

OPERATING OVERVIEW

RESERVES

According to the reserves audit report prepared by the international independent consulting firm DeGolyer and MacNaughton in accordance with international standard PRMS, KMG's proved plus probable hydrocarbon reserves (2P) were 635 mln toe (4,894 mln boe) as at 31 December 2020. 2P reserves decreased by 6.1% year-on-year, driven mainly by technical (natural decline in production from mature fields) as well as macroeconomic reasons (lower oil price and FX volatility).

The proved reserves (1P) life is 16 years, far exceeding the average for global oil majors (about 11 years).

Net reserves¹ under PRMS (as at 31 December 2020)

Reserves	Hydrocarbon reserves, mln boe		Hydrocarbon reserves, mln toe	
	2019	2020	2019	2020
Proved (1P)	3,860	3,550	499	459
Proved plus Probable (2P)	5,220	4,894	676	635
Proved plus Probable plus Possible (3P)	6,089	5,832	790	757

¹ Net Reserves are defined as the portion of the gross reserves attributable to (1) the interest held by KMG after deducting all interests held by others, as well as (2) interests that are not held by KMG, but which KMG controls.

EXPLORATION

KMG pursues its previously developed strategy for exploration and growth in reserve

Reserve replacement through organic and inorganic growth

- ◆ Exploration at current contract areas
- ◆ Further exploration of producing assets
- ◆ Prospect evaluation and acquisition

Finding strategic partners for joint exploration projects

- ◆ Foreign investments
- ◆ Knowledge and technology transfer
- ◆ Risk optimisation

Improvement of exploration performance

- ◆ Improvement of available technologies and deployment of new technologies
- ◆ Process digitalisation
- ◆ Implementation of a project management system in exploration

Exploration costs totalled KZT 18 bn (excluding shares) in 2020, down KZT 29 bn year-on-year. However, the funds were sufficient to maintain the current production level and replenish reserves in the medium term. The cost reduction was mostly driven by CAPEX optimisation as part of COVID-19 crisis response initiatives.

In 2020, hydrocarbon reserves increased by 16 mln tonnes, primarily due to further exploration and re-appraisal of the fields operated by Embamunaigas, OzenMunaiGas, Kazakhturkmunay, and others.

A major highlight of 2020 in our ongoing exploration projects was a natural flow of up to 85 tonnes per day of water-free Jurassic oil produced from an exploration well on the Bekturly Vostochny block.

The highlight in further exploration of existing projects in 2020 was a natural flow of 70 tonnes per day of water-free Triassic oil produced from NSV-11 well in the north-west flank of Embamunaigas's Sagidulla Nurzhanov field.