

**USGS WORLD PETROLEUM RESOURCES ASSESSMENT  
INPUT FORM FOR CONVENTIONAL ASSESSMENT UNITS (Version 6.0, September 2, 2008)**

**IDENTIFICATION INFORMATION**

Assessment Geologist:	<u>J.K. Pitman</u>	Date:	<u>3-May-11</u>
Region:	<u>Middle East and North Africa</u>	Number:	<u>2</u>
Province:	<u>Fahud Salt Basin</u>	Number:	<u>2016</u>
Total Petroleum System:	<u>Middle Cretaceous Natih</u>	Number:	<u>201601</u>
Assessment Unit:	<u>Natih-Wasia Structural/Stratigraphic</u>	Number:	<u>20160101</u>
Scenario:	<u></u>	Number:	<u></u>
Based on Data as of:	<u>IHS (2009)</u>		
Notes from Assessor:	<u>NRG Field Reserve Growth Factor, 30 yrs</u>		

**CHARACTERISTICS OF ASSESSMENT UNIT**

Area of assessment unit: 22,805 square kilometers

Minimum assessed accumulation size: 1 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 12 Gas: 0

<b>Uncertainty Class:</b>	Check One	Number
Producing fields	<u>X</u>	<u></u>
Discoveries	<u></u>	<u></u>
Wells	<u></u>	<u></u>
Seismic	<u></u>	<u></u>
No seismic	<u></u>	<u></u>

Median size (grown) of discovered oil accumulations (MMBO):

1st 3rd	<u>538.5</u>	2nd 3rd	<u>2.9</u>	3rd 3rd	<u></u>
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Median size (grown) of discovered gas accumulations (BCFG):

1st 3rd	<u></u>	2nd 3rd	<u></u>	3rd 3rd	<u></u>
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**ANALOGS USED IN ESTIMATING INPUT**

<u>Purpose</u>	<u>Analog or Analog Set</u>
1 <u>Numbers</u>	<u>Carbonate shelf margin, reefs</u>
2 <u></u>	<u></u>
3 <u></u>	<u></u>
4 <u></u>	<u></u>

Assessment Unit (name, no.)  
Scenario (name, no.)

Natih-Wasia Structural/Stratigraphic, 20160101

Probability of occurrence (0-1.0)

Scenario Probability:

Assessment-Unit Probabilities: (Adequacy for at least one undiscovered field of minimum size)

Attribute	Probability of occurrence (0-1.0)
1. <b>CHARGE:</b> Adequate petroleum charge:	1.0
2. <b>ROCKS:</b> Adequate reservoirs, traps, and seals:	1.0
3. <b>TIMING OF GEOLOGIC EVENTS:</b> Favorable timing:	1.0
<b>Assessment-Unit GEOLOGIC Probability</b> (Product of 1, 2, and 3):	1.0

### UNDISCOVERED ACCUMULATIONS

Number of Undiscovered Accumulations: How many undiscovered accumulations exist that are at least the minimum size?: (uncertainty of fixed but unknown values)

Total Accumulations:	minimum (>0) _____	median _____	maximum _____
Oil/Gas Mix:	minimum _____	mode _____	maximum _____
	_____ number of oil accumulations / number of total accumulations		
	_____ number of oil accumulations / number of gas accumulations		
	_____ number of gas accumulations / number of oil accumulations		
Oil Accumulations:	minimum <u>1</u>	median <u>70</u>	maximum <u>210</u>
Gas Accumulations:	minimum <u>0</u>	median <u>0</u>	maximum <u>0</u>

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

Oil in Oil Accumulations (MMBO):	minimum <u>1</u>	median <u>3</u>	maximum <u>15</u>
Gas in Gas Accumulations (BCFG):	minimum _____	median _____	maximum _____

### RATIOS FOR UNDISCOVERED ACCUMULATIONS, TO ASSESS COPRODUCTS

(variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum	median	maximum
Gas/oil ratio (CFG/BO):	<u>450</u>	<u>1000</u>	<u>18000</u>
NGL/gas ratio (BNGL/MMCFG):	<u>7</u>	<u>17</u>	<u>90</u>
<u>Gas Accumulations:</u>	minimum	median	maximum
Liquids/gas ratio (BLIQ/MMCFG):	_____	_____	_____

**SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS**

(variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum	median	maximum
API gravity (degrees):	16	35	53
Viscosity (centipoise):	0.3	1.4	200
Sulfur content of oil (%):	1	1.2	1.5
Depth (m) of water (if applicable):			

	minimum	F75	median	F25	maximum
Drilling Depth (m):	300		1400		4800

<u>Gas Accumulations:</u>	minimum	median	maximum
Inert gas content (%):			
Carbon dioxide content (%):			
Hydrogen sulfide content (%):			
Depth (m) of water (if applicable):			

	minimum	F75	median	F25	maximum
Drilling Depth (m):					

**ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES**

1 Offshore

0 area % of the AU

Oil in Oil Accumulations: 0 volume % of the AU  
Gas in Gas Accumulations:            volume % of the AU

2 Onshore portion of:

Oman

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100 area % of the AU

Oil in Oil Accumulations: 100 volume % of the AU  
Gas in Gas Accumulations:            volume % of the AU

3 Onshore portion of:

           area % of the AU

Oil in Oil Accumulations:            volume % of the AU  
Gas in Gas Accumulations:            volume % of the AU

4 Onshore portion of:

           area % of the AU

Oil in Oil Accumulations:            volume % of the AU  
Gas in Gas Accumulations:            volume % of the AU

5 Onshore portion of:

           area % of the AU

Oil in Oil Accumulations:            volume % of the AU  
Gas in Gas Accumulations:            volume % of the AU

6 Onshore portion of:

           area % of the AU

Oil in Oil Accumulations:            volume % of the AU  
Gas in Gas Accumulations:            volume % of the AU



**ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES**

4 ONSHORE portion of: \_\_\_\_\_  
\_\_\_\_\_ area % of the AU  
Oil in Oil Accumulations: \_\_\_\_\_ volume % of the AU  
Gas in Gas Accumulations: \_\_\_\_\_ volume % of the AU

OFFSHORE portion of: \_\_\_\_\_  
\_\_\_\_\_ area % of the AU  
Oil in Oil Accumulations: \_\_\_\_\_ volume % of the AU  
Gas in Gas Accumulations: \_\_\_\_\_ volume % of the AU

5 ONSHORE portion of: \_\_\_\_\_  
\_\_\_\_\_ area % of the AU  
Oil in Oil Accumulations: \_\_\_\_\_ volume % of the AU  
Gas in Gas Accumulations: \_\_\_\_\_ volume % of the AU

OFFSHORE portion of: \_\_\_\_\_  
\_\_\_\_\_ area % of the AU  
Oil in Oil Accumulations: \_\_\_\_\_ volume % of the AU  
Gas in Gas Accumulations: \_\_\_\_\_ volume % of the AU

6 ONSHORE portion of: \_\_\_\_\_  
\_\_\_\_\_ area % of the AU  
Oil in Oil Accumulations: \_\_\_\_\_ volume % of the AU  
Gas in Gas Accumulations: \_\_\_\_\_ volume % of the AU

OFFSHORE portion of: \_\_\_\_\_  
\_\_\_\_\_ area % of the AU  
Oil in Oil Accumulations: \_\_\_\_\_ volume % of the AU  
Gas in Gas Accumulations: \_\_\_\_\_ volume % of the AU