

AVERAGE RATIOS FOR UNDISCOVERED ACCUMS., TO ASSESS COPRODUCTS

(uncertainty of fixed but unknown values)

<u>Oil Accumulations:</u>	minimum	mode	maximum
Gas/oil ratio (cfg/bo)	<u>300</u>	<u>600</u>	<u>900</u>
NGL/gas ratio (bngl/mmcf)	<u>40</u>	<u>80</u>	<u>120</u>
<u>Gas Accumulations:</u>	minimum	mode	maximum
Liquids/gas ratio (bliq/mmcf)	<u> </u>	<u> </u>	<u> </u>
Oil/gas ratio (bo/mmcf)	<u> </u>	<u> </u>	<u> </u>

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS

(variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum	mode	maximum
API gravity (degrees)	<u>34</u>	<u>41</u>	<u>50</u>
Sulfur content of oil (%)	<u>0</u>	<u>0.1</u>	<u>1</u>
Depth (m) of water (if applicable)	<u> </u>	<u> </u>	<u> </u>
Drilling Depth (m)	<u>900</u>	F75 <u>2000</u>	F25 <u>3100</u>

<u>Gas Accumulations:</u>	minimum	mode	maximum
Inert gas content (%)	<u> </u>	<u> </u>	<u> </u>
CO ₂ content (%)	<u> </u>	<u> </u>	<u> </u>
Hydrogen-sulfide content (%)	<u> </u>	<u> </u>	<u> </u>
Depth (m) of water (if applicable)	<u> </u>	<u> </u>	<u> </u>
Drilling Depth (m)	<u> </u>	F75 <u> </u>	F25 <u> </u>

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ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO STATES
Surface Allocations (uncertainty of a fixed value)

1. <u>Montana</u>	represents	<u>35.96</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>30.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
2. <u>North Dakota</u>	represents	<u>64.04</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>70.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
3. _____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
4. _____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
5. _____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
6. _____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____

7.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
8.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
9.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
10.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
11.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
12.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO LAND ENTITIES
Surface Allocations (uncertainty of a fixed value)

<u>1. Federal Lands</u>	represents	<u>7.31</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>7.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
<u>2. Private Lands</u>	represents	<u>80.75</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>81.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
<u>3. Tribal Lands</u>	represents	<u>6.03</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>6.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
<u>4. Other Lands</u>	represents	<u>1.89</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>2.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
<u>5. MT State Lands</u>	represents	<u>2.51</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>3.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
<u>6. ND State Lands</u>	represents	<u>1.50</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>1.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____

7.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
8.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
9.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
10.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
11.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
12.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO FEDERAL LAND SUBDIVISIONS
Surface Allocations (uncertainty of a fixed value)

1. <u>Bureau of Land Management (BLM)</u>	represents	<u>2.78</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>3.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
2. <u>BLM Wilderness Areas (BLMW)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
3. <u>BLM Roadless Areas (BLMR)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
4. <u>National Park Service (NPS)</u>	represents	<u>0.24</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>0.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
5. <u>NPS Wilderness Areas (NPSW)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____
6. <u>NPS Protected Withdrawals (NPSP)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	_____	_____

Assessment Unit (name, no.)
 Lodgepole, 50310102

7.	<u>US Forest Service (FS)</u>	represents	<u>2.98</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>3.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
8.	<u>USFS Wilderness Areas (FSW)</u>	represents	_____	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	_____	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
9.	<u>USFS Roadless Areas (FSR)</u>	represents	_____	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	_____	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
10.	<u>USFS Protected Withdrawals (FSP)</u>	represents	_____	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	_____	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
11.	<u>US Fish and Wildlife Service (FWS)</u>	represents	<u>0.79</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>1.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
12.	<u>USFWS Wilderness Areas (FWSW)</u>	represents	_____	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	_____	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____

13. <u>USFWS Protected Withdrawals (FWSP)</u>	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
14. <u>Wilderness Study Areas (WS)</u>	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
15. <u>Department of Energy (DOE)</u>	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
16. <u>Department of Defense (DOD)</u>	_____	represents	0.44	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		0.00	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
17. <u>Bureau of Reclamation (BOR)</u>	_____	represents	0.07	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		0.00	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
18. <u>Tennessee Valley Authority (TVA)</u>	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO ECOSYSTEMS
Surface Allocations (uncertainty of a fixed value)

1.	<u>Northeastern Glaciated Plains (NEGP)</u>	represents	<u>20.71</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>21.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
2.	<u>Northern Glaciated Plains (NGPL)</u>	represents	<u>34.16</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>34.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
3.	<u>Northwestern Glaciated Plains (NWGL)</u>	represents	<u>14.14</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>14.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
4.	<u>Northwestern Great Plains (NWGP)</u>	represents	<u>25.58</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>26.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
5.	<u>Powder River Basin (PRBA)</u>	represents	<u>5.42</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>5.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____
6.	_____	represents	_____	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	_____	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	_____	_____

7.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
8.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
9.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
10.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
11.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____
12.	_____	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		_____	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		_____	_____