

**FORSPAN ASSESSMENT MODEL FOR CONTINUOUS
ACCUMULATIONS--BASIC INPUT DATA FORM (NOGA, Version 7, 6-30-00)**

IDENTIFICATION INFORMATION

Assessment Geologist:...	<u>R.C. Milici</u>	Date:	<u>1/15/2002</u>
Region:.....	<u>North America</u>	Number:	<u>5</u>
Province:.....	<u>Appalachian Basin</u>	Number:	<u>5067</u>
Total Petroleum System:..	<u>Devonian Shale-Middle and Upper Paleozoic</u>	Number:	<u>506704</u>
Assessment Unit:.....	<u>Marcellus Shale</u>	Number:	<u>50670464</u>
Based on Data as of:.....	<u>State-Supplied Data, Atlas of Major Appalachian Gas Plays (1996), PI/Dwights (2000)</u>		
Notes from Assessor:.....	<u>Greater Big Sandy AU (50670461) as partial analog.</u>		

CHARACTERISTICS OF ASSESSMENT UNIT

Assessment-Unit type: Oil (<20,000 cfg/bo) or Gas (≥20,000 cfg/bo) Gas

What is the minimum total recovery per cell?... 0.01 (mmbo for oil A.U.; bcfg for gas A.U.)

Number of tested cells:..... 250

Number of tested cells with total recovery per cell ≥ minimum: 215

Established (>24 cells ≥ min.) X Frontier (1-24 cells) Hypothetical (no cells)

Median total recovery per cell (for cells ≥ min.): (mmbo for oil A.U.; bcfg for gas A.U.)

1st 3rd discovered	<u> </u>	2nd 3rd	<u> </u>	3rd 3rd	<u> </u>
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Assessment-Unit Probabilities:

<u>Attribute</u>	<u>Probability of occurrence (0-1.0)</u>
1. CHARGE: Adequate petroleum charge for an untested cell with total recovery ≥ minimum	<u>1.0</u>
2. ROCKS: Adequate reservoirs, traps, seals for an untested cell with total recovery ≥ minimum.	<u>1.0</u>
3. TIMING: Favorable geologic timing for an untested cell with total recovery ≥ minimum.....	<u>1.0</u>

Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):..... 1.0

4. **ACCESS:** Adequate location for necessary petroleum-related activities for an untested cell with total recovery ≥ minimum 1.0

NO. OF UNTESTED CELLS WITH POTENTIAL FOR ADDITIONS TO RESERVES IN THE NEXT 30 YEARS

- Total assessment-unit area (acres): (uncertainty of a fixed value)

minimum	<u>55,208,000</u>	median	<u>61,342,000</u>	maximum	<u>67,476,000</u>
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- Area per cell of untested cells having potential for additions to reserves in next 30 years (acres): (values are inherently variable)

minimum	<u>20</u>	median	<u>100</u>	maximum	<u>200</u>
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- Percentage of total assessment-unit area that is untested (%): (uncertainty of a fixed value)

minimum	<u>99.93</u>	median	<u>99.96</u>	maximum	<u>99.98</u>
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- Percentage of untested assessment-unit area that has potential for additions to reserves in next 30 years (%): (a necessary criterion is that total recovery per cell ≥ minimum) (uncertainty of a fixed value)

minimum	<u>0.1</u>	median	<u>7</u>	maximum	<u>17</u>
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TOTAL RECOVERY PER CELL

Total recovery per cell for untested cells having potential for additions to reserves in next 30 years:
 (values are inherently variable)

(mmbo for oil A.U.; bcfg for gas A.U.) minimum 0.01 median 0.03 maximum 0.5

AVERAGE COPRODUCT RATIOS FOR UNTESTED CELLS, TO ASSESS COPRODUCTS

(uncertainty of fixed but unknown values)

<u>Oil assessment unit:</u>	minimum	median	maximum
Gas/oil ratio (cfg/bo).....	<u> </u>	<u> </u>	<u> </u>
NGL/gas ratio (bnl/mmcfg).....	<u> </u>	<u> </u>	<u> </u>
 <u>Gas assessment unit:</u>			
Liquids/gas ratio (bliq/mmcfg).....	<u>3</u>	<u>6</u>	<u>9</u>

SELECTED ANCILLARY DATA FOR UNTESTED CELLS

(values are inherently variable)

<u>Oil assessment unit:</u>	minimum	median	maximum
API gravity of oil (degrees).....	<u> </u>	<u> </u>	<u> </u>
Sulfur content of oil (%).....	<u> </u>	<u> </u>	<u> </u>
Drilling depth (m)	<u> </u>	<u> </u>	<u> </u>
Depth (m) of water (if applicable).....	<u> </u>	<u> </u>	<u> </u>
 <u>Gas assessment unit:</u>			
Inert-gas content (%).....	<u>0.0</u>	<u>0.1</u>	<u>0.5</u>
CO ₂ content (%).....	<u>0.0</u>	<u>0.1</u>	<u>0.5</u>
Hydrogen-sulfide content (%).....	<u>0.0</u>	<u>0.01</u>	<u>0.1</u>
Drilling depth (m).....	<u>100</u>	<u>1500</u>	<u>2750</u>
Depth (m) of water (if applicable).....	<u>0</u>	<u>22</u>	<u>50</u>

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

1. <u>Kentucky</u>	represents	<u>0.03</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	0	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
2. <u>Maryland</u>	represents	<u>1.09</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	0	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
3. <u>New York</u>	represents	<u>20.06</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	5	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
4. <u>Ohio</u>	represents	<u>18.19</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	0	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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<u>5. Pennsylvania</u>	represents	<u>35.35</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
		70	
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>6. Tennessee</u>	represents	<u>0.09</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
		0	
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>7. Virginia</u>	represents	<u>3.85</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
		5	
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>8. West Virginia</u>	represents	<u>21.33</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
		20	
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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

1. <u>Federal Lands</u>	represents	<u>7.39</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		7	
Portion of volume % that is offshore (0-100%)..		0	
2. <u>Private Lands</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
3. <u>Tribal Lands</u>	represents	<u>0.1</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		0	
Portion of volume % that is offshore (0-100%)..		0	
4. <u>Other Lands (includes private, state, etc)</u>	represents	<u>88.49</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		93	
Portion of volume % that is offshore (0-100%)..		0	

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5. <u>OH Offshore</u>	represents	<u>2.72</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		0	
Portion of volume % that is offshore (0-100%)..		100	
6. <u>NY Offshore</u>	represents	<u>0.52</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		0	
Portion of volume % that is offshore (0-100%)..		100	
7. <u>PA Offshore</u>	represents	<u>0.78</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		0	
Portion of volume % that is offshore (0-100%)..		100	
8. _____	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			

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9. _____	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
10. _____	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
11. _____	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
12. _____	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
2. <u>BLM Wilderness Areas (BLMW)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
3. <u>BLM Roadless Areas (BLMR)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
4. <u>National Park Service (NPS)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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<u>5. NPS Wilderness Areas (NPSW)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>6. NPS Protected Withdrawals (NPSP)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>7. US Forest Service (USFS)</u>	represents	6.83	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	6	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
<u>8. USFS Wilderness Areas (USFSW)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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<u>9. USFS Roadless Areas (USFSR)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>10. USFS Protected Withdrawals (USFSP)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>11. US Fish and Wildlife Service (USFWS)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>12. USFWS Wilderness Areas (USFWSW)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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<u>13. USFWS Protected Withdrawals (USFWSP)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>14. Wilderness Study Areas (WS)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>15. Department of Energy (DOE)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>16. Department of Defense (DOD)</u>	represents		areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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<u>17. Bureau of Reclamation (BOR)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>18. Tennessee Valley Authority (TVA)</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>19. Other Federal</u>	represents	0.56	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	1	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
<u>20. _____</u>	represents	_____	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
Volume % in entity.....	minimum	median	maximum
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

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

1. <u>Allegheny Mountains (ALMT)</u>	represents	<u>9.81</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		3	
Portion of volume % that is offshore (0-100%)..		0	
2. <u>Catskill Mountains (CTMT)</u>	represents	<u>2.56</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		3	
Portion of volume % that is offshore (0-100%)..		0	
3. <u>Central Ridge and Valley (CNRV)</u>	represents	<u>0</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		0	
Portion of volume % that is offshore (0-100%)..		0	
4. <u>Central Till Plains, Beech-Maple (CTPB)</u>	represents	<u>0.2</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....			
Portion of volume % that is offshore (0-100%)..			
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....		0	
Portion of volume % that is offshore (0-100%)..		0	

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5. <u>Erie and Ontario Lake Plain (EOLP)</u>	represents	<u>3.84</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	4	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
6. <u>Hudson Valley (HDVA)</u>	represents	<u>0.89</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	0	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
7. <u>Northern Cumberland Mountains (NCMT)</u>	represents	<u>4.17</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	5	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
8. <u>Northern Glaciated Allegheny Plateau (NGAP)</u>	represents	<u>19.2</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>			
	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	20	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____

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<u>9. Northern Ridge & Valley (NRVA)</u>	represents	<u>14.19</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	10	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
<u>10. Northern Unglaciaded Allegheny Plateau (NUAP)</u>	represents	<u>6.14</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	20	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
<u>11. Southern Cumberland Mountains (SCMT)</u>	represents	<u>0.08</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	0	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
<u>12. Southern Unglaciaded Allegheny Plateau (SUAP)</u>	represents	<u>25.32</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	25	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____
<u>13. Western Glaciaded Allegheny Plateau (WGAP)</u>	represents	<u>9.57</u>	areal % of the assessment unit
<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____
<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	10	_____
Portion of volume % that is offshore (0-100%)..	_____	0	_____

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

Based on Data as of: _____

1. All Federal Subsurface _____ represents _____ areal % of the assessment unit

<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

2. Other Subsurface _____ represents _____ areal % of the assessment unit

<u>Oil in oil assessment unit:</u>	minimum	median	maximum
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____

<u>Gas in gas assessment unit:</u>			
Volume % in entity.....	_____	_____	_____
Portion of volume % that is offshore (0-100%)..	_____	_____	_____