

**ALASKA STATE LEGISLATURE
LEGISLATIVE BUDGET AND AUDIT COMMITTEE**

December 2, 2014

1:01 p.m.

MEMBERS PRESENT

Senator Anna MacKinnon, Chair
Senator Click Bishop
Senator Cathy Giessel
Representative Andy Josephson
Senator Mike Dunleavy (via teleconference)

MEMBERS ABSENT

Representative Mike Hawker, Vice Chair
Senator Kevin Meyer
Senator Donald Olson
Representative Alan Austerman
Representative Bob Herron
Representative Kurt Olson
Representative Scott Kawasaki
Representative Bill Stoltze

OTHER LEGISLATORS PRESENT

Representative Les Gara

COMMITTEE CALENDAR

OVERVIEW(S) CAELUS ENERGY ROYALTY RATE MODIFICATION

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

J. PATRICK FOLEY, Senior Vice President
Caelus Energy
Alaska Operations
Anchorage, Alaska

POSITION STATEMENT: Testified and answered questions regarding the background of Caelus Energy and development plans within the Oooguruk Unit.

William Barron, Director
Central Office
Division of Oil & Gas
Department of Natural Resources (DNR)
Anchorage, Alaska

POSITION STATEMENT: Testified and answered questions regarding DNR's background and royalty rate modification calculations and negotiations with Caelus Energy.

ACTION NARRATIVE

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CHAIR ANNA MACKINNON called the Legislative Budget and Audit Committee meeting to order at 1:01 p.m. Senators Bishop, Giessel, and MacKinnon, Representative Josephson, and Senator Dunleavy (via teleconference) were present at the call to order. Representative Les Gara was also present.

**OVERVIEW(S): CAELUS ENERGY ROYALTY RATE MODIFICATION
APPLICATION**

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CHAIR MACKINNON announced that the only order of business would be an overview of the recent preliminary determination by the Department of Natural Resources (DNR) regarding the royalty rate modification application by Caelus Energy (Caelus). She continued that the committee would hear an overview of the project from Caelus followed by an overview of the process by DNR.

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J. PATRICK FOLEY, Senior Vice President, Caelus Energy, Alaska Operations, began by discussing the application for royalty modification within the Oooguruk Unit on the Torok Interval, Nuna Development Project (Nuna). Mr. Foley informed the committee he has had extensive experience working in Alaska, had assisted in starting up the Pioneer Natural Resources Company in Alaska (Pioneer), and when he left after 10-years was president of the Alaska organization. He introduced Matt Musselman (via teleconference) as vice president of Caelus Energy and advised Mr. Musselman manages the business development group and was closely involved in the royalty modification application.

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MR. FOLEY stated that Caelus Energy is a privately held exploration and production company established in 2011 by Jim Musselman and in April 2014, Caelus acquired all of Pioneer Alaska's assets via a stock purchase. He pointed out that Caelus employs 80 Alaska resident employees and seasonally employs contract workers. Although, he explained, this season due to shooting two seismic 3D programs Nuna will employ over 500 contract employees. In Alaska, Pioneer spent \$2 billion in capital and expenses and made payments to the state in the form of royalty and ad valorem taxes of approximately \$100 million.

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MR. FOLEY noted that funding in Caelus is unique in that it has a large private equity funder, Apollo Global Management that has pledged \$1 billion in capital to assist in developing the Oooguruk Drill Site (ODS), which includes Nuna and other exploration opportunities. Currently, he explained, Caelus has a \$300 million second lien loan and additional credit facility is available if more money is necessary. He expressed that the 2015 Oooguruk capital budget is approximately \$500 million and is split fifty-fifty between the ODS development project and the subject project, Nuna. He assured the committee that Caelus will be careful stewards of the environment and resources while at the same time "pace is everything" and it will move forward in a responsible manner. The Pioneer Oooguruk project, from first lease to first oil was six-years which, he expressed, is unprecedented and he expects from Caelus's April [2014] acquisition until first oil will be a little more than two-years.

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MR. FOLEY agreed with Senator Bishop that Pioneer had an excellent relationship with the Native community on the North Slope and that the relationship did transfer over as the same Pioneer employees transferred to Caelus.

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REPRESENTATIVE GARA commented that in 2010 Pioneer began working on exploration and development wells under Alaska's Clear and Equitable Share (ACES). In November 2013, Caelus purchased the lease and, he noted that a statement was made that it expected to begin work immediately without royalty relief. He questioned

why Caelus is currently requesting royalty relief for a field it purchased and had expected to begin work immediately.

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MR. FOLEY responded that in 2002 Pioneer began its business in the state. He remarked that the Nuna project was in 2010 and during that period of time Pioneer had lost enthusiasm in Alaska as it found tremendous success in the Lower 48 and was focusing 100 percent of its capital on developing those assets. In the summer of 2013 Pioneer began the process of selling its assets to Caelus and closed on April 15, 2014, he explained. Approximately December [2013] and January [2014] Caelus began preliminary conversations with the state regarding "if" it buys this asset and "if" it develops Nuna what could be done to improve the economic terms, he remarked.

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MR. FOLEY answered in the affirmative to Representative Gara's question that no one had promised royalty relief when Caelus purchased the field.

SENATOR DUNLEAVY asked if the \$1 billion commitment regarding Apollo Global Management (Apollo) is contingent upon a royalty discussion or modification.

MR. FOLEY answered that the financial commitment Apollo made is specifically for the Nuna project. He explained that Caelus obtained contingent sanction approval and Apollo will fund the project subject to the finalization of royalty modification.

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CHAIR MACKINNON requested Mr. Foley to depict the information Caelus had at the time of acquisition and the status of what was known about the find itself.

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MR. FOLEY asked that he be allowed to proceed through the overview in order that the answer to Chair MacKinnon's question may become clear.

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MR. FOLEY referred to slide 3 of his handout "Caelus Energy Alaska, Legislative Budget and Audit, Nuna Development & Royalty Modification and Overview." He advised it demonstrates that Caelus and many other companies are the type of companies the state would like to continue to do business in Alaska. He noted that approximately two weeks ago, Caelus was the apparent high bidder on 323,000 acres of leasehold and assumed all of the leases would be issued. He explained the map represents 126 tracks and the total lease bonus that will be paid by Caelus for these blocks is \$15 million. He highlighted that prior to the lease sale, Caelus made a commitment to a 3D geophysical company to acquire a new high resolution 3D seismic program which will be shot this winter within the area depicted on the map.

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MR. FOLEY turned to slide 4 and advised the black outline represents leases owned by Caelus within the Oooguruk Unit which has two separate developments: the existing off-shore [Oooguruk Drill Site] island, and the subject project, Nuna. Phase 1 is shown by the area outlined in brown where there are two drill sites that ultimately may be associated with the Nuna project. The Oooguruk Drill Site (ODS) makes production from the Nuiqsut, Kuparuk River Unit (Kuparuk) and Torok with the estimated recoverable reserves from the ODS island being roughly 100 million barrels. He stated his working interest partner at Oooguruk is Eni with a 30 percent interest and Caelus has the remaining 70 percent. He pointed out that for Nuna, Eni has gone non-consent so all of the working interest and all of the monies are spent exclusively by Caelus. He advised that ODS currently produces approximately 13,000 barrels per day of gross production with a 2015 capital budget of approximately \$250 million. He noted that the island has 48 well slots with 36 slots used, leaving 12 wells yet to be drilled. He noted there is the possibility of a project to expand the island by adding a few acres of gravel to grow the well bay thereby allowing for 12 additional wells, with a potential of 24 new wells from ODS.

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MR. FOLEY addressed the Nuna Project and reiterated it is within the Oooguruk Unit and exclusively focused on the Torok Interval. He explained that Phase 1 has a single drill site (NDS1), with road system to put in place connecting back to the Kuparuk River Unit Palm 3S drill site, and flow lines connecting back to the Oooguruk tie-in pad (OTP). He pointed out that Caelus has no processing in its unit and therefore made contractual

arrangements with the Kuparuk River Unit (KRU) owners to process on its behalf. Mr. Foley said that Caelus is the sole true third-party facility sharing arrangement anywhere on the North Slope, and that arrangement will continue for Nuna. He explained that Nuna started by drilling three wells from the ODS Island, two producers and one injector, which did demonstrate that Caelus could have a successful water flood. Subsequently, it drilled two appraiser wells, NDS1 and NDS2, which were fracture stimulated, production tested, and flowed at approximately 2500 barrels of oil per day. He estimates that the Nuna resource has recoverable reserves in the range of 50 million to 100 million barrels and described Phase 1 as 30 development wells.

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MR. FOLEY referred to slide 5 and described it as roadside geology demonstrating a laminated reservoir, of which Nuna is very similar. He explained that slide 6 is a core photograph from the 1998 ARCO Kalubik #2 well, wherein the yellow area represents oil sections, with the black areas being shale. He added that the challenge with Nuna, unlike the Kuparuk and Ivishak, is that there are laminated layers of small portions of sand, shale, sand, shale which continues for as much as 250 feet. The reservoir has low permeability and low porosity and the only process to remove the oil is by fracture stimulation treatments and, he remarked, Caelus intends to fracture both the producer and injection wells which is a technique no other reservoir on the North Slope has had to employ.

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MR. FOLEY referred to slide 7 and noted that on July 1, 2014, Caelus submitted a final, formal, and complete application. In October 2014, DNR issued its preliminary finding and determination which is now in a period of public comment, he said. He explained that Caelus requested a modification of royalty at five percent, which is the statutory floor the state can grant but the [preliminary finding and] determination maintained base royalties at five percent until a gross revenue target of \$1.25 billion is received. He stated that a significant amount of jobs will be created and additional revenue would flow to the state later in the project's life. Mr. Foley said that another of the state's criteria when considering any modification is the concept that if the state helps on the front end, how will the parties share on the up side. He stated that 75 percent of leases in the Nuna

development are burdened by a one-eighth [royalty] plus a 30 percent net profit share. Consequently, he offered, when this project goes forward and reaches economic payout over and above all of the other typical fiscal benefits to the state, the state will also have a 30 percent net profit share interest in approximately 75 percent of the Nuna resources. Absent royalty modification, he remarked, there is no doubt this project may still go forward but it will be delayed an unknown amount of time.

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REPRESENTATIVE GARA quiered that when a state lease is bid, whether the lease terms include 12 percent royalty plus 30 percent lease profit.

MR. FOLEY responded in the affirmative.

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MR. FOLEY offered that the state concluded in its preliminary finding that the cost of a project delay of several years exceeds the loss or diminishment in revenue the state forgoes as a result of the royalty modification.

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SENATOR DUNLEAVY remarked that the issues were known when Caelus bid upon the lease and questioned the thinking behind that action as now Caelus is requesting royalty modification.

MR. FOLEY responded that he believes that the leases burdened by one-eighth [royalty] and 30 percent net profit were originally issued to a group of companies in the early 1980's, and ConocoPhillips Alaska and other parties attempted development and determined those leases were not worthy of their investment. In 2004, those companies made a deal assigning the leases to Pioneer that had procured them subject to the existing lease terms, he remarked.

SENATOR DUNLEAVY surmised that [Pioneer] understood the conditions of the lease.

MR. FOLEY agreed, and then pointed out that when Pioneer developed Oooguruk it was granted royalty modification on the Kuparuk and Nuiqsut Formation within the Oooguruk Unit.

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MR. FOLEY brought to the committee's attention the state's crafted decision holding Caelus's feet to the "fire" as far as development obligation and, he noted that the state could agree to a royalty modification with a commitment of diligent development. The required terms include: a firm and final sanctioning decision by December 31, 2014; a spend calendar requirement that Caelus must begin its capital investment of building the facilities by March 31, 2017; and sustained commercial production from Nuna by March 2017, he advised.

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MR. FOLEY described slide 8 as Nuna's pictorial timeline. He explained that assuming there is an ultimate favorable royalty modification determination, Caelus will proceed "full speed ahead" to install gravel for a road system in a single drill site pad and vertical support members (VSMs) installed in February 2015. He further explained that during the winter of 2016, Caelus will install all surface facilities and flow lines, and a drilling rig moved onto location with development beginning later in 2016. He noted that Caelus is targeting first oil in the third quarter of 2016 and anticipates that initial production rates will be in the 5,000 to 10,000 barrel a day range with its peak at 15,000 to 20,000 plus barrels a day range and, he anticipates the project will flow until approximately 2045. For the purposes of this analysis, assuming oil prices are similar to today, and the rate profile is similar to what Caelus believes, the project should reach the \$1.25 billion net revenue target in approximately 2020, he submitted.

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MR. FOLEY responded to Representative Gara that [slide] 8 represents the life of the project extending to 2045.

REPRESENTATIVE GARA noted that roughly \$1.4 billion in royalties paid by Nuna is less than \$50 million per year.

MR. FOLEY assumed Representative Gara's calculations were correct.

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MR. FOLEY described slide 9 as depicting benefits the state will receive in exchange for a modification of royalty and in

ensuring the project moves forward. He remarked that hundreds of jobs will be created, with production of approximately 50 million to 100 million barrels of oil, and a capital investment of \$1.3 billion in Phase 1. He further remarked that when Caelus reviews its economic model forecast of the ultimate money flowing to the state in the form of royalties, production tax, ad valorem tax, and net profit share leases it is approximately \$1 billion to \$1.7 billion over the entire life of the project. At the end of the development [phase] Caelus has agreed to share any findings regarding its costs, development scheme, geology, all of the techniques employed to maximize production, and lessons learned with the state, the industry, and other North Slope developers, he stated.

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REPRESENTATIVE GARA noted that Pioneer moved forward with development wells and exploration wells in 2011, believing this was a producible project under Alaska's Clear and Equitable Share (ACES) Act and further noted that this field was purchased before any promise of royalty modification. He stated that according to Dr. Scott Goldsmith, fields like Nuna that qualify for the lower Gross Value Reduction (GVR) tax rate produce for the state somewhere between a near zero or negative net present value just for the production tax under SB 21. Yet currently, he reiterated, the legislature is reviewing a royalty relief request of over 70 percent for at least a portion of the project. He summarized that the company committed to buy [the leases] before it received royalty relief, Pioneer advertised it as a project it would move forward, and performed development and exploration wells. He said that Caelus is paying very little production tax, something worth a near zero or negative present value to the state, and in addition is requesting a royalty reduction of over 70 percent. Representative Gara questioned how those facts made a compelling case for [royalty modification].

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MR. FOLEY responded that the royalty reduction would be at 70 percent up until the \$1.25 billion Gross Revenue Value [GRT] is achieved and it then reverts back to the existing rates. He offered that Pioneer had a water flood project at the island to demonstrate that oil could flow from the Torok and could inject water into the Torok reservoir. With that information, Pioneer made the decision to drill two exploration wells, Nuna1 and Nuna2, which represented approximately \$100 million in total

capital for the drilling of the two wells. Subsequently, Pioneer came to the conclusion that development might be possible but determined not to continue its business in Alaska and sold all of its assets to Caelus. Therefore, when Caelus acquired all of Pioneer's assets it acquired a piece of which is the Nuna project. He reiterated that Nuna, with royalty modification, will be sanctioned and will go forward in the timetable previously discussed.

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REPRESENTATIVE GARA remarked that the state has a tax structure wherein the state pays back credits and offers deductions. He questioned the total amount of dollars the state has paid to Pioneer and Caelus in terms of tax credits and deductions to help move this field forward.

MR. FOLEY replied that he did not have the numbers with him but would provide them to the committee.

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CHAIR MACKINNON reminded the committee that this is a preliminary finding and Governor Bill Walker will make the final determination on this project.

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REPRESENTATIVE JOSEPHSON requested a brief description of the process Caelus performed with DNR to evaluate, as required by the royalty modification statute, the reasonable profits that comparable fields should receive and why this deal may be underneath that threshold.

MR. FOLEY responded that the description may be answered within DNR's overview.

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SENATOR DUNLEAVY quiered whether the 30 percent net profits tax remains in full force throughout the duration of the project, and to confirm it is not part of the modification.

MR. FOLEY responded that the lease terms remain in full force and effect for so long as the lease remains in effect, and further responded that "No," the net profit share interest is

not affected in any way shape or form by the granting of the royalty modification.

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William Barron, Director, Central Office, Division of Oil & Gas, Department of Natural Resources, noted the transfer of assets from Pioneer to Caelus started in October 2013, with the transferred assets being finalized in June 2014. He described the Nuna development as an onshore development and that the current offshore development (ODS) is an island with the process being through the Kuparuk field. He stated that prior to submission of a formal application most of the discussions, economic reviews and analysis of Caelus and Pioneer, from October 2013 to date, were associated with the acquisition of Pioneer's assets by Caelus. He stated that relative to economic modeling and understanding the estimated cost of abandonment and dismantling, removal, and restoration (DR&R) obligations, a sinking fund and bonding mechanism was established relative to that function which has now been employed at the transfer. He explained that due to DNR's history with Pioneer and ODS the parties were able to move quickly on the Caelus July 1, [2014] application and consequently on October 28, 2014, DNR issued its preliminary finding. On November 7, 2014, DNR issued the official announcement through the public information office which triggered the 30-day public comment period. He determined that due to an error the citizens of Alaska received approximately 10 extra days to look at the document as it was first posted on the web site of the Division of Oil & Gas.

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REPRESENTATIVE GARA noted that the press release did not mention the Nuna Development in its title or within its first seven to eight paragraphs, but was mentioned at the end of the page and slipped by "all of us."

MR. BARRON characterized it as a general press release which discussed positive oil and gas activities associated with several independent operators, and HilCorp and Caelus were mentioned.

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MR. BARRON explained [since 1996] DNR received approximately six royalty modification applications [slide 3] with some withdrawn or denied, and the Pioneer Oooguruk Drill Site application being

approved in 2005. Currently, under [DNR's] preliminary findings the Nuna Torok development would be granted a royalty [modification] down to five percent until the \$1.25 billion gross revenue target is accomplished. He described gross production as measured from the lease and a fixed well head deduction of six percent based on the back-out payment for processing the product through Kuparuk. He noted it is one of the operating costs DNR allowed in terms of the net back pricing. The goal of the Division of Oil & Gas (O&G) was to structure this as straight up gross revenue and almost straight value of the product, he explained. Caelus does not have influence over world product price with some influence over rate but, he pointed out that is more of a reservoir issue than a completion issue and described completion technologies and high dollar costs as "interesting." The Department of Natural Resources desired the development to move forward but, he remarked, this was not an open ended royalty modification in that there had to be clear authorizations of expenditures with a timeline depicting that both the installation of the facilities being well on its way and production starting in 2017. He added that these are hard timelines offering the state protection because in the event these benchmarks are not met the royalty modification is rescinded. He opined this puts the burden of operatorship and responsible development on a timeline to the company and removes the obligation from the state.

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He referred to the technology sharing piece Mr. Foley mentioned and reiterated that within 24 months of initial production Caelus is required to issue Society of Petroleum Engineering (SPE) standard technical documents and publications discussing and demonstrating Caelus's performance. These documents include [but are not limited to]: cost structure, the size and type of fracture technologies employed, drilling techniques, and full open support of all technology transferred to the [public] in an accelerated manner for the other players. He offered that it takes time, energy, and money to "crack the nut" on how to get some of the reservoirs producing and stated this is a critical piece in DNR's proposal and negotiations.

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SENATOR GIESSEL questioned how Mr. Barron decided that \$1.25 billion was the threshold for going back to full royalty.

MR. BARRON responded that the question would be answered [within his overview].

MR. BARRON responded to Senator Giessel in the affirmative that the idea of sharing technology is a new concept that has not been included in other royalty relief.

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MR. BARRON pointed out that Caelus's original request was a five percent royalty until its activities associated with the Torok at ODS and Nuna had paid out, and subsequent to that payout there would be a slight increase in royalties over a three-year timeframe and on the fourth anniversary full royalty would be in place for all areas. The Department of Natural Resources had the opportunity to ask the company a great deal of questions that typically companies do not like to answer when asking for royalty modification, he said. He mentioned a discussion regarding sharing the information included in the royalty modification application with the general public and stated much of that information is inter-twined with economic and geologic information which is sensitive and confidential to Caelus. He advised he is statutorily obligated to keep the information confidential.

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MR. BARRON expressed that it was necessary DNR understood how the company could determine that this was an uneconomic project or that the project probably would not go forward without royalty modification. Subsequent to a review, DNR recognized that the company was looking at only proven reserves, better known in the industry as one "P," basically a 90 percent chance more reserves would be recovered, he stated. Caelus determined a 10 percent slice of recovery of reserves, which is a conservative prospective and also possibly fair in attempting to strike a balance between analysis and critique, he remarked. He characterized the structure of the Torok as difficult to produce and reasoned that those calculations were fair due to the ability to drill horizontally and fracture a producer being one thing, yet having to do that with injectors is unique and costly. Plus, he noted, it is unknown if there will be pressure maintenance and sweep from a water flood in this type of formation. The efficiency of that sweep and the pressure support resulting from the water is yet to be determined which clouds the two "P" and three "P" reserves, he explained. He noted that the company had a price structure that floated for

the first couple of years and then was fixed for all years out at the same price. At the time, DNR believed it was conservative but currently (after a few months) believes it is radically high, he stated.

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MR. BARRON remarked that the company had a fixed opex and fixed capex. At the time DNR believed it was a conservative deterministic model with the results of the company's economics being a low rate of return before federal income tax. He pointed out that DNR does not use deterministic values so it "leaned" into Caelus and requested its two "P" and three "P." He advised that in the engineering world for reservoir management, reservoir reserves are usually described in log normal distribution which means it is not a normal curve, it is a log normal [curve]. Caelus provided the company's internal and third party consultant documents and DNR established a log normal distribution for reserves and advised that some risk was added given the type of reservoir it was and the unknown characteristics the company may encounter. The Department of Natural Resources did the same thing with oil price and costs. He remarked that DNR advised the company that it had given DNR a fixed cost for capital and a fixed cost for operating expenses, and to now provide a range. Subsequently, DNR backtracked and validated some of the numbers in terms of highs and lows and built distributions around those figures as well. He noted that the statute is for the prolonged life of the Torok so DNR reviewed the Nuna plus the ODS, and the ODS only, and calculated a subtraction of the two to determine the value of the Nuna portion of the Torok. He explained that DRN calculates its economics after federal income tax (AFIT) and ran this model numerous times.

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MR. BARRON responded to Senator Dunleavy that the SPCE standard of the three "P" is that "one P is proven reserves, two P are probable reserves, and three P is possible reserves." He explained that as the number of the "P" gets bigger, the confidence there will be a recovery of the reserves is diminished.

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MR. BARRON referred to slide 8 and described it as a price forecast and an example of the division's distribution. He

advised that when running the models at the time of the analysis DNR ranged it from \$50-\$130 per barrel and built a normal distribution around those figures with a mean at that time being \$90 [per barrel].

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MR. BARRON responded to Representative Gara that the red area on slide 8 is dollar per barrel. He explained it is a distribution curve to recognize the frequency of events at a certain product price and slide 8 depicts the highest point as \$90 per barrel which is where most of the distribution landed.

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MR. BARRON referred to slide 9 and stated that DNR ran the stochastic model, Monte Carlo technique, "tens of thousands" of times and let the computer generate possible results. He opined that this is an important aspect to understand as there is an unknown as to what the product price will be at any given point in time, or production rate, or capital costs, or the opex which is why distribution models are built. He noted that any of these events can take place against each other at any point in time which is why DNR performs a Monte Carlo analysis to obtain a range of results. Slide 9 is a probability distribution of results, and this is roughly a tipping point project. Fifty percent of the cases came out to be positive at a fifteen percent rate of return and fifty percent of the cases were not profitable. He advised it was an interesting dilemma to work through in terms of whether it was the correct model to be using as DNR should look at the type of company it was dealing with. He stated that DNR recognized the company has a higher cost of capital in that it is receiving private equity funding. Historically, he offered, DNR has reviewed companies such as ConocoPhillips Alaska, Inc., BP, Chevron Oil and Gas Exploration and Development, which are internationally diversified portfolio companies with worldwide standards and Caelus is basically a single asset startup company which must go to the private equity market to receive funding for these projects. He highlighted that it is a limited pool that can provide \$1 billion for activities in Alaska. In striving to be fair, DNR communicated with the Permanent Fund Investment Group and inquired as to what rate of return it would consider if it invested in this type of project and the answer was somewhere between 17-25 percent.

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MR. BARRON turned to slide 12 and stated it depicts the results of DNR rerunning the economics at 17.5 percent. Sixty-five percent of the cases were not positive as when elevating the requirement for rate of return the failure rate increased, which was expected but not as far as it went, he expressed. The mean case was a negative expected monetary value with only a few cases positive, he noted. He indicated that when DNR reviewed the results it considered that it was a private equity company, with the project at the tipping point at 17.5 percent. He noted that DNR recognized that [Torok] is a reservoir that is risky and more so than the conventional plays of Prudhoe Bay and Kuparuk. He advised that DNR desired an opportunity to promote new drill techniques, and for the state to determine if the techniques could work, how well, and how the technology could be transferred. It is the intention of DNR to encourage the development of this type of resource and, he noted, this is also the sort of play as Badami, Meltwater [Participation Area], and Tarn [Field]. He explained there are several plays like this that have not been robustly positive and the companies have struggled with them. He stated DNR wanted to focus on a single formation from the new development site and that the Caelus application requested the Torok from ODS and Nuna. The Department of Natural Resources concentrated on limiting it to the new development area and establishing clear milestones the company would be held to. It was not the intention of DNR to adversely affect the Alaska Net Profit Share Lease (NPSL) System benefits and DNR recognized that production, recovery and product price were critical factors and, except for production, recovery and product price are completely out of the control of the operator. He advised that the parties participated in lengthy discussions in terms of options and alternatives, ratcheting down and up on product price, sliding scales and clean curves on product price in an attempt to take issues the operator was not in complete control of but were drivers of the economics, and they discussed a gross revenue product. He opined that regarding a gross revenue product, DNR recognized that if the company was technically successful the state did not want to diminish the state's ability to recover product if it had high rates at low price. In essence, he noted, if the state only gave the company a product price royalty modification the company could enjoy low price robust production and gain the royalty modification. He stated that DNR structured [an agreement] that if the company's technology worked and production was high the state would also benefit as it would truncate the time of which the company was under royalty modification. He further stated that DNR wanted to blend the balance of benefiting the state with elevated production and

risk product price, which is how DNR determined the proposal of the gross revenue target.

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MR. BARRON stated that with regard to Senator Giessel's earlier question concerning how DNR arrived at the \$1.25 billion figure, he referred the committee to slide 14 and described it as the expected monetary value at 17.5 percent and a \$1.25 billion gross revenue target. He pointed out that the mean is negative \$7.05 which denotes the project on a mean basis is negative; however, statistically it might as well be zero. He explained that DNR worked its way back from 2.5, 3.5 and worked backwards down the scale to a gross revenue target at 17.5 percent which was at a tipping point of value to the company. He opined that the project is at a mean of negative \$7.05, essentially zero and any less than negative \$7.05 and the project would be more negative, and any higher the state would leave too much on the table. The cost is essentially that the state forgo \$44 million in royalty to move the project forward, he surmise and remarked that DNR expects to receive anywhere from \$1 billion to \$1.7 billion value to the state in revenue taxes, etcetera. He offered DNR's belief that as a privately equity funded company the project would either not go forward or would be significantly delayed without royalty modification and noted that caused DNR concern as it desires this sort of project move forward yet protect the state as robustly as possible.

2:17:02 PM

MR. BARRON remarked that everything was on an economic basis so DNR tried to find the tipping point of the project in terms of the gross revenue target. He referred to slide 16 and advised it represents net present value to the state in its decision making abilities. He presented the question that assuming the project did not go forward or was delayed without royalty modification what would be the value to the state. He pointed to the red bar on the axis which represents \$44 million the state would forgo under the current proposal, and the blue curve represents no royalty modification with a one- to five-year delay. He summarized that by not taking action today it would cost the state more money in net present value than if the project was delayed a year with the state losing approximately \$79 million. He surmised that on one hand the state is risking \$44 million but accelerating the development of the asset, gaining and requiring hard milestones for the company, and requiring information transfer. On the other hand, the state

could delay a year with no royalty modification and lose more money than by granting the royalty modification, he further surmised.

[2:18:56 PM](#)

REPRESENTATIVE JOSEPHSON noted he had previously reviewed a figure of lost royalty of \$75 million and quiered how that figure was determined.

MR. BARRON responded that in the preliminary finding there was a reduction of \$75 million in royalty but with additional taxes rolled onto that figure the state's total revenue loss is \$44 million.

[2:19:36 PM](#)

REPRESENTATIVE GARA asked if the state will receive \$1.3 billion in state revenue or whether it would be reduced by tax credits and tax deductions.

MR. BARRON stated that [\$1.3 billion] net is the amount the state expects to receive at the end of the day.

[2:20:29 PM](#)

SENATOR DUNLEAVY questioned if it is possible to recover the [\$44 million] at the back end after the \$1.25 billion gross revenue is met.

MR. BARRON responded to Senator Dunleavy's question by stating that within robust negotiations DNR did not require [\$44 million] but it reduced the gross revenue target, which was originally higher, and pushed it back to \$1.25 billion. He reiterated that DNR compensated by pushing the gross revenue target down to provide the state compensation and accelerate the time in which the state would regain its full royalty.

SENATOR DUNLEAVY surmised that [\$44 million] never was recouped [in the negotiations].

MR. BARRON answered in the affirmative.

[2:22:15 PM](#)

MR. BARRON referred to slide 17 and opined that the royalty modification is in the best interests of the state and is a

well-crafted royalty modification to jump start a project. It offers the state immediate development into new reserves as delays cost the state more money and the [royalty modification] is focused on the scope of a single formation from the new development, he remarked. He said there are clear milestones and acknowledged that the legislature has an issue with how to ascertain companies are performing as the legislature asked them to perform thereby holding the companies to a fine line. He noted it does not adversely affect the NPSLs so the benefit of net profit leases do trigger in when reaching payout. He further noted that the state gains \$1.3 billion net present value 3 percent discount which targets an "elusive" reservoir on the North Slope and automatically triggers that 24 months after first production will be the transfer of technology to the industry [and public].

[2:23:56 PM](#)

REPRESENTATIVE JOSEPHSON questioned if net profit share leases are unique to this unit, how it came to be, and remarked that it suggests the unit should have been a more profitable place to do business.

MR. BARRON answered that net profit leases are not unique to this unit as there are several throughout the state, mostly in the North Slope. He offered that the idea first came about in federal leases with the idea there is a base royalty but once a payout is reached the company pays more back to the state. He explained there was a balancing act between the state or the royalty owner and companies in terms of the uniqueness of NPSL leases. He explained that the leases are used federally, and several states use them, and Alaska has performed a few lease sales with those terms in them. He further explained that the terms are not often used and this [unit] happens to have some NPSLs.

[2:25:38 PM](#)

MR. BARRON responded to Representative Josephson that the [preliminary determination and finding] is in the public review period. Subsequent to gathering comments and, barring a comment or missed issue that must be addressed in the language of the agreement, a final finding will be written for the DNR commissioner's signature, and upon signature that agreement is completed. He added that DNR will offer background information to the new administration as it goes through a transition process.

2:27:18 PM

REPRESENTATIVE GARA noted that most state leases are bid at 12.5 percent royalty, with some at 16 percent, and this lease at 12.5 percent plus 30 percent profit share. He surmised that the state uses the higher rate when it feels [the lease] is potentially more productive.

MR. BARRON answered that historically 12.5 percent royalty was common throughout all domestic regimes and explained that many years ago the state recognized there were higher potential areas on the North Slope and designated a line that above which the royalties were 16.67 [percent]. He noted that those areas are still 16.67 [percent] and all other areas are 12.5 percent. In a couple of the lease sales the idea was propagated and the lease terms included the net profit sharing component and, he offered, in the last four lease sales and a few years prior to that the state moved away from the idea. He remarked that current leases commonly do not include a net profit share because they are complicated to administer. He pointed out that Caelus's recent purchase of approximately 320,000 acres is the third largest lease sale in terms of value in the state's history for the North Slope. Caelus now must gather data, shoot seismic, and review the analysis before it determines where to put in its first exploration well which could be a dry hole. He offered that exploration wells can cost over \$80 million to drill which is a large investment on a company for a dry hole, even though they do obtain data. He stated that DNR offers competitive lease sales but not with an understanding that it is trying to impose where DNR believes there will be greater production. When a company purchases a lease it may not have a lot of information and, he said that the legislature created royalty modification statutes to assist companies, having obtained additional information, an opportunity to request assistance from the state. The structure of this agreement is sound in its approach to address many issues that bring benefits to the state, he opined.

2:31:24 PM

REPRESENTATIVE GARA quiered whether it was a reflection of the state's view that a field is more promising when there is more than a 12.5 percent royalty.

2:31:35 PM

MR. BARRON reiterated that DNR issues leases without knowledge of a field being there or not and that the state drew a demarcation line on the North Slope map stating that north of that line is 16.67 [percent], and south is 12.5 percent royalty with no idea of whether anything will be discovered at the time of the lease sale.

[2:32:06 PM](#)

SENATOR BISHOP questioned whether the 320,000 acres were at 12.5 percent or 16.67 percent.

MR. FOLEY advised he believed all of the subject leases Caelus purchased are at 16.67 percent royalty, other than a single digit amount being one-eighth royalty.

MR. BARRON confirmed that Mr. Foley was correct.

[2:33:26 PM](#)

MR. BARRON replied to Chair MacKinnon that public comment cutoff is December 12, 2014.

[2:33:53 PM](#)

CHAIR MACKINNON paraphrased AS 38.05.180(j)(1)(B) as follows: "Modification is necessary to prolong economic life of an oil or gas field or pool because without modification future production is not economically feasible, and royalty modification must be in the best interests of the state."

MR. BARRON agreed with both Chair MacKinnon's characterizations [of the statute] and that his testimony is DNR's effort to explain to the general public and the legislature the steps taken to protect the state's interests.

[2:34:37 PM](#)

REPRESENTATIVE GARA advised that on November 27, [2014], Page 2, Commissioner Balash was quoted in the Alaska Dispatch News as saying "What I found, they are expecting some pretty significant returns on the investments they make and so ultimately that was one of the things I took into account." Representative Gara questioned why he should be comforted that Commissioner Balash was looking at something that would produce significant returns for [Caelus].

[2:35:52 PM](#)

MR. BARRON noted that he could only answer Representative Gara's question in that this will be the first private equity funded project on the North Slope and possibly in Alaska for oil and gas. In the event an arrangement can be structured for royalty modification that will allow these kinds of private equity projects to come into the state, he noted, it would be a positive step forward. He further noted that it is important for the people of Alaska to grasp the nature of the companies now coming into the state, such as: Caelus, Hilcorp, Brooks Range, 70 & 148 LLC, Armstrong, Royals, Furie, BlueCrest, Eni and Repsol, with the last two companies to a different degree. He described companies that require private equity funding as not "wildly" diversified corporations. In structuring an agreement that does not onerously diminish value to the state yet, he remarked, demonstrates to the industry and private equity sector that the state looking at these projects positively could play into large dividends for the state and for future players to develop its projects through private equity. He explained that private equity players hold a great deal of acreage in the state for exploration activities and surmised it is important these companies are successful so the state can continue the development of its natural resources.

[2:38:12 PM](#)

REPRESENTATIVE GARA asked if Mr. Barron disagreed with Dr. Goldsmith's analysis that fields like Nuna post-2002 production units will generate in production taxes a negative or near zero net present value to the state.

MR. BARRON advised he has no opinion.

[2:38:54 PM](#)

MR. BARRON agreed that Chair MacKinnon's depiction of slide 15 was fair in that it depicts that a delay would be more costly to the state as compared to the impact of the royalty modification, and that it would shorten the overall economic life of the project.

[2:39:35 PM](#)

CHAIR MACKINNON requested verification that Mr. Barron has tried through negotiations to ascertain that Alaska receive production timely by requiring the start of the installation of the

facilities by 12/31/15, and production must have started by no later than 3/31/17.

MR. BARRON answered that Chair MacKinnon was correct.

[2:40:13 PM](#)

SENATOR BISHOP surmised that from the state's standpoint there would be a \$1.3 billion net profit back to the state with a \$44 million investment.

MR. BARRON agreed with Senator Bishop.

MR.BARRON agreed with Senator Bishop that it is a rounding "error" to get to \$1.3 billion.

[2:41:20 PM](#)

The committee took a brief at-ease.

[2:42:07 PM](#)

ADJOURNMENT

There being no further business before the committee, the Legislative Budget and Audit Committee meeting was adjourned at 2:42 p.m.