

Appendix 3.

**SEVENTH APPROXIMATION
DATA FORM FOR CONVENTIONAL ASSESSMENT UNITS (Version 6, 9 April 2003)**

IDENTIFICATION INFORMATION

Assessment Geologist:	<u>P.D. Warwick</u>	Date:	<u>22-Jan-07</u>
Region:	<u>North America</u>	Number:	<u>5</u>
Province:	<u>Western Gulf</u>	Number:	<u>5047</u>
Total Petroleum System:	<u>Upper Jurassic-Cretaceous-Tertiary Composite</u>	Number:	<u>504701</u>
Assessment Unit:	<u>Wilcox-Lobo Slide Block Gas</u>	Number:	<u>50470119</u>
Based on Data as of:	<u>Nehring Associates, Inc. (2006) (data current through 2004), IHS Energy Group (2005a,b) (data current through 2005)</u>		
Notes from Assessor:	<u>NRG reservoir growth factor</u>		

CHARACTERISTICS OF ASSESSMENT UNIT

Oil (<20,000 cfg/bo overall) or Gas (≥20,000 cfg/bo overall): Gas

What is the minimum accumulation size? 0.5 mmoeb grown
(the smallest accumulation that has potential to be added to reserves)

No. of discovered accumulations exceeding minimum size:	Oil:	<u>5</u>	Gas:	<u>207</u>
Established (>13 accums.)	<u>X</u> Frontier (1-13 accums.)	Hypothetical (no accums.)		

Median size (grown) of discovered oil accumulations (mmo):	1st 3rd	<u>2.76</u>	2nd 3rd	<u>3.1</u>	3rd 3rd	<u></u>
Median size (grown) of discovered gas accumulations (bcfg):	1st 3rd	<u>39.72</u>	2nd 3rd	<u>31.61</u>	3rd 3rd	<u>25.73</u>

Assessment-Unit Probabilities:

<u>Attribute</u>	<u>Probability of occurrence (0-1.0)</u>
1. CHARGE: Adequate petroleum charge for an undiscovered accum. ≥ minimum size:	<u>1.0</u>
2. ROCKS: Adequate reservoirs, traps, and seals for an undiscovered accum. ≥ minimum size:	<u>1.0</u>
3. TIMING OF GEOLOGIC EVENTS: Favorable timing for an undiscovered accum. ≥ minimum size:	<u>1.0</u>

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

UNDISCOVERED ACCUMULATIONS

No. of Undiscovered Accumulations: How many undiscovered accums. exist that are ≥ min. size?:
(uncertainty of fixed but unknown values)

Oil Accumulations:	minimum (>0)	<u>1</u>	mode	<u>1.5</u>	maximum	<u>5</u>
Gas Accumulations:	minimum (>0)	<u>2</u>	mode	<u>45</u>	maximum	<u>250</u>

Sizes of Undiscovered Accumulations: What are the sizes (**grown**) of the above accums?:
(variations in the sizes of undiscovered accumulations)

Oil in Oil Accumulations (mmo):	minimum	<u>0.5</u>	median	<u>1.5</u>	maximum	<u>10</u>
Gas in Gas Accumulations (bcfg):	minimum	<u>3</u>	median	<u>25</u>	maximum	<u>3000</u>

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>2550</u>	<u>5100</u>	<u>7650</u>
NGL/gas ratio (bngl/mmcf)	<u>11</u>	<u>22</u>	<u>33</u>
<u>Gas Accumulations:</u>	minimum	mode	maximum
Liquids/gas ratio (bliq/mmcf)	<u>8.3</u>	<u>16.6</u>	<u>24.9</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>24</u>	<u>48.8</u>	<u>55</u>		
Sulfur content of oil (%)	<u>0</u>	<u>0.1</u>	<u>0.2</u>		
Depth (m) of water (if applicable)	<u></u>	<u></u>	<u></u>		
 	minimum	F75	mode	F25	maximum
Drilling Depth (m)	<u>600</u>		<u>2100</u>		<u>3600</u>
 	minimum	mode	maximum		
<u>Gas Accumulations:</u>	0.1	0.5	2		
Inert gas content (%)	<u>0</u>	<u>3.5</u>	<u>18</u>		
CO ₂ content (%)	<u>0</u>	<u>0</u>	<u>0</u>		
Hydrogen-sulfide content (%)	<u></u>	<u></u>	<u></u>		
Depth (m) of water (if applicable)	<u></u>	<u></u>	<u></u>		
 	minimum	F75	mode	F25	maximum
Drilling Depth (m)	<u>1200</u>		<u>3660</u>		<u>6100</u>

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

1. <u>Texas</u>	represents	<u>100.00</u>	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	<u>100</u>	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	<u>100</u>	_____
2. _____	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. _____	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	_____	_____	_____

Gas in Gas Accumulations:

Volume % in entity _____

8. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____

Gas in Gas Accumulations:

Volume % in entity _____

9. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____

Gas in Gas Accumulations:

Volume % in entity _____

10. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____

Gas in Gas Accumulations:

Volume % in entity _____

11. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____

Gas in Gas Accumulations:

Volume % in entity _____

12. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	_____	_____

Gas in Gas Accumulations:

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	0.15	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	0.15	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	0.15	_____
2. <u>Private 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	_____	_____	_____
3. <u>Tribal 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	_____	_____	_____
4. <u>Other lands</u>	represents	99.83	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	99.83	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	99.83	_____
5. <u>Tex. State lands</u>	represents	0.03	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum	mode	maximum
Volume % in entity	_____	0.03	_____
<u>Gas in Gas Accumulations:</u>			
Volume % in entity	_____	0.03	_____
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> Volume % in entity	minimum _____	mode _____	maximum _____
<u>Gas in Gas Accumulations:</u> Volume % in entity	_____	_____	_____

8. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
<u>Gas in Gas Accumulations:</u> Volume % in entity	_____	_____	_____

9. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
<u>Gas in Gas Accumulations:</u> Volume % in entity	_____	_____	_____

10. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
<u>Gas in Gas Accumulations:</u> Volume % in entity	_____	_____	_____

11. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
<u>Gas in Gas Accumulations:</u> Volume % in entity	_____	_____	_____

12. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
<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	_____	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	_____		_____	_____
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	_____	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>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>United States (U.S.) Forest Service (FS)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum	mode	maximum
	_____	_____	_____
<u>Gas in Gas Accumulations:</u> Volume % in entity			
	_____	_____	_____
8. <u>U.S.FS wilderness areas (FSW)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum	mode	maximum
	_____	_____	_____
<u>Gas in Gas Accumulations:</u> Volume % in entity			
	_____	_____	_____
9. <u>U.S.FS roadless areas (FSR)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum	mode	maximum
	_____	_____	_____
<u>Gas in Gas Accumulations:</u> Volume % in entity			
	_____	_____	_____
10. <u>U.S.FS protected withdrawals (FSP)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum	mode	maximum
	_____	_____	_____
<u>Gas in Gas Accumulations:</u> Volume % in entity			
	_____	_____	_____
11. <u>U.S. Fish and Wildlife Service (FWS)</u>	represents	0.15	area % of the AU
<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum	mode	maximum
	_____	0.15	_____
<u>Gas in Gas Accumulations:</u> Volume % in entity		0.15	
	_____	_____	_____
12. <u>U.S.FWS wilderness areas (FWSW)</u>	represents	_____	area % of the AU
<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum	mode	maximum
	_____	_____	_____
<u>Gas in Gas Accumulations:</u> Volume % in entity			
	_____	_____	_____

13. <u>U.S.FWS 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>U.S. 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>U.S. Department of Defense (DOD)</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	_____		_____	_____
17. <u>Bureau of Reclamation (BOR)</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	_____		_____	_____
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	_____		_____	_____

19. Other Federal 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	_____	_____	_____

20. _____ 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. Rio Grande plain (RGPL)	_____	represents	100.00	area % of the AU
<u>Oil in Oil Accumulations:</u>	minimum		mode	maximum
Volume % in entity	_____		100	_____
<u>Gas in Gas Accumulations:</u>				
Volume % in entity	_____		100	_____
2. _____	_____	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. _____	_____	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> Volume % in entity	minimum _____	mode _____	maximum _____
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Gas in Gas Accumulations:
Volume % in entity

8. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
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Gas in Gas Accumulations:
Volume % in entity

9. Rio Grande plain (RGPL) represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
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Gas in Gas Accumulations:
Volume % in entity

10. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
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Gas in Gas Accumulations:
Volume % in entity

11. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
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Gas in Gas Accumulations:
Volume % in entity

12. _____ represents _____ area % of the AU

<u>Oil in Oil Accumulations:</u> Volume % in entity	minimum _____	mode _____	maximum _____
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Gas in Gas Accumulations:
Volume % in entity
