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

IDENTIFICATION INFORMATION

Assessment Geologist:	C.J. Schenk	Date:	5/20/2009
Region:	Asia Pacific	Number:	3
Province:	Malay Basin	Number:	3703
Total Petroleum System:	Oligocene-Miocene Composite	Number:	370301
Assessment Unit:	Main Malay-Tho Chu	Number:	37030101
Scenario:		Number:	
Based on Data as of:	IHS Energy (2008)		
Notes from Assessor:	NRG Fields Reserve Growth Factors, 30 yr.		

CHARACTERISTICS OF ASSESSMENT UNIT

Area of assessment unit: 120,042 square kilometers

Minimum assessed accumulation size: 1 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 87 Gas: 111

Uncertainty Class:	Check One	Number
Producing fields	X	198
Discoveries		
Wells		
Seismic		
No seismic		

Median size (grown) of discovered oil accumulations (MMBO):
1st 3rd 73.6 2nd 3rd 20.5 3rd 3rd 28.6

Median size (grown) of discovered gas accumulations (BCFG):
1st 3rd 322.3 2nd 3rd 465.9 3rd 3rd 240.3

ANALOGS USED IN ESTIMATING INPUT

	Purpose	Analog or Analog Set
1		
2		
3		
4		

Assessment Unit (name, no.) Main Malay-Tho Chu, 37030101
Scenario (name, no.)

Scenario Probability: Probability of occurrence (0-1.0) _____

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

Attribute	Probability of occurrence (0-1.0)
1. **CHARGE:** Adequate petroleum charge:	1.0
2. **ROCKS:** Adequate reservoirs, traps, and seals:	1.0
3. **TIMING OF GEOLOGIC EVENTS:** Favorable timing:	1.0
Assessment-Unit GEOLOGIC Probability (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	2	median	40	maximum	90
Gas Accumulations:	minimum	2	median	70	maximum	160

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	1	median	6	maximum	200
Gas in Gas Accumulations (BCFG):	minimum	6	median	48	maximum	3000

RATIOS FOR UNDISCOVERED ACCUMULATIONS, TO ASSESS COPRODUCTS

(variations in the properties of undiscovered accumulations)

Oil Accumulations:	minimum	median	maximum
Gas/oil ratio (CFG/BO):	100	3500	15000
NGL/gas ratio (BNGL/MMCFG):	2	12	26

Gas Accumulations:	minimum	median	maximum
Liquids/gas ratio (BLIQ/MMCFG):	2	20	50

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Scenario (name, no.)

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS
(variations in the properties of undiscovered accumulations)

Oil Accumulations:	minimum		median		maximum
API gravity (degrees):	23		42		55
Viscosity (centipoise)					
Sulfur content of oil (%):	0.01		0.1		1
Depth (m) of water (if applicable):	50		100		200
	minimum	F75	median	F25	maximum
Drilling Depth (m):	1500		2500		3500

Gas Accumulations:	minimum		median		maximum
Inert gas content (%):					
Carbon dioxide content (%):	1		25		50
Hydrogen sulfide content (%):					
Depth (m) of water (if applicable):	50		100		200
	minimum	F75	median	F25	maximum
Drilling Depth (m):	1500		2500		3500

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Scenario (name, no.)

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES

1 Offshore

100 area % of the AU

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

2 Onshore portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ 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

Assessment Unit (name, no.) Main Malay-Tho Chu, 37030101
Scenario (name, no.)

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES

1 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: Malay Basin, 3703

100 area % of the AU

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

2 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

3 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

Assessment Unit (name, no.) Main Malay-Tho Chu, 37030101
Scenario (name, no.) _____

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