



**Cracking**

**Technologies**

By KGM HOLDING GROUP  
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# Cracking

One of the most important steps in petroleum industry is cracking of crude oil, after extracting from oil wells. Cracking is a complicated process that breaks carbon chains into smaller chains and let the refineries extract better, lighter and more valuable cuts from crude oil.

All the current cracking methods in the world, work in very high temperature and pressure and also in presence of many expensive catalysts. And even in that situation, the result of cracking for heavy and extra heavy crude oil is not that much.





# Cracking

**API gravity is one of the most important factors which indicates the quality of crude oil. It is a critical indicator which shows us how much light cuts we can expect from crude.**

**We already are extracting more than 80 million barrels of crude oil everyday in the world. And more than 60% of this amount contains heavy crude oil with the API number of 30 or below.**

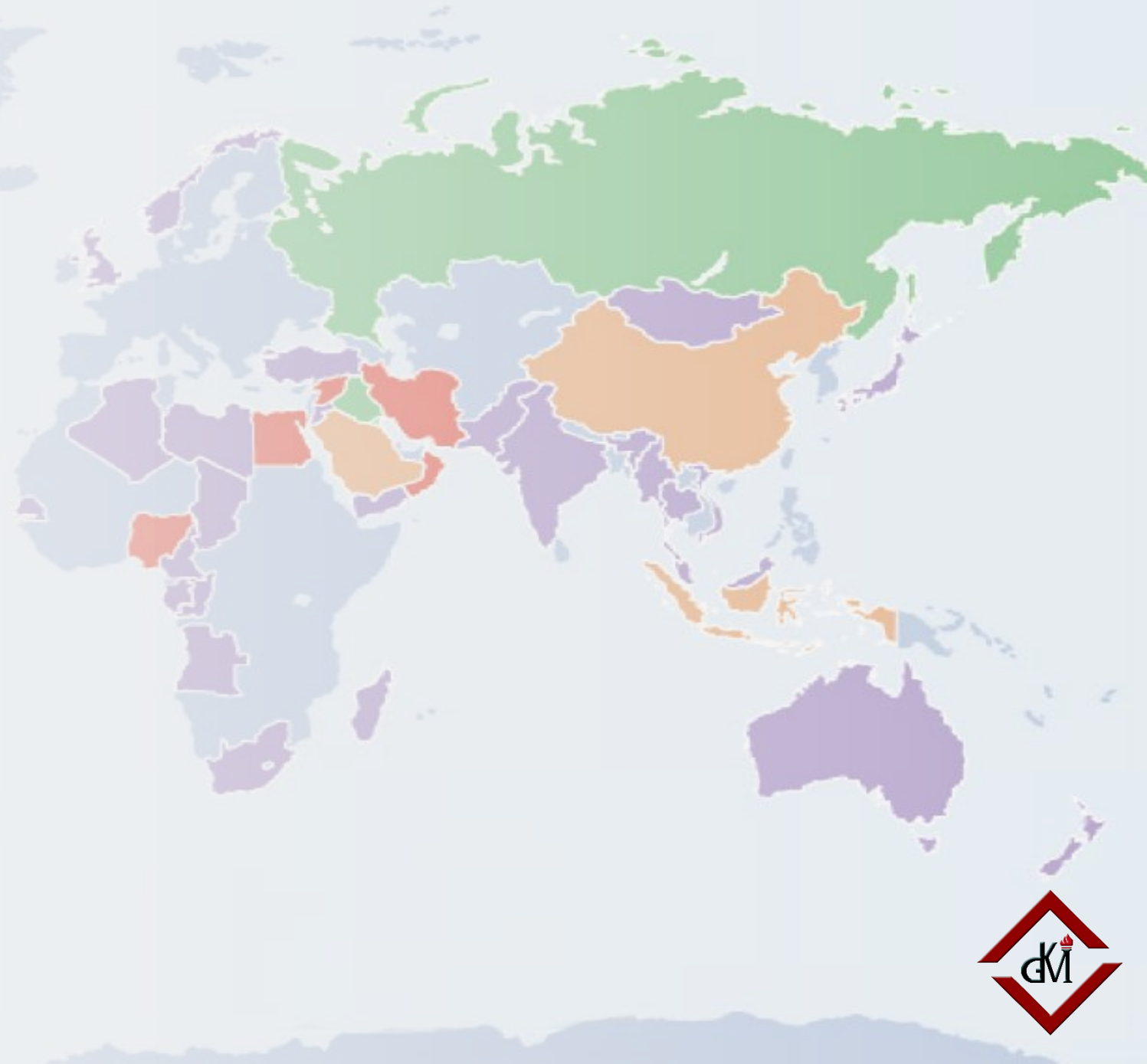
**We have a huge amount of oil reserves with extra heavy crude oil (XHO) with API number of less than 20, which most of them are shut down due to their infeasibility and lack of a possible technology to treat it.**

**These kinds of crudes cause lots of difficulties that makes it impossible to operate it. Every part such as extraction, transportation, bunkering, refining and economical consideration is nightmare. And even after that, the produced cuts are not satisfying.**



# *Economic overview*

**More than 70% of world's oil reserve is heavy, extra heavy and oil sands. This kind of crude oil, costs much less than light crude oil. Its hard to handle, hard to process and with much cheaper final products. And that's our target for business.**

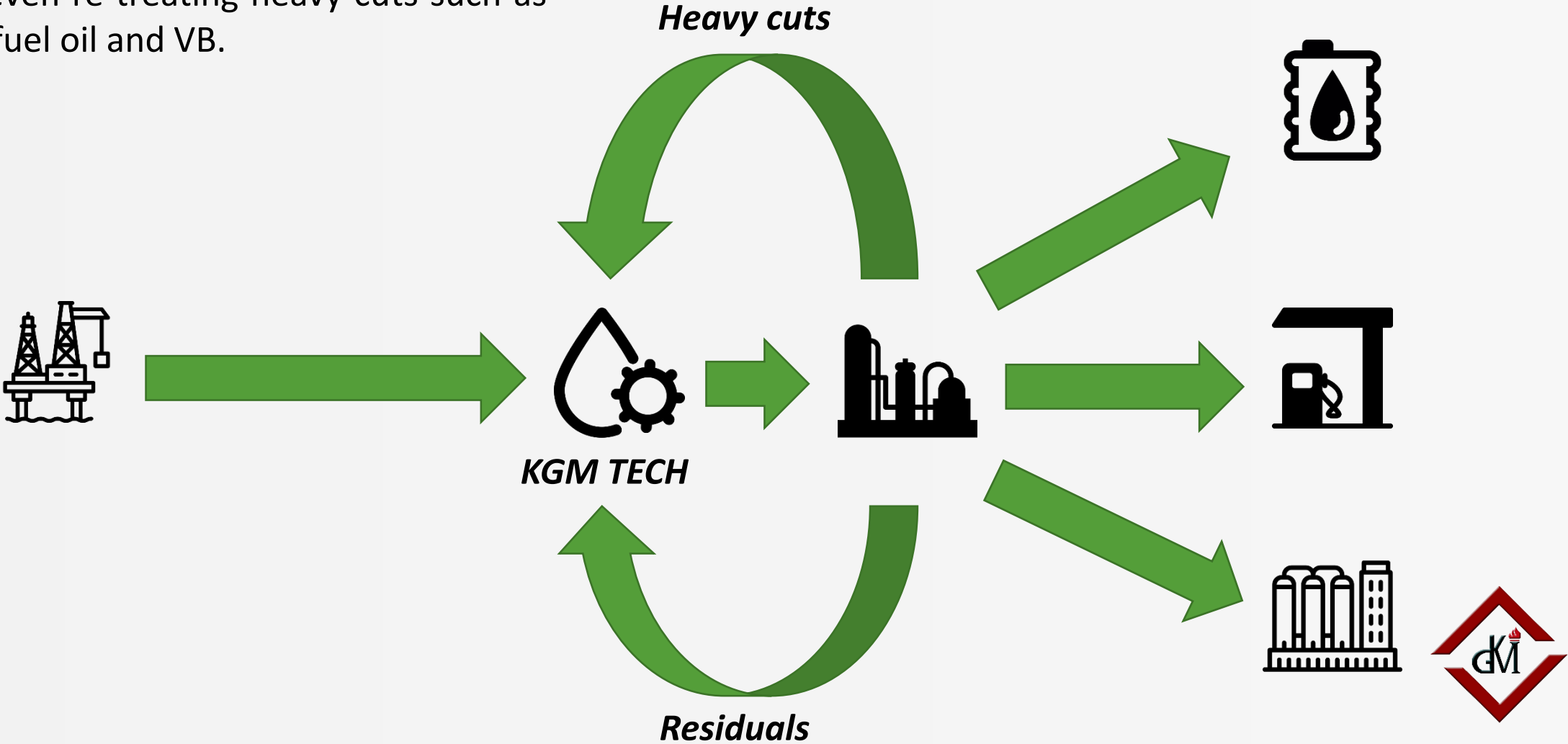




# KGM Cracking Technologies

KGM suggests the new generation of cracking technologies. These technologies have the ability to crack crude oil in near the ATM situation (instead of very high temperature and pressure) and without any presence of other catalysts. And also the performance and the efficiency is extreme.

KGM technologies is offering wide range of new generation of hi-tech catalysts which can provide a very powerful result in refining of heavy and extra heavy crude oil or even re-treating heavy cuts such as heavy fuel oil and VB.





Our tailor-made solutions have many wonderful advantages for our customers and partners:

## **ENHANCED PRODUCTION**



A lot more light cuts produced by using these catalysts. The quality of produced products is much better with less Sulphur content.

It is even possible to convert extra heavy crude to light crude with much higher API number and less amount of unwanted contents such as Sulphur.

## **MUCH EASIER HANDLING**



Our technologies help to reduce the usual difficulties of transportation and handling of result crude or sub-products due to less viscosity and less unwanted and harmful contents.

## **EASIER AND FASTER TO RUN**



Establishment and start of these technologies are really fast and easy. And also they do not need any extra heavy investments, just general equipment and facilities which is available in almost every industrial petroleum sites.



## COMPLETELY TAILOR-MADE

It can be applied and used by any industrial petroleum sites, from big refineries to small mini-refineries or even mini private petroleum workshops.

## ENVIRONMENTAL FRIENDLY

Our technologies are completely environmental friendly. And they help us to even solve lots of environmental challenges which petroleum industry is facing right now.

## COMPETITIVE ADVANTAGES

By using these technologies, our customers can use much cheaper and less quality crude oil or residuals to produce better products than others. It can change the game's plan for them.





***KGM MULTI CRACKING TECHNOLOGIES*** is performing a key role in the economy of petroleum industry. With these methods, we can resurrect the economical stats of XHO business and consider these kinds of oil reserves as a major and serious source of energy.

***We in KGM believe that if we focus at the corners of petroleum industry where no other one is focusing, we can make a huge difference.***





# *KGM TECHNOLOGIES*

Example of a running project  
Kermanshah Oil Refinery

















THANKS FOR WATCHING