

DEGOLYER AND MACNAUGHTON
5001 SPRING VALLEY ROAD
SUITE 800 EAST
DALLAS, TEXAS 75244

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SUITE 800 EAST
DALLAS, TEXAS 75244

January 19, 2017

Cooperatieve KMG EP UA
Strawinskylaan 819, WTC, Tower A, 8 floor, 1077
XX Amsterdam, The Netherlands

Subject: Reserves, contingent resources, and prospective resources estimates as of
December 31, 2016, for various assets within various licenses within the
Republic of Kazakhstan

Ladies and Gentlemen:

Pursuant to your request, we have prepared estimates, as of December 31, 2016, of the extent of the proved, probable, and possible oil, condensate, natural gas liquids (NGL), and gas reserves, estimates of the value of the proved, proved-plus-probable, and proved-plus-probable-plus-possible reserves, and estimates of the extent only of the oil, condensate, and gas contingent resources of certain fields in which KazMunaiGas Exploration Production JSC (KMG EP) has represented that it owns or controls an interest either directly or through its 95.1-percent interest in Cooperatieve KMG EP UA (Cooperatieve KMG). These subsidiary enterprises consist of AO Embamunaigas (EMG), TOO KazGPZ (KGPZ), AO Ozenmunaigas (OMG), and TOO Ural Oil and Gas (UOG). All of the fields evaluated are located in the Republic of Kazakhstan.

We have also estimated the extent and potential present worth of the oil and gas prospective resources of various assets within various license blocks located in the Republic of Kazakhstan in which Cooperatieve KMG has represented that it intends to acquire an ownership interest in the future.

The results presented herein are subject to the definitions, assumptions, explanations, qualifications, and conclusions contained in our "Report as of December 31, 2016 on Reserves and Revenue and Contingent Resources of Certain Fields and Licenses owned or controlled by KazMunaiGas Exploration Production

JSC Republic of Kazakhstan PRMS Case” (the Reserves and Contingent Resources Report) and in our “Report as of December 31, 2016 on the Prospective Resources and Potential Revenue attributable to Various Prospects owned or controlled by KazMunaiGas Exploration Production JSC in Various License Blocks Republic of Kazakhstan” (the Prospective Resources Report). It should be noted that, without reference to the Reserves and Contingent Resources Report and the Prospective Resources Report, the information presented herein is susceptible to being misunderstood and should be used with caution.

Reserves estimated herein are expressed as net oil and condensate, NGL, and sales gas reserves. The estimated net proved, probable, and possible oil and condensate, NGL, and sales gas reserves, as of December 31, 2016, as presented in the Reserves and Contingent Resources Report are summarized as follows, expressed in English units in thousands of barrels (10^3 bbl) and millions of cubic feet (10^6 ft³) and in metric units in thousands of metric tons (10^3 mt) and millions of cubic meters (10^6 m³):

Reserves Category	Net Reserves					
	English Units			Metric Units		
	Oil and Condensate (10^3 bbl)	NGL (10^3 bbl)	Sales Gas (10^6 ft ³)	Oil and Condensate (10^3 mt)	NGL (10^3 mt)	Sales Gas (10^6 m ³)
Proved Developed	615,673	7,163	237,727	84,702	607	6,733
Proved Undeveloped	51,557	9,464	242,852	6,725	802	6,876
Total Proved	667,230	16,627	480,579	91,427	1,409	13,609
Probable	372,141	5,172	160,886	51,361	438	4,555
Possible	368,444	2,974	149,319	50,853	252	4,226

Notes:

1. Probable and possible reserves have not been risk adjusted to make them comparable to proved reserves.
2. KMG EP has represented that it owns 47.55-percent interest and controls 50 percent of the management of the UOG subsidiary. Estimated reserves attributable to these interests, including the 2.45-percent interest not owned by KMG EP, are included herein as net reserves.

Contingent resources estimated in this letter are reported as net oil and condensate and sales gas contingent resources. The net oil and condensate and sales gas contingent resources estimated herein cannot be classified as reserves. The net oil and condensate and sales gas contingent resources estimates presented herein are provided as a means of comparison to other contingent resources and do not provide a direct comparison to reserves. The estimated net 1C, 2C, and 3C

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contingent resources, as of December 31, 2016, as presented in the Reserves and Contingent Resources Report are summarized as follows, expressed in English units in thousands of barrels (10^3 bbl) and millions of cubic feet (10^6 ft³) and in metric units in thousands of metric tons (10^3 mt) and millions of cubic meters (10^6 m³):

	Net Contingent Resources		
	English Units		
	1C	2C	3C
Marginal			
Oil and Condensate, 10^3 bbl	30,283	93,483	143,845
Sales Gas, 10^6 ft ³	151,359	303,916	348,131
Sub-Marginal			
Oil and Condensate, 10^3 bbl	1,225	4,963	41,886
Sales Gas, 10^6 ft ³	18,576	133,136	325,390
Total			
Oil and Condensate, 10^3bbl	31,508	98,446	185,731
Sales Gas, 10^6ft³	169,935	437,052	673,521
	Metric Units		
	1C	2C	3C
Marginal			
Oil and Condensate, 10^3 mt	4,692	12,858	19,603
Sales Gas, 10^6 m ³	4,286	8,606	9,858
Sub-Marginal			
Oil and Condensate, 10^3 mt	404	663	5,644
Sales Gas, 10^6 m ³	526	3,770	9,214
Total			
Oil and Condensate, 10^3mt	5,096	13,521	25,247
Sales Gas, 10^6m³	4,812	12,376	19,072

Notes

1. Application of any risk factor to contingent resources quantities does not equate contingent resources with reserves.
2. There is no certainty that it will be commercially viable to produce any portion of the contingent resources evaluated herein.
3. Contingent resources with an economic status of Undetermined have been estimated to be zero.

The estimated KMG EP future net revenue and present worth to be derived from the production and sale of the estimated net proved, proved-plus-probable, and proved-plus-probable-plus-possible reserves, as of December 31, 2016, as presented in the Reserves and Contingent Resources Report are summarized as follows, expressed in thousands of United States dollars (10^3 U.S.\$).

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Reserves Category	KMG EP	
	Future Net Revenue (10³U.S.\$)	Present Worth at 10 Percent (10³U.S.\$)
Proved Developed	5,754,921	2,890,912
Proved Undeveloped	520,444	162,393
Total Proved	6,275,365	3,053,305
Proved plus Probable	8,554,762	3,559,646
Proved plus Probable plus Possible	11,795,712	4,011,483

Note: Values for probable and possible reserves have not been risk adjusted to make them comparable to values for proved reserves.

Prospective resources in 91 prospects have been evaluated in various license blocks in the Republic of Kazakhstan. The prospective resources estimates presented below are based on the statistical aggregation method. Estimates of the gross oil, condensate, and sales gas prospective resources, as of December 31, 2016, as presented in the Prospective Resources Report are summarized as follows, expressed in English units in thousands of barrels (10³bbl) and millions of cubic feet (10⁶ft³) and in metric units in thousands of metric tons (10³mt) and millions of cubic meters (10⁶m³):

	Gross			
	Low Estimate	Best Estimate	High Estimate	Mean Estimate
English Units				
Oil Prospective Resources, 10 ³ bbl	611,594	1,148,745	1,737,827	1,185,115
Sales Gas Prospective Resources, 10 ⁶ ft ³	804,681	1,247,790	1,591,393	1,304,497
Condensate Prospective Resources, 10 ³ bbl	72,517	129,561	193,504	133,687
Metric Units				
Oil Prospective Resources, 10 ³ mt	83,780	157,362	238,059	162,344
Sales Gas Prospective Resources, 10 ⁶ m ³	22,786	35,333	45,063	36,939
Condensate Prospective Resources, 10 ³ mt	8,790	15,704	23,455	16,205

1. Low, best, high, and mean estimates in this table are P₉₀, P₅₀, P₁₀, and mean, respectively.
2. P_g and P_e have not been applied to the volumes in this table.
3. Application of any geological or economic chance factor does not equate prospective resources with contingent resources or reserves.
4. Recovery efficiency is applied to prospective resources in this table.
5. The prospective resources presented above are based on the statistical aggregation method.
6. There is no certainty that any portion of the prospective resources estimated herein will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources evaluated.

The following table summarizes the KMG EP potential present worth at 10 percent that might be realized from the production and sale of the truncated, TEFS-adjusted, P_e-adjusted oil and sales gas prospective resources of the various prospects evaluated in the Prospective Resources Report, using the potential present worth at 10 percent per prospective resources quantity methodology, as of December 31, 2016, expressed in thousands of United States dollars (10³U.S.\$):

	KMG EP Potential Present Worth at 10 Percent			
	Low Estimate (10³U.S.\$)	Best Estimate (10³U.S.\$)	High Estimate (10³U.S.\$)	Mean Estimate (10³U.S.\$)
KMG EP Truncated, TEFS-Adjusted, P _e -Adjusted Prospective, Oil Resources	682,466	843,801	1,043,274	855,448
KMG EP Truncated, TEFS-Adjusted, P _e -Adjusted Prospective, Sales Gas Resources	-	-	-	-

Notes:

1. Low, best, high, and mean estimates in this table are P₉₀, P₅₀, P₁₀, and mean, respectively.
2. Estimates of potential present worth at 10 percent for prospective resources are not comparable to present worth estimates of contingent resources or reserves.
3. Estimates of potential present worth at 10 percent for prospective resources do not consider adjustments for political and/or environmental uncertainties.
4. Estimates of the potential present worth at 10 percent for prospective resources presented above are based on the statistical aggregation method.
5. A possibility exists that the prospects will not result in successful discovery and development, in which case there would be no potential present worth at 10 percent.
6. There is no certainty that any portion of the prospective resources estimated herein will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the prospective resources evaluated.
7. Prospects designated with a hyphen (-) were estimated to yield a negative potential present worth at 10 percent and were not included at the request of Cooperatieve KMG.
8. KMG EP has represented that it owns 47.55-percent interest and controls 50 percent of the management of the UOG subsidiary. The estimated KMG EP potential present worth at 10 percent attributable to these interests, including the 2.45-percent interest not owned by KMG EP, are included herein as net KMG EP potential present worth at 10 percent.

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Information used in the preparation of this letter was obtained from KMG EP. In the preparation of this letter we have relied, without independent verification, upon information furnished by KMG EP with respect to ownership, production, and various other information and data that were accepted as represented. A field examination of the properties was not considered necessary for the purposes of this letter.

Submitted,

DeGolyer and MacNaughton

DeGOLYER and MacNAUGHTON
Texas Registered Engineering Firm F-716



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