

STATE OF ALASKA

DEPARTMENT OF REVENUE

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Senator Lyda Green, Co-Chair
Senate Finance Committee
State Capitol, Room 516
Juneau, AK 99801

Senator Gary Wilken
Co-Chair, Senate Finance Committee
State Capitol, Room 518
Juneau, AK 99801

Re: SB 305 Petroleum Production Tax

Dear Senators Green and Wilken,

We are pleased to respond to a request made by members of the Senate Finance Committee for a "glossary" to the PPT legislation currently under consideration. We have included various useful acronyms and tax, accounting, and economic terms used during testimony at recent hearings.

We have provided common-use definitions, most of which were based on various accounting and taxation texts, as well as oil & gas reference books. This list is intended to facilitate discussions and provide a general familiarity with relevant concepts. It is not intended to restate or modify the precise meanings found in statute or regulation and does not constitute the Department's official interpretation of statutory or regulatory terms.

Please let us know if there are additional terms that you would like to see on this glossary and we can update it.

GLOSSARY TO THE PPT

ANNUALIZE

In general, this means to extend a part-year item to an annual basis. The PPT legislation contains a provision for a producer to elect to spread lease expenditures

over the entire year. For example, if a producer spends \$12M in January, the producer can elect to recognize 1/12, or \$1M per month, in place of \$12M in one month.

ANS

Alaska North Slope. When used in describing crude oil, this term refers to the crude oil that is produced in the North Slope area of Alaska. Because ANS is not traded frequently, daily reported prices for this medium quality crude are often determined between trades as a differential to prices set for West Texas Intermediate, a benchmark crude.

CAPEX

Capital Expenditures are made to acquire assets that are considered long-term assets that are not bought and sold in the ordinary course of business. The term usually refers to Fixed Assets such as buildings, machinery, and equipment. Such assets are expected to generate income over several years.

CGF or CENTRAL GAS FACILITY

In the Prudhoe Bay Unit, a large gas processing plant that processes roughly 9 billion cubic feet a day (or 9 million mcfs – (qv)), stripping out ngl's (qv), and compressing the residue gas back up to a pressure where it can be put back in the ground.

CREDIT (compare to Deduction below)

Reduction in taxes payable to the state. A tax credit of \$200 is more beneficial to the taxpayer than a deduction of \$200, because the credit reduces taxes on a dollar-for-dollar basis. Put another way, though, please note that credits are frequently not for 100% but are 20% credits or 40% credits, in which case taxes are only reduced by 20 cents or 40 cents for every dollar that qualifies for the credit.

DEDUCTION (compare to Credit above)

Reduction of the tax base against which the tax is measured. In the case of a tax on net profit, a Deduction is a reduction of net profit. The value of a deduction is the amount of the deduction (For example: \$100) times the tax rate (for example: 20%) giving a net benefit of \$20 (\$100 times 20%).

DEVELOPMENT

Development costs are incurred to obtain access to proved reserves and to provide facilities for extracting, treating, gathering, and storing the oil and gas. These costs include such things as expenditures to gain access to and prepare production well locations for drilling, including surveying well locations for the purpose of determining specific development drilling sites, clearing ground, road building, power lines, drilling and equipping development well; platforms; casing; tubing; pumping equipment; and the wellhead assembly

DISCOUNTED CASH FLOWS

Today's value of future expected cash receipts and expenditures at a common date, which is calculated using net present value or internal rate of return and is a factor of analysis in capital investments.

DOLLARS-OF-THE-DAY (See NOMINAL DOLLARS below)

EFFECTIVE TAX RATE

In general, whenever there are several factors at play this measure cuts through all their effects, and typically divides the tax paid by some measure.

For an income tax, the effective tax rate is normally expressed as the actual income tax paid divided by taxable income, expressed as a percentage. For example:

Gross income	\$100
Less: deductions	<u>(90)</u>
Net income	\$ 10
Tax at 20%	\$ 2
Less: credits	<u>(1)</u>
Tax due	\$ 1

In this example, the effective tax rate is 10%, which compares the \$1 tax due with the taxable income of \$10.

ELF (or Economic Limit Factor)

The Economic Limit Factor is embodied in current production tax law. It is a formula that yields a property-specific factor which is applied in the calculation of

the effective tax rate for each property. The ELF formula for oil is a multi-exponent formula, based on well-productivity and property size. For all properties, the ELF is between 0 and 1. With an ELF of 0, no production tax is paid on that property. With an ELF of 1, a property would pay the full effective tax rate of 15% or 12.25%, depending on the age of the property.

ENHANCED OIL RECOVERY (EOR)

The use of certain methods such as water flooding or solvent injection into wells to increase the oil recovery from a reservoir.

EXPLORATION

Exploration involves identifying areas that may warrant examination and examining specific areas that are considered to have prospects of containing oil and gas reserves. Exploration costs include drilling exploratory wells and exploratory-type stratigraphic test wells. Principal types of exploration costs include costs of topographical, geological, and geophysical studies.

FIELD COSTS

In Alaska's North Slope Units, a fee paid by the State of Alaska to the producer of its royalty oil and gas for every unit of production. Originally set in 1980 and adjusted every year for inflation, the figure is roughly a dollar per barrel of oil and a quarter per mcf of gas.

FISCAL SYSTEM

Technically, the legislated taxation structure for a country including royalty payments. In popular language, the term includes all aspects of contractual and fiscal elements that make up a given government-foreign oil company relationship.

GAS PROCESSING

Processing a gaseous mixture of hydrocarbons to remove liquid hydrocarbons (see Natural Gas Liquids) by a physical process that is not mechanical separation. These processes include, but are not limited to, refrigeration and adsorption. See full definition of Gas Processing included in the legislation. Gas Processing is distinguished from Gas Treatment.

GAS TREATMENT

Conditioning gas and removing non-hydrocarbon substances, such as CO₂, to make the gas acceptable for acceptance into a gas pipeline system. See full definition of Gas Treatment included in the legislation. Gas Treatment is distinguished from Gas Processing.

GOVERNMENT TAKE

Sum of state take plus federal take. State take equals sum of royalty, production tax, property tax, and income tax. Federal take is federal income tax, and federal royalties on federal leases.

GROSS (as in a "tax on Gross")

In general, Gross refers to gross revenues or sales. A sales tax is an example of a tax on Gross. For production tax purposes, Gross means the value of the oil and gas at the point of production, that is sales less the cost of getting the oil or gas from the point of production to the point of sale.

HEAVY OIL

A type of crude oil which is very viscous and does not flow easily. It may be characterized as having an American Petroleum Institute (API) gravity less than 20°. The common characteristics are:

- high specific gravity
- low hydrogen to carbon ration
- high carbon residues
- high contents of asphaltenes, heavy metal, sulphur and nitrogen

INCENTIVES

Fiscal or contractual elements emplaced by host government that make petroleum exploration or development more economically attractive includes such things as:

- Royalty Holidays
- Tax holidays
- Tax credits
- Reduced government participation
- Lower government take
- Investment credits/uplifts
- Accelerated depreciation

INTANGIBLE DRILLING COSTS

All necessary intangible expenditures incurred in drilling from the surface to the natural resource deposit. Such costs include labor, taxes, repairs, supplies, power, and equipment rentals. Sometimes referred to as the cost of the hole in the ground when all the salvageable assets have been accounted for.

INTERNAL RATE OF RETURN (or IRR)

The rate of return that would make the present value of future cash flows plus the final market value of an investment or business opportunity equal the current market price of the investment or opportunity. Also called dollar-weighted rate of return.

IRC

Internal Revenue Code

IRR (See INTERNAL RATE OF RETURN above)

JV

Joint Venture is, in effect, a partnership among companies. A great deal of the activity on the North Slope takes the form of JVs. All costs of a JV are run through a "JV billing" to the working interest owners or co-venturers.

LACT Meter

A Lease Automatic Custody Transfer meter, of sufficient accuracy that parties will use it to determine the amount of oil or gas at a point where the oil or gas changes hands and one party can bill the other for the amount of oil or gas that has changed title.

LESSEE and LESSOR

An oil and gas lease is between a lessor and a lessee. The lessors are the landowners (or those holding mineral rights in the land), and the lessees are companies that explore for and produce the oil and gas. In Alaska, the lessor under oil and gas leases is usually the state or federal government, but in some instances private entities that own mineral rights have also issued oil and gas leases. The lessor

usually retains a royalty interest. Often the amount of the retained royalty interest is 12.5% of the oil and gas produced, which can be paid in kind (as oil or gas) or in value (i.e. in money).

MARGINAL TAX RATE

According to WG&L Tax Dictionary (2004), a marginal tax rate is:

“The rate of tax applied to the last dollar of the tax base.”

Therefore, if a tax is based on net income, a marginal tax rate is measured based on the last dollar of net income. This is most often found in income tax law such as AS 43.20.011 where the top marginal rate is 9.4% and this tax rate is applied to amounts of Alaska corporate taxable income over \$90,000.

MCF or more correctly MSCF

Thousand (as in the roman numeral M) cubic feet of gas at standard pressure and temperature. Sometimes abbreviated as an ‘M’, this a pure volume measurement, and is different from an MMBTU (qv)

MMBTU or mmBtu

Million (or in roman numerals, a thousand thousand) British thermal units. This measures the heating capacity of a gas. Using this measurement accounts for non-hydrocarbon impurities like CO₂ which take up volume in the gas, but do not contribute to its ability to produce energy when burnt. This is a better measurement of the economic value of the gas than an mcf. For back of the envelope calculations, the two are often used interchangeably because North Slope gas has roughly a million Btus per thousand cubic feet. (For the technically minded, a Btu is the amount of energy required to raise one pound of water from 39 degrees to 40 degrees.)

NATURAL GAS LIQUIDS (NGLS)

Hydrocarbon liquids extracted from gas, typically at a gas processing plant. On the North Slope these are used for enhanced oil recovery as a miscible injectant, or put into TAPS where they are commingled with oil. Under our current tax system, they are taxed as gas. The principal component of natural gas is methane (or C1), while NGLs include propane (C3), butanes (C4), pentanes (C5), and some heavier hydrocarbons. Sometimes ethane (C2) is included as an NGL.

NET (as in a "tax on Net")

Net profit is gross revenue (sales) less expenses. For PPT purposes, Net means gross value (that is value at the point of production) less the operating expenses and capital investments necessary to get the oil out of the ground. This is different from federal taxable income which requires capital investments to be written off over their useful lives.

NETBACK

Many royalty and production tax calculations are based on gross value from some point of valuation, usually the last value off of a production platform or at the boundary of a field or license area. The point of sale, however, may be different than the point of valuation. The statutory royalty or tax calculation may allow the transportation costs from the point of valuation to the point of sale to be deducted. This is called the Netback Formula.

NGLs (see NATURAL GAS LIQUIDS above)

NOMINAL DOLLARS

A term usually associated with cost estimates that indicate the effects of anticipated inflation have been taken into account. For example, if a well costs \$5 million right now in "today's dollars" (the opposite of dollars-of-the-day), then the cost of the well two years from now might be estimated at \$5.51 million in dollars-of-the-day assuming a 5% inflation factor.

OPEX

Operating Expenditures are made to acquire goods and services which are considered to benefit the current year only. Examples of Operating Expenditures include labor, fuel, and repairs necessary to operate production equipment.

POINT OF PRODUCTION

The point in the production process at which oil and gas is considered "produced." In a "production tax," this is the point at which the oil and gas is valued, and the tax applied. The PPT legislation changes the point of production such that Gas Processing is considered upstream of the point of production. This means that the costs of Gas Processing will be deducted in the calculation of Net value, and capital

investments in Gas Processing will generate Credits under the legislation, as currently drafted.

PPT

Petroleum Production Tax

PRODUCER

The owner of a working interest; usually a lessee under an oil and gas lease.

PRODUCTION

Production involves lifting the oil and gas to the surface, gathering and field storage. Production costs are those costs incurred to operate and maintain wells and related equipment and facilities, such as labor to operate the wells, repairs and maintenance, and materials, supplies, and fuel consumed to operate wells.

PROGRESSIVE TAX

According to *Black's Law Dictionary* (2004), a progressive tax is

“A tax structured so that the effective tax rate increases more than proportionately as the tax *base* increases...”

This is consistent with taxation and economics literature.¹ In other words, a progressive tax is any tax in which the rate increases as the amount subject to taxation increases. If a tax is levied on “net income”, then a progressive tax scheme will increase the tax rate based on increasing levels of net income. If a tax is levied on “gross income”, then a progressive tax scheme will increase the tax rate based on increasing levels of gross income.

PROPORTIONAL TAX

According to *Black's Law Dictionary*, a proportional tax is:

“A tax whose rate remains fixed regardless of the amount of the tax base.”

¹ See WG&L Tax Dictionary written by Richard A. Westin (2004), and Principles of Microeconomics written by Karl E. Case and Ray C. Fair (1989).

Black's equates a "proportional tax" with the term "flat tax." Thus, a proportional tax is neutral since the relative share does not change with amount.

ROYALTY

A share of oil and gas production free of the expenses of production. In particular, a landowner's royalty—often in the amount of one-eighth of the oil and gas produced from the lease—is part of the compensation a lessor receives from the lessee under an oil and gas.

RSA

A Royalty Settlement Agreement is an agreement between Alaska Department of Natural Resources and a particular producer, resolving a dispute as to the determination of royalties to be paid under oil and gas leases and prescribing a method for calculating royalties to be paid by that producer in the future. A series of these were signed between 1980 and 1996 as various issues of the Amerada Hess litigation concerning royalties were settled. The 1980 agreement concerned field costs (qv); settlements signed in the early nineties concerned royalties on oil; and settlements signed in the mid nineties concerned royalties on gas.

SEVERANCE TAX

A tax on the removal of minerals or petroleum from the ground. Essentially the same as a Production Tax.

SQ

Status Quo is the short-hand method of referencing the tax law, as it currently exists.

TIME VALUE OF MONEY

This concept states that the value of a dollar today is worth more than a dollar in the future. Two factors affect the value of money over time: inflation and opportunity cost. The presence of inflation acts to continually devalue money over time, while the opportunity cost of money is the foregone alternatives for its use, namely a rate of return on an investment. These two factors need to be considered when calculating the net present value of an amount of money that is to be received in the future.

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WELLHEAD VALUE

This is often used as a synonym for gross value of the resource at the point of production, even though the point of production is not literally at the wellhead. Wellhead value is determined by subtracting transportation costs from the value of oil or gas at the point of sale or other disposition.

WORKING INTEREST

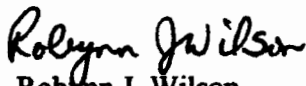
Also known as an operating interest, a working interest is the interest in property held by the person who has the right to produce oil and gas from the property. In the case of an oil and gas lease, the working interest belongs to the lessee..

WTI

West Texas Intermediate is a type of crude oil used as a benchmark in oil pricing. It is a light crude, "sweeter" (less sulfur) than Alaska North Slope crude. WTI is traded on world markets through "wet barrels" (actual oil), or "paper barrels" (futures).

I hope that this information proves helpful. Please let us know if we can be of further assistance.

Sincerely,



Robynn J. Wilson
Director, Tax Division