the State may vary from time to time. The State disclaims, and Buyer waives, any guarantee, representation, or warranty, either expressed or implied, of merchantability, fitness for use, or suitability for any particular use or purpose, or otherwise, and of any specific, average, or overall quality or characteristic of Sale Oil and Additional Sale Oil. Buyer specifically waives any claim that any liquid hydrocarbons, including such substances as crude oil, condensate, natural gas

liquids, or return oil from the crude oil topping plant, delivered with the Sale Oil or Additional Sale Oil, are not Sale Oil or Additional Sale Oil for purposes of this Agreement.

2.3 Price of the Sale Oil and Additional Sale Oil. The price per barrel of Sale Oil and Additional Sale Oil delivered from each Unit or Lease by the State to the Buyer each Month shall be equal to

ANS Spot Price – RIK Differential – Tariff Allowance + Quality Bank Adjustment – Line Loss.

“ANS Spot Price” means the monthly average of the daily high and low assessments for the Month of Sale Oil and Additional Sale Oil delivery for ANS oil traded at the United States West Coast as reported by the Platts Oilgram Price report and Reuters online data reporting service. The ANS Spot Price calculation will not include days on which prices are not reported for both reporting services, such as weekends or holidays. If either of these publications ceases to report daily assessments for ANS oil traded at the United States West Coast, the Parties agree to calculate the ANS Spot Price using the data from the remaining reporting service. If either Buyer or State makes a good faith determination that the ANS Spot Price no longer accurately represents the price for ANS oil traded at the United States West Coast, Buyer and State will attempt in good faith to arrive at a mutually agreeable alternative source to establish, or substitute for, the ANS Spot Price. If Buyer and the State arrive at a mutually agreeable alternative source, that source shall be used to determine the ANS Spot Price beginning the Month following the Month in which any of these publications ceased to report daily assessments for ANS oil traded at the United States West Coast. If Buyer and the State are unable to agree on an alternative source, the State will select the alternative source that most reliably represents the price for ANS oil traded at the United States West Coast based on the best information reasonably available to the State, and that source shall

be used to determine the ANS Spot Price beginning the Month following the Month in which any of these publications ceased to report daily assessments for ANS oil traded at the United States West Coast. Any dispute between the Buyer and State concerning the ANS Spot Price under this section shall be administered in accordance with Section 12.1.

“Tariff Allowance” means the sum of (1) the average, weighted by ownership, of the Minimum Interstate TAPS Tariff (Pump Station No. 1 to Valdez Marine Terminal) on file with the Federal Energy Regulatory Commission (“FERC”) for each owner in effect on the Day the Sale Oil and Additional Sale Oil is tendered by the State to Buyer; and (2) tariffs on file with FERC for shipment of Sale Oil and Additional Sale Oil upstream of Pump Station No. 1. “Minimum Interstate TAPS Tariff” means the effective TAPS tariff on file with the FERC for each carrier on a given Day, excluding incentive tariffs. If the Minimum Interstate TAPS Tariff or tariffs on file with FERC for shipment of Sale Oil and Additional Sale Oil upstream of Pump Station No. 1 that have been used in the calculation of a Tariff Allowance are changed or subject to a refund order by the FERC, the Tariff Allowance will be recalculated using changed FERC-ordered Minimum Interstate TAPS Tariff or changed FERC-ordered tariffs for shipment of Sale Oil and Additional Sale Oil upstream of Pump Station No.1, the Sale Oil and Additional Sale Oil Price will be adjusted accordingly, and the resulting refund to the State (or credit to Buyer) will be made in accordance with Article III. If a FERC-ordered tariff is suspended or enjoined from implementation, the Tariff Allowance shall not be recalculated until the suspension or injunction is lifted and the FERC order is implemented and goes into effect. Buyer shall, at the request of the Commissioner, provide the necessary documentation in the form of invoices, etc. from the TAPS and upstream pipeline carriers of tariff payments made by Buyer and any revised tariff payments including interest paid or received by Buyer as a consequence of those revised tariff payments.

The “Quality Bank Adjustment” is a per-barrel amount, positive or negative, that accounts for the difference in quality between the oil produced from the units on the North Slope and the co-mingled ANS TAPS stream value at the PSVR connection. The Quality Bank Adjustment for a Unit’s stream will be calculated each Month as the difference between the stream value for the PSVR Reference Stream and the stream value at the Point of Delivery. The stream value and PSVR Reference Stream are reported by the TAPS quality bank administrator. If the stream value or the PSVR Reference Stream is recalculated by the Quality Bank administrator, the Quality Bank Adjustment shall be recalculated and the Price shall be adjusted in accordance with Article III to apply to Sale Oil and Additional Sale Oil that has been delivered to Buyer beginning on the effective date of the adjustment.

“Line Loss” is a per barrel amount equal to $(0.0009) \times (\text{ANS Spot Price} - \$1.95 - \text{Tariff Allowance} + \text{Quality Bank Adjustment})$.

Appendix 2 is an illustrative example of the calculation of the Price of Sale Oil and Additional Sale Oil. If there is a conflict between Appendix 2 and Section 2.3, Section 2.3 shall control.

2.4 Delivery of Sale Oil and Additional Sale Oil.

2.4.1 Day of First Delivery. The State will make first delivery of the Sale Oil and Additional Sale Oil to Buyer at the Point of Delivery on or after [Month Day], 2016.

2.4.2 Subsequent Deliveries. After the first delivery, the State shall tender the Sale Oil and Additional Sale Oil to Buyer at the Point of Delivery immediately upon the receipt of the Royalty Oil from the Lessees at the Point of Delivery.

2.5 Passage of Title and Risk of Loss. Title to, and risk of loss of, the Sale Oil or Additional Sale Oil shall pass from the State to Buyer for all purposes when the State tenders

delivery of the Sale Oil or Additional Sale Oil to Buyer at the Point of Delivery. Buyer shall bear all risk and responsibility for the Sale Oil and Additional Sale Oil after passage of title.

2.6 Indemnification After Passage of Title. Buyer shall indemnify and hold the State harmless from and against any and all claims, costs, damages (including reasonably foreseeable consequential damages), expenses, or causes of action arising from or related to any transaction or event in any way related to the Sale Oil and Additional Sale Oil after title has passed to Buyer. If Buyer suffers damages or losses caused by third parties and related to the Sale Oil or Additional Sale Oil, the State agrees to cooperate with the Buyer to permit Buyer to attempt to recover such damages or losses. The State will, on request, assign the State's claims to Buyer and cooperate in Buyer's pursuit of State assigned claims.

2.7 Transportation Arrangements. Buyer shall make all arrangements for transportation of the Sale Oil and Additional Sale Oil from the Point of Delivery, to, through and away from the TAPS, and all pipelines upstream from Pump Station No. 1, and shall be responsible for meeting any linefill and storage tank bottom requirements related to transportation of the Sale Oil and Additional Sale Oil after passage of title. On the State's request, Buyer shall provide the State with evidence of the arrangements for transportation of the Sale Oil and Additional Sale Oil from the Point of Delivery, through and away from TAPS, and all pipelines upstream from Pump Station No. 1, and evidence of arrangements for resale, exchange, or other disposal of the Sale Oil and Additional Sale Oil. Buyer's failure to provide information, evidence, or assurances requested by the State shall, at the State's election and after Notice to Buyer, constitute a material default under this Agreement.

ARTICLE III

INVOICING AND PAYMENT

3.1 Monthly Invoices. On or before the fifth calendar Day of each Month after the first Month of delivery of Sale Oil and Additional Sale Oil, the State shall send to Buyer, via facsimile transmission or electronic mail, a statement of account with an invoice for the total amount due for the estimated quantity of Sale Oil and Additional Sale Oil delivered to Buyer during the immediately preceding Month of Sale Oil and Additional Sale Oil delivery and the estimated Price applicable to those deliveries, and the amount of any adjustments for the previous Month. The State will base its estimates on the best information reasonably available to the State. The State shall adjust invoices as provided in Section 3.3.

3.2 Payment of Invoices. Buyer shall pay the total amount of each invoice, including adjustments for previous Months of Sale Oil and Additional Sale Oil delivery, in full, on or before the third Business Day after the date of the statement of account in which the invoice is included. If the third Business Day after the date of the statement of account does not fall on a Business Day then the invoiced amount is due on the immediately following Business Day. Any amount that Buyer does not pay in full on or before the payment due date calculated in accordance with this section shall accrue interest as provided in Section 3.6, and become subject to the late payment provisions of Section 3.7, and any other remedies available to the State under this Agreement and at law.

3.3 Adjustments. Buyer acknowledges that any time within eight years after an invoice is sent for a Month of Sale Oil and Additional Sale Oil delivery, the State or Buyer may receive more accurate information concerning the ANS Spot Price, actual quantity of Sale Oil and Additional Sale Oil delivered to Buyer, the proper calculation of Tariff Allowance, and Quality Bank Adjustments that affect the Price of the Sale Oil and Additional Sale Oil. The State and Buyer agree that any time within eight years such information becomes available to the State or

Buyer, the State shall make adjustments and invoice or credit Buyer the amount of the adjustments in accordance with the process and retroactivity limits described in Section 2.3. The interest that will bear on changes to the Tariff Allowance will equal the interest paid by the carriers to the shippers under the FERC's regulations. No accrued interest on these adjustments will be paid to the Seller or credited to the Buyer except for FERC ordered changes to Tariff Allowances.

3.4 Payment of Adjustments. The Buyer shall pay the total amount of each adjustment in full, on or before the third Business Day after the date of the statement of account that includes the adjustment invoice. If an adjustment is due to Buyer for an overpayment, the State shall credit to Buyer the amount of the overpayment on the following Month's invoice or, if no following Month invoice is provided, the State shall refund to Buyer the amount of the overpayment by the twentieth calendar Day of the following Month. Any amount the Buyer does not pay in full when due shall bear interest at the rate provided in Section 3.6 and become subject to the late payment provisions of Section 3.7, and any other remedies available to the State under this agreement and at law.

3.5 Adjustments After Termination. Buyer and State agree that the State shall continue to make adjustments, in compliance with and subject to the limitations set forth in the provisions of Section 3.3 above, after termination of this Agreement, and agree that the provisions of Articles III, shall survive termination of this Agreement for any reason. If following termination of this Agreement an adjustment is determined to be due to Buyer for overpayment in an amount that exceeds the amount of all sums remaining due from Buyer to the State, the State shall credit the overpayment against any sums due from Buyer to the State, and shall refund to Buyer the remaining amount of the adjustment. Any adjustments made after termination must be paid within 30 Days after the date of the invoice.

3.6 Interest. All amounts under this Agreement that Buyer does not pay in full when due, or that the State does not credit Buyer or pay in full when due, shall bear interest from the date payment is due, calculated in accordance with Section 3.4, at the rate provided by Alaska Statute 38.05.135(d) or as that statutory provision may later be amended.

3.7 Late Payment Penalty. In addition to all other remedies available to the State, if Buyer fails to make timely payment in full of any amount due, including adjustments, Buyer shall pay the State as a late payment penalty an amount equal to five percent of the total amount not timely paid, in addition to the amount not timely paid, and interest on the late payment penalty amount and the amount not timely paid as provided in Section 3.4. The Commissioner shall waive imposition of the late payment penalty if the Buyer provides substantial evidence that the failure to make timely payment was not willful and was not due to a mistake in a chronic pattern of mistakes.

3.8 Disputed Payments. If a dispute arises concerning the amount of an invoice, Buyer agrees to pay in full all amounts when due, pending final resolution of the dispute according to the Dispute Resolution procedures in Article XII.

3.9 Confidential Information. The State and Buyer agree that pursuant to Section 3.3, the State may invoice Buyer for, and Buyer agrees to pay, amounts that are based upon confidential information held or received by the State. If confidential information is used as the basis for an invoice, upon receipt of a written request from Buyer, the State shall furnish to Buyer a certified statement of the Commissioner to the effect that, based upon the best information available to the State, the invoiced amounts are correct. At the request and expense of Buyer, the Commissioner's certified statement will be based on an audit by an independent third party.

3.10 Manner of Payment. Buyer shall pay all invoices in full within the times specified and without any deduction, set off, or withholding. Buyer shall pay all invoices by either Automated Clearinghouse (ACH) or by Federal Reserve Wire Transfer (immediate funds available) according to the instructions provided to the Buyer by the Division of Oil and Gas's Royalty Accounting Manager.

Buyer must pay an invoice in such other manner or to such other address the State has specified in an invoice or by Notice. All other payments due shall be paid in the same manner and according to the same time schedule provided in this Article. If payment falls due on a Saturday, Sunday, or federal bank holiday, payment shall be made on the next Business Day.

ARTICLE IV **IN-STATE PROCESSING**

4.1 In-State Processing. Buyer agrees to use commercially reasonable efforts to process the Sale Oil and Additional Sale Oil at its refineries in Valdez and North Pole, Alaska. "Process" means the manufacture of refined petroleum products.

4.2 Exchange of Crude Oil. Buyer may exchange Sale Oil and Additional Sale Oil for other crude oil only as provided in this Article. An exchange of Sale Oil and Additional Sale Oil for other crude oil shall not reduce the price Buyer has agreed to pay the State for the Sale Oil and Additional Sale Oil. "Exchange" includes: (1) a direct trade of Sale Oil or Additional Sale Oil for and equal volume of other crude oil; (2) a direct trade of Sale Oil or Additional Sale Oil for other crude oil that involves either cash or volume adjustment, or both, based solely on the differences in quality or location of the crude oils exchanged; (3) sequential transactions in which the Buyer trades Sale Oil or Additional Sale Oil to one party and, in exchange receives crude oil for a party other than the party to whom the Buyer traded the Sale Oil or Additional Sale Oil; and (4) matching purchases and sales of Sale Oil or Additional Sale Oil for other crude oil.

ARTICLE V
BUYER'S AND GUARANTOR'S REPRESENTATIONS AND OBLIGATIONS

5.1 Good Standing and Due Authorization of Buyer. Buyer warrants that it is, and shall remain at all times during the term of this Agreement: (1) qualified to do business in Alaska; and (2) in good standing with the State. Buyer warrants that it has all company power and authority necessary, and has performed all company action required, to enter into and fulfill its obligations under this Agreement.

5.2 Good Standing and Due Authorization of Guarantor. Guarantor warrants that it is, and shall remain at all times during the term of this Agreement: (1) qualified to do business in Alaska; and (2) in good standing with the State. Guarantor warrants that it has all company power and authority necessary, and has performed all company action required, to enter into and fulfill its obligations under this Agreement.

5.3 Financial Information. As soon as practicable after the execution of this Agreement and before the State's first Monthly Sale Oil Nomination under Section 2.1.2, Guarantor shall either provide a Letter of Credit or Surety Bond meeting the requirements of Sections 6.2 through 6.5 or cause a financial analyst (the "Financial Analyst") to submit an opinion to the Commissioner in the form of a letter (the "Opinion Letter") about Guarantor's current and expected future credit rating by a Rating Agency. The Financial Analyst shall be an independent contractor qualified to render an opinion as to the creditworthiness of the Guarantor and shall be in the business of understanding complex financial matters and financial statements to the extent required to render such opinion. Buyer shall have the right to designate the Financial Analyst, subject to approval by the State. The Financial Analyst shall be a contractor to Guarantor, and Guarantor shall be responsible for entering into any necessary contractual arrangements with the Financial Analyst and paying the fees and expenses of the Financial Analyst.

The contract between Guarantor and the Financial Analyst and each Opinion Letter must recite that the Financial Analyst (1) has been provided a copy of this Agreement, (2) understands the significance of the Opinion Letter in the administration of this Agreement, (3) understands that the State will rely on the Opinion Letter, and (4) understands that the Opinion Letter is for the benefit of the State. The contract between Guarantor and the Financial Analyst shall be subject to approval by the State, and the State shall be given a copy of the contract and all amendments to it.

The Opinion Letter shall (i) identify all documents reviewed in forming the opinion, (ii) identify people interviewed in forming the opinion and discuss the nature of the interview, (iii) state the current long term (and short term, if available) credit ratings of Guarantor by a Rating Agency and (iv) express an opinion whether those ratings are reasonably likely to fall below BBB- (Standard and Poor's), Baa3 (Moody's) or BBB (low) (DBRS) at any time during the following twelve Months. Guarantor shall cause the Financial Analyst to review evidence of the most current ratings by DBRS, Standard and Poor's or Moody's of Guarantor's long and short term debt, all bank presentations provided to Guarantor's lenders, all reports on Guarantor prepared by a Rating Agency, all documents filed by Guarantor with the Securities and Exchange Commission, if any, any other documents reasonably necessary to deliver the Opinion Letter, and a complete set of year-to-year comparative, independently audited financial statements, including footnotes, prepared in accordance with generally accepted accounting principles.

Guarantor's contract with the Financial Analyst may require the Financial Analyst to protect the confidentiality of the information supplied to it under Section 5.3. The State may review the information supplied to the Financial Analyst under Section 5.3.

5.4 Financial Condition. Guarantor warrants (1) that all financial information submitted to the Financial Analyst or reviewed by the State under Section 5.3 is complete and

accurate at the time of preparation, and fairly represents Guarantor's financial condition at the time of submission; and (2) that there has been no material change in Guarantor's financial condition, business operations, or properties since the financial information was prepared. Guarantor warrants that the financial statements were prepared in accordance with generally accepted accounting principles. Guarantor and Buyer shall immediately inform the State of any material change in Guarantor's ownership or ownership of Buyer, ownership of parent companies, or financial condition, business operations, agreements, or property that is likely to affect their ability to perform their obligations under this Agreement.

5.5 Absolute Obligations. Buyer's and Guarantor's obligations to pay amounts due, provide assurances of performance in accordance with Article VI, accept, and dispose of and pay for Sale Oil and Additional Sale Oil, are absolute. These obligations shall not be excused or discharged by the operation of any disability of Buyer or Guarantor, event of Force Majeure, impracticability of performance, change in conditions, termination of this Agreement, or other reason or cause.

5.6 Guaranty. Buyer is a wholly-owned subsidiary of Guarantor. Buyer does not have public financial statements and does not have debt rated by a Rating Agency. The State is not willing to make this Agreement based solely on the credit worthiness of Buyer. Guarantor therefore agrees that it guarantees performance of all of Buyer's obligations under this Agreement as if Guarantor were the Buyer and legally indistinguishable from Buyer. The State may require Guarantor at any time to satisfy any unsatisfied obligation of Buyer.

5.7 Due Authorization of State. State warrants that it has all power and authority necessary, and has performed all action required, to enter into and fulfill its obligations under this Agreement.

ARTICLE VI
ASSURANCE OF PERFORMANCE

6.1 Credit Review. If Guarantor (i) elects to provide a Letter of Credit or Surety Bond pursuant to Section 5.3 in lieu of the Opinion Letter by a Financial Analyst or (ii) fails to timely submit its financial statements and other documents and information required under Article V such that the Financial Analyst is unable to timely submit the Opinion Letter; or (iii) if, in the opinion of the Financial Analyst, Guarantor's credit ratings have fallen below, or are reasonably likely in the twelve Months following the Opinion Letter, to fall below (a) "BBB-" (Standard and Poor's "Long term issuer"), (b) "Baa3" (Moody's Investor Services "Issuer Ratings/Long Term Obligation Ratings"), or "BBB (low)" (DBRS); (iv) or Guarantor is not rated by a Rating Agency, Guarantor shall immediately deliver to the State a one year irrevocable stand-by Letter of Credit or Surety Bond meeting the requirements of Sections 6.2 through 6.5.

Guarantor shall annually renew and continuously maintain the Letter of Credit or Surety Bond in effect until such time as, in the opinion of the Financial Analyst, Guarantor's credit rating is no longer reasonably likely to remain below (a) "BBB-" (Standard and Poor's "Long term issuer"); (b) "Baa3" (Moody's Investor Services "Issuer Ratings/Long Term Obligation Ratings") or (c) "BBB (low)" (DBRS) at any time during the twelve Months following the Opinion Letter.

6.2 Letter of Credit or Surety Bond. In the event that Guarantor elects or is required to deliver a letter of credit or surety bond to the State in accordance with Section 6.1, the Letter of Credit or Surety Bond shall be in a form satisfactory to the Commissioner and shall be in effect on delivery. The Letter of Credit shall be issued for the benefit of the State by a state or national banking institution of the United States that is insured by the Federal Deposit Insurance Corporation and has an aggregate capital and surplus amount of not less than One Hundred Million Dollars (\$100,000,000) ("Issuer"), or other banking institution approved by the Commissioner,

such approval not to be unreasonably withheld. The principal face amount of the Letter of Credit or Surety Bond shall be an amount reasonably estimated by the Commissioner to be equal to the Price of all Sale Oil and Additional Sale Oil to be delivered by the State to Buyer during the 50 Days immediately following delivery of the Letter of Credit or Surety Bond to the Commissioner. The Commissioner will calculate the amount of the Letter of Credit or Surety Bond as follows:

- The Price for the month immediately prior to the calculation date; *multiplied by*
- the maximum number of barrels of crude requested by Buyer for any day in the 50 days immediately following the calculation; *multiplied by*
- 50 days.

For the period from the date of this Agreement until the one-year anniversary hereof, Guarantor and the Commissioner agree that the amount of any Letter of Credit or Surety Bond provided to the State shall equal \$46 million; *provided*, that the Commissioner may review (or Guarantor may request that the Commissioner review) the amount of the Letter of Credit or Surety Bond one month from the date of this agreement and every three months thereafter to determine if, using the formula described above, an adjustment to the amount of the Letter of Credit or Surety Bond is required to satisfy the conditions of this Section 6.2.; *provided further*, that such adjustment will only be made to any existing Letter of Credit or Surety Bond, if such adjustment is equal to or greater than 10% of the amount of the Letter of Credit or Surety Bond in place. The Letter of Credit or Surety Bond shall not require the State to submit any documentation in support of drafts drawn against it other than a certified statement by the Commissioner and the State's Attorney General that Guarantor is liable to the State for an amount of money equal to the amount of the draft, that the amount of money is due and payable in full, and it has not been timely paid. Any Surety Bond provided to the State hereunder may not be cancellable by the surety company without at least 60

days' prior written notice to the State (a "Cancellation Notice"). The Guarantor shall have 30 days from the date of receipt of a Cancellation Notice to provide other performance assurances to the State in compliance with this Agreement, or shall be in default hereunder and the State shall be entitled to immediately pursue the remedies described in Section 9.2.

6.3 Performance Assurance After Termination. If a Letter of Credit or Surety Bond is in effect immediately prior to termination of the Agreement, the Commissioner may require that after termination, a Letter of Credit or Surety Bond be maintained in an amount estimated by the Commissioner to be equal to the value of all adjustments which may be made under Article III. As an alternative to maintaining a Letter of Credit or Surety Bond after termination, and on commercial terms acceptable to the Commissioner, the Guarantor may require that Buyer establish and maintain an interest-bearing escrow account equal to the value of all adjustments that may be made under Article III and with the same payment terms as the Letter of Credit or Surety Bond. On request by the Guarantor, the Commissioner shall provide the Guarantor with the methodology used by the Commissioner to estimate the amount of the Letter of Credit or Surety Bond to be maintained after Termination. If a Letter of Credit or Surety Bond is to be maintained after Termination, the Guarantor may request, during the eight years following Termination, that the Commissioner review the amount of the Letter of Credit or Surety Bond required to be maintained if regulatory agency decision or court order may cause a change in the amount of the estimated adjustment under Article III. The dispute resolution procedure in Article XII applies to a dispute between the parties as to any performance assurance required after Termination.

6.4 Other Performance Assurance. The Commissioner may allow Guarantor to provide security other than a Letter of Credit or Surety Bond if the Commissioner determines other security is adequate to protect the State's interest. The Commissioner may accept the Letter of Credit to

be issued by a foreign banking institution that is rated at or higher by both (a) “A+” (Standard and Poor’s “Long term issuer”), and (b) “A1” (Moody’s Investor Services “Issuer Ratings/Long Term Obligation Ratings”); that has an aggregate capital and surplus amount of not less than Five Hundred Million Dollars (\$500,000,000); that uses its US branch, determined to constitute substantial operations by the Commissioner, to issue the Letter of Credit or alternatively arranges that the Letter of Credit is confirmed by a US banking institution; that is domiciled in France, UK, Spain, Japan, Netherlands, Italy or other jurisdictions acceptable to the Commissioner; that agrees to issues the Letter of Credit that is subject to Alaska courts or other jurisdiction acceptable to the Commissioner. The Commissioner may accept a Surety Bond to be issued by a surety company that is listed in the US Department of the Treasury’s Listing of Approved Sureties (Department Circular 570) as certified to do business in Alaska and whose surety bond amount falls within the specified underwriting limitation listed in the Department Circular 570; that is rated at least A in terms of financial strength and XII for financial size by A.M. Best Company or its successors.

6.5 Correction of Defects in Letter. Guarantor shall have five Business Days to correct any defect in the Letter of Credit or Surety Bond beginning on the Business Day Guarantor first learns of the defect whether through Notice from the State or otherwise. A defect is any failure to comply with the terms and conditions of Article VI.

ARTICLE VII **MEASUREMENTS**

7.1 Measurements. The quantity and quality of Sale Oil and Additional Sale Oil the State delivers under this Agreement shall be determined by measurement at the Point of Delivery. Procedures used for metering and measuring the Sale Oil and Additional Sale Oil shall be in accordance with the procedures in effect at the Point of Delivery.

ARTICLE VIII
EFFECTIVE DATE AND TERM

8.1 Effective Date. This Agreement shall become effective and enforceable on the date upon which it is signed by all parties (“Effective Date”).

8.2 Initial Term. The Initial Term of this Agreement shall begin on the Day of First Delivery defined in Section 2.4.1. and terminate 364 days from the Day of First Delivery except that the Term of this Agreement may be changed as provided in Section 2.1.4 and Article X.

8.3 Continuation of Obligations. The provisions of Article III, Section 6.3, Section 6.4, Section 6.5, Section 8.3, Article IX and Article X shall survive termination of this Agreement for any reason or cause. Termination of this Agreement shall not relieve either Party from any expense, liability, or other obligation or any remedy that has accrued or attached prior to the date of termination. For Sale Oil and Additional Sale Oil delivered under this Agreement, termination of this Agreement shall not relieve State or Buyer of their respective obligations hereunder, including the obligation to pay all production Month invoices, initial adjustments, subsequent adjustments, and interest, and, where applicable, penalties, costs, attorney fees, and any other charges related to the Sale Oil and Additional Sale Oil actually delivered.

ARTICLE IX
DEFAULT OR TERMINATION

9.1 Default.

9.1.1 Events of Default. The Commissioner may suspend or terminate the State’s obligations to tender, deliver and sell Sale Oil and Additional Sale Oil to Buyer, and may exercise any one or more of the rights and remedies provided in this Agreement, or at law, if any one or more of the following events of default occur:

(a) Buyer or Guarantor fails to pay in full any sum of money owed under this Agreement within five Business Days after the State gives Buyer Notice that payment is past

due;

(b) Within five Business Days after Notice from the State, Buyer or Guarantor fails to provide written assurances satisfactory to the State of Buyer's or Guarantor's intention to perform its obligations under this Agreement and evidence or assurances of transportation arrangements under Section 2.7;

(c) There is a material change in Buyer's or Guarantor's financial condition, business operations, agreements, or property or ownership that is likely to affect Buyer's or Guarantor's ability to perform its obligations under this Agreement, and within five Business Days after Notice from the State, Buyer or Guarantor is unable or unwilling to provide performance assurances meeting the requirements of Article VI;

(d) Buyer or Guarantor fails to perform any of its obligations under this Agreement, and cannot cure the non-performance or the non-performance continues for more than 30 Days after the State has given Notice to Buyer or Guarantor of its non-performance;

(e) Any representation or warranty made by Buyer or Guarantor in this Agreement is found to have been materially false or incorrect when made; or

(f) Guarantor fails, or is unable for any reason (including reasons beyond Guarantor's control), to maintain performance assurances required under Article VI, regardless of Guarantor's willingness or ability to perform any other obligations under this Agreement.

9.1.2 Default by Failure or Inability to Pay. Buyer or Guarantor shall immediately provide the State with Notice if Buyer or Guarantor is unable to pay any of its debts when due, makes an arrangement for the benefit of creditors, files a bankruptcy petition, or is otherwise insolvent. Upon Notice from Buyer or Guarantor, or if the State independently

determines that Buyer or Guarantor is unable to pay any of its debts when due or is otherwise insolvent, the State's obligations to deliver and sell Sale Oil and Additional Sale Oil to Buyer shall automatically and immediately terminate without any requirement of Notice to Buyer or Guarantor or other action by the State. Upon termination of the State's obligations under this Section 9.1.2, Buyer and Guarantor shall be liable for payment and performance of all their obligations for Sale Oil and Additional Sale Oil the State delivered to Buyer before termination and for a minimum of one hundred Days after termination, plus an additional 90 Days if a Lessee invokes the force majeure term of its Royalty Settlement Agreement. Within 30 Days after termination under this Article 9.1.2, the State shall have the right, upon consent of Buyer or Guarantor, to reinstate all of the State's, Buyer's and Guarantor's obligations under this Agreement retroactive to the date of termination.

9.2 State's Remedies. If Buyer or Guarantor defaults under this Agreement, in addition to all other remedies available to the State under this Agreement or at law, the following remedies shall be available to the State:

9.2.1 Buyer's and Guarantor's Obligations Become Due. All monetary obligations Buyer or Guarantor has accrued under this Agreement, even if not yet due and payable, shall immediately be due and payable in full.

9.2.2 State May Dispose of Sale Oil and Additional Sale Oil. The State may dispose of some or all of the Sale Oil or Additional Sale Oil to third parties. If the State exercises this remedy, regardless whether this Agreement is terminated, Buyer and Guarantor shall be and shall remain liable to the State for the amount of the difference between the Price for the Sale Oil or Additional Sale Oil under Article II and the actual price the State receives from disposition of the Sale Oil or Additional Sale Oil to third parties.

9.2.3 Indemnification for Loss. Buyer and Guarantor shall hold the State harmless and indemnify it against all its liability, damages, expenses, attorney's fees and costs, and losses directly arising out of Buyer's or Guarantor's default, termination of the State's obligations, and disposal of the Sale Oil or Additional Sale Oil to third parties. Additionally, if Buyer or Guarantor defaults in the payment of any monetary amounts due to the State for Sale Oil or Additional Sale Oil tendered or delivered under this Agreement, Buyer or Guarantor shall pay the State 100 percent of reasonable actual costs and attorney fees incurred by the State in pursuing payment of the monetary amounts due, regardless of whether litigation is commenced and regardless of whether legal services are provided by the Attorney General's office or private counsel.

9.2.4 Other Rights and Remedies. The State shall have the right cumulatively to exercise all rights and remedies provided in this Agreement and by law, and obtain all other relief available under law or at equity, including mandatory injunction and specific performance.

9.3 Limitation of Buyer's and Guarantor's Remedies. If Buyer or Guarantor breaches or defaults in any of its obligations under this Agreement, Buyer or Guarantor shall not obtain a temporary restraining order or preliminary injunction preventing the State from disposing of the Sale Oil or Additional Sale Oil in accordance with Section 9.2.2.

9.4 Article Survives Termination. This Article survives termination of the Agreement.

ARTICLE X

DISPOSITION OF OIL UPON DEFAULT OR TERMINATION

10.1 Disposition of Oil Upon Default or Termination. Buyer and Guarantor acknowledge that the State may be required to provide six Months' notice to the Lessees before the State may decrease its in-kind nomination of Royalty Oil in any Month. If this Agreement terminates for default or any other reason after Buyer has nominated or is deemed to have

nominated Sale Oil or Additional Sale Oil, Buyer shall continue to accept and pay for Sale Oil or Additional Sale Oil through the first Day of the Month following expiration of a minimum of 100 Days after the date of termination, if the Commissioner so requires. If, however, the additional notice provisions of Article 2.1.6 are invoked, Buyer shall continue to accept and pay for Sale Oil or Additional Sale Oil until the expiration of six Months and ten Days after the date of default or notice of termination.

10.2 Security for Disposal of Sale Oil and Additional Sale Oil. To secure the Buyer's obligations to purchase and dispose of Sale Oil or Additional Sale Oil, upon the Commissioner's request, if Buyer refuses to accept or receive Sale Oil or Additional Sale Oil under this Agreement, Buyer shall assign or otherwise transfer to the State, or its designee, all or part of Buyer's right to transport the Sale Oil or Additional Sale Oil through and away from the TAPS, and all pipelines upstream from Pump Station No. 1, whether such rights are under nominations, leases, contracts, tariffs, charter parties, or other agreements. The State will incur liability or obligations under such assignment or transfer only to the extent the State actually exercises its rights to succeed to Buyer's interests under and obtain the benefits of the assignments.

ARTICLE XI **NONWAIVER**

11.1 Nonwaiver. The failure of a Party to insist upon strict or a certain performance, or acceptance by a Party of a certain performance or course of performance under this Agreement shall not: (1) constitute a waiver or estoppel of the right to require certain performance or claim breach by similar performance in the future; (2) affect the right of another Party to enforce any provision; or (3) affect the validity of any part of this Agreement.

ARTICLE XII **DISPUTE RESOLUTION**

12.1 Dispute Resolution. Any disagreement or dispute arising out of or related to this Agreement shall be decided according to the dispute resolution procedure set forth in this Article. The procedure set for in this Article shall be initiated by a Party by providing written Notice of the disagreement or dispute to the other Parties. No later than sixty Days after a Party provides written Notice, the Parties shall each present any arguments and evidence supporting its view of the disputed term, condition, right or obligation in writing to the Commissioner for consideration. Prior to consideration by the Commissioner, the State, Buyer, and Guarantor shall not have the right to civil litigation-type discovery or a civil litigation-type trial with the right to call or cross-examine witnesses unless granted by the Commissioner, after request. Within 30 Days after the Parties submit their final arguments and evidence, the Commissioner shall issue a finding set for the basis for the conclusion. Any Commissioner finding issued under the foregoing procedure shall be considered a final administrative order and decision appealable to the Alaska Superior Court pursuant to AS 22.10.020 and applicable Alaska Rules of Court.

ARTICLE XIII **SEVERABILITY**

13.1 Severability. If a court decrees any provision of this Agreement to be invalid, all other provisions of this Agreement shall remain valid. If, however, invalidation of a provision impairs a material right or remedy under this Agreement, the Parties will negotiate in good faith to maintain the original intent and benefits of this Agreement. If the Parties cannot restore the original intent and benefits of this Agreement, then either Party may terminate this Agreement by giving Notice.

ARTICLE XIV
FORCE MAJEURE

14.1 Effect of Force Majeure. Except for Buyer's and Guarantor's obligations to pay amounts due, provide assurance of performance in accordance with Article VI, accept, dispose of, and pay for Sale Oil and Additional Sale Oil, no Party shall be liable for failure to perform if performance is substantially prevented by Force Majeure after commercially reasonable efforts to perform. Except, however, if Buyer or Guarantor is prevented by Force Majeure from performing any material obligation for 180 successive Days or more, the State shall have the right to terminate this Agreement on 60 Days' Notice. If the State is prevented by Force Majeure from performing any material obligation for 180 successive Days or more, Buyer may terminate this Agreement on 60 Days' Notice. Before a Party exercises the right to terminate this Agreement, the Party may request the other Parties to negotiate in good faith to restore performance.

14.2 Force Majeure. In this Agreement the term "Force Majeure" means an event or condition not within the reasonable control of the Party claiming "Force Majeure."

14.2.1 Force Majeure Events include, but are not limited to, the following events:

(a). act of God, fire, lightning, landslide, earthquake, storm, hurricane, hurricane warning, flood, high water, washout, explosion, well blowout, failure of plant, pipe or equipment, or;

(b). strike, lockout, or other industrial disturbance, act of the public enemy, war, military operation, blockade, insurrection, riot, epidemic, arrest or restraint by government of people, terrorist act, civil disturbance, or national emergency;

(c). act, order, or requisition of any governmental agency or acting governmental authority or any governmental proration, regulation, or priority.

14.2.2 Force Majeure events do not include changes in commercial or financial

markets affecting the price of crude oil or processed petroleum products.

14.3 Notice and Remedy of Force Majeure. If a Party believes that Force Majeure has occurred, the Party shall immediately provide Notice to the other Parties of its claim of Force Majeure. The Party claiming Force Majeure shall use commercially reasonable efforts to remedy the Force Majeure. Except for Buyer's and Guarantor's absolute obligations to pay amounts due, provide assurances of performance in accordance with Article VI, and accept, dispose of and pay for Sale Oil and Additional Sale Oil, the disabled Party's obligations to perform that are affected by the Force Majeure shall be suspended from the time of Notice to the other Parties until the disability caused by the Force Majeure should have been remedied with reasonable diligence.

ARTICLE XV

NOTICE

15.1 Method of Notice. All notices, consents, requests, demands instructions, approvals, and other communications permitted or required shall be made in writing and delivered by any two of the following methods: (a) personally delivered, (b) delivered and confirmed by facsimile transmission, (c) delivered by overnight courier delivery service, (d) delivered and confirmed by electronic mail, or (e) deposited in the United States mail, first class, postage prepaid, certified or registered, return receipt requested, addressed as follows:

Commissioner of Natural Resources
550 West 7th Avenue, Suite 1400
Anchorage, Alaska 99501-3650
Facsimile Number: (907) 269-8918

and

Director, Division of Oil and Gas
550 West 7th Street, Suite 1100
Anchorage, Alaska 99501-3510
Facsimile Number: (907) 269-8938

the Buyer:

Preliminary Finding and Determination of the Commissioner – 1-year contract

Petro Star Inc.
Address: 3900 C Street, Suite 802
Anchorage, Alaska 99503
Facsimile Number:
Attention: General Counsel

the Guarantor:

Arctic Slope Regional Corporation
Address: 3900 C Street, Suite 802
Anchorage, Alaska 99503
Facsimile Number:
Attention: General Counsel

or to any other place within the United States of America designated in writing by the State, Buyer or Guarantor.

15.2 Notice Effective Date. Notice given by personal delivery, or other reputable overnight courier delivery service, or United States mail, first class, postage prepaid, certified or registered, return receipt requested, shall be effective on the date of actual receipt at the appropriate address. Notice given delivered and confirmed by facsimile or electronic mail shall be effective on the date of actual receipt if received during recipient's normal business hours, or at the beginning of the next Business Day after receipt if received after recipient's normal business hours. The Notice Effective Date is the effective date of the first of the two Notices received.

15.3 Change of Address. A Party may notify the other Parties of changes in its address by giving Notice.

ARTICLE XVI
RULES AND REGULATIONS

16.1 Rules and Regulations. This Agreement is subject to the laws of the State of Alaska, and orders, rules and regulations of the United States, the State of Alaska, and any duly constituted agency of the State of Alaska.

ARTICLE XVII
SOVEREIGN POWER OF THE STATE

17.1 Sovereign Power of the State. This Agreement shall not be interpreted to limit in any way the State's ability to exercise any sovereign or regulatory powers, whether conferred by constitution, statute or regulation. The State's exercise of any sovereign or regulatory power shall not be deemed to enlarge any of Buyer's or Guarantor's rights, or limit any of Buyer's or Guarantor's obligations or liabilities under this Agreement.

ARTICLE XVIII
APPLICABLE LAW

18.1 Governing Law. This Agreement, and all matters arising from or related to this Agreement, shall be governed, construed and determined by the laws of the State of Alaska.

18.2 Jurisdiction. Any legal action or proceeding arising out of or related to this Agreement shall be brought in a state court of general jurisdiction sitting in the State of Alaska, and the Parties irrevocably submit to the jurisdiction of that court in any action or proceeding.

18.3 Venue. The Parties agree that the venue for any legal action or proceeding arising out of or related to this Agreement shall be in the Alaska Superior Court sitting in Anchorage, Alaska.

ARTICLE XIX
WARRANTIES

19.1 Warranties. The purchase and sale of Royalty Oil under this Agreement are subject only to the warranties the State has expressly set forth in this Agreement. The State disclaims and Buyer and Guarantor waive all other warranties, express or implied in law.

ARTICLE XX
AMENDMENT

20.1 Amendment. This Agreement may be supplemented, amended, or modified only by written instrument duly executed by the Parties, and, where required, only on approval under Alaska Statute 38.06.055.

20.2 Legislative Approval. Any material amendment to this Agreement that appreciably reduces the consideration received by the State requires prior approval of the legislature.

ARTICLE XXI
SUCCESSORS AND ASSIGNS

21.1 Assignments and Other Transfers. Buyer may freely assign its rights and obligations to an Affiliate formed under the laws of a state in the United States of America. An “Affiliate” shall mean an entity that is directly or indirectly controlled by Guarantor or Guarantor’s permitted assigns, or is directly or indirectly controlled by an entity that directly or indirectly controls Guarantor or Guarantor’s permitted assigns, where control means the right to vote more than fifty percent of the voting interest in the entity.

Buyer and Guarantor may, without consent of the State, collectively assign their rights and obligations under this Agreement to a Person that acquires all or substantially all of the Alaska refining assets of Buyer and Guarantor (the “Assignee”), provided that at least 45 Days before the effective date of the assignment the Assignee provides to the State (a) all of the financial information and warranties Guarantor is required to provide under Article V and (b) a copy of the form of the assignment, including Assignee’s obligation to assume and discharge all of Buyer’s and Guarantor’s obligations under this Agreement. If, based on the financial information supplied under Article V, Assignee is required to supply performance assurance under Article VI, the performance assurance in the form and amount required by Article VI must be provided to the

State at least 30 Days before the effective date of the assignment. No assignment can be made to an Assignee with long term credit ratings of less than BBB (Standard and Poor's) or Baa3 (Moody's). From and after the effective date of the Assignment, Buyer and Guarantor shall be relieved of their rights and obligations under this Agreement except as to any surviving obligations expressed in the Agreement. No assignment shall be effective until after 45 Days' Notice to the State.

Buyer and Guarantor may not otherwise assign their rights or obligations under this Agreement without first obtaining the written consent of the Commissioner, which may not be unreasonably withheld.

21.2 Binding on Successors. This Agreement shall be binding upon and inure to the benefit of the legal representative, Parties and their successors, and assigns of the Parties.

ARTICLE XXII **RECORDS**

22.1 Inspection of Records. The Parties shall each accord to the other and the other's authorized agents, attorneys, and auditors access during reasonable business hours to any and all property, records, books, documents, or indices related to Buyer's, Guarantor's or the State's performance under this Agreement, and which are under possession or control of the Party from which access is sought, so the other Party may inspect, photograph, and make copies of the property, records, books, documents, or indices except: (1) the State shall not be required to disclose any information, data, or records that it is required by state or federal law or regulation, or by agreement with the Person supplying the record, to be held confidential; (2) the State's access to and treatment of Guarantor's financial records shall be limited by Section 5.3; and (3) no party shall be required to produce documents that are protected by the attorney-client privilege or in the case of the State deliberative process privilege. If information the State obtains from Buyer or

Guarantor may be held confidential under state or federal law or regulation, Buyer may request in writing that the State hold the information confidential, and the State shall keep the information confidential to the extent and for the term provided by law.

ARTICLE XXIII
EMPLOYMENT OF ALASKA RESIDENTS

23.1 Employment of Alaska Residents. Buyer shall comply with all valid federal, state, and local laws in hiring Alaska residents and companies, and shall not discriminate against Alaska residents and companies. Within the constraints of law, Buyer voluntarily agrees to employ Alaska residents and Alaska companies to the extent they are available, willing, and at least as qualified as other candidates for work performed in Alaska in connection with this Agreement. “Alaska resident” means an individual who is physically present in Alaska with the intent to remain in the state indefinitely. An individual may demonstrate an intent to remain in the state by maintaining a residence in the state, possessing a resident fishing, trapping or hunting license, or receiving a permanent fund dividend. “Alaska companies” means companies incorporated in Alaska or whose principal place of business is in Alaska. If a court invalidates any portion of this provision, Buyer agrees to employ Alaska residents and Alaska companies to the extent permitted by law.

ARTICLE XXIV
COUNTERPARTS

24.1 Counterparts. This Agreement may be executed in multiple counterparts. It is not necessary for the Parties to sign the same counterpart. Each duly executed counterpart shall be deemed to be an original and all executed counterparts taken together shall be considered to be one and the same instrument.

ARTICLE XXV
MISCELLANEOUS

25.1 Agreement Not to Be Construed Against Any Party as Drafter. The Parties recognize that this Agreement is the product of the joint efforts of the Parties and agree that it shall not be construed against any Party as drafter.

25.2 Entire Agreement. This Agreement constitutes the entire agreement and understanding between the Parties about the subject matter of this transaction and all prior agreements, understandings, and representations, whether oral or written, about this subject matter are merged into and superseded by this written Agreement.

25.3 Headings. The headings throughout this Agreement are for reference purposes only and shall not be construed or considered in interpreting the terms and provisions of this Agreement.

25.4 Authority to Sign. Each Person signing this Agreement warrants that he or she has authority to sign the Agreement.

25.5 Further Assurances. The Parties agree to do such further acts or execute such further documents as may reasonably be required to implement this Agreement.

25.6 Currency. All dollar amounts are U.S. dollars.

SIGNATURES:

THE STATE OF ALASKA

Andrew T. Mack, Commissioner
Department of Natural Resources

Date:

PETRO STAR INC.

Doug Chapados
President and CEO

Date:

ARCTIC SLOPE REGIONAL
CORPORATION

Charles Kozak
EVP and Chief Financial Officer

Date:

**APPENDIX 1:
SALE OIL NOMINATION PROCEDURE**

Example Nomination Procedure for July 2014 Deliveries

	Prudhoe Bay & Satellites	Greater Pt McIntyre Area	MPU Total	DIU Total	KRU Total	Northstar Total	CRU Total	Badami Total	Oooguruk Total	Nikaitchuq Total	Total
March 15, 2014											
State receives preliminary barrel per day (bpd) production forecasts from the unit operator 105 days prior to the start of the production month	149,600	14,000	14,000	5,800	73,700	9,200	47,500	1,000	6,700	8,000	329,500
Not later than March 21, 2014											
RIK purchaser notifies state of monthly bpd nomination (a)											30,000
Not later than March 30, 2014											
State computes RIK %											
Estimated royalty rates	12.50%	13.34%	13.77%	14.42%	12.50%	27.50%	14.74%	14.80%	5.00%	12.50%	
State Ownership	100.00%	100.00%	100.00%	100.00%	100.00%	82.16%	67.82%	100.00%	100.00%	100.00%	
Total state estimated royalty bpd (bpd * royalty rate)	18,700	1,868	1,928	836	9,213	2,079	4,748	148	335	1,000	40,854
State's Total RIK nomination percentage (Purchaser RIK bpd/estimated royalty bpd)											73.43%
March 30, 2014											
State notifies unit operator of state's RIK nomination percentage	94.64%	94.64%	95.00%	95.00%	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
May 26, 2014											
Unit operator notifies state and working interest owners of updated production forecast											
Production forecast (bpd) for July production month	188,938	30,009	10,900	8,560	72,080	7,300	45,064	1,291	6,900	7,800	378,842
State calculates RIK bpd											
Royalty rates based on updated estimates (b)	12.50%	13.391158%	12.50%	12.50%	12.50%	27.50%	14.74%	14.80%	5.00%	12.50%	
State's RIK nomination percentage	94.64%	94.64%	95.00%	95.00%	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
RIK bpd (bpd production forecast * Royalty rate * nomination %)	22,351	3,803	1,294	1,017	7,659	0	0	0	0	0	36,124
State's Tendering percentage (RIK bpd/Production Forecast volumes)	11.83000000%	12.67339193%	11.87500000%	11.87500000%	10.62500000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	
May 31, 2014											
State notifies RIK purchaser of bpd volume available for July production month	22,351	3,803	1,294	1,017	7,659	0	0	0	0	0	36,124
August 2, 2014											
State invoices RIK purchaser for May production											
Metered volume for July 1-31, 2014	7,279,221	561,360	375,992	260,120	2,712,974	256,569	1,406,636	42,261	207,194	248,903	13,351,230
State's RIK Tendering percentage	11.83000000%	12.67339193%	11.87500000%	11.87500000%	10.62500000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	
Total RIK bbls	861,131.84	71,143.35	44,649.05	30,889.25	288,253.49	-	-	-	-	-	1,296,067
bpd volume (Total RIK/31) (varies from forecast)	27,778	2,295	1,440	996	9,298	0	0	0	0	0	41,809
bpd volume varies from forecast	9,078	427	(488)	160	86						9,264

Table notes:

(a) The state determines from which units to nominate RIK volumes (section 2.1.2 of the Agreement)

(b) The estimated royalty percentage for Greater Pt McIntyre is a composite royalty rate from several fields and will vary with production

APPENDIX 2: EXAMPLE OF CALCULATION OF PRICE OF SALE OIL AND ADDITIONAL SALE OIL

The Price of the Sale Oil and Additional Sale Oil delivered by the State to the Buyer each Month for each Unit from which the Sale Oil and Additional Sale Oil is nominated is:

$$\text{Price} = \text{ANS Spot Price} - 1.95 - \text{Tariff Allowance} + \text{Quality Bank Adjustment} - \text{Line Loss}$$

ANS Spot Price

Table 2-1 illustrates the calculation of the ANS Spot Price for July 2014.

Table 2-1: Calculation of ANS Spot Price

Effective Date	Platt's Oilgram Price Report			Reuters On-line Data Reporting Service		
	ANS Daily Low	ANS Daily High	ANS Daily Midpoint Average	ANS Daily Low	ANS Daily High	ANS Daily Midpoint Average
07/01/14	\$111.28	\$111.32	\$111.30000	\$110.49	\$110.59	\$110.54000
07/02/14	\$113.01	\$113.05	\$113.03000	\$112.44	\$112.54	\$112.49000
07/03/14	\$112.64	\$112.68	\$112.66000	\$112.20	\$112.30	\$112.25000
07/07/14	\$114.66	\$114.70	\$114.68000	\$114.22	\$114.32	\$114.27000
07/08/14	\$112.28	\$112.32	\$112.30000	\$111.74	\$111.85	\$111.79500
07/09/14	\$111.20	\$111.24	\$111.22000	\$110.79	\$112.13	\$111.45954
07/10/14	\$113.36	\$113.40	\$113.38000	\$114.60	\$114.70	\$114.65000
07/11/14	\$113.84	\$113.88	\$113.86000	\$114.84	\$114.94	\$114.89000
07/14/14	\$113.47	\$113.51	\$113.49100	\$113.60	\$113.70	\$113.65050
07/15/14	\$114.90	\$114.94	\$114.92000	\$115.19	\$115.29	\$115.24000
07/16/14	\$113.55	\$113.59	\$113.57000	\$114.08	\$114.18	\$114.13000
07/17/14	\$115.16	\$115.19	\$115.17500	\$115.45	\$115.55	\$115.50000
07/18/14	\$115.30	\$115.34	\$115.32000	\$115.39	\$115.49	\$115.44000
07/21/14	\$116.40	\$116.50	\$116.45000	\$116.18	\$116.28	\$116.23000
07/22/14	\$116.20	\$116.23	\$116.21500	\$116.81	\$116.94	\$116.87500
07/23/14	\$116.50	\$116.55	\$116.52500	\$116.15	\$116.25	\$116.20000
07/24/14	\$116.65	\$116.70	\$116.67500	\$116.54	\$116.64	\$116.59000
07/25/14	\$115.71	\$115.75	\$115.73000	\$115.35	\$115.45	\$115.40000
07/28/14	\$114.75	\$114.79	\$114.77000	\$114.39	\$114.50	\$114.44500
07/29/14	\$113.93	\$113.98	\$113.95500	\$114.64	\$114.75	\$114.69500
07/30/14	\$113.55	\$113.60	\$113.57500	\$113.18	\$113.28	\$113.23000
07/31/14	\$114.16	\$114.20	\$114.18000	\$114.46	\$114.54	\$114.50000
	Platt's Montly Avg. =		\$114.22641	Reuters Monthly Avg. =		\$114.29409

$$\text{ANS Spot Price}_{\text{July 2014}} = \$114.260250$$

Tariff Allowance

The Tariff Allowance (TA) is the sum of (1) the average, weighted by ownership, of the Minimum Interstate TAPS Tariff for each owner in effect on the Day the Sale Oil and Additional Sale Oil is tendered by the State to the Buyer; and (2) tariffs on file with FERC for shipment of Sale Oil upstream of Pump Station No. 1. Table 2-2, 2-3, and 2-4 illustrates how the state will calculate the TA for each of the Units from which Sale Oil and Additional Sale Oil may be offered.

Table 2-2: Calculation of TAPS Portion of Tariff Allowance

Ownership-Weighted Average Minimum Interstate TAPS Tariff – July 2014				
Pipeline Company	FERC No.	Percent Pipeline Company Ownership	Minimum Interstate TAPS Tariff (Pump Station No.1 to Valdez Marine Terminal) by Pipeline Company	TAPS Tariff times Company Ownership Percentage
ConocoPhillips Transportation Alaska, Inc.		29.61017%	\$5.04	\$1.49235
ExxonMobil Pipeline Company		21.28289%	\$5.06	\$1.07691
BP Pipelines (Alaska) Inc.		49.10694%	\$5.04	\$2.47499
		100.0000%		

Ownership-Weighted Average Minimum Interstate TAPS Tariff = \$5.04426

Table 2-3: Calculation of Portion of Tariff Allowance Upstream of Pump Station No. 1

Minimum Tariff on Pipelines Upstream of Pump Station No. 1 – July 2014			
Pipeline Company	FERC No.	Pipeline	Tariff
Kuparuk Transportation Company		Kuparuk River Unit to TAPS Pump Station No. 1	\$0.26400
Endicott Pipeline Company		Endicott Main Production Island to TAPS Pump Station No. 1	\$2.01000
Kuparuk Transportation Company		Milne Point Pipeline Connection to TAPS Pump Station No. 1	\$0.19300
Milne Point Pipeline Company		Milne Point Central Facilities to Kuparuk Transportation Company Tie-in	\$0.96000
		Total MPU Upstream Tariff Allowance:	\$1.15300
Kuparuk Transportation Company		Kuparuk River Unit to TAPS Pump Station No. 1	\$0.26400
Alpine Transportation Company		Colville, Alaska Alpine Field to Kuparuk River Unit	\$0.69000
		Total CRU Upstream Tariff Allowance:	\$0.95400
NORTHSTAR Pipeline Company		Northstar Unit Seal Island to TAPS Pump Station No. 1	\$2.14000

Table 2-4: Calculation of Tariff Allowance for Each Unit**Calculation of TA for Prudhoe Bay Unit**

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Upstream Tariff	<u>\$0.00000</u>
TA _{PBU}	\$5.04426

Calculation of TA for Kuparuk River Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04497
Kuparuk Transportation Co. Tariff	<u>\$0.26400</u>
TA _{KRU}	\$5.30826

Calculation of TA for Duck Island Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Endicott Pipeline Co. Tariff:	<u>\$2.01000</u>
TA _{DIU}	\$7.05426

Calculation of TA for Milne Point Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Kuparuk Transportation Co. Tariff	\$0.19300*
Milne Point Pipeline Co. Tariff	<u>\$0.96000</u>
TA _{MPU}	\$6.19726

Calculation of TA for Colville River Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Kuparuk Transportation Co. Tariff:	\$0.26400
Alpine Transportation Company Tariff:	<u>\$0.69000</u>
TA _{CRU}	\$5.99826

Calculation of TA for Northstar Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
NORTHSTAR Pipeline Company. Tariff:	<u>\$2.14000</u>
TA _{NSU}	\$7.18426

*From Kuparuk Pipeline/Milne Point Pipeline connection to TAPS Pump Station No. 1.

Quality Bank Adjustment (QBA)

The TAPS Quality Bank compensates shippers of a high-value crude oil stream when a lower-value crude oil stream is blended in the common stream.⁶⁰ To calculate the Price of the Sale Oil and Additional Sale Oil at the Point of Delivery an adjustment must be made for the impact that the sale oil will have on the value of the commingled crude oil stream when it enters the TAPS Valdez terminal.

The QBA is a per-barrel value, either positive or negative, and will be calculated each Month by the State for Sale Oil and Additional Sale Oil from each Unit. The State will estimate a QBA for

⁶⁰ Mitchell & Mitchell, 8300 Douglas Avenue, #800, Dallas, TX 75225, administers the TAPS Quality Bank. Anyone who ships oil on TAPS must make prior arrangements with Mitchell & Mitchell to participate in the TAPS Quality Bank.

each applicable Unit for the initial billing. Typically, the State receives the data to calculate the actual QBA for the Month about two Months after the Month the Sale Oil and Additional Sale Oil is delivered. For this reason, the QBA will be subject to a routine true-up in a subsequent adjustment.

Table 2-5: Hypothetical TAPS Quality Bank Data
(as provided by the Quality Bank Administrator)

TAPS Quality Bank Stream Values and Total Stream Volume Shipped July 2014				
Sample Location	Stream	Volume (BBL)	Stream Value (\$/BBL)	Total Stream Value (\$)
PBU IPA	PBU IPA	6,339,237	\$110.4164400000	\$699,955,981.86
LISBURNE	LISBURNE	271,173	\$112.2028800000	\$30,426,391.58
ENDICOTT	ENDICOTT	202,497	\$109.5248100000	\$22,178,445.45
KUPARUK	KUPARUK	7,008,864	\$109.1719600000	\$765,171,420.25
NORTHSTAR	NORTHSTAR	396,155	\$115.0336100000	\$45,571,139.77
PS #1	PS #1 REFERENCE	14,217,926	\$109.9529832205	\$1,563,303,378.91
GVEA OFFTAKE	GVEA PASSING	10,748,066	\$109.9891900000	\$1,182,171,073.41
GVEA RETURN	GVEA RETURN	2,601,950	\$107.3460500000	\$279,309,054.80
GVEA	GVEA REFERENCE	13,350,016	\$109.4740357018	\$1,461,480,128.20
PSVR OFFTAKE	PSVR PASSING	11,912,350	\$109.4969400000	\$1,304,379,691.54
PSVR RETURN	PSVR RETURN	1,051,990	\$105.4520200000	\$110,934,470.52
PSVR	PSVR REFERENCE	12,978,304	\$109.1697812657	\$1,415,314,162.05

KTC Quality Bank Stream Values and Total Stream Volume Shipped July 2014				
Sample Location	Stream	Volume (BBL)	Stream Value (\$/BBL)	Total Stream Value (\$)
ALPINE	ALPINE	2,241,772	\$110.7967700000	\$248,381,096.68
MILNE POINT	MILNE POINT	638,565	\$108.6292500000	\$69,366,837.03
KUPARUK REFERENCE	KUPARUK REFERENCE	7,010,971	\$109.1719600000	\$765,401,445.57
NIKAITCHUQ	NIKAITCHUQ	210,697	\$107.4115200000	\$22,631,285.03
KUPARUK RIVER UNIT	KUPARUK RIVER UNIT	3,919,937	\$108.4257800166	\$425,022,226.84

Table 2-5 shows the kind of information supplied by the TAPS quality bank administrator that will be used to calculate the quality bank differential for Sale Oil and Additional Sale Oil produced from each Unit. The TAPS quality bank administrator provides this information to the State, pipeline owners, and shippers. As a shipper on TAPS, the Buyer will also receive this information. In the column titled “Stream Value (\$/BBL)” are the different per-barrel values of each stream produced from the Units from which Sale Oil and Additional Sale Oil may be delivered. The PSVR Reference Stream value is labeled “PSVR Reference” and is the stream value of the blended TAPS stream immediately downstream of the Petro Star Valdez Refinery return stream. The Quality Bank Adjustment is calculated as the difference between the stream value of each Unit and the PSVR Reference Stream.

For example, assume that the Month is July 2014 and the Sale Oil and Additional Sale Oil is produced from Lisburne. The QBA for Sale Oil and Additional Sale Oil from Lisburne

(QBA_{LIS}) is calculated as the per-barrel difference between the Stream value for Lisburne, indicated as “Lisburne” in Table 2.5, and the PSVR Reference Stream Value. In this example Sale Oil and Additional Sale Oil from Lisburne increases the value of the stream of oil measured at Valdez. Therefore, \$3.0330987343 per barrel is the QBA incorporated in the calculation of Price for Sale Oil and Additional Sale Oil from Lisburne.

Quality Bank Adjustment for Lisburne = the stream value for Lisburne minus the stream value of PSVR Reference (from Table 2-5)

$$QBA_{LIS} = 112.2028800000 - 109.1697812657$$

$$QBA_{LIS} = \$3.03310$$

Note: The Price of Sale Oil and Additional Sale Oil from the PBU IPA and Lisburne are invoiced separately.

Using the results of the example calculations above, Line Loss for Sale Oil and Additional Sale Oil delivered from Lisburne in July 2014 equals

$$\text{Line Loss}_{LIS} = (.0009) \times (\$114.26025 - \$1.95 - \$5.04426 + \$3.03310) = \$0.09927$$

Calculating the Price of Sale Oil and Additional Sale Oil

The Price of Sale Oil and Additional Sale Oil delivered from Lisburne in July 2014 is

$$\text{Price}_{LIS} = \$114.26025 - \$1.95 - \$5.04426 + \$3.03310 - \$0.09927 = \$110.19982$$

Note that each number in the equation is rounded to five decimal places. If a number's sixth decimal is 0, 1, 2, 3, or 4, the number shall be truncated to the fifth decimal. If a number's sixth decimal is 5, 6, 7, 8, or 9, the number shall be truncated to the fifth decimal and the fifth decimal shall be increased by 1.

APPENDIX 3
EXAMPLE OF CALCULATION OF INTEREST AND LATE PAYMENT PENALTIES

Sample Calculation of an Invoice for July 2014 Deliveries

Assumptions:

1. Month is August 2014.
2. Sale Oil and Additional Sale Oil delivered to the Buyer from Lisburne in July 2014 = 31,000 barrels (1,000 bpd).
3. July 2014 Price of the Sale Oil and Additional Sale Oil for Lisburne as initially estimated by the State = \$110.00000 per barrel.
4. Statement of account, with July 2014 invoice, sent to the Buyer on August 2, 2014.
5. July 2014 invoice payment due to the State = August 22, 2014.
6. Buyer pays State only \$1,000,000 on the due date, August 22, and pays the outstanding balance on August 25, 2014.
7. Annual interest rate provided by Alaska Statute 38.05.135(d) for August 2014 is 11 percent.

Method for calculating Buyer's invoice payment for July 2014 deliveries:

$$\text{Invoice Amount} = \text{Quantity of Sale Oil \& Additional Sale Oil} \times \text{Buyer's Price of Sale Oil} \\ 31,000 \times \$110.00000 = \$3,410,000.00$$

Because payment in full was not received by the State on or before August 22, 2014, interest will accrue on the unpaid balance from August 22, 2014 through the date the payment is received, and a late payment penalty will be assessed.

Below is a sample calculation of late payment penalty fee (assuming that it is not waived under Section 3.7) and interest. This sample calculation shows what will happen if the Buyer makes a partial payment on August 22 and the balance on August 25.

Late Payment Penalty Fee:

Statement of Account amount	=	\$3,410,000.00
Amount paid on August 22	=	<u>\$1,000,000.00</u>
Outstanding balance (8/22/11)	=	\$2,410,000.00
Late Payment Penalty Fee (\$2,410,000 x 5%) =	=	\$120,500.00

Interest:

\$2,410,000 x (11%/365) x 3 Days	=	<u>\$2,178.90</u>
Amount Buyer owes on August 25, 2014	=	\$2,532,678.90

Note: As more accurate data is received by the State, the State may adjust the Price and/or the actual quantity of Sale Oil and Additional Sale Oil and invoice the Buyer in the initial adjustment invoice submitted with the following Month's (August 2014) statement of account.

Sample Calculation of an Adjustment Invoice in September 2014

Assumptions:

1. Month is September 2014.
2. Sale Oil and Additional Sale Oil delivered in July 2014 has been revised to 30,000 barrels.
3. July 2014's price for Sale Oil and Additional Sale Oil is unchanged at \$110.00000 per barrel.
4. Date of the statement of account that contains the adjustment invoice is September 1, 2014.
5. Date the adjustment invoice payment is due to the State = September 20, 2014.

Method for calculating the Buyer's adjustment invoice amount for July 2014:

$$\begin{aligned}\text{Invoice Amount} &= \text{Quantity of Sale Oil \& Additional Sale Oil} \times \text{Buyer's Price of Sale Oil} \\ &= 30,000 \times \$110.00000 \\ &= \$3,300,000.00\end{aligned}$$

Adjusted Invoice Amount for July 2014	=	\$3,300,000.00
Amount previously paid by the Buyer for July 2014	=	<u>\$3,410,000.00</u>
Overpayment for July 2014	=	(\$110,000.00)

Credit due the Buyer against statement of account amount dated September 1 due September 20, 2014.

Note: As more accurate data is received by the State, the State may adjust the Price and/or the actual quantity of Sale Oil and Additional Sale Oil and invoice the Buyer in the adjustment invoice submitted with the following Month's (October 2014) statement of account.

Sample Calculation of an Adjustment Invoice in October 2014

Assumptions:

1. Month is October 2014.
2. July 2014's price for Sale Oil and Additional Sale Oil is changed to \$110.05000 per barrel due to a change in the quality bank.
3. The statement of account that contains the adjustment invoice is October 4, 2014.
4. The adjusted invoice payment is due to the State = October 20, 2014.

Method for calculating the Buyer's adjustment invoice amount for July 2014:

$$\begin{aligned}\text{Production Month Invoice Amount} &= \text{Quantity of Sale Oil \& Additional Sale Oil} \times \text{Buyer's Price of Sale Oil} \\ &= 30,000 \times \$110.05000 \\ &= \$3,301,500.00\end{aligned}$$

Preliminary Finding and Determination of the Commissioner – 1-year contract

Adjusted Invoice Amount for July 2014	=	\$3,301,500.00
Amount previously paid by the Buyer for July 2014	=	<u>\$3,300,000.00</u>
Underpayment for July 2014	=	\$1,500.00

The underpayment is due the State on October 20, 2014.

APPENDIX 4

ILLUSTRATION OF PRORATION

Assume that the monthly Royalty Oil is equal to 40,000 barrels per day (bpd). Thus, 95% of that monthly Royalty Oil is 38,000 bpd. Also, suppose that the State has three RIK contracts:

As defined previously, proration will take place whenever the sum of the initial sale oil quantity nominations for all three RIK buyers is greater than 95% of the monthly Royalty Oil.

Case 1: 95% of the monthly Royalty Oil is not enough to meet the initial sale oil quantity nominations from the RIK buyers. In such a case, buyers will be prorated so that each such buyers' Sale Oil quantity as a percentage of total Sale Oil quantities under all contracts after proration is equal to the percentage of its initial monthly sale oil quantity nomination to the total initial monthly sale oil quantity nominations for all the buyers.

	Initial monthly sale oil quantity nomination (in BPD)	Monthly Sale Oil quantity after proration (in BPD)	
Buyer 1	22,000	16,077	<i>prorated</i>
Buyer 2	18,000	13,154	<i>prorated</i>
Buyer 3	12,000	8,769	<i>prorated</i>
Total	52,000	38,000	

Keeping the assumption that the State has 3 RIK contracts, we could describe the proration provision symbolically.

Let X_i denote the initial monthly sale oil quantity from buyer i , where $i = 1, 2, 3$. Let R represent the monthly Royalty Oil. And let Y_i be the Sale Oil quantity determined after proration.

$$\rightarrow \text{If } (X_1 + X_2 + X_3) \leq 0.95 * R, \text{ then } Y_i = X_i$$

$$\rightarrow \text{If } (X_1 + X_2 + X_3) > 0.95 * R, \text{ then } Y_i = \left(\frac{X_i}{X_1 + X_2 + X_3} \right) * 0.95 * R$$

APPENDIX 5

ILLUSTRATION OF ADDITIONAL SALE OIL NOMINATION

Assume that the monthly Royalty Oil is equal to 40,000 barrels per day (bpd). Thus, 95% of that monthly Royalty Oil is 38,000 bpd. Also, suppose that the State has three RIK contracts with the following Sale Oil nominations:

	Buyer 1	Buyer 2	Buyer 3
Sale Oil Nomination	10,000 bpd	8,000 bpd	10,000 bpd

Following from that, the State has Excess Royalty Oil of 10,000 bpd arrived at by subtracting total Sale Oil Nominations from 95% of Royalty Oil (38,000 bpd – (10,000 bpd + 8,000 bpd + 10,000 bpd)).

Case 1: Excess Royalty Oil is enough to meet all Additional Sale Oil nominations.

	Additional Sale Oil quantity nomination (in BPD)	Monthly Sale Oil quantity after allocation (in BPD)	
Buyer 1	2,000	2,000	<i>Original nomination</i>
Buyer 2	5,000	5,000	<i>Original nomination</i>
Buyer 3	2,000	2,000	<i>Original nomination</i>
Total	9,000	9,000	< 10,000 bpd of Excess Royalty Oil

Case 2: Excess Royalty Oil is not enough to meet all Additional Sale Oil nominations.

If total nominations for Additional Sale Oil under all of the State's royalty-in-kind contracts exceed Excess Royalty Oil, the State will allocate Excess Royalty Oil. The State may nominate for each buyer up to the actual nominated volume of Additional Sale Oil. If any buyer's actual nominated volume of Additional Sale is not more than equal volumes of Excess Royalty Oil available to each buyer nominating Additional Sale Oil for that period determined by dividing Excess Royalty Oil by the number of nominations for Additional Sale Oil, that buyer will receive its full nomination. Those buyers, whose Additional Sale Oil nominations are not fully met with the calculated equal volumes of Excess Royalty Oil, will equally split the remaining available volumes up to the amount of actual nominated volume of Additional Sale Oil for each buyer. If there are remaining available volumes of Excess Royalty Oil, they will be allocated to the buyers whose actual nominated volume of Additional Sale Oil has not been satisfied.

Equal volumes of Excess Royalty Oil available to each buyer nominating Additional Sale Oil in this scenario is 3,333 bpd derived by dividing 10,000 bpd by 3.

Preliminary Finding and Determination of the Commissioner – 1-year contract

Buyer 1's Additional Sale Oil nomination is fully met with the calculated equal volumes of Excess Royalty Oil, thus Buyer 2 and Buyer 3, whose Additional Sale Oil nominations are not satisfied, will equally split the remaining available volumes at 4,000 bpd each calculated as $(10,000 \text{ bpd} - 2,000 \text{ bpd})/2$, up to the amount of each buyer's actual nomination. This means that Buyer 3 will only receive 3,500 bpd based on its actual nomination and buyer 2 will receive remaining 4,500 bpd.

	Additional Sale Oil quantity nomination (in BPD)	Monthly Sale Oil quantity after allocation (in BPD)
Buyer 1	2,000	2,000
Buyer 2	6,000	4,500
Buyer 3	3,500	3,500
Total	11,500	10,000

Original nomination

Remaining volumes equally split between buyers whose nominations were not met with equal volumes of Excess Royalty Oil (3,333 bpd) available to each buyer nominating Additional Sale Oil up to each buyer's actual nomination

=10,000 bpd of Excess Royalty Oil

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Exhibit 2: 4-Year RIK Contract
AGREEMENT FOR THE SALE OF
ROYALTY OIL
BETWEEN AND AMONG
THE STATE OF ALASKA,
AND
PETRO STAR INC.
AND
ARCTIC SLOPE REGIONAL CORPORATION
[Month] [Day], 2017

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**AGREEMENT FOR THE SALE AND
PURCHASE OF ROYALTY OIL**

This Agreement is between the State of Alaska (“State”), Petro Star Inc. (“Buyer”) and Arctic Slope Regional Corporation (“Guarantor”).

**ARTICLE I
DEFINITIONS**

As used in this Agreement, the terms listed below shall have the following meanings:

- 1.47 “Additional Sale Oil” is defined in Section 2.1.2.
- 1.48 “Affiliate” is defined in Section 21.1.
- 1.49 “ANS” means the Alaska North Slope.
- 1.50 “ANS Spot Price” is defined in Section 2.3.
- 1.51 “Assignee” is defined in Section 21.1.
- 1.52 “Business Day” means any day, or part of a day, during which federally chartered banks are open for business in the place designated in this Agreement for payment.
- 1.53 “Commissioner” means the Commissioner of the Alaska Department of Natural Resources or the Commissioner’s designee.
- 1.54 “Day” means a period of twenty-four consecutive hours, beginning at 12:01 a.m., Alaska Local Time.
- 1.55 “Day of First Delivery” is defined in Section 2.4.
- 1.56 “DBRS” means DBRS Inc., a nationally recognized statistical rating organization, a subsidiary of DBRS Limited, and its successors.
- 1.57 “Excess Royalty Oil” is defined in Section 2.1.2.
- 1.58 “Financial Analyst” is defined in Section 5.3.

- 1.59 “FERC” means Federal Energy Regulatory Commission.
- 1.60 “Force Majeure” is defined in Section 14.2.
- 1.61 “Leases” means the oil and gas leases issued by the State on the Alaska North Slope from which the State takes or may take Royalty Oil in-kind.
- 1.62 “Lessee” means a person owning a working interest in any of the Leases.
- 1.63 “Letter of Credit” is defined in Section 6.1.
- 1.64 “Line Loss” is defined in Section 2.3.
- 1.65 “Minimum Interstate TAPS Tariff” is defined in Section 2.3.
- 1.66 “Month” means a period beginning at 12:01 a.m., Alaska Local Time, on the first Day of the calendar Month and ending at 12:01 a.m., Alaska Local Time, on the first Day of the following calendar Month.
- 1.67 “Moody’s” means Moody’s Investor’s Services, Inc., a subsidiary of Moody’s Corporation, and its successors.
- 1.68 “Notice” means written notice in accordance with Article XV.
- 1.69 “Notice Effective Date” is defined in Section 15.2.
- 1.70 “Opinion Letter” is defined in Section 5.3.
- 1.71 “Parties” means, collectively, Buyer, Guarantor and State.
- 1.72 “Party” means Buyer, Guarantor or State, individually.
- 1.73 “Person” is defined in AS 01.10.060.
- 1.74 “Point of Delivery” means the transfer point at which the State receives Royalty Oil in-kind from the Lessees.
- 1.75 “Price” is defined in Section 2.3.
- 1.76 “Process” is defined in Section 4.1.

1.77 “PSVR Reference Stream” is the blended TAPS stream immediately downstream from the Petro Star Valdez Refinery.

1.78 “Refinery Turnaround” means a period not to exceed three months when Buyer, by notice to the State, may reduce the quantity of Sale Oil it nominates and purchases from the State to less than the minimum number of barrels per Day as designated for each Period in clause 2.1.1. because the Valdez, Alaska refinery or North Pole, Alaska refinery reduce the processing of Sale Oil for the purpose of performing planned or unplanned maintenance, repairs or capital improvements to the refinery.

1.79 “Quality Bank” means a system of calculations administered under the authority of the FERC that accounts for the differences in value between the individual tendered streams and the delivered co-mingled stream of TAPS.

1.80 “Quality Bank Adjustment” is defined in Section 2.3.

1.81 “Rating Agency” means Standard and Poor’s, Moody’s or DBRS.

1.82 “RIK Differential” means per barrel location differential used to determine the price of the Sale Oil and Additional Sale Oil under Section 2.3, and set at \$1.95 for this Agreement.

1.83 “Royalty Oil” means the total volume of crude petroleum oil and other hydrocarbons and associated substances from the Leases, including such substances as crude oil, condensate, natural gas liquids, or return oil from crude oil topping plants, that may be blended with crude oil before the Point of Delivery and tendered as a common stream to the State as Royalty Oil that the State may take in-kind, regardless of whether the State takes the Royalty Oil in-kind.

1.84 “Royalty Settlement Agreement” means any written royalty settlement agreement.

1.85 “Sale Oil” means the oil the State has agreed to sell to the Buyer, and the Buyer has agreed to purchase from the State under this Agreement.

1.86 “Standard and Poor’s” means Standard and Poor’s, a division of McGraw-Hill Companies, Inc. and its successors.

1.87 “Surety Bond” is defined in Section 6.4.

1.88 “TAPS” means the Trans-Alaska Pipeline System

1.89 “Tariff Allowance” is defined in Section 2.3.

1.90 “Term” is defined in Section 8.2.

1.91 “Unit” has the meaning defined in 11 AAC 83.395.

1.92 “Unit Agreement” means any unit agreement for a Unit from which the State takes or may take Royalty Oil.

ARTICLE II

SALE AND PURCHASE OF ROYALTY OIL

2.1 Quantity.

2.1.1 Sale Oil Quantity. The State agrees to sell to Buyer, and Buyer agrees to purchase from the State, an initial Sale Oil quantity based on the following schedule of a maximum and a minimum of barrels per Day averaged for the Month of Sale Oil delivery, as nominated by Buyer in accordance with Section 2.1.2 through 2.1.7.

Period 1: For the 12 months following the Day of First Delivery a maximum of 20,500 and a minimum of 16,400 barrels per Day averaged for the Month of Sale Oil delivery;

Period 2: For the 12 months following Period 1 a maximum of 16,500 and a minimum of 13,200 barrels per Day averaged for the Month of Sale Oil delivery;

Period 3: For the 12 months following Period 2 a maximum of 13,500 and a minimum of 10,800 barrels per Day averaged for the Month of Sale Oil delivery;

Period 4: For the 12 months following Period 3 a maximum of 10,500 and a minimum of 8,400 barrels per Day averaged for the Month of Sale Oil delivery.

2.1.2 Monthly Sale Oil Nomination. In accordance with 2.1.1, Buyer shall nominate the quantity of Sale Oil for each Month of Sale Oil delivery by giving Notice of Buyer's Sale Oil nomination. Except when the additional notice provisions of Section 2.1.7 are invoked by Lessees, Buyer's nomination shall be effective on the first Day of the Month following expiration of a minimum of one hundred Days after the Notice of Buyer's nomination. The State will make commercially reasonable efforts to nominate, in accordance with applicable Unit Agreements or Leases, percentages of the State's estimated Royalty Oil volume from one or more Units or non-unitized Leases, at the State's discretion, that will equal the Sale Oil quantity nominated by the Buyer each Month of Sale Oil delivery. Notwithstanding Buyer's Monthly nominations, any time the total commitments for Royalty Oil under all of the State's royalty-in-kind contracts exceed 95 percent of Royalty Oil in a Month, Buyer agrees that the State may limit its total nomination of Royalty Oil to an amount that does not exceed 95 percent of Royalty Oil in that Month of Sale Oil delivery and may employ the proration provisions as per 2.1.3. Buyer agrees to accept the volume of Royalty Oil delivered in accordance with the State's nomination. See Appendix 1 for an illustration of the State's nomination procedure for Sale Oil nominated from the Prudhoe Bay Unit for July 2014.

The Buyer may choose to nominate in the Notice additional quantity of Royalty Oil defined as Additional Sale Oil. Except when the additional notice provisions of Section 2.1.7 are invoked by Lessees, Buyer's nomination shall be effective on the first Day of the Month following expiration of a minimum of one hundred Days after the Notice of Buyer's nomination. If the total commitments for Sale Oil under all of the State's royalty-in-kind contracts fall below 95 percent

of estimated Royalty Oil in a Month, with this difference between 95 percent of estimated Royalty Oil in a Month and total commitments for Sale Oil under all of the State's royalty-in-kind contracts defined as Excess Royalty Oil, the State may in its sole discretion nominate fully or partially to satisfy Additional Sale Oil nominations up to the amount of Excess Royalty Oil. The State may nominate for each buyer up to the actual nominated volume of Additional Sale Oil. If total nominations for Additional Sale Oil under all of the State's royalty-in-kind contracts exceed Excess Royalty Oil, the State will allocate Excess Royalty Oil. If any buyer's actual nominated volume of Additional Sale Oil is not more than equal volumes of Excess Royalty Oil available to each buyer nominating Additional Sale Oil for that period determined by dividing Excess Royalty Oil by the number of nominations for Additional Sale Oil, that buyer will receive its full nomination. Those buyers, whose Additional Sale Oil nominations are not fully met with the calculated equal volumes of Excess Royalty Oil, will equally split the remaining available volumes up to the amount of actual nominated volume of Additional Sale Oil for each buyer. If there are remaining available volumes of Excess Royalty Oil, they will be allocated to the buyers whose actual nominated volume of Additional Sale Oil has not been satisfied.

The Buyer agrees to accept full or partial volumes of nominated Additional Sale Oil as determined by the State. Notwithstanding the nominations for Additional Sale Oil and acceptance of such by the State, the Buyer acknowledges and agrees that the State may satisfy nominations for Additional Sale Oil only after it satisfies Sale Oil nominations under all of the State's royalty-in-kind contracts. See Appendix 5 for an illustration of the nomination for the Additional Sale Oil.

2.1.3 Sale Oil Proration. Notwithstanding Section 2.1.1, Buyer agrees that for any Month of Sale Oil delivery in which the Buyer and all other buyers of Royalty Oil under all

of the State's royalty-in-kind contracts nominate more than 95 percent of the State's Royalty, the State may prorate the Buyer's Sale Oil nomination as well as Sale Oil nomination of the State's other purchasers.

If total Sale Oil nominations under all of the State's royalty-in-kind contracts exceed 95 percent of the Royalty Oil, then the State may reduce such nominations proportionately so that sum of such nominations does not exceed 95% of the Royalty Oil. The proration will occur according to this formula where a revised nomination under this contract is equal to $[(95\% * \text{Royalty Oil} / \text{Sum of nominations under the royalty in kind contracts}) * \text{Nomination submitted under 2.1.2.}]$. See Appendix 4 for an illustration of the proration process. For the avoidance of doubt this proration clause does not apply to Additional Sale Oil nomination described in 2.1.2.

2.1.4 Buyer's Election to Reduce Sale Oil Quantity.

(a) Buyer may elect to reduce the initial Sale Oil quantity by giving Notice. The initial Sale Oil quantity shall remain as stated in Section 2.1.1 for 12 Months after the Day of First Delivery. Notice of a reduction shall be delivered to the State at least six Months before the effective date of the reduction. The Commissioner may approve or deny a request for a reduction in Sale Oil quantity. The reduced maximum quantity shall be 137.5 percent of the reduced minimum quantity. For example, if the reduced minimum quantity is 4,000 barrels per Day, the reduced maximum quantity shall be 5,500 barrels per Day ($4,000 \text{ times } 1.375 = 5,500$).

Buyer may elect additional reductions to the Sale Oil quantity following a reduction to the initial Sale Oil quantity. A reduction cannot be effective until at least 12 Months after the effective date of the most recent reduction in quantity. Notice of an additional reduction under this paragraph (a) shall be delivered to the State at least six Months before the effective date

of the additional reduction. The reduced maximum quantity shall be 137.5 percent of the reduced minimum quantity.

(b) Buyer may elect to reduce the Sale Oil quantity to zero barrels of Sale Oil per day for the Month of Delivery by giving Notice. If Buyer nominates zero barrels of Sale Oil for three consecutive Months, this Agreement shall terminate automatically, without Notice or further action by the State or the Buyer, on the last day of the third consecutive Month that the Buyer nominates zero barrels. If the Buyer in its Notice specifically cites “Refinery Turnaround” in section 1.32 as a reason for zero nominations, the Buyer may elect to reduce the quantity of Sale Oil it nominates and purchases from the State to zero for three consecutive Months without triggering automatic termination stipulated in this clause.

(c) Buyer’s elections to reduce Sale Oil quantities under this Section 2.1.4 are subject to the provisions of Section 2.1.7.

2.1.5 Increase in Quantity Following Elective Reduction. Following a reduction of Sale Oil quantity under Section 2.1.4, Buyer may request an increase in the Sale Oil quantity to an amount that does not exceed the maximum Sale Oil quantity in Section 2.1.1. The increased maximum quantity must be 137.5 percent of the increased minimum quantity. An increase is not effective until at least 12 Months after the effective date of the most recent change in quantity (*i.e.*, a decrease under Section 2.1.4 or an increase under Section 2.1.5). The Commissioner may approve or deny a request for an increase in Sale Oil quantity.

2.1.6 Temporary Sale Oil Quantity Reduction in Event of Force Majeure. In the event of a Force Majeure under Article XIV, Buyer may temporarily reduce the Sale Oil quantity by an amount equal to the reduction in Buyer's requirements that is a direct result of the Force Majeure event. To temporarily reduce the Sale Oil quantity in the event of Force Majeure, Buyer

shall include a Notice of temporary reduction in Sale Oil quantity due to Force Majeure under this Section with Notice of Buyer's monthly Sale Oil nominations of Sale Oil. Each notice of temporary reduction due to Force Majeure shall include documentation of the nature of the Force Majeure event and quantification of the direct impact of the Force Majeure on Buyer's Sale Oil requirements for the Month of nomination. Temporary reductions in Sale Oil quantity under this Section shall be effective only to the extent that the State is able, through the State's nomination process set out in Section 2.1.2, to reduce the volume of Royalty Oil that the State receives for the Month of Sale Oil delivery, or to sell the volumes from the temporary reductions in Sale Oil quantity as Additional Sale Oil to other buyers under the same price terms. Buyer shall accept delivery of the total volume of Royalty Oil delivered to the State in accordance with the State's nominations of Royalty Oil, unless the State sells the volumes from the temporary reductions in Sale Oil quantity as Additional Sale Oil to other buyers under the same or better price terms.

2.1.7 Additional Notice Provisions. Buyer acknowledges that the Leases from which the State must nominate Royalty Oil require 90 Days' notice to the Lessee prior to decreasing the State's nomination of Royalty Oil to be taken in-kind in any Month. Buyer acknowledges that if a Lessee invokes the Force Majeure provisions of its Royalty Settlement Agreement or the Leases, the State may be required to give up to 180 Days' (*i.e.*, an additional 90 Days) notice to the Lessee prior to decreasing the State's nomination of Royalty Oil to be taken in-kind in any Month. If a Lessee invokes the Force Majeure terms of its Royalty Settlement Agreement as a result of a reduction in Buyer's nomination in the event of Buyer's Force Majeure, Refinery Turnaround, or for any other reason, Buyer's reduced nomination shall not become effective until the end of the additional 90 Day notice period. If a Lessee invokes the Force Majeure terms of its Royalty Settlement Agreement and extends the notice period an additional 90

Days, the State agrees to make commercially reasonable efforts to reduce the volume of its Royalty Oil nominations.

2.1.8 No Guarantee of Sale Oil Quantity. The State shall exercise its rights under the Leases and Royalty Settlement Agreements to request that Royalty Oil be delivered as Sale Oil. The State can deliver Sale Oil only to the extent it receives Royalty Oil from the Lessees. The quantity of Royalty Oil available to the State may vary and may be interrupted from time to time depending on a variety of factors, including the rate of production from the Leases. The State disclaims, and Buyer waives, any guarantee, representation, or warranty, either express or implied, that a specific quantity of the total, daily, monthly, average, or aggregate Royalty Oil will be delivered as Sale Oil.

2.1.9 No Guarantee of Source of Sale Oil and Additional Sale Oil. The State will deliver, as Sale Oil and Additional Sale Oil, Royalty Oil produced from the Leases and delivered to the State as Royalty Oil in-kind. The availability to the State of Royalty Oil in-kind in any Month may vary depending on a variety of factors, including the rate of production from the Leases. The State disclaims, and Buyer waives, any guarantee, representation, or warranty, either express or implied, that Sale Oil and Additional Sale Oil delivered and sold by the State in any Month is from a certain Lease, Unit, or other area.

2.1.10 State's Warranty of Title. The State warrants that it has good and marketable title to the Royalty Oil delivered and sold as Sale Oil and Additional Sale Oil.

2.2 Quality.

2.2.1 No Guarantee of Quality of Sale Oil and Additional Sale Oil. The Royalty Oil the State delivers to Buyer as Sale Oil and Additional Sale Oil shall be of the same quality as the Royalty Oil delivered to the State at the Point of Delivery. The quality of the Royalty Oil

delivered to the State may vary from time to time. The State disclaims, and Buyer waives, any guarantee, representation, or warranty, either expressed or implied, of merchantability, fitness for use, or suitability for any particular use or purpose, or otherwise, and of any specific, average, or overall quality or characteristic of Sale Oil and Additional Sale Oil. Buyer specifically waives any claim that any liquid hydrocarbons, including such substances as crude oil, condensate, natural gas liquids, or return oil from the crude oil topping plant, delivered with the Sale Oil or Additional Sale Oil, are not Sale Oil or Additional Sale Oil for purposes of this Agreement.

2.4 Price of the Sale Oil and Additional Sale Oil. The price per barrel of Sale Oil and Additional Sale Oil delivered from each Unit or Lease by the State to the Buyer each Month shall be equal to

ANS Spot Price – RIK Differential – Tariff Allowance + Quality Bank Adjustment – Line Loss.

“ANS Spot Price” means the monthly average of the daily high and low assessments for the Month of Sale Oil and Additional Sale Oil delivery for ANS oil traded at the United States West Coast as reported by the Platts Oilgram Price report and Reuters online data reporting service. The ANS Spot Price calculation will not include days on which prices are not reported for both reporting services, such as weekends or holidays. If either of these publications ceases to report daily assessments for ANS oil traded at the United States West Coast, the Parties agree to calculate the ANS Spot Price using the data from the remaining reporting service. If either Buyer or State makes a good faith determination that the ANS Spot Price no longer accurately represents the price for ANS oil traded at the United States West Coast, Buyer and State will attempt in good faith to arrive at a mutually agreeable alternative source to establish, or substitute for, the ANS Spot Price. If Buyer and the State arrive at a mutually agreeable alternative source, that source shall be used

to determine the ANS Spot Price beginning the Month following the Month in which any of these publications ceased to report daily assessments for ANS oil traded at the United States West Coast. If Buyer and the State are unable to agree on an alternative source, the State will select the alternative source that most reliably represents the price for ANS oil traded at the United States West Coast based on the best information reasonably available to the State, and that source shall be used to determine the ANS Spot Price beginning the Month following the Month in which any of these publications ceased to report daily assessments for ANS oil traded at the United States West Coast. Any dispute between the Buyer and State concerning the ANS Spot Price under this section shall be administered in accordance with Section 12.1.

“Tariff Allowance” means the sum of (1) the average, weighted by ownership, of the Minimum Interstate TAPS Tariff (Pump Station No. 1 to Valdez Marine Terminal) on file with the Federal Energy Regulatory Commission (“FERC”) for each owner in effect on the Day the Sale Oil and Additional Sale Oil is tendered by the State to Buyer; and (2) tariffs on file with FERC for shipment of Sale Oil and Additional Sale Oil upstream of Pump Station No. 1. “Minimum Interstate TAPS Tariff” means the effective TAPS tariff on file with the FERC for each carrier on a given Day, excluding incentive tariffs. If the Minimum Interstate TAPS Tariff or tariffs on file with FERC for shipment of Sale Oil and Additional Sale Oil upstream of Pump Station No. 1 that have been used in the calculation of a Tariff Allowance are changed or subject to a refund order by the FERC, the Tariff Allowance will be recalculated using changed FERC-ordered Minimum Interstate TAPS Tariff or changed FERC-ordered tariffs for shipment of Sale Oil and Additional Sale Oil upstream of Pump Station No.1, the Sale Oil and Additional Sale Oil Price will be adjusted accordingly, and the resulting refund to the State (or credit to Buyer) will be made in accordance with Article III. If a FERC-ordered tariff is suspended or enjoined from implementation, the Tariff

Allowance shall not be recalculated until the suspension or injunction is lifted and the FERC order is implemented and goes into effect. Buyer shall, at the request of the Commissioner, provide the necessary documentation in the form of invoices, etc. from the TAPS and upstream pipeline carriers of tariff payments made by Buyer and any revised tariff payments including interest paid or received by Buyer as a consequence of those revised tariff payments.

The “Quality Bank Adjustment” is a per-barrel amount, positive or negative, that accounts for the difference in quality between the oil produced from the units on the North Slope and the co-mingled ANS TAPS stream value at the PSVR connection. The Quality Bank Adjustment for a Unit’s stream will be calculated each Month as the difference between the stream value for the PSVR Reference Stream and the stream value at the Point of Delivery. The stream value and PSVR Reference Stream are reported by the TAPS quality bank administrator. If the stream value or the PSVR Reference Stream is recalculated by the Quality Bank administrator, the Quality Bank Adjustment shall be recalculated and the Price shall be adjusted in accordance with Article III to apply to Sale Oil and Additional Sale Oil that has been delivered to Buyer beginning on the effective date of the adjustment.

“Line Loss” is a per barrel amount equal to $(0.0009) \times (\text{ANS Spot Price} - \$1.95 - \text{Tariff Allowance} + \text{Quality Bank Adjustment})$.

Appendix 2 is an illustrative example of the calculation of the Price of Sale Oil and Additional Sale Oil. If there is a conflict between Appendix 2 and Section 2.3, Section 2.3 shall control.

2.4 Delivery of Sale Oil and Additional Sale Oil.

2.4.1 Day of First Delivery. The State will make first delivery of the Sale Oil and Additional Sale Oil to Buyer at the Point of Delivery on or after [Month] [Day], 2017.

2.4.2 Subsequent Deliveries. After the first delivery, the State shall tender the Sale Oil and Additional Sale Oil to Buyer at the Point of Delivery immediately upon the receipt of the Royalty Oil from the Lessees at the Point of Delivery.

2.5 Passage of Title and Risk of Loss. Title to, and risk of loss of, the Sale Oil or Additional Sale Oil shall pass from the State to Buyer for all purposes when the State tenders delivery of the Sale Oil or Additional Sale Oil to Buyer at the Point of Delivery. Buyer shall bear all risk and responsibility for the Sale Oil and Additional Sale Oil after passage of title.

2.6 Indemnification After Passage of Title. Buyer shall indemnify and hold the State harmless from and against any and all claims, costs, damages (including reasonably foreseeable consequential damages), expenses, or causes of action arising from or related to any transaction or event in any way related to the Sale Oil and Additional Sale Oil after title has passed to Buyer. If Buyer suffers damages or losses caused by third parties and related to the Sale Oil or Additional Sale Oil, the State agrees to cooperate with the Buyer to permit Buyer to attempt to recover such damages or losses. The State will, on request, assign the State's claims to Buyer and cooperate in Buyer's pursuit of State assigned claims.

2.7 Transportation Arrangements. Buyer shall make all arrangements for transportation of the Sale Oil and Additional Sale Oil from the Point of Delivery, to, through and away from the TAPS, and all pipelines upstream from Pump Station No. 1, and shall be responsible for meeting any linefill and storage tank bottom requirements related to transportation of the Sale Oil and Additional Sale Oil after passage of title. On the State's request, Buyer shall provide the State with evidence of the arrangements for transportation of the Sale Oil and Additional Sale Oil from the Point of Delivery, through and away from TAPS, and all pipelines upstream from Pump Station No. 1, and evidence of arrangements for resale, exchange, or other disposal of the Sale Oil

and Additional Sale Oil. Buyer's failure to provide information, evidence, or assurances requested by the State shall, at the State's election and after Notice to Buyer, constitute a material default under this Agreement.

ARTICLE III

INVOICING AND PAYMENT

3.1 Monthly Invoices. On or before the fifth calendar Day of each Month after the first Month of delivery of Sale Oil and Additional Sale Oil, the State shall send to Buyer, via facsimile transmission or electronic mail, a statement of account with an invoice for the total amount due for the estimated quantity of Sale Oil and Additional Sale Oil delivered to Buyer during the immediately preceding Month of Sale Oil and Additional Sale Oil delivery and the estimated Price applicable to those deliveries, and the amount of any adjustments for the previous Month. The State will base its estimates on the best information reasonably available to the State. The State shall adjust invoices as provided in Section 3.3.

3.2 Payment of Invoices. Buyer shall pay the total amount of each invoice, including adjustments for previous Months of Sale Oil and Additional Sale Oil delivery, in full, on or before the third Business Day after the date of the statement of account in which the invoice is included. If the third Business Day after the date of the statement of account does not fall on a Business Day then the invoiced amount is due on the immediately following Business Day. Any amount that Buyer does not pay in full on or before the payment due date calculated in accordance with this section shall accrue interest as provided in Section 3.6, and become subject to the late payment provisions of Section 3.7, and any other remedies available to the State under this Agreement and at law.

3.3 Adjustments. Buyer acknowledges that any time within eight years after an invoice is sent for a Month of Sale Oil and Additional Sale Oil delivery, the State or Buyer may receive

more accurate information concerning the ANS Spot Price, actual quantity of Sale Oil and Additional Sale Oil delivered to Buyer, the proper calculation of Tariff Allowance, and Quality Bank Adjustments that affect the Price of the Sale Oil and Additional Sale Oil. The State and Buyer agree that any time within eight years such information becomes available to the State or Buyer, the State shall make adjustments and invoice or credit Buyer the amount of the adjustments in accordance with the process and retroactivity limits described in Section 2.3. The interest that will bear on changes to the Tariff Allowance will equal the interest paid by the carriers to the shippers under the FERC's regulations. No accrued interest on these adjustments will be paid to the Seller or credited to the Buyer except for FERC ordered changes to Tariff Allowances.

3.4 Payment of Adjustments. The Buyer shall pay the total amount of each adjustment in full, on or before the third Business Day after the date of the statement of account that includes the adjustment invoice. If an adjustment is due to Buyer for an overpayment, the State shall credit to Buyer the amount of the overpayment on the following Month's invoice or, if no following Month invoice is provided, the State shall refund to Buyer the amount of the overpayment by the twentieth calendar Day of the following Month. Any amount the Buyer does not pay in full when due shall bear interest at the rate provided in Section 3.6 and become subject to the late payment provisions of Section 3.7, and any other remedies available to the State under this agreement and at law.

3.5 Adjustments After Termination. Buyer and State agree that the State shall continue to make adjustments, in compliance with and subject to the limitations set forth in the provisions of Section 3.3 above, after termination of this Agreement, and agree that the provisions of Articles III, shall survive termination of this Agreement for any reason. If following termination of this Agreement an adjustment is determined to be due to Buyer for overpayment in an amount

that exceeds the amount of all sums remaining due from Buyer to the State, the State shall credit the overpayment against any sums due from Buyer to the State, and shall refund to Buyer the remaining amount of the adjustment. Any adjustments made after termination must be paid within 30 Days after the date of the invoice.

3.6 Interest. All amounts under this Agreement that Buyer does not pay in full when due, or that the State does not credit Buyer or pay in full when due, shall bear interest from the date payment is due, calculated in accordance with Section 3.4, at the rate provided by Alaska Statute 38.05.135(d) or as that statutory provision may later be amended.

3.7 Late Payment Penalty. In addition to all other remedies available to the State, if Buyer fails to make timely payment in full of any amount due, including adjustments, Buyer shall pay the State as a late payment penalty an amount equal to five percent of the total amount not timely paid, in addition to the amount not timely paid, and interest on the late payment penalty amount and the amount not timely paid as provided in Section 3.4. The Commissioner shall waive imposition of the late payment penalty if the Buyer provides substantial evidence that the failure to make timely payment was not willful and was not due to a mistake in a chronic pattern of mistakes.

3.8 Disputed Payments. If a dispute arises concerning the amount of an invoice, Buyer agrees to pay in full all amounts when due, pending final resolution of the dispute according to the Dispute Resolution procedures in Article XII.

3.9 Confidential Information. The State and Buyer agree that pursuant to Section 3.3, the State may invoice Buyer for, and Buyer agrees to pay, amounts that are based upon confidential information held or received by the State. If confidential information is used as the basis for an invoice, upon receipt of a written request from Buyer, the State shall furnish to Buyer a certified

statement of the Commissioner to the effect that, based upon the best information available to the State, the invoiced amounts are correct. At the request and expense of Buyer, the Commissioner's certified statement will be based on an audit by an independent third party.

3.10 Manner of Payment. Buyer shall pay all invoices in full within the times specified and without any deduction, set off, or withholding. Buyer shall pay all invoices by either Automated Clearinghouse (ACH) or by Federal Reserve Wire Transfer (immediate funds available) according to the instructions provided to the Buyer by the Division of Oil and Gas's Royalty Accounting Manager.

Buyer must pay an invoice in such other manner or to such other address the State has specified in an invoice or by Notice. All other payments due shall be paid in the same manner and according to the same time schedule provided in this Article. If payment falls due on a Saturday, Sunday, or federal bank holiday, payment shall be made on the next Business Day.

ARTICLE IV **IN-STATE PROCESSING**

4.1 In-State Processing. Buyer agrees to use commercially reasonable efforts to process the Sale Oil and Additional Sale Oil at its refineries in Valdez and North Pole, Alaska. "Process" means the manufacture of refined petroleum products.

4.2 Exchange of Crude Oil. Buyer may exchange Sale Oil and Additional Sale Oil for other crude oil only as provided in this Article. An exchange of Sale Oil and Additional Sale Oil for other crude oil shall not reduce the price Buyer has agreed to pay the State for the Sale Oil and Additional Sale Oil. "Exchange" includes: (1) a direct trade of Sale Oil or Additional Sale Oil for and equal volume of other crude oil; (2) a direct trade of Sale Oil or Additional Sale Oil for other crude oil that involves either cash or volume adjustment, or both, based solely on the differences in quality or location of the crude oils exchanged; (3) sequential transactions in which the Buyer

trades Sale Oil or Additional Sale Oil to one party and, in exchange receives crude oil for a party other than the party to whom the Buyer traded the Sale Oil and Additional Sale Oil; and (4) matching purchases or sales of Sale Oil and Additional Sale Oil for other crude oil.

ARTICLE V
BUYER'S AND GUARANTOR'S REPRESENTATIONS AND OBLIGATIONS

5.1 Good Standing and Due Authorization of Buyer. Buyer warrants that it is, and shall remain at all times during the term of this Agreement: (1) qualified to do business in Alaska; and (2) in good standing with the State. Buyer warrants that it has all company power and authority necessary, and has performed all company action required, to enter into and fulfill its obligations under this Agreement.

5.2 Good Standing and Due Authorization of Guarantor. Guarantor warrants that it is, and shall remain at all times during the term of this Agreement: (1) qualified to do business in Alaska; and (2) in good standing with the State. Guarantor warrants that it has all company power and authority necessary, and has performed all company action required, to enter into and fulfill its obligations under this Agreement.

5.3 Financial Information. As soon as practicable after the execution of this Agreement and before the State's first Monthly Sale Oil Nomination under Section 2.1.2, Guarantor shall either provide a Letter of Credit or Surety Bond meeting the requirements of Sections 6.2 through 6.5 or cause a financial analyst (the "Financial Analyst") to submit an opinion to the Commissioner in the form of a letter (the "Opinion Letter") about Guarantor's current and expected future credit rating by a Rating Agency. The Financial Analyst shall be an independent contractor qualified to render an opinion as to the creditworthiness of the Guarantor and shall be in the business of understanding complex financial matters and financial statements to the extent required to render such opinion. Buyer shall have the right to designate the Financial Analyst, subject to approval

by the State. The Financial Analyst shall be a contractor to Guarantor, and Guarantor shall be responsible for entering into any necessary contractual arrangements with the Financial Analyst and paying the fees and expenses of the Financial Analyst.

The contract between Guarantor and the Financial Analyst and each Opinion Letter must recite that the Financial Analyst (1) has been provided a copy of this Agreement, (2) understands the significance of the Opinion Letter in the administration of this Agreement, (3) understands that the State will rely on the Opinion Letter, and (4) understands that the Opinion Letter is for the benefit of the State. The contract between Guarantor and the Financial Analyst shall be subject to approval by the State, and the State shall be given a copy of the contract and all amendments to it.

The Opinion Letter shall (i) identify all documents reviewed in forming the opinion, (ii) identify people interviewed in forming the opinion and discuss the nature of the interview, (iii) state the current long term (and short term, if available) credit ratings of Guarantor by a Rating Agency and (iv) express an opinion whether those ratings are reasonably likely to fall below BBB- (Standard and Poor's), Baa3 (Moody's) or BBB (low) (DBRS) at any time during the following twelve Months. Guarantor shall cause the Financial Analyst to review evidence of the most current ratings by DBRS, Standard and Poor's, or Moody's of Guarantor's long and short term debt, all bank presentations provided to Guarantor's lenders, all reports on Guarantor prepared by a Rating Agency, all documents filed by Guarantor with the Securities and Exchange Commission, if any, any other documents reasonably necessary to deliver the Opinion Letter, and a complete set of year-to-year comparative, independently audited financial statements, including footnotes, prepared in accordance with generally accepted accounting principles.

Guarantor's contract with the Financial Analyst may require the Financial Analyst to protect the confidentiality of the information supplied to it under Section 5.3. The State may review the information supplied to the Financial Analyst under Section 5.3.

5.4 Financial Condition. Guarantor warrants (1) that all financial information submitted to the Financial Analyst or reviewed by the State under Section 5.3 is complete and accurate at the time of preparation, and fairly represents Guarantor's financial condition at the time of submission; and (2) that there has been no material change in Guarantor's financial condition, business operations, or properties since the financial information was prepared. Guarantor warrants that the financial statements were prepared in accordance with generally accepted accounting principles. Guarantor and Buyer shall immediately inform the State of any material change in Guarantor's ownership or ownership of Buyer, ownership of parent companies, or financial condition, business operations, agreements, or property that is likely to affect their ability to perform their obligations under this Agreement.

5.5 Absolute Obligations. Buyer's and Guarantor's obligations to pay amounts due, provide assurances of performance in accordance with Article VI, accept, and dispose of and pay for Sale Oil and Additional Sale Oil, are absolute. These obligations shall not be excused or discharged by the operation of any disability of Buyer or Guarantor, event of Force Majeure, impracticability of performance, change in conditions, termination of this Agreement, or other reason or cause.

5.6 Guaranty. Buyer is a wholly-owned subsidiary of Guarantor. Buyer does not have public financial statements and does not have debt rated by a Rating Agency. The State is not willing to make this Agreement based solely on the credit worthiness of Buyer. Guarantor therefore agrees that it guarantees performance of all of Buyer's obligations under this Agreement

as if Guarantor were the Buyer and legally indistinguishable from Buyer. The State may require Guarantor at any time to satisfy any unsatisfied obligation of Buyer.

5.7 Due Authorization of State. State warrants that it has all power and authority necessary, and has performed all action required, to enter into and fulfill its obligations under this Agreement.

ARTICLE VI

ASSURANCE OF PERFORMANCE

6.1 Credit Review. If Guarantor (i) elects to provide a Letter of Credit or Surety Bond pursuant to Section 5.3 in lieu of the Opinion Letter by a Financial Analyst or (ii) fails to timely submit its financial statements and other documents and information required under Article V such that the Financial Analyst is unable to timely submit the Opinion Letter; or (iii) if, in the opinion of the Financial Analyst, Guarantor's credit ratings have fallen below, or are reasonably likely in the twelve Months following the Opinion Letter, to fall below (a) "BBB-" (Standard and Poor's "Long term issuer"), (b) "Baa3" (Moody's Investor Services "Issuer Ratings/Long Term Obligation Ratings"), or "BBB (low)" (DBRS); (iv) or Guarantor is not rated by a Rating Agency, Guarantor shall immediately deliver to the State a one year irrevocable stand-by Letter of Credit or Surety Bond meeting the requirements of Sections 6.2 through 6.5.

Guarantor shall annually renew and continuously maintain the Letter of Credit or Surety Bond in effect until such time as, in the opinion of the Financial Analyst, Guarantor's credit rating is no longer reasonably likely to remain below (a) "BBB-" (Standard and Poor's "Long term issuer"); (b) "Baa3" (Moody's Investor Services "Issuer Ratings/Long Term Obligation Ratings"); or (c) "BBB (low)" (DBRS) at any time during the twelve Months following the Opinion Letter.

6.2 Letter of Credit or Surety Bond. In the event that Guarantor elects or is required to deliver a letter of credit or surety bond to the State in accordance with Section 6.1, the Letter of Credit or Surety Bond shall be in a form satisfactory to the Commissioner and shall be in effect on delivery. The Letter of Credit shall be issued for the benefit of the State by a state or national banking institution of the United States that is insured by the Federal Deposit Insurance Corporation and has an aggregate capital and surplus amount of not less than One Hundred Million Dollars (\$100,000,000) (“Issuer”), or other banking institution approved by the Commissioner, such approval not to be unreasonably withheld. The principal face amount of the Letter of Credit or Surety Bond shall be an amount reasonably estimated by the Commissioner to be equal to the Price of all Sale Oil and Additional Sale Oil to be delivered by the State to Buyer during the 50 Days immediately following delivery of the Letter of Credit or Surety Bond to the Commissioner. The Commissioner will calculate the amount of the Letter of Credit or Surety Bond as follows:

- The Price for the month immediately prior to the calculation date; *multiplied by*
- the maximum number of barrels of crude requested by Buyer for any day in the 50 days immediately following the calculation; *multiplied by*
- 50 days.

The Commissioner may review (or Guarantor may request that the Commissioner review) the amount of the Letter of Credit or Surety Bond one month from the date of this agreement and every three months thereafter to determine if, using the formula described above, an adjustment to the amount of the Letter of Credit or Surety Bond is required to satisfy the conditions of this Section 6.2.; *provided further*, that such adjustment will only be made to any existing Letter of Credit or Surety Bond, if such adjustment is equal to or greater than 10% of the amount of the Letter of Credit or Surety Bond in place. The Letter of Credit or Surety Bond shall not require the State to

submit any documentation in support of drafts drawn against it other than a certified statement by the Commissioner and the State's Attorney General that Guarantor is liable to the State for an amount of money equal to the amount of the draft, that the amount of money is due and payable in full, and it has not been timely paid. Any Surety Bond provided to the State hereunder may not be cancellable by the surety company without at least 60 days' prior written notice to the State (a "Cancellation Notice"). The Guarantor shall have 30 days from the date of receipt of a Cancellation Notice to provide other performance assurances to the State in compliance with this Agreement, or shall be in default hereunder and the State shall be entitled to immediately pursue the remedies described in Section 9.2.

6.3 Performance Assurance After Termination. If a Letter of Credit or Surety Bond is in effect immediately prior to termination of the Agreement, the Commissioner may require that after termination, a Letter of Credit or Surety Bond be maintained in an amount estimated by the Commissioner to be equal to the value of all adjustments which may be made under Article III. As an alternative to maintaining a Letter of Credit or Surety Bond after termination, and on commercial terms acceptable to the Commissioner, the Guarantor may require that Buyer establish and maintain an interest-bearing escrow account equal to the value of all adjustments that may be made under Article III and with the same payment terms as the Letter of Credit or Surety Bond. On request by the Guarantor, the Commissioner shall provide the Guarantor with the methodology used by the Commissioner to estimate the amount of the Letter of Credit or Surety Bond to be maintained after Termination. If a Letter of Credit or Surety Bond is to be maintained after Termination, the Guarantor may request, during the eight years following Termination, that the Commissioner review the amount of the Letter of Credit or Surety Bond required to be maintained if regulatory agency decision or court order may cause a change in the amount of the estimated

adjustment under Article III. The dispute resolution procedure in Article XII applies to a dispute between the parties as to any performance assurance required after Termination.

6.4 Other Performance Assurance. The Commissioner may allow Guarantor to provide security other than a Letter of Credit or Surety Bond if the Commissioner determines other security is adequate to protect the State's interest. The Commissioner may accept the Letter of Credit to be issued by a foreign banking institution that is rated at or higher by both (a) "A+" (Standard and Poor's "Long term issuer"), and (b) "A1" (Moody's Investor Services "Issuer Ratings/Long Term Obligation Ratings"); that has an aggregate capital and surplus amount of not less than Five Hundred Million Dollars (\$500,000,000); that uses its US branch, determined to constitute substantial operations by the Commissioner, to issue the Letter of Credit or alternatively arranges that the Letter of Credit is confirmed by a US banking institution; that is domiciled in France, UK, Spain, Japan, Netherlands, Italy or other jurisdictions acceptable to the Commissioner; that agrees to issue the Letter of Credit that is subject to Alaska courts or other jurisdiction acceptable to the Commissioner. The Commissioner may accept a Surety Bond to be issued by a surety company that is listed in the US Department of the Treasury's Listing of Approved Sureties (Department Circular 570) as certified to do business in Alaska and whose surety bond amount falls within the specified underwriting limitation listed in the Department Circular 570; that is rated at least A in terms of financial strength and XII for financial size by A.M. Best Company or its successors.

6.5 Correction of Defects in Letter. Guarantor shall have five Business Days to correct any defect in the Letter of Credit or Surety Bond beginning on the Business Day Guarantor first learns of the defect whether through Notice from the State or otherwise. A defect is any failure to comply with the terms and conditions of Article VI.

ARTICLE VII

MEASUREMENTS

7.1 Measurements. The quantity and quality of Sale Oil and Additional Sale Oil the State delivers under this Agreement shall be determined by measurement at the Point of Delivery. Procedures used for metering and measuring the Sale Oil and Additional Sale Oil shall be in accordance with the procedures in effect at the Point of Delivery.

ARTICLE VIII
EFFECTIVE DATE AND TERM

8.1 Effective Date. This Agreement shall become effective and enforceable on the date upon which it is signed by all parties (“Effective Date”).

8.2 Initial Term. The Initial Term of this Agreement shall begin on the Day of First Delivery defined in Section 2.4.1. and terminate on the fourth anniversary of the Day of First Delivery except that the Term of this Agreement may be changed as provided in Section 2.1.4 and Article X.

8.3 Continuation of Obligations. The provisions of Article III, Section 6.3, Section 6.4, Section 6.5, Section 8.3, Article IX and Article X shall survive termination of this Agreement for any reason or cause. Termination of this Agreement shall not relieve either Party from any expense, liability, or other obligation or any remedy that has accrued or attached prior to the date of termination. For Sale Oil and Additional Sale Oil delivered under this Agreement, termination of this Agreement shall not relieve State or Buyer of their respective obligations hereunder, including the obligation to pay all production Month invoices, initial adjustments, subsequent adjustments, and interest, and, where applicable, penalties, costs, attorney fees, and any other charges related to the Sale Oil and Additional Sale Oil actually delivered.

ARTICLE IX
DEFAULT OR TERMINATION

9.1 Default.

9.1.1 Events of Default. The Commissioner may suspend or terminate the State's obligations to tender, deliver and sell Sale Oil and Additional Sale Oil to Buyer, and may exercise any one or more of the rights and remedies provided in this Agreement, or at law, if any one or more of the following events of default occur:

(a) Buyer or Guarantor fails to pay in full any sum of money owed under this Agreement within five Business Days after the State gives Buyer Notice that payment is past due;

(b) Within five Business Days after Notice from the State, Buyer or Guarantor fails to provide written assurances satisfactory to the State of Buyer's or Guarantor's intention to perform its obligations under this Agreement and evidence or assurances of transportation arrangements under Section 2.7;

(c) There is a material change in Buyer's or Guarantor's financial condition, business operations, agreements, or property or ownership that is likely to affect Buyer's or Guarantor's ability to perform its obligations under this Agreement, and within five Business Days after Notice from the State, Buyer or Guarantor is unable or unwilling to provide performance assurances meeting the requirements of Article VI;

(d) Buyer or Guarantor fails to perform any of its obligations under this Agreement, and cannot cure the non-performance or the non-performance continues for more than 30 Days after the State has given Notice to Buyer or Guarantor of its non-performance;

(e) Any representation or warranty made by Buyer or Guarantor in this Agreement is found to have been materially false or incorrect when made; or

(f) Guarantor fails, or is unable for any reason (including reasons

beyond Guarantor's control), to maintain performance assurances required under Article VI, regardless of Guarantor's willingness or ability to perform any other obligations under this Agreement.

9.1.2 Default by Failure or Inability to Pay. Buyer or Guarantor shall immediately provide the State with Notice if Buyer or Guarantor is unable to pay any of its debts when due, makes an arrangement for the benefit of creditors, files a bankruptcy petition, or is otherwise insolvent. Upon Notice from Buyer or Guarantor, or if the State independently determines that Buyer or Guarantor is unable to pay any of its debts when due or is otherwise insolvent, the State's obligations to deliver and sell Sale Oil and Additional Sale Oil to Buyer shall automatically and immediately terminate without any requirement of Notice to Buyer or Guarantor or other action by the State. Upon termination of the State's obligations under this Section 9.1.2, Buyer and Guarantor shall be liable for payment and performance of all their obligations for Sale Oil and Additional Sale Oil the State delivered to Buyer before termination and for a minimum of one hundred Days after termination, plus an additional 90 Days if a Lessee invokes the force majeure term of its Royalty Settlement Agreement. Within 30 Days after termination under this Article 9.1.2, the State shall have the right, upon consent of Buyer or Guarantor, to reinstate all of the State's, Buyer's and Guarantor's obligations under this Agreement retroactive to the date of termination.

9.2 State's Remedies. If Buyer or Guarantor defaults under this Agreement, in addition to all other remedies available to the State under this Agreement or at law, the following remedies shall be available to the State:

9.2.1 Buyer's and Guarantor's Obligations Become Due. All monetary obligations Buyer or Guarantor has accrued under this Agreement, even if not yet due and payable, shall immediately be due and payable in full.

9.2.2 State May Dispose of Sale Oil and Additional Sale Oil. The State may dispose of some or all of the Sale Oil or Additional Sale Oil to third parties. If the State exercises this remedy, regardless whether this Agreement is terminated, Buyer and Guarantor shall be and shall remain liable to the State for the amount of the difference between the Price for the Sale Oil or Additional Sale Oil under Article II and the actual price the State receives from disposition of the Sale Oil or Additional Sale Oil to third parties.

9.2.3 Indemnification for Loss. Buyer and Guarantor shall hold the State harmless and indemnify it against all its liability, damages, expenses, attorney's fees and costs, and losses directly arising out of Buyer's or Guarantor's default, termination of the State's obligations, and disposal of the Sale Oil or Additional Sale Oil to third parties. Additionally, if Buyer or Guarantor defaults in the payment of any monetary amounts due to the State for Sale Oil or Additional Sale Oil tendered or delivered under this Agreement, Buyer or Guarantor shall pay the State 100 percent of reasonable actual costs and attorney fees incurred by the State in pursuing payment of the monetary amounts due, regardless of whether litigation is commenced and regardless of whether legal services are provided by the Attorney General's office or private counsel.

9.2.4 Other Rights and Remedies. The State shall have the right cumulatively to exercise all rights and remedies provided in this Agreement and by law, and obtain all other relief available under law or at equity, including mandatory injunction and specific performance.

9.3 Limitation of Buyer's and Guarantor's Remedies. If Buyer or Guarantor breaches or defaults in any of its obligations under this Agreement, Buyer or Guarantor shall not obtain a temporary restraining order or preliminary injunction preventing the State from disposing of the Sale Oil or Additional Sale Oil in accordance with Section 9.2.2.

9.4 Article Survives Termination. This Article survives termination of the Agreement.

ARTICLE X
DISPOSITION OF OIL UPON DEFAULT OR TERMINATION

10.1 Disposition of Oil Upon Default or Termination. Buyer and Guarantor acknowledge that the State may be required to provide six Months' notice to the Lessees before the State may decrease its in-kind nomination of Royalty Oil in any Month. If this Agreement terminates for default or any other reason after Buyer has nominated or is deemed to have nominated Sale Oil or Additional Sale Oil, Buyer shall continue to accept and pay for Sale Oil or Additional Sale Oil through the first Day of the Month following expiration of a minimum of 100 Days after the date of termination, if the Commissioner so requires. If, however, the additional notice provisions of Article 2.1.7 are invoked, Buyer shall continue to accept and pay for Sale Oil or Additional Sale Oil until the expiration of six Months and ten Days after the date of default or notice of termination.

10.2 Security for Disposal of Sale Oil and Additional Sale Oil. To secure the Buyer's obligations to purchase and dispose of Sale Oil or Additional Sale Oil, upon the Commissioner's request, if Buyer refuses to accept or receive Sale Oil or Additional Sale Oil under this Agreement, Buyer shall assign or otherwise transfer to the State, or its designee, all or part of Buyer's right to transport the Sale Oil or Additional Sale Oil through and away from the TAPS, and all pipelines upstream from Pump Station No. 1, whether such rights are under nominations, leases, contracts, tariffs, charter parties, or other agreements. The State will incur liability or obligations under such

assignment or transfer only to the extent the State actually exercises its rights to succeed to Buyer's interests under and obtain the benefits of the assignments.

ARTICLE XI **NONWAIVER**

11.1 Nonwaiver. The failure of a Party to insist upon strict or a certain performance, or acceptance by a Party of a certain performance or course of performance under this Agreement shall not: (1) constitute a waiver or estoppel of the right to require certain performance or claim breach by similar performance in the future; (2) affect the right of another Party to enforce any provision; or (3) affect the validity of any part of this Agreement.

ARTICLE XII **DISPUTE RESOLUTION**

12.1 Dispute Resolution. Any disagreement or dispute arising out of or related to this Agreement shall be decided according to the dispute resolution procedure set forth in this Article. The procedure set for in this Article shall be initiated by a Party by providing written Notice of the disagreement or dispute to the other Parties. No later than sixty Days after a Party provides written Notice, the Parties shall each present any arguments and evidence supporting its view of the disputed term, condition, right or obligation in writing to the Commissioner for consideration. Prior to consideration by the Commissioner, the State, Buyer, and Guarantor shall not have the right to civil litigation-type discovery or a civil litigation-type trial with the right to call or cross-examine witnesses unless granted by the Commissioner, after request. Within 30 Days after the Parties submit their final arguments and evidence, the Commissioner shall issue a finding set for the basis for the conclusion. Any Commissioner finding issued under the foregoing procedure shall be considered a final administrative order and decision appealable to the Alaska Superior Court pursuant to AS 22.10.020 and applicable Alaska Rules of Court.

ARTICLE XIII
SEVERABILITY

13.1 Severability. If a court decrees any provision of this Agreement to be invalid, all other provisions of this Agreement shall remain valid. If, however, invalidation of a provision impairs a material right or remedy under this Agreement, the Parties will negotiate in good faith to maintain the original intent and benefits of this Agreement. If the Parties cannot restore the original intent and benefits of this Agreement, then either Party may terminate this Agreement by giving Notice.

ARTICLE XIV
FORCE MAJEURE

14.1 Effect of Force Majeure. Except for Buyer's and Guarantor's obligations to pay amounts due, provide assurance of performance in accordance with Article VI, accept, dispose of, and pay for Sale Oil and Additional Sale Oil, no Party shall be liable for failure to perform if performance is substantially prevented by Force Majeure after commercially reasonable efforts to perform. Except, however, if Buyer or Guarantor is prevented by Force Majeure from performing any material obligation for 180 successive Days or more, the State shall have the right to terminate this Agreement on 60 Days' Notice. If the State is prevented by Force Majeure from performing any material obligation for 180 successive Days or more, Buyer may terminate this Agreement on 60 Days' Notice. Before a Party exercises the right to terminate this Agreement, the Party may request the other Parties to negotiate in good faith to restore performance.

14.2 Force Majeure. In this Agreement the term "Force Majeure" means an event or condition not within the reasonable control of the Party claiming "Force Majeure."

14.2.1 Force Majeure Events include, but are not limited to, the following events:

- (a). act of God, fire, lightning, landslide, earthquake, storm, hurricane,

hurricane warning, flood, high water, washout, explosion, well blowout, failure of plant, pipe or equipment, or;

(b). strike, lockout, or other industrial disturbance, act of the public enemy, war, military operation, blockade, insurrection, riot, epidemic, arrest or restraint by government of people, terrorist act, civil disturbance, or national emergency;

(c). act, order, or requisition of any governmental agency or acting governmental authority or any governmental proration, regulation, or priority.

14.2.2 Force Majeure events do not include changes in commercial or financial markets affecting the price of crude oil or processed petroleum products.

14.3 Notice and Remedy of Force Majeure. If a Party believes that Force Majeure has occurred, the Party shall immediately provide Notice to the other Parties of its claim of Force Majeure. The Party claiming Force Majeure shall use commercially reasonable efforts to remedy the Force Majeure. Except for Buyer's and Guarantor's absolute obligations to pay amounts due, provide assurances of performance in accordance with Article VI, and accept, dispose of and pay for Sale Oil and Additional Sale Oil, the disabled Party's obligations to perform that are affected by the Force Majeure shall be suspended from the time of Notice to the other Parties until the disability caused by the Force Majeure should have been remedied with reasonable diligence.

ARTICLE XV
NOTICE

15.1 Method of Notice. All notices, consents, requests, demands instructions, approvals, and other communications permitted or required shall be made in writing and delivered by any two of the following methods: (a) personally delivered, (b) delivered and confirmed by facsimile transmission, (c) delivered by overnight courier delivery service, (d) delivered and confirmed by electronic mail, or (e) deposited in the United States mail, first class, postage prepaid, certified or registered, return receipt requested, addressed as follows:

Commissioner of Natural Resources
550 West 7th Avenue, Suite 1400
Anchorage, Alaska 99501-3650
Facsimile Number: (907) 269-8918

and

Director, Division of Oil and Gas
550 West 7th Street, Suite 1100
Anchorage, Alaska 99501-3510
Facsimile Number: (907) 269-8938

the Buyer:

Petro Star Inc.
Address: 3900 C Street, Suite 802
Anchorage, Alaska 99503
Facsimile Number:
Attention: General Counsel

the Guarantor:

Arctic Slope Regional Corporation
Address: 3900 C Street, Suite 802
Anchorage, Alaska 99503
Facsimile Number:
Attention: General Counsel

or to any other place within the United States of America designated in writing by the State, Buyer or Guarantor.

15.2 Notice Effective Date. Notice given by personal delivery, or other reputable overnight courier delivery service, or United States mail, first class, postage prepaid, certified or registered, return receipt requested, shall be effective on the date of actual receipt at the appropriate address. Notice given delivered and confirmed by facsimile or electronic mail shall be effective on the date of actual receipt if received during recipient's normal business hours, or at the beginning of the next Business Day after receipt if received after recipient's normal business hours. The Notice Effective Date is the effective date of the first of the two Notices received.

15.3 Change of Address. A Party may notify the other Parties of changes in its address by giving Notice.

ARTICLE XVI

RULES AND REGULATIONS

16.1 Rules and Regulations. This Agreement is subject to the laws of the State of Alaska, and orders, rules and regulations of the United States, the State of Alaska, and any duly constituted agency of the State of Alaska.

ARTICLE XVII

SOVEREIGN POWER OF THE STATE

17.1 Sovereign Power of the State. This Agreement shall not be interpreted to limit in any way the State's ability to exercise any sovereign or regulatory powers, whether conferred by constitution, statute or regulation. The State's exercise of any sovereign or regulatory power shall not be deemed to enlarge any of Buyer's or Guarantor's rights, or limit any of Buyer's or Guarantor's obligations or liabilities under this Agreement.

ARTICLE XVIII

APPLICABLE LAW

18.1 Governing Law. This Agreement, and all matters arising from or related to this Agreement, shall be governed, construed and determined by the laws of the State of Alaska.

18.2 Jurisdiction. Any legal action or proceeding arising out of or related to this Agreement shall be brought in a state court of general jurisdiction sitting in the State of Alaska, and the Parties irrevocably submit to the jurisdiction of that court in any action or proceeding.

18.3 Venue. The Parties agree that the venue for any legal action or proceeding arising out of or related to this Agreement shall be in the Alaska Superior Court sitting in Anchorage, Alaska.

ARTICLE XIX **WARRANTIES**

19.1 Warranties. The purchase and sale of Royalty Oil under this Agreement are subject only to the warranties the State has expressly set forth in this Agreement. The State disclaims and Buyer and Guarantor waive all other warranties, express or implied in law.

ARTICLE XX **AMENDMENT**

20.1 Amendment. This Agreement may be supplemented, amended, or modified only by written instrument duly executed by the Parties, and, where required, only on approval under Alaska Statute 38.06.055.

20.2 Legislative Approval. Any material amendment to this Agreement that appreciably reduces the consideration received by the State requires prior approval of the legislature.

ARTICLE XXI **SUCCESSORS AND ASSIGNS**

21.1 Assignments and Other Transfers. Buyer may freely assign its rights and obligations to an Affiliate formed under the laws of a state in the United States of America. An

“Affiliate” shall mean an entity that is directly or indirectly controlled by Guarantor or Guarantor’s permitted assigns, or is directly or indirectly controlled by an entity that directly or indirectly controls Guarantor or Guarantor’s permitted assigns, where control means the right to vote more than fifty percent of the voting interest in the entity.

Buyer and Guarantor may, without consent of the State, collectively assign their rights and obligations under this Agreement to a Person that acquires all or substantially all of the Alaska refining assets of Buyer and Guarantor (the “Assignee”), provided that at least 45 Days before the effective date of the assignment the Assignee provides to the State (a) all of the financial information and warranties Guarantor is required to provide under Article V and (b) a copy of the form of the assignment, including Assignee’s obligation to assume and discharge all of Buyer’s and Guarantor’s obligations under this Agreement. If, based on the financial information supplied under Article V, Assignee is required to supply performance assurance under Article VI, the performance assurance in the form and amount required by Article VI must be provided to the State at least 30 Days before the effective date of the assignment. No assignment can be made to an Assignee with long term credit ratings of less than BBB (Standard and Poor’s) or Baa3 (Moody’s). From and after the effective date of the Assignment, Buyer and Guarantor shall be relieved of their rights and obligations under this Agreement except as to any surviving obligations expressed in the Agreement. No assignment shall be effective until after 45 Days’ Notice to the State.

Buyer and Guarantor may not otherwise assign their rights or obligations under this Agreement without first obtaining the written consent of the Commissioner, which may not be unreasonably withheld.

21.2 Binding on Successors. This Agreement shall be binding upon and inure to the benefit of the legal representative, Parties and their successors, and assigns of the Parties.

ARTICLE XXII **RECORDS**

22.1 Inspection of Records. The Parties shall each accord to the other and the other's authorized agents, attorneys, and auditors access during reasonable business hours to any and all property, records, books, documents, or indices related to Buyer's, Guarantor's or the State's performance under this Agreement, and which are under possession or control of the Party from which access is sought, so the other Party may inspect, photograph, and make copies of the property, records, books, documents, or indices except: (1) the State shall not be required to disclose any information, data, or records that it is required by state or federal law or regulation, or by agreement with the Person supplying the record, to be held confidential; (2) the State's access to and treatment of Guarantor's financial records shall be limited by Section 5.3; and (3) no party shall be required to produce documents that are protected by the attorney-client privilege or in the case of the State deliberative process privilege. If information the State obtains from Buyer or Guarantor may be held confidential under state or federal law or regulation, Buyer may request in writing that the State hold the information confidential, and the State shall keep the information confidential to the extent and for the term provided by law.

ARTICLE XXIII **EMPLOYMENT OF ALASKA RESIDENTS**

23.1 Employment of Alaska Residents. Buyer shall comply with all valid federal, state, and local laws in hiring Alaska residents and companies, and shall not discriminate against Alaska residents and companies. Within the constraints of law, Buyer voluntarily agrees to employ Alaska residents and Alaska companies to the extent they are available, willing, and at least as qualified

as other candidates for work performed in Alaska in connection with this Agreement. “Alaska resident” means an individual who is physically present in Alaska with the intent to remain in the state indefinitely. An individual may demonstrate an intent to remain in the state by maintaining a residence in the state, possessing a resident fishing, trapping or hunting license, or receiving a permanent fund dividend. “Alaska companies” means companies incorporated in Alaska or whose principal place of business is in Alaska. If a court invalidates any portion of this provision, Buyer agrees to employ Alaska residents and Alaska companies to the extent permitted by law.

ARTICLE XXIV COUNTERPARTS

24.1 Counterparts. This Agreement may be executed in multiple counterparts. It is not necessary for the Parties to sign the same counterpart. Each duly executed counterpart shall be deemed to be an original and all executed counterparts taken together shall be considered to be one and the same instrument.

ARTICLE XXV MISCELLANEOUS

25.1 Agreement Not to Be Construed Against Any Party as Drafter. The Parties recognize that this Agreement is the product of the joint efforts of the Parties and agree that it shall not be construed against any Party as drafter.

25.2 Entire Agreement. This Agreement constitutes the entire agreement and understanding between the Parties about the subject matter of this transaction and all prior agreements, understandings, and representations, whether oral or written, about this subject matter are merged into and superseded by this written Agreement.

25.3 Headings. The headings throughout this Agreement are for reference purposes only and shall not be construed or considered in interpreting the terms and provisions of this Agreement.

25.4 Authority to Sign. Each Person signing this Agreement warrants that he or she has authority to sign the Agreement.

25.5 Further Assurances. The Parties agree to do such further acts or execute such further documents as may reasonably be required to implement this Agreement.

25.6 Currency. All dollar amounts are U.S. dollars.

SIGNATURES:

THE STATE OF ALASKA

Andrew T. Mack, Commissioner
Department of Natural Resources

Date:

PETRO STAR INC.

Doug Chapados
President and CEO

Date:

ARCTIC SLOPE REGIONAL
CORPORATION

Charles Kozak
EVP and Chief Financial Officer
Date:

**APPENDIX 1:
SALE OIL NOMINATION PROCEDURE**

Example Nomination Procedure for July 2014 Deliveries

	Prudhoe Bay & Satellites	Greater Pt McIntyre Area	MPU Total	DIU Total	KRU Total	Northstar Total	CRU Total	Badami Total	Oooguruk Total	Nikaitchuq Total	Total
March 15, 2014											
State receives preliminary barrel per day (bpd) production forecasts from the unit operator 105 days prior to the start of the production month	149,600	14,000	14,000	5,800	73,700	9,200	47,500	1,000	6,700	8,000	329,500
Not later than March 21, 2014											
RIK purchaser notifies state of monthly bpd nomination (a)											30,000
Not later than March 30, 2014											
State computes RIK %											
Estimated royalty rates	12.50%	13.34%	13.77%	14.42%	12.50%	27.50%	14.74%	14.80%	5.00%	12.50%	
State Ownership	100.00%	100.00%	100.00%	100.00%	100.00%	82.16%	67.82%	100.00%	100.00%	100.00%	
Total state estimated royalty bpd (bpd * royalty rate)	18,700	1,868	1,928	836	9,213	2,079	4,748	148	335	1,000	40,854
State's Total RIK nomination percentage (Purchaser RIK bpd/estimated royalty bpd)											73.43%
March 30, 2014											
State notifies unit operator of state's RIK nomination percentage	94.64%	94.64%	95.00%	95.00%	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
May 26, 2014											
Unit operator notifies state and working interest owners of updated production forecast											
Production forecast (bpd) for July production month	188,938	30,009	10,900	8,560	72,080	7,300	45,064	1,291	6,900	7,800	378,842
State calculates RIK bpd											
Royalty rates based on updated estimates (b)	12.50%	13.391158%	12.50%	12.50%	12.50%	27.50%	14.74%	14.80%	5.00%	12.50%	
State's RIK nomination percentage	94.64%	94.64%	95.00%	95.00%	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
RIK bpd (bpd production forecast * Royalty rate * nomination %)	22,351	3,803	1,294	1,017	7,659	0	0	0	0	0	36,124
State's Tendering percentage (RIK bpd/Production Forecast volumes)	11.83000000%	12.67339193%	11.87500000%	11.87500000%	10.62500000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	
May 31, 2014											
State notifies RIK purchaser of bpd volume available for July production month	22,351	3,803	1,294	1,017	7,659	0	0	0	0	0	36,124
August 2, 2014											
State invoices RIK purchaser for May production											
Metered volume for July 1-31, 2014	7,279,221	561,360	375,992	260,120	2,712,974	256,569	1,406,636	42,261	207,194	248,903	13,351,230
State's RIK Tendering percentage	11.83000000%	12.67339193%	11.87500000%	11.87500000%	10.62500000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	0.00000000%	
Total RIK bbbls	861,131.84	71,143.35	44,649.05	30,889.25	288,253.49	-	-	-	-	-	1,296,067
bpd volume (Total RIK/31) (varies from forecast)	27,778	2,295	1,440	996	9,298	0	0	0	0	0	41,809
bpd volume varies from forecast	9,078	427	(488)	160	86						9,264

Table notes:

(a) The state determines from which units to nominate RIK volumes (section 2.1.2 of the Agreement)

(b) The estimated royalty percentage for Greater Pt McIntyre is a composite royalty rate from several fields and will vary with production

APPENDIX 2: EXAMPLE OF CALCULATION OF PRICE OF SALE OIL AND ADDITIONAL SALE OIL

The Price of the Sale Oil and Additional Sale Oil delivered by the State to the Buyer each Month for each Unit from which the Sale Oil and Additional Sale Oil is nominated is:

$$\text{Price} = \text{ANS Spot Price} - 1.95 - \text{Tariff Allowance} + \text{Quality Bank Adjustment} - \text{Line Loss}$$

ANS Spot Price

Table 2-1 illustrates the calculation of the ANS Spot Price for July 2014.

Table 2-1: Calculation of ANS Spot Price						
Effective Date	Platt's Oilgram Price Report			Reuters On-line Data Reporting Service		
	ANS Daily Low	ANS Daily High	ANS Daily Midpoint Average	ANS Daily Low	ANS Daily High	ANS Daily Midpoint Average
07/01/14	\$111.28	\$111.32	\$111.30000	\$110.49	\$110.59	\$110.54000
07/02/14	\$113.01	\$113.05	\$113.03000	\$112.44	\$112.54	\$112.49000
07/03/14	\$112.64	\$112.68	\$112.66000	\$112.20	\$112.30	\$112.25000
07/07/14	\$114.66	\$114.70	\$114.68000	\$114.22	\$114.32	\$114.27000
07/08/14	\$112.28	\$112.32	\$112.30000	\$111.74	\$111.85	\$111.79500
07/09/14	\$111.20	\$111.24	\$111.22000	\$110.79	\$112.13	\$111.45954
07/10/14	\$113.36	\$113.40	\$113.38000	\$114.60	\$114.70	\$114.65000
07/11/14	\$113.84	\$113.88	\$113.86000	\$114.84	\$114.94	\$114.89000
07/14/14	\$113.47	\$113.51	\$113.49100	\$113.60	\$113.70	\$113.65050
07/15/14	\$114.90	\$114.94	\$114.92000	\$115.19	\$115.29	\$115.24000
07/16/14	\$113.55	\$113.59	\$113.57000	\$114.08	\$114.18	\$114.13000
07/17/14	\$115.16	\$115.19	\$115.17500	\$115.45	\$115.55	\$115.50000
07/18/14	\$115.30	\$115.34	\$115.32000	\$115.39	\$115.49	\$115.44000
07/21/14	\$116.40	\$116.50	\$116.45000	\$116.18	\$116.28	\$116.23000
07/22/14	\$116.20	\$116.23	\$116.21500	\$116.81	\$116.94	\$116.87500
07/23/14	\$116.50	\$116.55	\$116.52500	\$116.15	\$116.25	\$116.20000
07/24/14	\$116.65	\$116.70	\$116.67500	\$116.54	\$116.64	\$116.59000
07/25/14	\$115.71	\$115.75	\$115.73000	\$115.35	\$115.45	\$115.40000
07/28/14	\$114.75	\$114.79	\$114.77000	\$114.39	\$114.50	\$114.44500
07/29/14	\$113.93	\$113.98	\$113.95500	\$114.64	\$114.75	\$114.69500
07/30/14	\$113.55	\$113.60	\$113.57500	\$113.18	\$113.28	\$113.23000
07/31/14	\$114.16	\$114.20	\$114.18000	\$114.46	\$114.54	\$114.50000
	Platt's Montly Avg. =		\$114.22641	Reuters Monthly Avg. =		\$114.29409

$$\text{ANS Spot Price}_{\text{July 2014}} = \$114.260250$$

Tariff Allowance

The Tariff Allowance (TA) is the sum of (1) the average, weighted by ownership, of the Minimum Interstate TAPS Tariff for each owner in effect on the Day the Sale Oil and Additional Sale Oil is tendered by the State to the Buyer; and (2) tariffs on file with FERC for shipment of Sale Oil upstream of Pump Station No. 1. Table 2-2, 2-3, and 2-4 illustrates how the state will calculate the TA for each of the Units from which Sale Oil and Additional Sale Oil may be offered.

Table 2-2: Calculation of TAPS Portion of Tariff Allowance

Ownership-Weighted Average Minimum Interstate TAPS Tariff – July 2014				
Pipeline Company	FERC No.	Percent Pipeline Company Ownership	Minimum Interstate TAPS Tariff (Pump Station No.1 to Valdez Marine Terminal) by Pipeline Company	TAPS Tariff times Company Ownership Percentage
ConocoPhillips Transportation Alaska, Inc.		29.61017%	\$5.04	\$1.49235
ExxonMobil Pipeline Company		21.28289%	\$5.06	\$1.07691
BP Pipelines (Alaska) Inc.		49.10694%	\$5.04	\$2.47499
		100.0000%		

Ownership-Weighted Average Minimum Interstate TAPS Tariff = \$5.04426

Table 2-3: Calculation of Portion of Tariff Allowance Upstream of Pump Station No. 1

Minimum Tariff on Pipelines Upstream of Pump Station No. 1 – July 2014			
Pipeline Company	FERC No.	Pipeline	Tariff
Kuparuk Transportation Company		Kuparuk River Unit to TAPS Pump Station No. 1	\$0.26400
Endicott Pipeline Company		Endicott Main Production Island to TAPS Pump Station No. 1	\$2.01000
Kuparuk Transportation Company		Milne Point Pipeline Connection to TAPS Pump Station No. 1	\$0.19300
Milne Point Pipeline Company		Milne Point Central Facilities to Kuparuk Transportation Company Tie-in	\$0.96000
		Total MPU Upstream Tariff Allowance:	\$1.15300
Kuparuk Transportation Company		Kuparuk River Unit to TAPS Pump Station No. 1	\$0.26400
Alpine Transportation Company		Colville, Alaska Alpine Field to Kuparuk River Unit	\$0.69000
		Total CRU Upstream Tariff Allowance:	\$0.95400
NORTHSTAR Pipeline Company		Northstar Unit Seal Island to TAPS Pump Station No. 1	\$2.14000

Table 2-4: Calculation of Tariff Allowance for Each Unit**Calculation of TA for Prudhoe Bay Unit**

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Upstream Tariff	<u>\$0.00000</u>
TA _{PBU}	\$5.04426

Calculation of TA for Kuparuk River Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04497
Kuparuk Transportation Co. Tariff	<u>\$0.26400</u>
TA _{KRU}	\$5.30826

Calculation of TA for Duck Island Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Endicott Pipeline Co. Tariff:	<u>\$2.01000</u>
TA _{DIU}	\$7.05426

Calculation of TA for Milne Point Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Kuparuk Transportation Co. Tariff	\$0.19300*
Milne Point Pipeline Co. Tariff	<u>\$0.96000</u>
TA _{MPU}	\$6.19726

Calculation of TA for Colville River Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
Kuparuk Transportation Co. Tariff:	\$0.26400
Alpine Transportation Company Tariff:	<u>\$0.69000</u>
TA _{MPU}	\$5.99826

Calculation of TA for Northstar Unit

Ownership-Weighted Average Minimum Interstate TAPS Tariff:	\$5.04426
NORTHSTAR Pipeline Company Tariff:	<u>\$2.14000</u>
TA _{NSU}	\$7.18426

*From Kuparuk Pipeline/Milne Point Pipeline connection to TAPS Pump Station No. 1.

Quality Bank Adjustment (QBA)

The TAPS Quality Bank compensates shippers of a high-value crude oil stream when a lower-value crude oil stream is blended in the common stream.⁶¹ To calculate the Price of the Sale Oil and Additional Sale Oil at the Point of Delivery an adjustment must be made for the impact that the sale oil will have on the value of the commingled crude oil stream when it enters the TAPS Valdez terminal.

The QBA is a per-barrel value, either positive or negative, and will be calculated each Month by the State for Sale Oil and Additional Sale Oil from each Unit. The State will estimate a QBA for

⁶¹ Mitchell & Mitchell, 8300 Douglas Avenue, #800, Dallas, TX 75225, administers the TAPS Quality Bank. Anyone who ships oil on TAPS must make prior arrangements with Mitchell & Mitchell to participate in the TAPS Quality Bank.

each applicable Unit for the initial billing. Typically, the State receives the data to calculate the actual QBA for the Month about two Months after the Month the Sale Oil and Additional Sale Oil is delivered. For this reason, the QBA will be subject to a routine true-up in a subsequent adjustment.

Table 2-5: Hypothetical TAPS Quality Bank Data
(as provided by the Quality Bank Administrator)

TAPS Quality Bank Stream Values and Total Stream Volume Shipped July 2014				
Sample Location	Stream	Volume (BBL)	Stream Value (\$/BBL)	Total Stream Value (\$)
PBU IPA	PBU IPA	6,339,237	\$110.4164400000	\$699,955,981.86
LISBURNE	LISBURNE	271,173	\$112.2028800000	\$30,426,391.58
ENDICOTT	ENDICOTT	202,497	\$109.5248100000	\$22,178,445.45
KUPARUK	KUPARUK	7,008,864	\$109.1719600000	\$765,171,420.25
NORTHSTAR	NORTHSTAR	396,155	\$115.0336100000	\$45,571,139.77
PS #1	PS #1 REFERENCE	14,217,926	\$109.9529832205	\$1,563,303,378.91
GVEA OFFTAKE	GVEA PASSING	10,748,066	\$109.9891900000	\$1,182,171,073.41
GVEA RETURN	GVEA RETURN	2,601,950	\$107.3460500000	\$279,309,054.80
GVEA	GVEA REFERENCE	13,350,016	\$109.4740357018	\$1,461,480,128.20
PSVR OFFTAKE	PSVR PASSING	11,912,350	\$109.4969400000	\$1,304,379,691.54
PSVR RETURN	PSVR RETURN	1,051,990	\$105.4520200000	\$110,934,470.52
PSVR	PSVR REFERENCE	12,978,304	\$109.1697812657	\$1,415,314,162.05

KTC Quality Bank Stream Values and Total Stream Volume Shipped July 2014				
Sample Location	Stream	Volume (BBL)	Stream Value (\$/BBL)	Total Stream Value (\$)
ALPINE	ALPINE	2,241,772	\$110.7967700000	\$248,381,096.68
MILNE POINT	MILNE POINT	638,565	\$108.6292500000	\$69,366,837.03
KUPARUK REFERENCE	KUPARUK REFERENCE	7,010,971	\$109.1719600000	\$765,401,445.57
NIKAITCHUQ	NIKAITCHUQ	210,697	\$107.4115200000	\$22,631,285.03
KUPARUK RIVER UNIT	KUPARUK RIVER UNIT	3,919,937	\$108.4257800166	\$425,022,226.84

Table 2-5 shows the kind of information supplied by the TAPS quality bank administrator that will be used to calculate the quality bank differential for Sale Oil and Additional Sale Oil produced from each Unit. The TAPS quality bank administrator provides this information to the State, pipeline owners, and shippers. As a shipper on TAPS, the Buyer will also receive this information. In the column titled “Stream Value (\$/BBL)” are the different per-barrel values of each stream produced from the Units from which Sale Oil and Additional Sale Oil may be delivered. The PSVR Reference Stream value is labeled “PSVR Reference” and is the stream value of the blended TAPS stream immediately downstream of the Petro Star Valdez Refinery return stream. The Quality Bank Adjustment is calculated as the difference between the stream value of each Unit and the PSVR Reference Stream.

For example, assume that the Month is July 2014 and the Sale Oil and Additional Sale Oil is produced from Lisburne. The QBA for Sale Oil and Additional Sale Oil from Lisburne

(QBA_{LIS}) is calculated as the per-barrel difference between the Stream value for Lisburne, indicated as “Lisburne” in Table 2.5, and the PSVR Reference Stream Value. In this example Sale Oil and Additional Sale Oil from Lisburne increases the value of the stream of oil measured at Valdez. Therefore, \$3.0330987343 per barrel is the QBA incorporated in the calculation of Price for Sale Oil and Additional Sale Oil from Lisburne.

Quality Bank Adjustment for Lisburne = the stream value for Lisburne minus the stream value of PSVR Reference (from Table 2-5)

$$QBA_{LIS} = 112.2028800000 - 109.1697812657$$

$$QBA_{LIS} = \$3.03310$$

Note: The Price of Sale Oil and Additional Sale Oil from the PBU IPA and Lisburne are invoiced separately.

Using the results of the example calculations above, Line Loss for Sale Oil and Additional Sale Oil delivered from Lisburne in July 2014 equals

$$\text{Line Loss}_{LIS} = (.0009) \times (\$114.26025 - \$1.95 - \$5.04426 + \$3.03310) = \$0.09927$$

Calculating the Price of Sale Oil and Additional Sale Oil

The Price of Sale Oil and Additional Sale Oil delivered from Lisburne in July 2014 is

$$\text{Price}_{LIS} = \$114.26025 - \$1.95 - \$5.04426 + \$3.03310 - \$0.09927 = \$110.19982$$

Note that each number in the equation is rounded to five decimal places. If a number's sixth decimal is 0, 1, 2, 3, or 4, the number shall be truncated to the fifth decimal. If a number's sixth decimal is 5, 6, 7, 8, or 9, the number shall be truncated to the fifth decimal and the fifth decimal shall be increased by 1.

APPENDIX 3
EXAMPLE OF CALCULATION OF INTEREST AND LATE PAYMENT PENALTIES

Sample Calculation of an Invoice for July 2014 Deliveries

Assumptions:

8. Month is August 2014.
9. Sale Oil and Additional Sale Oil delivered to the Buyer from Lisburne in July 2014 = 31,000 barrels (1,000 bpd).
10. July 2014 Price of the Sale Oil and Additional Sale Oil for Lisburne as initially estimated by the State = \$110.00000 per barrel.
11. Statement of account, with July 2014 invoice, sent to the Buyer on August 2, 2014.
12. July 2014 invoice payment due to the State = August 22, 2014.
13. Buyer pays State only \$1,000,000 on the due date, August 22, and pays the outstanding balance on August 25, 2014.
14. Annual interest rate provided by Alaska Statute 38.05.135(d) for August 2014 is 11 percent.

Method for calculating Buyer's invoice payment for July 2014 deliveries:

$$\begin{aligned} \text{Invoice Amount} &= \text{Quantity of Sale Oil and Additional Sale Oil} \times \\ \text{Buyer's Price of Sale Oil} &= 31,000 \times \$110.00000 = \$3,410,000.00 \end{aligned}$$

Because payment in full was not received by the State on or before August 22, 2014, interest will accrue on the unpaid balance from August 22, 2014 through the date the payment is received, and a late payment penalty will be assessed.

Below is a sample calculation of late payment penalty fee (assuming that it is not waived under Section 3.7) and interest. This sample calculation shows what will happen if the Buyer makes a partial payment on August 22 and the balance on August 25.

Late Payment Penalty Fee:

Statement of Account amount	=	\$3,410,000.00
Amount paid on August 22	=	<u>\$1,000,000.00</u>
Outstanding balance (8/22/11)	=	\$2,410,000.00
Late Payment Penalty Fee (\$2,410,000 x 5%) =	=	\$120,500.00

Interest:

\$2,410,000 x (11%/365) x 3 Days	=	<u>\$2,178.90</u>
Amount Buyer owes on August 25, 2014	=	\$2,532,678.90

Note: As more accurate data is received by the State, the State may adjust the Price and/or the actual quantity of Sale Oil and Additional Sale Oil and invoice the Buyer in the initial adjustment invoice submitted with the following Month's (August 2014) statement of account.

Sample Calculation of an Adjustment Invoice in September 2014

Assumptions:

4. Month is September 2014.
5. Sale Oil and Additional Sale Oil delivered in July 2014 has been revised to 30,000 barrels.
6. July 2014's price for Sale Oil and Additional Sale Oil is unchanged at \$110.00000 per barrel.
4. Date of the statement of account that contains the adjustment invoice is September 1, 2014.
5. Date the adjustment invoice payment is due to the State = September 20, 2014.

Method for calculating the Buyer's adjustment invoice amount for July 2014:

$$\begin{aligned} \text{Invoice Amount} &= \text{Quantity of Sale Oil and Additional Sale Oil} \times \\ \text{Buyer's Price of Sale Oil} &= 30,000 \times \$110.00000 \\ &= \$3,300,000.00 \end{aligned}$$

Adjusted Invoice Amount for July 2014	=	\$3,300,000.00
Amount previously paid by the Buyer for July 2014	=	<u>\$3,410,000.00</u>
Overpayment for July 2014	=	(\$110,000.00)

Credit due the Buyer against statement of account amount dated September 1 due September 20, 2014.

Note: As more accurate data is received by the State, the State may adjust the Price and/or the actual quantity of Sale Oil and Additional Sale Oil and invoice the Buyer in the adjustment invoice submitted with the following Month's (October 2014) statement of account.

Sample Calculation of an Adjustment Invoice in October 2014

Assumptions:

5. Month is October 2014.
6. July 2014's price for Sale Oil and Additional Sale Oil is changed to \$110.05000 per barrel due to a change in the quality bank.
7. The statement of account that contains the adjustment invoice is October 4, 2014.
8. The adjusted invoice payment is due to the State = October 20, 2014.

Method for calculating the Buyer's adjustment invoice amount for July 2014:

$$\begin{aligned} \text{Production Month Invoice Amount} &= \text{Quantity of Sale Oil and Additional Sale Oil} \times \\ \text{Buyer's Price of Sale Oil} &= 30,000 \times \$110.05000 \\ &= \$3,301,500.00 \end{aligned}$$

Preliminary Finding and Determination of the Commissioner – 4-year contract

Adjusted Invoice Amount for July 2014	=	\$3,301,500.00
Amount previously paid by the Buyer for July 2014	=	<u>\$3,300,000.00</u>
Underpayment for July 2014	=	\$1,500.00

The underpayment is due the State on October 20, 2014.

APPENDIX 4

ILLUSTRATION OF PRORATION

Assume that the monthly Royalty Oil is equal to 40,000 barrels per day (bpd). Thus, 95% of that monthly Royalty Oil is 38,000 bpd. Also, suppose that the State has three RIK contracts:

As defined previously, proration will take place whenever the sum of the initial sale oil quantity nominations for all three RIK buyers is greater than 95% of the monthly Royalty Oil.

Case 1: 95% of the monthly Royalty Oil is not enough to meet the initial sale oil quantity nominations from the RIK buyers. In such a case, buyers will be prorated so that each such buyers' Sale Oil quantity as a percentage of total Sale Oil quantities under all contracts after proration is equal to the percentage of its initial monthly sale oil quantity nomination to the total initial monthly sale oil quantity nominations for all the buyers.

	Initial monthly sale oil quantity nomination (in BPD)	Monthly Sale Oil quantity after proration (in BPD)	
Buyer 1	22,000	16,077	<i>prorated</i>
Buyer 2	18,000	13,154	<i>prorated</i>
Buyer 3	12,000	8,769	<i>prorated</i>
Total	52,000	38,000	

Keeping the assumption that the State has 3 RIK contracts, we could describe the proration provision symbolically.

Let X_i denote the initial monthly sale oil quantity from buyer i , where $i = 1, 2, 3$. Let R represent the monthly Royalty Oil. And let Y_i be the Sale Oil quantity determined after proration.

$$\rightarrow \text{ If } (X_1 + X_2 + X_3) \leq 0.95 * R, \text{ then } Y_i = X_i$$

$$\rightarrow \text{ If } (X_1 + X_2 + X_3) > 0.95 * R, \text{ then } Y_i = \left(\frac{X_i}{X_1 + X_2 + X_3} \right) * 0.95 * R$$

APPENDIX 5

ILLUSTRATION OF ADDITIONAL SALE OIL NOMINATION

Assume that the monthly Royalty Oil is equal to 40,000 barrels per day (bpd). Thus, 95% of that monthly Royalty Oil is 38,000 bpd. Also, suppose that the State has three RIK contracts with the following Sale Oil nominations:

	Buyer 1	Buyer 2	Buyer 3
Sale Oil Nomination	10,000 bpd	8,000 bpd	10,000 bpd

Following from that, the State has Excess Royalty Oil of 10,000 bpd arrived at by subtracting total Sale Oil Nominations from 95% of Royalty Oil (38,000 bpd – (10,000 bpd + 8,000 bpd + 10,000 bpd)).

Case 1: Excess Royalty Oil is enough to meet all Additional Sale Oil nominations.

	Additional Sale Oil quantity nomination (in BPD)	Monthly Sale Oil quantity after allocation (in BPD)	
Buyer 1	2,000	2,000	<i>Original nomination</i>
Buyer 2	5,000	5,000	<i>Original nomination</i>
Buyer 3	2,000	2,000	<i>Original nomination</i>
Total	9,000	9,000	< 10,000 bpd of Excess Royalty Oil

Case 2: Excess Royalty Oil is not enough to meet all Additional Sale Oil nominations.

If total nominations for Additional Sale Oil under all of the State's royalty-in-kind contracts exceed Excess Royalty Oil, the State will allocate Excess Royalty Oil. The State may nominate for each buyer up to the actual nominated volume of Additional Sale Oil. If any buyer's actual nominated volume of Additional Sale is not more than equal volumes of Excess Royalty Oil available to each buyer nominating Additional Sale Oil for that period determined by dividing Excess Royalty Oil by the number of nominations for Additional Sale Oil, that buyer will receive its full nomination. Those buyers, whose Additional Sale Oil nominations are not fully met with the calculated equal volumes of Excess Royalty Oil, will equally split the remaining available volumes up to the amount of actual nominated volume of Additional Sale Oil for each buyer. If there are remaining available volumes of Excess Royalty Oil, they will be allocated to the buyers whose actual nominated volume of Additional Sale Oil has not been satisfied.

Equal volumes of Excess Royalty Oil available to each buyer nominating Additional Sale Oil in this scenario is 3,333 bpd derived by dividing 10,000 bpd by 3.

Buyer 1's Additional Sale Oil nomination is fully met with the calculated equal volumes of Excess Royalty Oil, thus Buyer 2 and Buyer 3, whose Additional Sale Oil nominations are not satisfied, will equally split the remaining available volumes at 4,000 bpd each calculated as $(10,000 \text{ bpd} - 2,000 \text{ bpd})/2$, up to the amount of each buyer's actual nomination. This means that Buyer 3 will only receive 3,500 bpd based on its actual nomination and buyer 2 will receive remaining 4,500 bpd.

	Additional Sale Oil quantity nomination (in BPD)	Monthly Sale Oil quantity after allocation (in BPD)	
Buyer 1	2,000	2,000	<i>Original nomination</i> <i>Remaining volumes equally split between buyers whose nominations were not met with equal volumes of Excess Royalty Oil (3,333 bpd) available to each buyer nominating Additional Sale Oil up to each buyer's actual nomination</i> =10,000 bpd of Excess Royalty Oil
Buyer 2	6,000	4,500	
Buyer 3	3,500	3,500	
Total	11,500	10,000	

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THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Exhibit 3
Example: Non-Binding Solicitation of Interest
Department of Natural Resources
DIVISION OF OIL & GAS
550 WEST 7TH AVENUE, SUITE 1100
ANCHORAGE, ALASKA 99501-3563
Main: 907.269-8800
Fax: 907.269-8939

Exhibit 3: Sample Non-Binding Solicitation of Interest

[Month] [Day], 2015

[Name]
[Title/Position]
[Company/Institution]
[Address1]
[Address2]

Subject: Non-binding Solicitation of Interest—North Slope Royalty In-Kind Oil Supply

Dear [Name]:

The Department of Natural Resources (“DNR”) is inquiring whether there is interest among commercial refiners to acquire the State’s North Slope royalty in-kind (“RIK”) oil that may become available for sale when the current RIK supply contract obligations terminate on January 31, 2016 or any additional North Slope royalty volumes that the State chooses to take as RIK oil. If there is substantiated interest expressed by more than one potential buyer, DNR may issue an Invitation to Bid and conduct a sealed-bid auction for the oil.

Under AS 38.05.184, the sale of the state’s royalty oil must be by competitive bid except when the commissioner determines that the best interest of the state does not require competitive bidding or that no competition exists.

We would like to know if your company might be interested in participating in an auction for a one-year or multi-year contract to purchase RIK oil and, if so, whether you would be interested in participating in a competitive sealed bid auction for the oil in 2015, 2016 or both years. This is an informal, non-binding inquiry and your response will not create any kind of commitment by you or [your company/organization]. Your response, and that of other commercial refiners, will be used only to gauge whether there is potential interest in acquiring RIK to help DNR determine whether competition exists for the RIK oil that would warrant a competitive sale.

Below we have described some of the bidding and contractual terms that might apply to such a sale. Of course, they are subject to change depending on circumstances at the time DNR issues an Invitation to Bid, and we invite you to comment on the proposed bidding and contractual term.

Proposed Bidding Terms (subject to change):

- Priority Bidders. The Department proposes to limit the RIK offering to in-state commercial petroleum processors that have (1) provided financial guarantees in the form of a stand-by letter of credit or a parent guarantee from a parent with an investment grade credit rating from one or more recognized credit rating companies, presuming that the Buyer is not the parent, combined with an

Opinion Letter provided by a Financial Analyst, and (2) proposed effective, viable Special Commitments that, if implemented, would have an impact on lowering in-state energy costs for consumers and addressing the need for a greater supply of crude oil for use in the state. The requirement for proposing Special Commitments is discussed further below.

- Sealed Bid Auction of RIK Oil Lots. RIK oil would be auctioned either under one large lot or several smaller lots in 5,000 bpd increments. You are invited to comment on these alternatives and define your volumetric requirements for RIK oil. In either scenario, the winner of each lot will be determined by the lowest “RIK Differential⁶²” offered, which is a reducing element in the pricing formula. We propose to set a reservation price in the form of a maximum RIK Differential of \$1.95, based on the value used for determining the price of RIK oil in the Agreement for the Sale of Royalty Oil between the State of Alaska and Tesoro Corporation and Tesoro Refining and Marketing Company, LLC (“Tesoro RIK Contract”). During the term of the contract, and within certain timing and volumetric limits⁶³, a buyer may change its monthly nomination to a quantity less than the maximum volume defined in a lot. There is no penalty to reduce the amount of the monthly nomination and the buyer may later increase it. This provides operational flexibility for a buyer to match its monthly RIK oil acquisition to its refinery’s requirements. The specific reductions from the maximum amount will be negotiated in the contract and you are invited to comment on the level of operation flexibility that you may require when bidding for RIK oil.
- Bid Process. Upon evaluating responses to this Non-Binding Solicitation of Interest, the Department may distribute a public notice and a formal Invitation to Bid to all potential buyers and the public. Bidders will have at least 30 days after the Invitation to Bid is published to submit bids and documentation.

Proposed Contractual Terms (subject to change):

- Sale Oil Quantity. The contract will specify the volume, or “Sale Oil Quantity,” awarded as a result of the auction. For example, if RIK oil is auctioned in different lots, and a buyer successfully bids on several of them, a single RIK Contract would include the total Sale Oil Quantity from all the lots.
- State’s RIK Nomination. Because the State must nominate with at least 90 days in advance to take its royalty oil in-kind, the contract will provide that DNR will make commercially reasonable efforts to nominate, in accordance with applicable Unit Agreements, percentages of the State’s estimated royalty oil from one or more Units that will equal the Sale Oil Quantity nominated by the buyer. The nomination procedures are basically unchanged from every RIK contract offered by the Department since the first production of oil at the Prudhoe Bay Unit. Any former or current buyer of RIK oil should be familiar with these procedures.
- Volumetric Limits and Proration. The actual Sale Oil Quantity delivered to all RIK oil buyers may be lower than their total initial nominations. DNR reserves the right to limit total Sale Oil Quantity delivered to all RIK oil buyers to a maximum of 95% of the State’s estimated royalty oil. Whenever

⁶²RIK Differential is meant to capture the difference in the value of ANS sold on the USWC and at the Valdez Marine Terminal, and to ensure an RIK price that is greater than the volume-weighted average price of RIV. For a fuller discussion of the RIK Differential see “Final Best Interest Finding and Determination for the Sale of Alaska North Slope Oil to Tesoro Refining & Marketing Company, LLC.” Alaska Department of Natural Resources, Division of Oil and Gas. October 24, 2013, pp. 16-17.

⁶³ For timing limits, see “State’s RIK Nomination” below. For volumetric limits, see “Volumetric Limits and Proration” below.

total initial nominations by all buyers exceed 95% of the State's estimated royalty oil, proration takes effect and affects all RIK buyers' initial nominations. Each initial nomination will be multiplied by two factors: first, the ratio of each RIK buyer's initial nomination to the total initial nominations by all RIK buyers, and second, the 95%, which represents the maximum available level of the State's estimated royalty oil to be elected as RIK oil.

- Price. The price for the Sale Oil is calculated as a simple netback price. The formula starts with a destination value for the State's royalty oil in the US West Coast—the spot price of ANS crude oil reported in Platt's Oilgram and Reuters online service—minus a location differential (the RIK Differential). The interstate tariffs for TAPS and pipelines upstream of TAPS Pump Station No. 1 are also subtracted depending on the source of the RIK that will be supplied to the buyer. The price formula includes a Quality Bank Adjustment calculated using the same methodology that the State uses in the Tesoro RIK Contract.
- Contract term. The contract will supply RIK for one year or multiple years, depending on the bids awarded. You are invited to comment on your demand for one-year or multiple-year contracts and desired start date.
- Security Arrangements. The security arrangements protect the State from the risk of default by requiring a stand-by letter of credit or a parent guarantee, presuming that the buyer is not the parent, combined with an Opinion Letter provided by a Financial Analyst.
- Special Commitments. Bidders may be required to propose Special Commitments that will be incorporated into the RIK contract. The Special Commitments should propose means to mitigate the high cost of consumer petroleum products in Alaska and address the need for a greater supply of crude oil for use in the state. Examples of a Special Commitments might be commitment to in-state processing as stipulated in the Tesoro RIK Contract, commitment to investments that contribute to lowering the cost of petroleum products to the consumer and others. You are invited to comment on how Special Commitments might affect your interest in RIK oil, and offer alternatives.

I will appreciate a written response to this informal solicitation by February 12, 2015. In the meantime, I invite you to call Alex Nouvakhov, Commercial Manager at 907-269-8530 to discuss this letter. As stated above, this is an informal, non-binding inquiry and your response will not create any commitment by you or your company.

Sincerely,

Paul Decker
Acting Director
Division of Oil and Gas