FEDERAL OIL AND GAS VALUATION
OVERVIEW

Disclaimer

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Who’s here?

A. Royalty reporter (I input the ONRR Form-2014 data)
B. Company royalty liaison or manager
C. Attorney / legal representation
D. Member of the press
E. Other
TEST YOUR CLICKERS!

How long have you been doing work related to oil and gas royalties?

A. Less than 2 years
B. 2 - 5 years
C. 5 - 10 years
D. 10 - 20 years
E. More than 20 years!

Royalty Valuation

Guidance
Determinations
Requests to Exceed
Regulations
Reporter Letters
Other Projects

Valuation Regulations

30 CFR Part 1206

◆ Federal Oil: § 1206.100 - § 1206.120
◆ Federal Gas: § 1206.150 - § 1206.160

AGENDA

- ONRR Royalty Equation
- Volume
- Value
- Allowances
- Gas Valuation
  - Value basics
  - Other topics
  - Fuel Use
- Oil Valuation
  - Value basics

ONRR Royalty Equation

Royalty due = \[ \text{volume} \times \text{unit value} \times \text{royalty rate} \] - allowances

Oil example:
- Volume sold = 100 bbl
- Unit value = $45/bbl
- Royalty rate = 12.5%
- Allowable transportation cost = $1.00/bbl

Royalty Due = (100 bbl x $45/bbl x .125) - ($1/bbl x 100 bbl x .125)
Royalty Due = ($562.50) - ($12.50)
Royalty Due = $550.00

FORM ONRR-2014 COMMON PRODUCT CODES
Royalty is due on the quantity and quality of production as measured at the Bureau of Land Management (BLM) or Bureau of Safety and Environmental Enforcement (BSEE)-approved royalty settlement point.

Oil reporting requirements:
• Reported in barrels (42 gal)
• 60 degrees F
• Reported as clean barrels, adjusted for basic sediment and water (BS&W)

Gas reporting requirements:
• Report using Mcf and MMBtu
• Adjust the Mcf to a pressure base of 14.73 psi
• Report using the dry heating value, unless the water vapor content has been measured, then use the "real" or "actual" heating value
• Report natural gas liquids (NGLs) using gallons

Are the parties...
• Affiliated?
  • Does the entity control, is it controlled by, or is it under common control with another entity?
• Negotiating with opposing economic interests?
  • Factors outlined in Vastar Resources, Inc. 167 IBLA 17 (2005)
• Related by blood or marriage?
**GROSS PROCEEDS**

**Gross proceeds** means the total monies and other consideration accruing to an oil and gas lessee for the disposition of production.

You produce 1 barrel of oil from Federal land that is adjacent to your backyard and sell it to your neighbor at arm's length for:
- $20
- 5 chickens
- 1 goat

Regs: 30 CFR §§ 1206.101, 1206.151

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**CLICKER QUESTION!**

What are your gross proceeds ("total monies and other consideration")?

A. $20

B. $20 and the market value of the 5 chickens and 1 goat

C. NYMEX + roll

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**MARKETABLE CONDITION**

**Marketable condition** means lease products which are sufficiently free from impurities and otherwise in a condition that they will be accepted by a purchaser under a sales contract typical for the field or area.

**Oil**
- Separation
- Gathering
- Free of impurities (BS&W limit)

**Gas**
- Separation
- Gathering
- Compression
- Dehydration
- Sweetening

Regs: 30 CFR §§ 1206.101, 1206.107, 1206.151, 1206.152(i), 1206.153(i)
GATHERING

Gathering means the movement of lease production to a central accumulation or treatment point on the lease, unit, or communitized area; or to a central accumulation or treatment point off of the lease, unit, or communitized area as approved by BLM or BSEE operations personnel.

MARKETABLE CONDITION

- Must place the production into marketable condition at no cost to the Federal government
- Cannot reduce royalties by transferring the costs to the purchaser for a lower sales value
- Gross proceeds should be increased to the extent they were reduced for costs associated with placing the production into marketable condition
- If you meet or exceed the marketable condition requirements, you may be able to deduct a portion of your costs

Unbundling

- Unbundling involves:
  - Separating allowed and disallowed costs
  - Determining marketable condition for your gas
  - Separating transportation fees from processing fees
  - Applying an ONRR-generated UCA, if applicable
- The burden rests on the lessee to determine allowed and disallowed costs
- https://onrr.gov/unbundling/index.htm
Federal
Gas Valuation

30 CFR § 1206.150 - § 1206.160

Gas Valuation

Gas Valuation Decision Tree

Definition of Processing

Processing means any process designed to remove elements or compounds (hydrocarbon and nonhydrocarbon) from gas, including absorption, adsorption, or refrigeration. Field processes which normally take place on or near the lease, such as natural pressure reduction, mechanical separation, heating, cooling, dehydration, and compression are not considered processing. The changing of pressures and/or temperatures in a reservoir is not considered processing.
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### GAS BASICS

#### Unprocessed Gas
- Only valuing one commodity (wet gas) and using one product code:
  - Unprocessed gas (PC 04)
  - Coalbed methane (PC 39)
  - Allowances for transportation only

#### Processed Gas
- Valuing multiple commodities and using multiple product codes:
  - Pipeline condensate (PC 05)
  - Pipeline fuel (PC 15)
  - Coalbed methane (PC 39)
  - Residue gas (PC 03)
  - NGLs (PC 07)
  - Possibly others (plant inlet scrubber, CO2, sulfur, etc)
- Allowances for processing and transportation

Regs: 30 CFR §§ 1206.152, 1206.153

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### Gas Valuation | ARM vs. NARM

#### Value for Arm’s-Length Contracts
- Generally accept gross proceeds
- Subject to the marketable condition rule and unbundling

#### Value for Non-Arm’s-Length Contracts
- First Applicable of 3 ordered benchmarks
- Subject to the marketable condition rule and unbundling

Regs: 30 CFR §§ 1206.152, 1206.153

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### Transportation & Processing Allowances

**Royalty Due =**

\[ \text{Volume} \times \text{Price} \times \text{Royalty Rate} - \text{Allowances} \]
**NETTING**

Netting means the deduction of an allowance from the sales value by reporting a net sales value, instead of correctly reporting the deduction as a separate entry on Form ONRR–2014.

When is it ok to net allowable transportation and processing costs?

A. Never  
B. Anytime you incur transportation costs  
C. When you have an arm’s-length POP contract  
D. When you have a transportation factor.

**ALLOWANCES**

<table>
<thead>
<tr>
<th>Arm's-Length</th>
<th>Non-Arm's-Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on contract charges</td>
<td>Based on the lessor's or their affiliate's actual capital and operating costs</td>
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- Allowances should not include any costs associated with marketing or placing the production into marketable condition.
- Allowable costs should be allocated across all the products being transported/processed.
- May not deduct costs for moving lease production that is not royalty bearing.
- May not deduct costs incurred for moving anything other than Federal production.

**ALLOWANCE LIMITS**

- 50% transportation  
- 66 2/3% processing  
- If your actual costs exceed these limits, you may request to exceed them using Form ONRR-4393.
- Combination of transportation and processing allowance cannot exceed 99% of the value of the product.
Coalbed Methane

- Unique reporting requirements on the OGOR & 2014 reports

- Key Resources
  - Amoco Production Co. v. Watson (D.C Cir. 2005) (See pgs 12-19 for a good discussion on CBM marketable condition)
  - Devon Energy Corp. - October 9, 2003 Valuation Determination [upheld in Devon Energy Corp. v. Kempthorne, 551 F.3d 1030 (D.C. Cir. 2008)]
  - 30 CFR § 1206.152(i) and 1206.153(i)
  - Current Dear Reporter Letter dated Oct 4, 2005
  - ONRR Minerals Revenue Reporter Handbook

Percentage-of-Proceeds (POP) Contract

For ONRR, a POP contract is a contract:
1. For the sale of gas,
2. Prior to processing,
3. With value based on a percentage of the purchaser’s proceeds resulting from processing
POP Contracts

**Arm’s-length**
- Reported as unprocessed gas
- APOP Sales Type Code
- Allowances netted
- Minimum value requirement = the value of 100% of the residue gas
- Subject to marketable condition and unbundling

**Non-arm’s-length**
- Reported as processed gas
- NPOP Sales Type Code
- Allowances reported separately
- Subject to marketable condition and unbundling

Regs: 30 CFR §§ 1206.152(b)(1)(iii)

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**KEEPWHOLE CONTRACT**

*Keepwhole contract* means a processing agreement under which the processor delivers to the lessee a quantity of gas after processing equivalent to the quantity of gas that the processor received from the lessee prior to processing, normally based on heat content, less gas used as plant fuel and gas unaccounted for and/or lost.

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**CLICKER QUESTION!**

How should gas under a keepwhole contract be valued and reported to ONRR?

A. As unprocessed gas

B. As processed gas

For additional information, please see the keepwhole reporter letter dated November 12, 2012.
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**GAS USED FOR FUEL**

- **Beneficial Use**
- **Pipeline Fuel**
- **Plant Fuel**

**FUEL – BENEFICIAL USE**

- Royalty-free use usually granted under the lease terms
- Overseen by BLM (onshore leases) & BSEE (offshore leases)
- Reported on the Form ONRR-4054 - Oil and Gas Operations Report Part B (OGOR-B)
- Not reported on the Form ONRR-2014 unless royalty bearing as required by lease terms or BLM/BSEE

Regs: 30 CFR § 1202.150(b)(1)

**FUEL – PIPELINE FUEL**

- Not “royalty-free,” but certain costs allowed as part of the transportation allowance
- See December 18, 2014 Reporter Letter
- Volume and value reported on the Form ONRR-2014 using PC 15
- Not reported on the OGOR-B

Regs: 30 CFR § 1206.157(f)(9)
FUEL – PLANT FUEL

- The regulations allow a reasonable amount of residue gas to be used royalty-free to operate a gas processing plant.
- Allowable fuel may be omitted from the residue gas volume on the Form ONRR-2014.
- Disallowed (royalty-bearing) plant fuel should be added back to the residue gas volume and value.
- Not reported on the OGOR-B.

Reg: 30 CFR § 1202.151(b)

CLICKER QUESTION!

From the December 18, 2014 Reporter Letter:
When the plant reduces your residue allocation for gas used in the plant, you should add the disallowed portion of gas used in the plant to your residue (PC 03) volume and value when paying royalty.

Total Fuel used = 140 MMBtu
Disallowed Fuel = 40 MMBtu
Residue Sales = 1,000 MMBtu

Question:
What sales volume should you report for residue gas – PC 03?
A. 1,000 MMBtu
B. 1,040 MMBtu
C. 1,140 MMBtu
D. 1,100 MMBtu

Federal Oil Valuation

30 CFR § 1206.100 - § 1206.120
Oil Valuation

Oil Valuation Decision Tree

1. Choose Arm’s Length
   - Minimum 2-year selection

2. Choose ARMS Exchange or NARMS Sale or Transfer, then ARMS sale
   - California, Alaska
   - Rocky Mountains
   - Everywhere Else

3. Gross Proceeds
   - Adjustments

4. Gross Proceeds
   - Adjustments

5. Gross Proceeds
   - Adjustments

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Oil Valuation | Non-Arm’s-Length

Three Regions

Valuation Methodology

California or Alaska
   - ANS average spot price

Rocky Mountain Region
   - MT, ND, SD, WY, CO*, & UT*
     - ONRR-approved tendering program
     - Average of ARMS sales/purchases in field or area
       - 2 years
     - Cushing WTI NYMEX price without the roll adjusted for location and quality
       - 2 years
     - ONRR-approved alternative

Rest of the Country
   - Other states
   - Outer Continental Shelf (OCS)
   - *Four Corners region of CO & UT

NYMEX with the roll

Regs: 30 CFR § 1206.103

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Oil Valuation - Adjustments

When value is determined using NYMEX or ANS Spot Prices, you may adjust for:

- Value between lease and market center
- Value between market center and Cushing (for NYMEX)
- Quality:
  - Gravity
  - Sulfur

Regs: 30 CFR § 1206.112

Oil Valuation Example

NYMEX price in Cushing, OK

Oil produced in Artesia, NM

Oil transported to Roswell, NM

Exchange Differential (value adjustment)

Transportation FAS (allowance)

Differential between market center and Cushing, OK (value adjustment)

Oil exchanged for oil in Midland, TX (market center)

Oil Valuation | Publications

- Publications must be approved by ONRR
- Criteria for selection in 30 CFR § 1206.104
- Announced in the Federal Register, June 13, 2000, page 37043
  - Platt’s Oilgram Price Report
  - Petroleum Argus Americas Crude
  - Bloomberg Oil Buyers Guide Petroleum Price Supplement

Regs: 30 CFR § 1206.104
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QUESTIONS ANYTIME

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