



U.S. Department of Interior

Office of Natural Resources Revenue (ONRR)

Gas Used or Lost Along a Pipeline: Reporting and Valuation

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PASO Federal/Indian Royalty Compliance Workshop

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Industry Compliance



Accurate Revenues & Data



Professionalism & Integrity

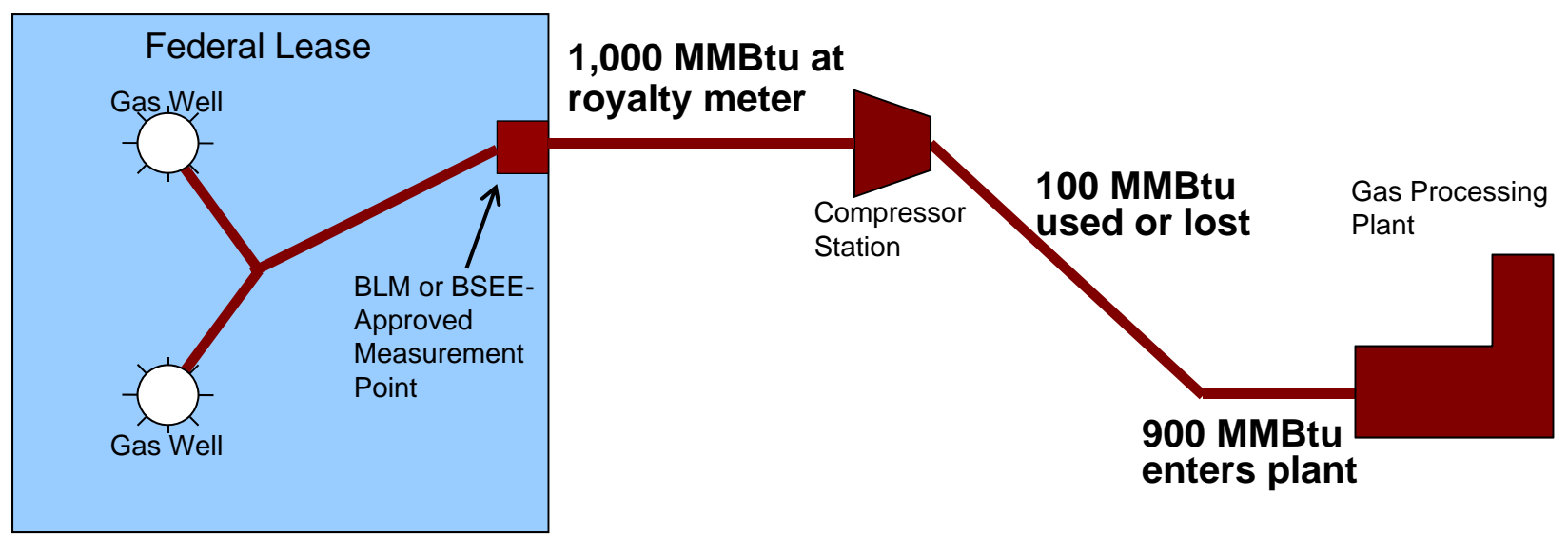


Where We're Going...

- Regulatory basis
 - Royalty Volume
 - Transportation Allowances
 - Valuation - Federal
 - Valuation – Indian
- Effective Date
- Reporting and Valuation Examples
 - Unprocessed Gas
 - Processed Gas
- Specific Issues



Understanding the Issue



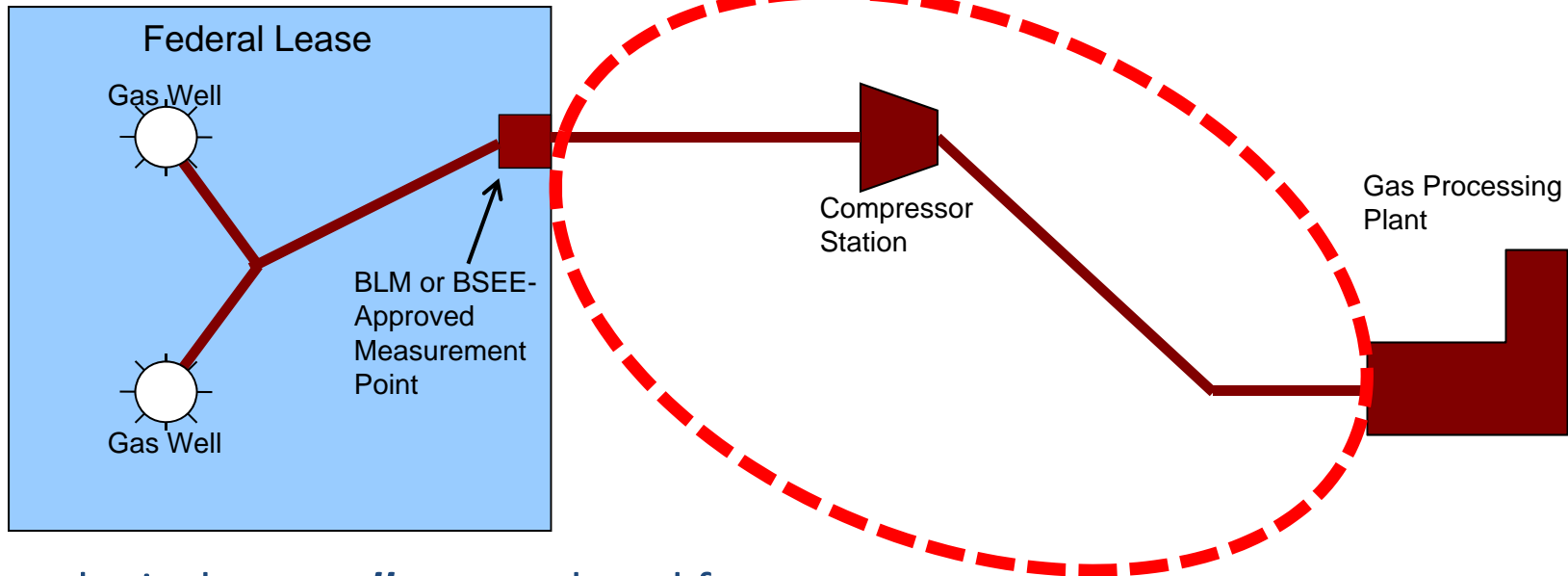


Key Points

- Royalty has always been due on 100 percent of the volume measured at the approved royalty measurement point
- The cost of allowable fuel may be included in the transportation allowance
- Using PC 15 is the only new requirement



Defining Gas Used or Lost Along a Pipeline



Royalty is due on **all** gas produced from a Federal lease, except:

- Beneficial use (gas used on lease)
- A reasonable amount of residue gas used to operate a gas plant

Federal Gas

30 CFR 1202.150(a) and (b)(1), 30 CFR 1202.151(b)

Indian Gas

30 CFR 1202.555



Federal Transportation Allowances

- **Fuel** is allowed as an operation cost in a transportation allowance,¹ only when the fuel is used to compress, dehydrate, and/or treat the gas beyond the marketable condition requirements²
- **Line loss** costs may be included in the transportation allowance, and line gain should be credited to the allowance.³ (For arm's-length, both actual and theoretical losses are allowed. For non-arm's-length, only actual losses are allowed.)
- Transportation costs should be allocated among all products being transported,⁴ including PC 15

¹ 30 CFR 1206.157(b)(2)(i) ² 30 CFR 1206.157(f)(9) ³ 30 CFR 1206.157(f)(7) ⁴ 30 CFR 1206.156(b)



Use the benchmarks for unprocessed gas not sold under an arm's-length contract¹:

- 1st benchmark – value determined by comparing gross proceeds. Were any proceeds received for the gas used or lost?
 - If yes, attempt to value under benchmark 1
 - If no, move to benchmark 2
- 2nd benchmark – value determined by considering other relevant information
 - Arm's-length price received for sale of gas from the same or nearby field or area
 - Publicly posted index price

¹ 30 CFR 1206.152(c)



Determining Value – Indian

- Depending on the situation, value for royalty purposes will likely be based on either:
 - Index Zone Price (30 CFR 1206.172)
 - Benchmarks for gas not sold under an arm's-length contract (30 CFR 1206.174(c))

Bottom line – make sure you include the volume and value of gas used or lost in the royalty calculation



Going back
6 years for Federal
Forever for Indian

**October 2013
Reporting Month**

Going forward

If you reported and paid on the volume and value of gas used or lost, you do not need to adjust

If you did not report and pay royalty on gas used or lost: retroactively report and pay using PC 15 (for processed gas)

Report and pay royalty on the full volume and value of gas used or lost using PC 15 (for processed gas)



Example Terms

- Field Fuel
 - Contractual Field Deducts
 - Contract Fuel (not at the plant)
 - Raw Field Deducts
 - Pipeline Use/Usage
 - Line Loss
 - Lost and Unaccounted, L&U (not at the plant)
 - Fuel Retained
 - Compression Fuel
 - Dehydration Fuel (not at the plant)
 - Treating Fuel (not at the plant)
- ***Generally, the difference between the Gross Well Head Volume and the Net Delivered Volume on the gas statement. For PC 15 reporting, do not include drip condensate volumes***



Example Statement

Lease Information											
Settle ID	Payment ID	Lease Name	Facility Name	State	Contract ID	Operator Name/ID	Pressure Base				
							14.75				
Settlement Summary											
System	LOW	Component Value	Residue Value	Fees & Adjustments	Gross Value	Exempt Value					Net Value
Rate per MCF:	4.12035										
Run ID:	Rate per MMBTU:	3.36137	\$4,998.51	\$5,129.31	\$0.00	\$10,127.82	0.00	0.00	0.00	0.00	\$10,127.82
Wellhead Information			Component Settlement								
	MCF	MMBTU		Unit of Measure	Theoretical	Allocated	Shrink	Contract %	Settlement	Price	Value
Gross Well:	2,458.00	3,013.00									
Allocation Decimal:		1.0000000									
Paystake:	2,458.00	3,013.00									
Contractual Field Deduct:	-129.75	-162.20	ETHANE	gal	5,739.14	2,684.22	178.07	85.00	2,281.59	0.1941450	\$442.96
Net Delivered:	2,328.25	2,850.80	PROPANE	gal	2,546.64	2,038.99	186.70	85.00	1,733.14	0.8102700	\$1,404.31
Wellhead BTU (14,730):		1,2258	NORBUTANE	gal	430.96	367.74	36.64	85.00	312.58	1.3650510	\$426.69
			NORMAL BUTANE	gal	780.43	647.12	67.13	85.00	580.05	1.2617700	\$694.04
			PENTANES PLUS	gal	1,421.40	1,165.52	133.47	85.00	990.69	2.0495830	\$2,030.51
			Other - Liquids		10,918.57	6,903.59	602.01		5,868.05		\$4,998.51
Residue Settlement											
Net Delivered MMBTU	Shrink	Theoretical Residue	Allocated Residue	Contractual Allocated Fuel	Net Residue MCF	Net Residue MMBTU	Contract %	Settlement Residue	Price	Residue Value	
2,850.80	602.01	2,248.79	2,044.36	122.00	1,697.81	1,922.39	85.00	1,634.03	3.1390500	\$5,129.31	
Fees / Adjustments			Analysis				Comments				
Fee / Adjustments	Fee Rate	Value	Components	Mol %	GPM						
			Helium	0.0000							
			Nitrogen	0.5530							
			Carbon Dioxide	0.5770							
			H2S	0.0000							
			Other Inerts	0.0000							
			Methane	82.5860							
			Ethane	9.1890	2.4630						
			Propane	3.9580	1.0938						
			iso Butane	0.5640	0.1851						
			Nor Butane	1.0600	0.3352						
			iso Pentane	0.3670	0.1346						
			Nor Pentane	0.3360	0.1218						
			Hexanes Plus	0.8090	0.3541						
			Totals	99.9990	4.6896						
Plant Product Volumes			Comments								
	Theoretical	Allocated									
Ethane											
Propane											
iso Butane											
Nor Butane											
Pentanes + Residue											
Plant BTU											
							GENERAL:				
							CONTRACT:				



Example Statement

Wellhead Information		
	MCF	MMBTU
Gross WH:	2,458.00	3,013.00
Allocation Decimal:		1.0000000
Paystation:	2,458.00	3,013.00
Contractual Field Deducts:	-129.75	-162.20
NetDelivered:	2,328.25	2,850.80
Wellhead BTU (14.730D):		1.2258



Contract Example 1

1.4 Transporter shall redeliver thermally equivalent volumes of gas less fuel gas and lost-and-unaccounted-for (FL&U) volumes as provided in section 12 of the General Terms and Conditions

Contract Example 2

6.2 Fuel Usage Quantities. Each Month Shipper shall provide at the Point of Receipt its pro rata share of the quantity of Gas required for fuel actually incurred by the Gatherer

6.3 Lost and Unaccounted-for Quantities. Each Month Shipper shall provide at the Point of Receipt its pro rata share of actual line loss/gain and unaccounted-for quantities incurred by the Gatherer. Gatherer shall show the allocation of line loss/gain and unaccounted-for quantities on the monthly invoice



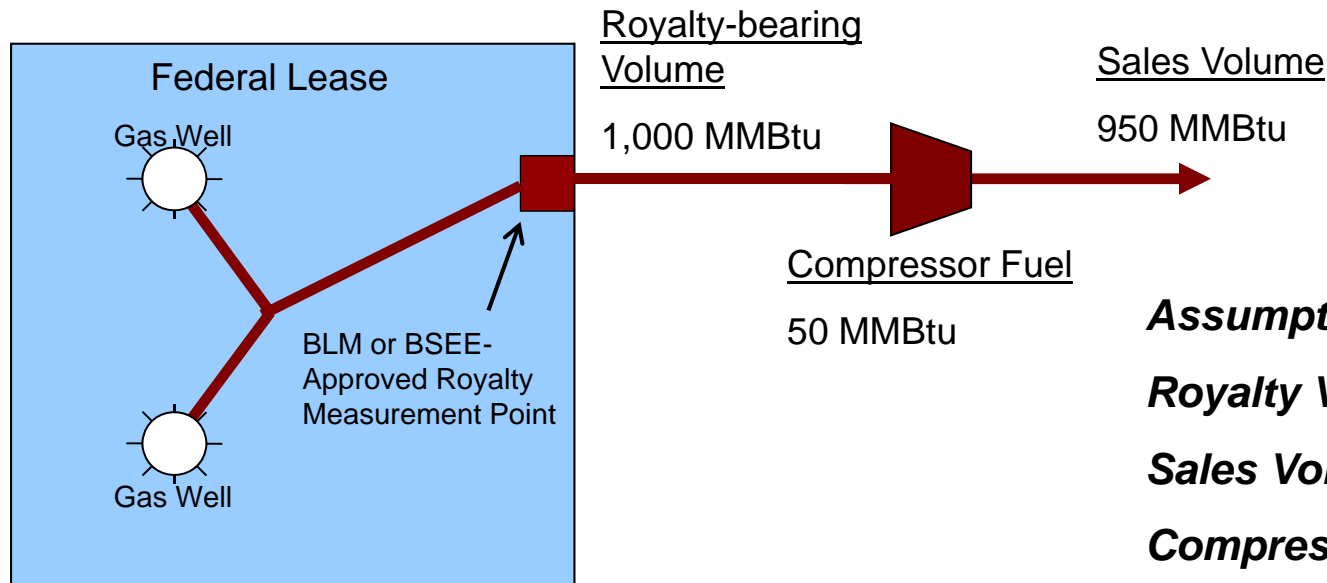
Form ONRR-2014 Royalty Reporting

Product Code	Sales Volume & MMBtu	Sales Value
<p>You should report using PC 04 or 39. You do not need to report using PC 15, even if the gas is sold away from the lease.</p>	<p>You should report the quantity and quality of gas measured at the approved royalty meter.</p>	<p>You should pay royalty based on the full value of the quantity and quality of gas measured at the approved royalty meter.***</p>

******When the royalty value is based on gross proceeds, that value should be adjusted if it is based on a quantity or quality that is different from that measured at the approved meter. Gross proceeds should be increased to the extent that they were reduced for costs of marketable condition.***



Exercise: Unprocessed Gas – Downstream Sale



Assumptions:

Royalty Volume = 1,000 MMBtu

Sales Volume = 950 MMBtu

Compressor Fuel = 50 MMBtu

Gas Sales Price = \$4.00/MMBtu

Transport Charge = \$0.25/MMBtu

UCA Fuel (allowed %) = 20%

UCA Transport (allowed %) = 60%

Royalty Reporting

Product Code	Sales MMBtu	Sales Value
04	1,000 MMBtu	\$4,000



Exercise: Unprocessed Gas – Downstream Sale

Calculation of Total Transportation Allowance

Transport Charge = 1,000 MMBtu x \$0.25 x 60% = \$150 x 12.5% = \$18.75

Allowable Fuel = 50 MMBtu x \$4.00 x 20% = \$40 x 12.5% = \$5.00

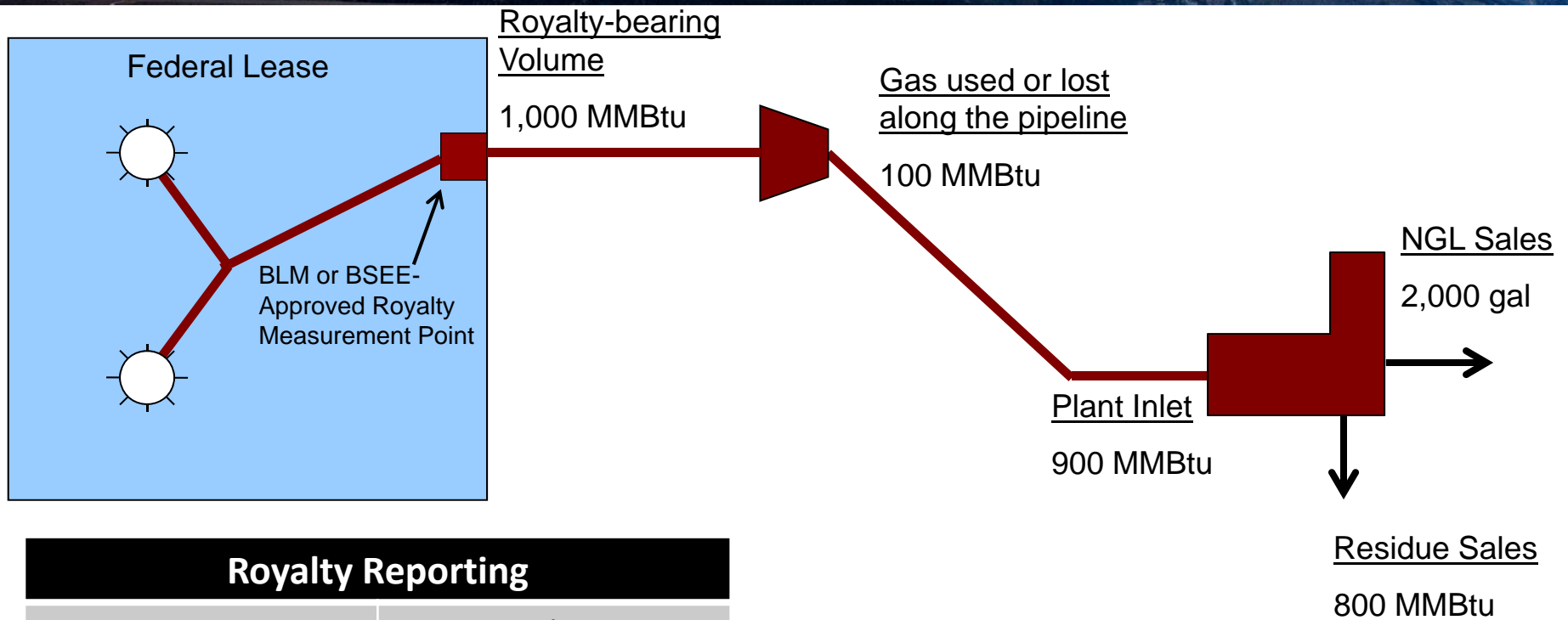
Total Transportation Allowance = \$190 x 12.5% = \$23.75

Royalty Reporting

PC	Sales MMBtu	Sales Value	Roy Val before Allow	Transport Allow	Roy Val After Allow
04	1,000 MMBtu	\$4,000	\$500	\$23.75	\$476.25



Reporting Example: Processed Gas



Royalty Reporting	
Product Code	Sales Vol/MMBtu
03	800 MMBtu
07	2,000 gal
15	100 MMBtu

The allowable portion of gas used or lost may be included in the transportation allowance.



Arm's-Length Percent of Proceeds Sale

$$\text{Value for Royalty} = \text{Gross Proceeds} + \text{Marketable Condition Costs}$$

...and never less than 100% of the value of the residue gas¹...

¹30 CFR 1206.152(b)(1)(i)



Arm's-Length Percent of Proceeds Sale

Finding Marketable Condition Costs

Statement Date:		April 23, 2013		Settlement Summary									
System	LOCW	Component Value	Residue Value	Fees & Adjustments	Gross Value	Exempt Value						Net Value	
Accounting Date:	Rate per MCF:	4.12035											
Run ID:	Rate per MMBTU:	3.26137	\$4,998.51	\$5,129.31	\$0.00	\$10,127.82	0.00	0.00	0.00	0.00	0.00	\$10,127.82	

Wellhead Information			Component Settlement									
	MCF	MMBTU	Unit of Measure	Theoretical	Allocated	Shrink	Contract %	Settlement	Price	Value		
Gross WH:	2,458.00	3,013.00										
Allocation Decimal:		1.0000000										
Paystation:	2,458.00	3,013.00	ETHANE	gal	5,739.14	2,684.22	178.07	85.00	2,281.59	0.1941450	\$442.96	
Contractual Field Deducts:	129.75	-162.20	PROPANE	gal	2,546.64	2,038.99	186.70	85.00	1,733.14	0.8102700	\$1,404.31	
Net Delivered:	2,328.25	2,850.80	ISO-BUTANE	gal	430.96	367.74	36.64	85.00	312.58	1.3650510	\$426.69	
Wellhead BTU (14.7300):		1.2258	NORMAL BUTANE	gal	780.43	647.12	67.13	85.00	550.05	1.2617700	\$694.04	
			PENTANES PLUS	gal	1,421.40	1,165.52	133.47	85.00	990.69	2.0493030	\$2,030.51	
			Subtotal - Liquids		10,918.57	6,903.59	602.01		5,868.05		\$4,998.51	

Residue Settlement										
Net Delivered MMBTU	Shrink	Theoretical Residue	Allocated Residue	Contractual Allocated Fuel	Net Residue MCF	Net Residue MMBTU	Contract %	Settlement Residue	Price	Residue Value
2,850.80	602.01	2,248.79	2,044.36	122.00	1,697.81	1,922.39	85.00	1,634.03	3.1390500	\$5,129.31

Fees / Adjustments			Analysis			Contracts		
Fees / Adjustments	Fee Rate	Value	Components	Mol %	GFPM	Primary:	Measurement:	Taxes:
			Helium	0.0000				
			Nitrogen	0.5530				
			Carbon Dioxide	0.5770				
			H2S	0.0000				
			Other Inerts	0.0000				
			Methane	82.5860				
			Ethane	9.1890	2.4650			
			Propane	3.9280	1.0938			
			iso Butane	0.5640	0.1851			
			Nor Butane	1.0600	0.3352			
			iso Pentane	0.3670	0.1146			
			Nor Pentane	0.3360	0.1218			
			Hexanes Plus	0.8090	0.3541			
			Totals	99.9990	4.6896			

Plant Product Volumes		
	Incremental	Allocated
Ethane		
Propane		
iso Butane		
Nor Butane		
Pentanes + Residue		
Plant BTU		

Comments	
GENERAL:	
CONTRACT:	



Arm's-Length Percent of Proceeds Sale

1

Wellhead Information		
	MCF	MMBTU
Gross WH:	2,458.00	3,013.00
Allocation Decimal:		1.0000000
Paystation:	2,458.00	3,013.00
Contractual Field Deducts:	-129.75	-162.20
NetDelivered:	2,328.25	2,850.80
Wellhead BTU (14.730D):		1.2258



Arm's-Length Percent of Proceeds Sale

2

	Allocated	Shrink	Contract %	Settlement	Price	Value
ETHANE	2,684.22	178.07	85.00	2,281.59	0.1941450	\$442.96
PROPANE	2,038.99	186.70	85.00	1,733.14	0.8102700	\$1,404.31
ISO-BUTANE	367.74	36.64	85.00	312.58	1.3650510	\$426.69
NORMAL BUTANE	647.12	67.13	85.00	550.05	1.2617700	\$694.04
PENTANES PLUS	1,165.52	133.47	85.00	990.69	2.0495830	\$2,030.51
Subtotal - Liquids	6,903.59	602.01		5,868.05		\$4,998.51



Arm's-Length Percent of Proceeds Sale

3

Residue Settlement

Net Delivered MMBTU	Allocated Residue	Contractual Allocated Fuel	Net Residue MMBTU	Contract %	Settlement Residue	Price	Residue Value
2,850.80	2,044.36	122.00	1,922.39	85.00	1,634.03	3.1390500	\$5,129.31



Arm's-Length Percent of Proceeds Sale

4

Fees / Adjustments	Fee Rate	Value
Gathering Dehydration Compression Treating		



Pipeline Drip Liquids

- 30 CFR 1206.153(a)(2) - The value of production ... shall be the combined value of the residue gas and all gas plant products ... plus the value of any condensate recovered downstream of the point of royalty settlement ... determined pursuant to §1206.102





- These volumes are treated differently for royalty purposes:
 - Pipeline fuel
 - Pipeline loss
 - Pipeline/Drip condensate
- The lessee should use a reasonable method to break apart the volume into its constituent parts



Pipeline Gains

- First, check meters and reporting for errors
- Royalty volume and value should reflect the full quantity and quality measured at the approved royalty meter¹
- The value of the pipeline gain should be credited against the transportation allowance²

¹ 30 CFR 1206.154(a)(2) and (b)(2)

² 30 CFR 1206.157(f)(7)



Indian Actual Dual Accounting

- The processed gas value should include the value of any disallowed pipeline and plant fuel
- The allowed pipeline fuel should be allocated across all products being transported. When the residue gas value is based on an index zone price, you should not take any allowance against the value. The index zone price calculation accounts for all allowable transportation costs



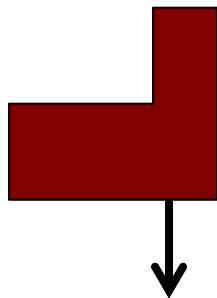
Plant Fuel

From the 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

Multiple Choice Question

The residue gas sales MMBtu reported on the ONRR form 2014 should be:

A) 1,000 MMBtu

B) 1,040 MMBtu

C) 1,140 MMBtu

Royalty Reporting

Prod Code	Sales Volume
03	1,040 MMBtu



Enforcement

- Reporter Letter is not an Order
- ONRR will issue Orders implementing the guidance in the Reporter Letter – at that time companies will have the right to appeal
- Companies have been notified via the Reporter Letter – ONRR may assess civil penalties if we find royalties not being paid on gas used or lost along a pipeline



U.S. Department of Interior

Office of Natural Resources Revenue (ONRR)

Questions?

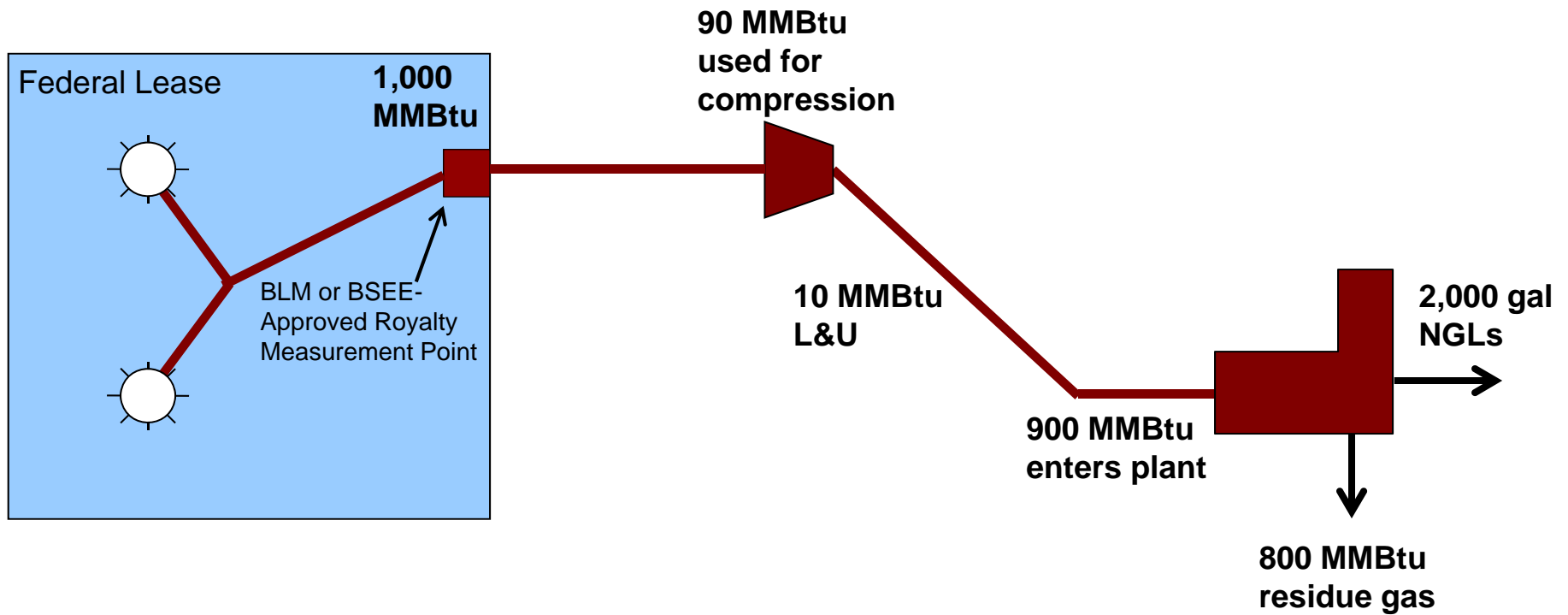
Contact:

RoyaltyValuation@onrr.gov





Additional Example: Processed Gas





Additional Example (cont): Processed Gas

Assumptions:

Royalty-bearing volume	= 1,000 MMBtu
Residue sold	= 800 MMBtu
Residue price	= \$4.00/MMBtu
NGLs sold	= 2,000 gal
NGL price	= \$1.00/gal
NGL shrink	= 100 MMBtu

MMBtus that became gallons of NGLs. Use for allocating transport costs.

More Assumptions:

Transport Fuel	= 90 MMBtu
Line Loss	= 10 MMBtu
Transport charge	= \$0.40/MMBtu
UCA (allowed %)	= 30%
Plant Fuel	= 0 MMBtu
Pipeline Condensate	= 0 Bbl

Royalty Reporting

Prod Code	Sales Vol/MMBtu	Sales Value	Roy Val Before Allow	Transport Allow	Roy Val After Allow
03	800 MMBtu	\$3,200	\$400	See Next Pg	See Next Pg
07	2,000 gal	\$2,000	\$250	See Next Pg	See Next Pg
15	100 MMBtu	\$400	\$50	See Next Pg	See Next Pg

= 90 MMBtu of Pipeline Fuel + 10 MMBtu of Line Loss



Additional Example (cont): Processed Gas

Calculation of Total Transportation Allowance

Pre-plant Transportation	= 1,000 MMBtu x \$0.40 x 30%	= \$120 x 12.5%	= \$15
Line Loss	= 10 MMBtu x \$4.00	= \$40 x 12.5%	= \$5.00
Allowable Fuel	= 90 MMBtu x 4.00 x 30%	= \$108 x 12.5%	= \$13.50
Total Transportation		= \$268 x 12.5%	= \$33.5

Allocation of Total Transportation Allowance

PC 03	= 800/1,000 x \$33.50	= \$26.80
PC 07	= 100/1,000 x \$ 33.50	= \$3.35
PC 15	= 100/1,000 x \$ 33.50	= \$3.35

Assumptions:

10 MMBtu lost (L&U) in transportation

Fuel = 90 MMBtu

Gas Price = \$4.00/MMBtu

Pre-plant Transportation = \$0.40/MMBtu

UCA (allowed % for charge, fuel)= 30%

NGL Shrink = 100 MMBtu

No plant fuel

No pipeline condensate was recovered

No processing costs

Royalty Reporting

Prod Code	Sales Vol/MMBtu	Sales Value	Roy Val Before Allow	Transport Allow	Roy Val After Allow
03	800 MMBtu	\$3,200	\$400	\$26.80	\$373.20
07	2,000 gal	\$2,000	\$250	\$3.35	\$246.65
15	100 MMBtu	\$400	\$50	\$3.35	\$46.65