

CIRCUM-ARCTIC RESOURCE ASSESSMENT
GEOLOGIC DATA FORM FOR CONVENTIONAL ASSESSMENT UNITS (Version 5.1, June 4, 2007)

IDENTIFICATION INFORMATION

Assessment Geologist:	T.R. Klett	Date:	30-May-07
Region:	Former Soviet Union	Number:	1
Province:	Laptev Sea Shelf	Number:	1218
Total Petroleum System:	Jurassic-Cretaceous-Paleogene Composite	Number:	121801
Assessment Unit:	West Laptev Grabens	Number:	12180101
Scenario:	Pre-Rift and Syn-Rift Source Rocks	Number:	121801011
Based on Data as of:			
Notes from Assessor:			

CHARACTERISTICS OF ASSESSMENT UNIT

Area of assessment unit: 243,757 square kilometers

Minimum assessed accumulation size: 50 mmboe (grown)

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

Uncertainty Class:	Check One	Number
Producing fields	_____	_____
Discoveries	_____	_____
Wells	<u>X</u>	<u>1</u>
Seismic	_____	_____
No seismic	_____	_____

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

1st 3rd		2nd 3rd		3rd 3rd	
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Median size (grown) of discovered gas accumulations (bcfg):

1st 3rd		2nd 3rd		3rd 3rd	
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ANALOGS USED IN ESTIMATING INPUT

<u>Purpose</u>	<u>Analog or Analog Set</u>
1 <u>Pre-rift number and sizes</u>	Foredeep, craton interior, compressional anticlines Afghan-Tajik Province (1156) _____
2 <u>Syn/post-rift number and sizes</u>	Extensional rift/sag, all structures Vienna Basin Province (4046) _____
3 _____	_____ _____
4 _____	_____ _____

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

West Laptev Grabens, 12180101
 Pre-Rift and Syn-Rift Source Rocks, scenario 1

Probability of occurrence (0-1.0)

Scenario Probability: 0.1

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

<u>Attribute</u>	<u>Probability of occurrence (0-1.0)</u>
1. CHARGE: Adequate petroleum charge:	<u>1.0</u>
2. ROCKS: Adequate reservoirs, traps, and seals:	<u>1.0</u>
3. TIMING OF GEOLOGIC EVENTS: Favorable timing:	<u>1.0</u>
Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):	<u>1.000</u>

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) <u>1</u>	median <u>80</u>	maximum <u>340</u>
Oil/Gas Mix:	minimum (>0) <u>0.2</u>	mode <u>0.5</u>	maximum <u>0.7</u>
	<u>X</u> # of oil accumulations / # of total accumulations		
	# of oil accumulations / # of gas accumulations		
	# of gas accumulations / # of oil accumulations		
Oil Accumulations:	minimum (>0) <u>1</u>	median <u>40</u>	maximum <u>240</u>
Gas Accumulations:	minimum (>0) <u>1</u>	median <u>40</u>	maximum <u>270</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 (mmbb):	minimum <u>50</u>	median <u>100</u>	maximum <u>20000</u>
Gas in Gas Accumulations (bcfg):	minimum <u>300</u>	median <u>600</u>	maximum <u>120000</u>

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>1</u>	<u>1000</u>	<u>16000</u>
NGL/gas ratio (bnlq/mmcf):	<u>5</u>	<u>25</u>	<u>80</u>
<u>Gas Accumulations:</u>	minimum	median	maximum
Liquids/gas ratio (bliq/mmcf):	<u>4</u>	<u>25</u>	<u>75</u>

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

<u>Oil Accumulations:</u>	minimum	median	maximum
API gravity (degrees):	<u>20</u>	<u>40</u>	<u>55</u>
Viscosity (centipoise)	<u>1</u>	<u>3</u>	<u>30</u>
Sulfur content of oil (%):	<u>0</u>	<u>0.3</u>	<u>1.5</u>
Depth (m) of water (if applicable):	<u>0</u>	<u>50</u>	<u>100</u>

	minimum	F75	median	F25	maximum
Drilling Depth (m):	<u>500</u>	<u>1500</u>	<u>2500</u>	<u>4250</u>	<u>6000</u>

<u>Gas Accumulations:</u>	minimum	median	maximum
Inert gas content (%):	<u>0</u>	<u>2</u>	<u>10</u>
Carbon dioxide content (%):	<u>0</u>	<u>1.5</u>	<u>10</u>
Hydrogen sulfide content (%):	<u>0</u>	<u>0.5</u>	<u>3.5</u>
Depth (m) of water (if applicable):	<u>0</u>	<u>50</u>	<u>100</u>

	minimum	F75	median	F25	maximum
Drilling Depth (m):	<u>500</u>	<u>1500</u>	<u>2500</u>	<u>4250</u>	<u>6000</u>

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

West Laptev Grabens, 12180101
Pre-Rift and Syn-Rift Source Rocks, scenario 1

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO ARCTIC AREA

1 North of Arctic Circle

100 area % of the AU

Oil in Oil Accumulations: 100 volume % of the AU

Gas in Gas Accumulations: 100 volume % of the AU

2 South of Arctic Circle

 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 COUNTRIES

1 Offshore

81.81 area % of the AU

Oil in Oil Accumulations: 90.00 volume % of the AU
Gas in Gas Accumulations: 90.00 volume % of the AU

2 Onshore portion of:

Russia

18.19 area % of the AU

Oil in Oil Accumulations: 10.00 volume % of the AU
Gas in Gas Accumulations: 10.00 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