

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)	1500	3000	4500
NGL/gas ratio (bngl/mmcf)	17	34	51
<u>Gas Accumulations:</u>	minimum	mode	maximum
Liquids/gas ratio (bliq/mmcf)	12	24	36
Oil/gas ratio (bo/mmcf)			

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS

(variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum	mode	maximum
API gravity (degrees)	21	38	45
Sulfur content of oil (%)	0	0.1	0.2
Depth (m) of water (if applicable)			
Drilling Depth (m)	minimum 550	F75 mode 1500	F25 maximum 3000
<u>Gas Accumulations:</u>	minimum	mode	maximum
Inert gas content (%)	0.1	0.5	17.3
CO ₂ content (%)	0	0.2	1.4
Hydrogen-sulfide content (%)	0	0	0.1
Depth (m) of water (if applicable)			
Drilling Depth (m)	minimum 1500	F75 mode 3000	F25 maximum 8500

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

1.	<u>Colorado</u>	represents	<u>16.32</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>20.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>15.00</u>	_____
2.	<u>Kansas</u>	represents	<u>35.48</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>25.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>15.00</u>	_____
3.	<u>Oklahoma</u>	represents	<u>34.90</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>45.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>55.00</u>	_____
4.	<u>Texas</u>	represents	<u>13.31</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>10.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>15.00</u>	_____
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)

1. <u>Federal Lands</u>	represents	<u>1.71</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>1.00</u>	_____
2. <u>Private Lands</u>	represents	<u>96.36</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>96.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	<u>97.00</u>	_____
3. <u>Tribal Lands</u>	represents	<u>0.01</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	_____	<u>0.00</u>	_____
4. <u>Other Lands</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	_____	_____	_____
5. <u>CO State Lands</u>	represents	<u>1.06</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	_____	<u>1.00</u>	_____
6. <u>KS State Lands</u>	represents	<u>0.07</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	_____	<u>0.00</u>	_____

7.	<u>OK State Lands</u>	represents	<u>0.78</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	_____	<u>1.00</u>	_____
8.	<u>TX State Lands</u>	represents	<u>0.01</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	_____	<u>0.00</u>	_____
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>0.02</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	_____	<u>0.00</u>	_____
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>0.04</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	_____	<u>0.00</u>	_____
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	_____	_____	_____

7. <u>US Forest Service (FS)</u>	represents	<u>1.02</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	_____	<u>0.00</u>	_____
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>0.17</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	_____	<u>0.00</u>	_____
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	0.36	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	_____	0.00	_____
17. <u>Bureau of Reclamation (BOR)</u>	represents	0.08	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	_____	1.00	_____
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>Arkansas Tablelands (ARTL)</u>	represents	<u>8.97</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>10.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	<u>4.00</u>	_____
2. <u>Central High Plains (CNHP)</u>	represents	<u>5.08</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	_____	<u>1.00</u>	_____
3. <u>Central High Tablelands (CNHT)</u>	represents	<u>11.81</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>8.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	<u>3.00</u>	_____
4. <u>Cross Timbers and Prairie (CRTP)</u>	represents	<u>0.16</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	_____	<u>0.00</u>	_____
5. <u>Redbed Plains (RBPL)</u>	represents	<u>16.60</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>17.00</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	<u>35.00</u>	_____
6. <u>Rolling Plains (RLPL)</u>	represents	<u>0.00</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	_____	<u>0.00</u>	_____

7.	<u>South-Central Great Plains (SCGP)</u>	represents	<u>24.97</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>25.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>12.00</u>	_____
8.	<u>Southern High Plains (SHPL)</u>	represents	<u>20.55</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>20.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>20.00</u>	_____
9.	<u>Texas High Plains (TXHP)</u>	represents	<u>11.87</u>	area % of the AU
	<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
	Volume % in entity	_____	<u>15.00</u>	_____
	<u>Gas in Gas Accumulations:</u>			
	Volume % in entity	_____	<u>25.00</u>	_____
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	_____	_____	_____