



Direktorat Jenderal Minyak dan Gas Bumi
Kementerian Energi dan Sumber Daya Mineral

*Directorate General of Oil And Gas
Ministry of Energy and Mineral Resources*

STATISTIK Minyak dan Gas Bumi

STATISTICS Oil and Gas

2015



STATISTIK
Minyak dan Gas Bumi



STATISTICS
Oil and Gas



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KATA PENGANTAR | Introduction

Buku Statistik Minyak dan Gas Bumi Tahun 2015 merupakan salah satu instrumen penyampaian data dan informasi secara berkala mengenai perkembangan kegiatan pengusahaan minyak dan gas bumi di Indonesia. Publikasi ini memuat gambaran umum tentang kegiatan pengusahaan migas dari hulu, hilir, hingga penunjang.

Beberapa data juga ditampilkan dalam bentuk peta-peta untuk memperkaya visual dan pemahaman terhadap kegiatan pengusahaan migas. Seiring dengan meningkatnya kebutuhan konsumen data, buku statistik minyak dan gas bumi akan terus mengalami penyempurnaan baik struktur maupun muatannya.

Buku statistik minyak dan gas bumi ini diharapkan dapat memberikan manfaat bagi banyak pihak untuk berbagai keperluan. Publikasi ini dapat terwujud berkat kerja sama dan partisipasi dari berbagai pihak.

Dalam kesempatan ini, kami menyampaikan penghargaan dan terima kasih kepada semua pihak yang telah memberikan kontribusi secara nyata, serta memberikan masukan-masukanyang berarti sehingga buku ini dapat tersusun.

Buku ini dapat dilihat dalam website Direktorat Jenderal Minyak dan Gas Bumi melalui: <http://www.migas.esdm.go.id/>. Saran dan kritik membangun untuk penerbitan selanjutnya dapat disampaikan melalui e-mail: http://mail.migas.esdm.go.id.

Jakarta, 2016
Direktur Jenderal Migas

IGN Wiratmaja

Oil and Gas Statistics 2015 book serves as an instrument to convey data and information on a regular basis about yearly progress of oil and gas exploitation in Indonesia. This publication consists of general overview on oil and gas exploitation activities, from upstream, downstream, to supporting sector.

Some data are displayed in maps form to enrich visuals and understanding on oil and gas exploitation activities. Along with incremental needs of data users, this book of Oil & Gas Statistics will be continuously improved both in structure, content and also presentation.

Through this publication, we aim to provide benefits for various parties in broadest possible utilization. This publication can be realized thanks to cooperation and participation of various parties.

Hereby, we'd like to express our highest appreciation and gratitude to all parties who have contributed since the beginning of the project, as well as providing valuable inputs for composing this book.

This book is also available for download on website of General Directorate of Oil and Gas <http://www.migas.esdm.go.id/>. Suggestion and inputs for upcoming publication can be addressed to http://mail.migas.esdm.go.id.

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49 PENUNJANG | SUPPORTING

50 CAPAIAN TKDN PADA KEGIATAN USAHA HULU MIGAS 2010-2015

Chart of local Content Usage in Upstream Oil and Gas Activities 2010-2015

51 DATA STATISTIK SURBAT KETERANGAN TERDAFTAR 2011-2015

Statistic Of Registered Certificate 2011-2015

52 DATA TUMPAHAN MINYAK 2011-2015

Statistic of Oil Spill 2011-2015

53 DATA KECELAKAAN KERJA KEGIATAN HULU MIGAS 2011-2015

Statistic of Accident in Upstream Oil and Gas Activities 2011-2015

54 DATA KECELAKAAN KERJA KEGIATAN HILIR MIGAS 2011-2015

Statistic Of Accident in Downstream Oil And Gas Activities 2011-2015

55 RANCANGAN STANDAR KOMPETENSI KERJA NASIONAL INDONESIA BIDANG MIGAS

Draft of Indonesian National Work Competency Standard 2015

26 RANCANGAN STANDAR NASIONAL INDONESIA BIDANG MIGAS TAHUN 2015

Draft of Indonesian National's Standard 2015

57 PETA TEMATIK | THEMATIC MAP

58 PETA CADANGAN MINYAK BUMI INDONESIA (STATUS 1 JANUARI 2015)

Map of Indonesia Crude Oil Reserve (Status in 1 Januari 2015)

59 PETA CADANGAN GAS BUMI INDONESIA (STATUS 1 JANUARI 2015)

Map of Indonesia Gas Reserves (Status in 1 Januari 2015)

60 PETA POTENSI GAS METHANA BATUBARA CBM Resources & Shale Gas Potential

61 PETA CEKUNGAN HIDRO KARBON INDONESIA

Map of Hydrocarbons Basin Indonesia

62 PETA INFRASTRUKTUR GAS BUMI 2015-2030

Map of Gas Infrastructure 2015-2030

64 PETA KILANG MINYAK DI INDONESIA

Map of Oil Refinery in Indonesia

65 PETA KILANG LPG DAN LNG DI INDONESIA

Map of LPG and LNG Refinery in Indonesia

66 DAFTAR ISTILAH DAN LAMPIRAN

GLOSSARIUM AND APPENDICES

3 KATA PENGANTAR | INTRODUCTION

5 RINGKASAN DATA | DATA SUMMARY

6 IKHTISAR | OVERVIEW

11 HULU | UPSTREAM

12 PENANADATANGANAN WILAYAH KERJA KONVENSIONAL

MIGAS 2011-2015
Signing of Oil and Gas Conventional Working Areas 2011-2015

13 PENANADATANGANAN WILAYAH KERJA NON KONVENSIONAL

MIGAS 2011-2015
Signing of Oil and Gas Unconventional Working Area 2011-2015

14 INVESTASI HULU MIGAS 2011-2015

Oil and Gas Upstream Investment 2011-2015

15 CADANGAN MINYAK BUMI INDONESIA 2011-2015

Indonesian Crude Oil Reserve 2011-2015

16 CADANGAN GAS BUMI INDONESIA 2011-2015

Indonesian Gas Reserve 2011-2015

17 GRAFIK SURVEI SEISMIK 2D (km) 2011-2015

Chart of 2D (km) Seismic Survey 2011-2015

17 GRAFIK SURVEI SEISMIK 3D (km³) 2011-2015

Chart of 3D (km³) Seismic Survey 2011-2015

19 GRAFIK PEMBORAN SUMUR EKSPLORASI 2011-2015

Chart of Drilling of Exploratory Wells 2011-2015

20 PRODUKSI DAN PEMANFAATAN GAS BUMI 2015

Production and Utilization of Natural Gas 2015

24 GRAFIK PRODUKSI DAN PEMANFAATAN GAS BUMI 2011-2015

Chart of Production and Utilization of Natural Gas 2011-2015

26 PRODUKSI MINYAK MENTAH DAN KONDENSAT 2015

Production of Crude Oil and Condensate 2015

27 GRAFIK PRODUKSI MINYAK MENTAH DAN KONDENSAT 2011-2015

Chart of Production of Crude Oil and Condensate 2011-2015

28 HARGA MINYAK MENTAH INDONESIA 2015

Indonesian Crude Oil Price 2015

30 PERKEMBANGAN HARGA MINYAK INDONESIA & MINYAK UTAMA DUNIA (JANUARI 2015 – DESEMBER 2015/ HARIAN)

Price Developments of Indonesian Crude Oil & World Major Crude Oil (December 2015 - December 2015 / Daily)

32 HILIR | DOWNSTREAM

33 INVESTASI HILIR MIGAS 2011-2015

Oil and Gas Downstream Investment 2011-2015

33 GRAFIK INVESTASI HILIR MIGAS 2011-2015

Chart of Oil and Gas Downstream Investment 2011-2015

34 PENGOLAHAN MINYAK MENTAH INDONESIA 2011-2015

Indonesian Crude Oil Processing 2011-2015

34 GRAFIK PENGOLAHAN MINYAK MENTAH INDONESIA 2011-2015

Chart of Indonesian Crude Oil Processing 2011-2015

35 HASIL PENGOLAHAN MINYAK INDONESIA 2011-2015

Indonesian Refined Products 2011-2015

38 GRAFIK HASIL PENGOLAHAN MINYAK 2011-2015

Chart of Refined Products 2011-2015

39 PRODUKSI LPG TAHUN 2011-2015

Production of LPG 2011-2015

40 GRAFIK PRODUKSI LPG TAHUN 2011-2015

Chart of LPG Production 2011-2015

41 PRODUKSI LNG TAHUN 2011-2015

Production of LNG 2011-2015

41 GRAFIK PRODUKSI LNG TAHUN 2011-2015

Chart of LNG Production 2011-2015

42 EKSPOR MINYAK MENTAH DAN KONDENSAT INDONESIA 2011-2015

Indonesian Export of Crude Oil and Condensate 2011-2015

43 GRAFIK EKSPOR MINYAK MENTAH DAN KONDENSAT INDONESIA 2015

Chart of Indonesian Export of Crude Oil and Condensate 2015

44 IMPOR MINYAK MENTAH PER NEGARA ASAL 2011-2015

Crude Oil Imports by Country 2011-2015

45 EKSPOR BAHAN BAKAR MINYAK INDONESIA 2011-2015

Indonesian Export of Fuel 2011-2015

45 IMPOR BAHAN BAKAR MINYAK INDONESIA 2011-2015

Indonesian Import of Fuels 2011-2015

46 IMPOR LPG INDONESIA 2011-2015

Indonesian Import of LPG 2011-2015

46 EKSPOR LPG INDONESIA 2011-2015

Indonesian Export of LPG 2011-2015

46 EKSPOR PRODUK KILANG 2011-2015

Indonesian Exports of Refinery Products 2011-2015

47 EKSPOR LNG PER NEGARA TUJUAN 2011-2015

Export of LNG by Destination Country 2011-2015

48 REALISASI PENJUALAN BBM DI SELURUH INDONESIA 2011-2015

Indonesian Sales of Fuel Realization 2011-2015

48 PENJUALAN LPG INDONESIA 2011-2015

Indonesian Sales of LPG 2011-2015



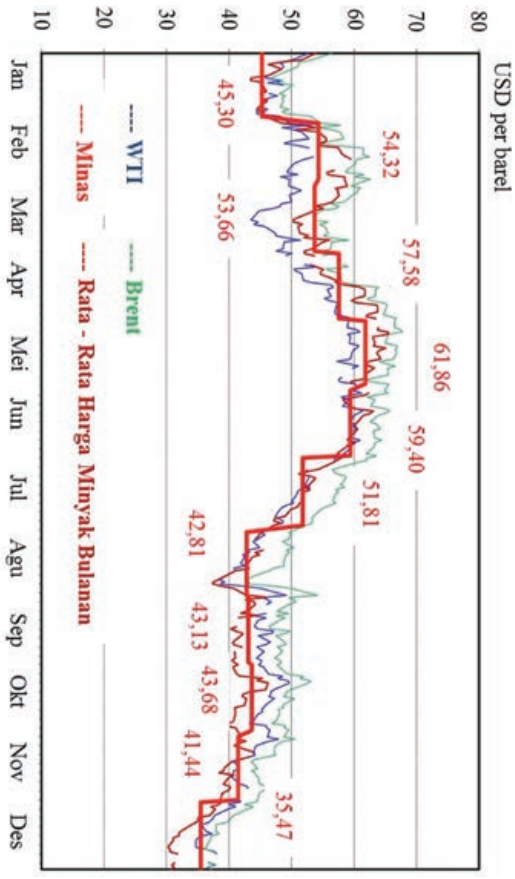
Ringkasan Data | Data Summary

No.	Kategori Category	Nilai Amount	Satuan Unit
1	Investasi Hulu Migas Upstream Oil and Gas Investments	15,312,68	Juta US\$
2	Gadangan Minyak Bumi Crude Oil Reserve	7,305,02	MMSTB
3	Gadangan Gas Bumi Gas Reserve	151,33	TSCF
4	Survei Seismik 2D (km) 2D Seismic Survey (km)	3,934,00	km
5	Survei Seismik 3D (km²) 3D Seismic Survey (km²)	3,347,00	km²
6	Pemboran Sumur Eksplorasi Drilling of Exploratory Wells	67	sumur
7	Produksi Gas Bumi Natural Gas Production	8,077,71	MMSCFD
8	Pemanfaatan Gas Bumi Utilization of Natural Gas	7,329,14	MMSCFD
9	Produksi Minyak dan Kondensat Production of Crude Oil and Condensate	785,792	BOPD
10	ICP Rata-rata (Januari '15 s/d Desember '15) Average of Indonesian Crude Oil Price (January 2015 until December 2015)	49,21	US\$/Barel
11	Investasi Hilir Migas Oil and Gas Downstream Investment	2,617,77	Juta US\$
12	Hasil Pengolahan Minyak Mentah (BBM+Non-BBM) Crude Oil Processing Results (fuel + Non-Fuel)	329,535,90	Ribu Barel
13	Produksi LPG Production of LPG	2,275,910	M.Ton
14	Produksi LNG Production of LNG	19,071,196	M.Ton
15	Ekspor Minyak Mentah Export of Crude Oil	115,017,446	Barel
16	Import Minyak Mentah Import of Crude Oil	136,665,881	Barel
17	Ekspor BBM Export of Fuel	317,480	Kiloiter
18	Import BBM Import of Fuel	27,898,244	Kiloiter
19	Penjualan BBM Sales of Fuel	67,509,826	Kiloiter
20	Ekspor LPG Export of LPG	392	M.Ton
21	Import LPG Import of LPG	4,025,600	M.Ton
22	Penjualan LPG Sales of LPG	6,376,990	M.Ton
23	Ekspor Produk Kilang Exports of Refinery Products	3,459,642	Kiloiter
24	Ekspor LNG Export of LNG	811,043,009	MMBTU
25	Data Tumpahan Minyak Statistic of Oil Spill	875	Barel
26	Data Kecelakaan Hulu Statistic of Accident in Upstream Oil and Gas Activities	273	Kecelakaan
27	Data Kecelakaan Hilir Statistic of Accident in Downstream Oil and Gas Activities	11	Kecelakaan

Ikhtisar | Overview

Tahun 2015 menjadi tahun kebinimbangan bagi industri migas nasional. Harga minyak dunia sebagai isu utama yang menunjukkan gejala penurunan di akhir tahun 2014, berdampak terhadap trend pergerakan harga minyak Indonesia pada kurun waktu Januari hingga Desember 2015, yang pada akhirnya berdampak pula terhadap hampir seluruh kegiatan perusahaan minyak dan gas bumi di Indonesia.

The year 2015 was known as year full of uncertainties for national oil and gas industry. The downward trend of world oil prices in the end of 2014 became one of the main issues that had an impact on oil price movement in Indonesia between January to December 2015. At the end, the trend impacted almost all of oil and gas exploitation activities in Indonesia.



Pergerakan ICP (Indonesia Crude Price) selama kurun waktu Januari-Desember 2015 menunjukkan fluktuasi yang tidak terduga. ICP sempat menunjukkan trend positif pada kurun waktu Januari s.d. Mei hingga menyentuh angka rata-rata ICP US\$ 61,86 per barel, namun pada akhirnya menurun secara perlahan dan terpuruk pada Desember 2015 dengan angka rata-rata ICP sebesar US\$ 35,47 per barel.

The movement of ICP (Indonesia Crude Price) in January to December 2015 period showed unexpected fluctuations. ICP had shown a positive trend in from January to May period and reached of the average ICP figure of US\$61.86 per barrel. However, at the end has been steadily declining and in December 2015 dropped at average ICP at US\$35.47 per barrel.

Trend penurunan harga tersebut antara lain disebabkan oleh hal-hal sebagai berikut:

1. Perlambatan pertumbuhan perekonomian global terutama Tiongkok yang merupakan negara konsumen minyak mentah utama.
2. Terus meningkatnya produksi minyak mentah Amerika Serikat dan negara-negara non-OPEC.
3. Kelebihan pasokan minyak mentah global, salah satunya akibat peningkatan pasokan Iran sejak dicabutnya embargo terhadap Iran.
4. Masih rendahnya permintaan minyak mentah di kawasan Eropa dan Asia, khususnya India dan Tiongkok.

Rendahnya nilai rata-rata ICP tentunya berdampak terhadap kegiatan perusahaan minyak dan gas bumi terutama di sektor hulu. Beberapa Kontraktor Kontrak Kerja Sama (KKKS) bereaksi dengan merevisi rencana kerja (*work plan & budget*) yang berdampak terhadap menurunnya nilai investasi kegiatan hulu dan kegiatan eksplorasi.

Bila dibandingkan dengan tahun-tahun sebelumnya, nilai investasi tahun 2015 sebesar US\$ 15,312,68 juta mengalami penurunan sebanyak 24,87% dibandingkan tahun 2014, terbesar selama kurun waktu lima tahun terakhir. Kegiatan eksplorasi tahun 2015 menunjukkan potret yang sama di mana kegiatan seismik 2D (km) menunjukkan penurunan sebanyak 33,02%, kegiatan seismik 3D (km²) menunjukkan penurunan sebanyak 60,81%, dan realisasi pembooran sumur eksplorasi menunjukkan penurunan sebanyak 19,27% dibandingkan tahun 2014. Penurunan kegiatan eksplorasi tentunya berdampak kepada sulitnya penemuan cadangan baru. Tercatat pada tahun 2015 terjadi penurunan cadangan terbukti minyak bumi sebesar 2,197 MMSTB (-0,61%) dan penurunan cadangan terbukti gas bumi sebesar 2,31 TSCF (-2,30%).

Sementara itu, produksi migas pada dasarnya mendapatkan efek yang relatif kecil dikarenakan penurunan alami yang telah terjadi bertahun-tahun yang lalu, di samping upaya-upaya yang telah

The declining trend in prices partly due to the following matters:

1. *Slowing global economic growth, especially China as the main consumer of crude oil.*
2. *Continued increase of crude oil production of United States and non-OPEC countries.*
3. *Excess global supply of crude oil, due to increasing supply from Iran since the lifting of embargo against Iran.*
4. *Low crude oil demand in Europe and Asia, particularly from India and China.*

The low value of the average ICP obviously had an impact on oil and gas exploitation activities, especially in the upstream sector. Some of the Contractors of Cooperation Contract (PSC) reacted by revising the work plan and budget. Such actions had affected on the declining value of investments in upstream sector especially exploitation activities.

Compared to previous years, the value of investments in 2015 amounted to US\$ 15,312,68 million decreased by 24,87% compared to 2014. It was the largest decrease in last five years period. Exploitation activity in 2015 reflected the same picture. The activity of 2D seismic (km) decreased by 33,02%, while 3D seismic activities (km²) decreased by 60,81%. Realization of drilling exploration wells showed a decrease of 19,27% compared to 2014. The decline in exploration activities would make discovery of new reserves more difficult. Recorded in 2015, the decline in the proven reserves of oil amounted to 21,97 MMSTB (-0,61%) and a reduction in proven natural gas reserves of 2,31 TSCF (-2,30%).

Meanwhile, oil and gas production basically get a relatively small effect due to the natural decline that has occurred many years ago despite the efforts made by the government to pursue oil and gas

dilakukan oleh pemerintah untuk mengejar target produksi migas. Tercatat produksi minyak mentah dan kondensat tahun 2015 mengalami penurunan sebesar 2,98 ribu barel per hari (-0,38%) dibandingkan produksi tahun 2014. Sedangkan produksi gas bumi tahun 2015 mengalami penurunan sebesar 140,16 MMSCFD (-1,71%) dibandingkan produksi tahun 2014.

Sektor hilir migas memiliki pendekatan yang berbeda dengan sektor hulu, di mana pergerakan data biasanya dipengaruhi oleh tingkat konsumsi atau penjualan bahan bakar minyak (BBM) dan LPG. Secara agregat,

production target. Recorded production of crude oil and condensate in 2015 decreased by 2,98 thousand barrels per day (-0,38%) compared to production in 2014. Meanwhile, natural gas production in 2015 decreased by 140,16 MMSCFD (-1,71%) compared to production in 2014.

Downstream sector shows different progress than the upstream sector. The movement of data is usually influenced by the level of consumption or fuel oil (BBM) and LPG sales. In aggregate, the data fuel sales in 2015





data penjualan BBM tahun 2015 sebesar 67.509.826 kiloliter menurun 4,57% dari tahun sebelumnya yaitu sebesar 70.744.978 Kiloliter, hal ini dikarenakan perlambatan ekonomi yang terjadi pada tahun 2015. Namun demikian, seiring pencabutan subsidi Bensin jenis RON 88, terjadi peningkatan konsumsi Bensin jenis RON 92 dan RON 95 secara signifikan. Hal tersebut berbanding lurus dengan trend angka yang ditunjukkan oleh Hasil Produk Kilang dan kegiatan Impor BBM pada Bensin jenis RON 92 dan RON 95. Penjualan Bensin jenis RON 92 pada tahun 2015 membukukan catatan kenaikan sebesar 1.699.035 Kiloliter atau 159,85% dari tahun sebelumnya. Sedangkan penjualan Bensin jenis RON 95 pada tahun 2015 membukukan catatan kenaikan sebesar 123.870 Kiloliter atau 79,97% dari tahun sebelumnya.

Sejak dilaksanakannya program konversi Minyak Tanah ke LPG yang dimulai pada tahun 2009, penjualan LPG nasional mengalami trend yang terus meningkat. Tercatat pada tahun 2015, penjualan LPG meningkat sebesar 4,66% dari 6.093.138 Mton di tahun 2014 menjadi 6.376.990 Mton di tahun 2015. Peningkatan tersebut disertai dengan peningkatan impor LPG pada tahun 2015 sebesar 11,69% dibandingkan tahun sebelumnya. Peningkatan persentase angka impor LPG lebih besar dari peningkatan angka persentase penjualan LPG dikarenakan produksi LPG tahun 2015 mengalami penurunan dibandingkan produksi LPG tahun 2014 sebesar 104.952 Mton.

Di sisi lain, perkembangan data ekspor minyak mentah dan LNG cenderung stabil dikarenakan kegiatan ekspor minyak mentah dan LNG mengikuti skema kontrak jangka panjang. Kendati harga ICP terpukul sepanjang tahun 2015, ekspor minyak mentah tahun 2015 mengalami peningkatan yg cukup signifikan yaitu sebanyak 23,56% atau sebesar 21,93 juta barel dibandingkan tahun sebelumnya. Sementara itu ekspor LNG tahun 2015 menurun tipis 2,78% dibandingkan tahun sebelumnya meskipun produksi LNG mengalami kenaikan. Hal ini disebabkan oleh kebijakan pemerintah yang memprioritaskan penggunaan LNG untuk domestik.

amounted to 67,509,826 kiloliters decreased 4,57% from the previous year which amounted to 70,744,978 kiloliters. This is due to the economic slowdown that occurred in 2015. However, as the removal of subsidies on gasoline type RON 88, the consumption of RON 92 and RON 95 gasoline types has significantly increased. It is directly proportional to the trend of Refinery Products as well as import activity for RON 92 and RON 95 fuel types. Sales number of gasoline types of RON 92 in 2015 recorded incremental of 1,699,035 kiloliters, or 159,85% from the previous year, while sales of RON 95 gasoline types in 2015 recorded incremental of 123,870 kiloliters, or 79,97% from the previous year.

Since the implementation Conversion Program of kerosene to LPG which has started in 2009, sales of LPG nationwide experience an increasing trend. Recorded in 2015, LPG sales increased by 4,66% from 6,093,138 metric ton in 2014 to 6,376,990 million metric tons in 2015. The increase was concurrent with increase of LPG imports in 2015 amounted to 11,69% compared to the previous year. The percentage of increase in imported LPG was greater than the percentage of increase in LPG sales, because LPG production in 2015 decreased compared to the production of LPG in 2014 amounted to 104,952 metric ton.

On the other hand, crude oil and LNG export development tends to be stable due to the export scheme of long-term contracts for them. Although ICP dropped throughout 2015, crude oil exports in 2015 increased significantly by 23,56% or 21,93 million barrels compared to the previous year. Meanwhile LNG exports in 2015 slightly decreased 2,78% than the previous year despite the increase of LNG production. This is due to government policies that prioritize the use of LNG for domestic usage.

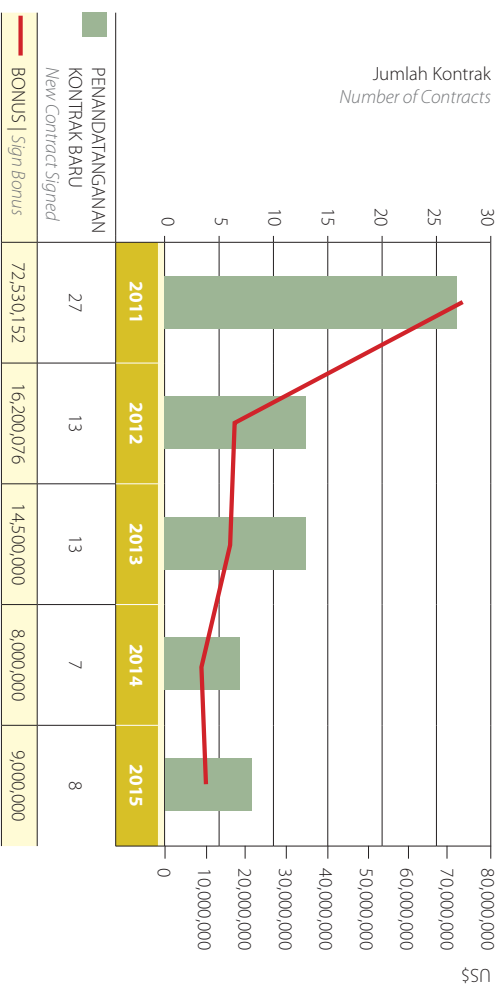


HULU UPSTREAM

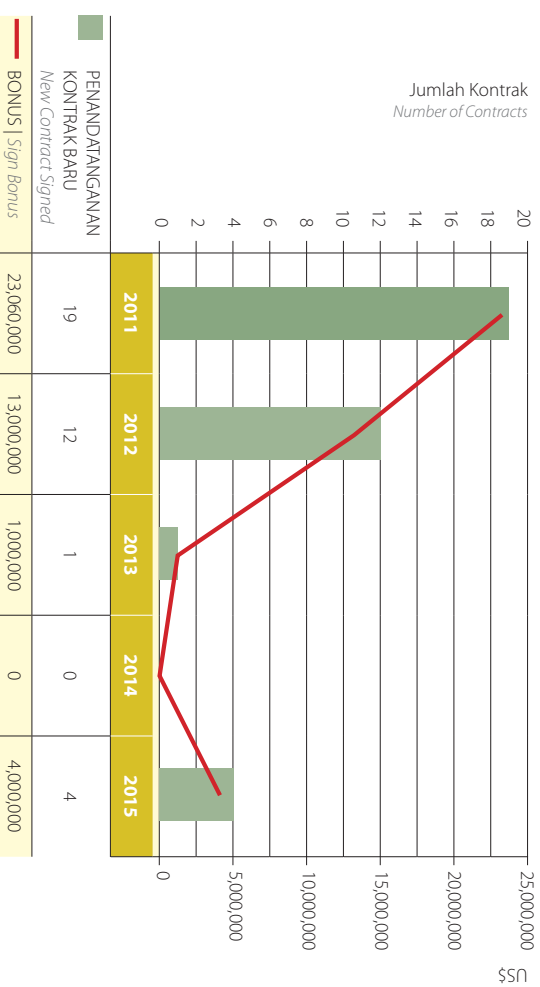
Direktorat Jenderal Minyak dan Gas Bumi
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PENANDATANGANNAN WILAYAH KERJA KONVENSIONAL MIGAS 2011-2015
Signing of Oil and Gas Conventional Working Areas 2011-2015



PENANDATANGANNAN WILAYAH KERJA NON KONVENSIONAL MIGAS 2011-2015
Signing of Oil and Gas Unconventional Working Area 2011-2015





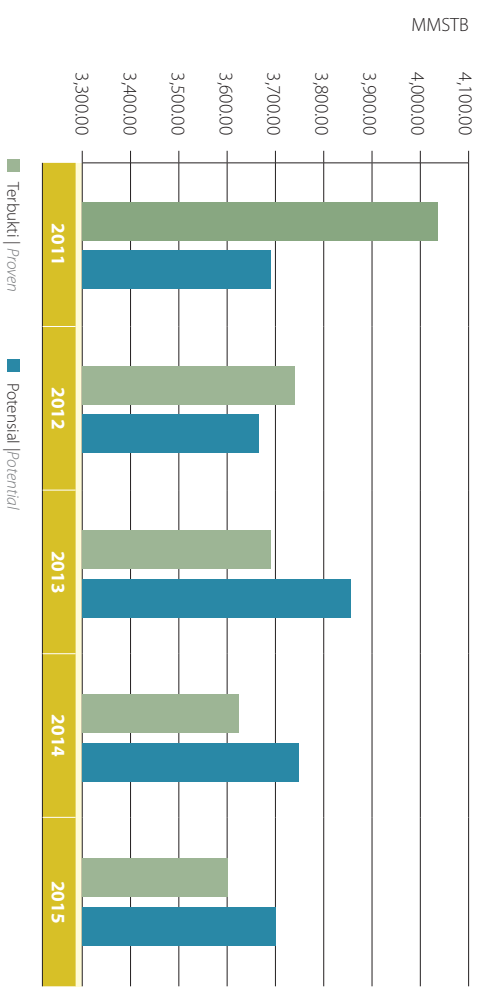
INVESTASI HULU MIGAS 2011-2015
Oil and Gas Upstream Investment 2011-2015

URAIAN Description	2011	2012	2013	2014	2015
HULU UPSTREAM	16,106.00	17,872.00	20,384.00	20,380.78	15,312.68
a. Eksplorasi Exploration	2,570.00	2,758.00	3,049.00	2,618.91	951.83
b. Pengembangan Development	3,140.00	3,297.00	4,122.00	4,087.43	3,055.42
c. Produksi Production	9,194.00	10,639.00	11,859.00	12,256.63	10,113.63
d. Administrasi Administration	1,202.00	1,178.00	1,354.00	1,417.82	1,191.80

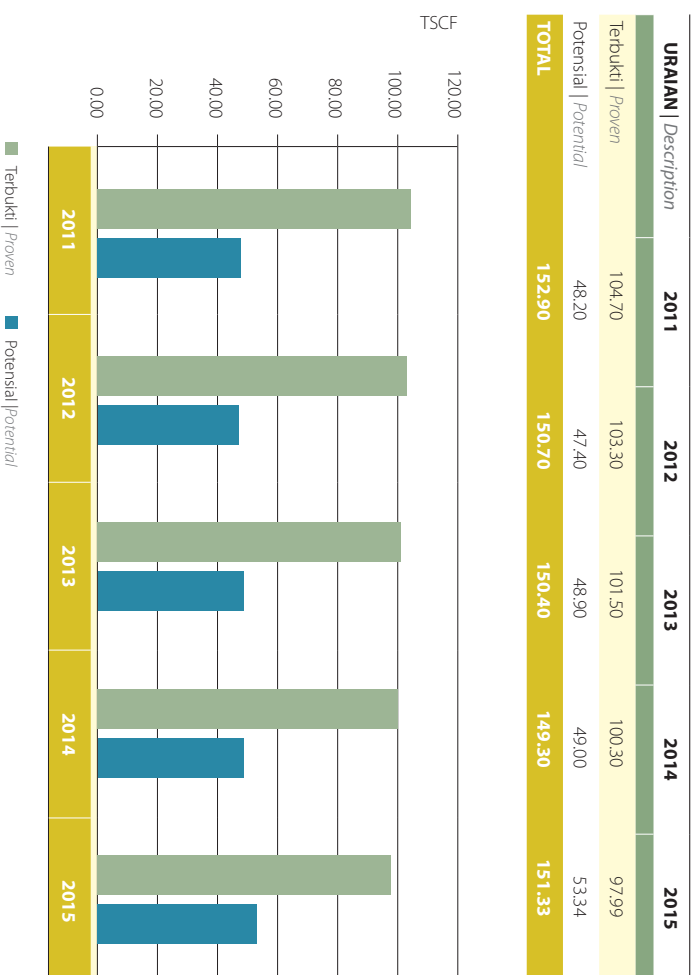


CADANGAN MINYAK BUMI INDONESIA 2011-2015
Indonesian Crude Oil Reserve 2011-2015

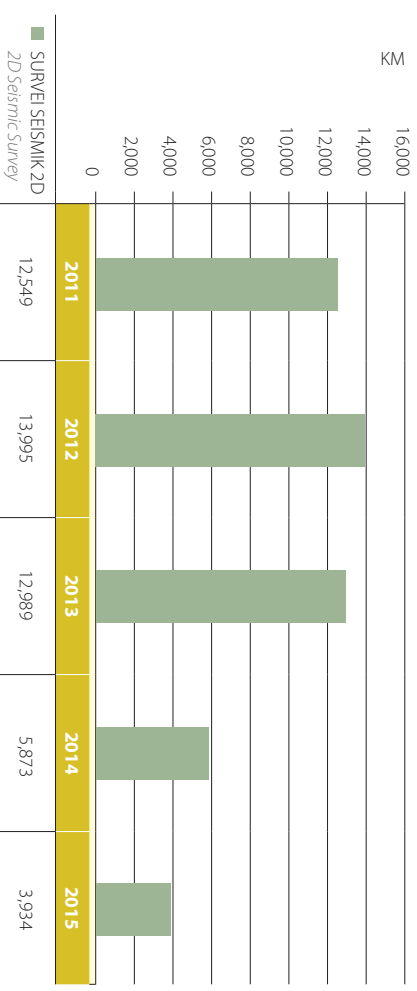
URAIAN Description	2011	2012	2013	2014	2015
Terbukti Proven	4,039.60	3,741.30	3,692.50	3,624.50	3,602.53
Potensial Potential	3,692.70	3,666.90	3,857.30	3,750.30	3,702.49
TOTAL	7,732.30	7,408.20	7,549.80	7,375.10	7,305.02



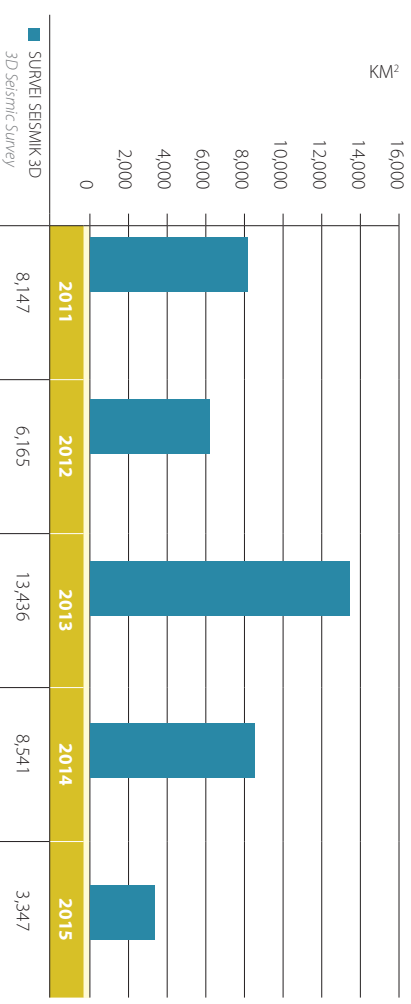
CADANGAN GAS BUMI INDONESIA 2011-2015
Indonesian Gas Reserve 2011-2015



GRAFIK SURVEI SEISMIK 2D (km) 2011-2015
Chart of 2D (km) Seismic Survey 2011-2015

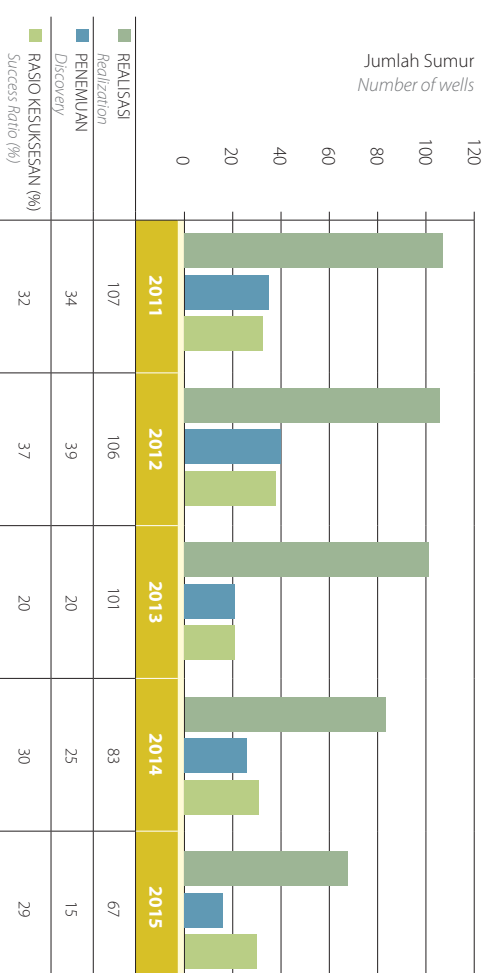


GRAFIK SURVEI SEISMIK 3D (km²) 2011-2015
Chart of 3D (km²) Seismic Survey 2011-2015





GRAFIK PEMBORAN SUMUR EKSPLORASI 2011-2015
Chart of Drilling of Exploratory Wells 2011-2015



HULU | UPSTREAM

PRODUKSI DAN PEMANFAATAN GAS BUMI 2015
Production and Utilization of Natural Gas 2015

MSCF

PERUSAHAAN Company	PRODUKSI BERSIH Net Production	PEMANFAATAN Utilization											TOTAL DIBAKAR Total Losses		% PENG- GUNAAN GAS % Gas Utilization	
		PENGUNGAN SENDIRI Own Use	PT PLN	GAS KOTA City Gas	PUPUK Fertilizer	PETRO KIMIA Petro Chemical	KILANG MINYAK Oil Refinery	LP/GAS PABRIK LP/Gas Plant	KONDENSASI Condensation	TRANSPORTASI GAS /BBG Gas/BBG Transportation	LNG (FEED)	LNG LOKAL LNG Domestic	PIPA GAS Pipeline Gas	PT PGN	PT KRAKATAU STEEL	INDUSTRI LAIN Other Industries
Pertamina																

I. Pertamina

Onshore

1.	ASSET 1 (Rantau, P. Susu, Jambi, Rantau, Unitisasi Sudan)	36,267,747	4,311,121	1,172,628	-	-	-	129,669	141,881	-	-	-	1,708,780	-	24,239,017	4,564,651	87.41
2.	ASSET 2 (Prabumulih, Pendopo, Uluau, Adera)	167,239,017	13,254,319	16,279,891	-	54,898,051	8,997,290	6,761,329	-	-	-	-	54,022,642	-	4,792,093	8,233,402	95.08
3.	ASSET 3 (Jatibarang, Subang, Tambun, Pondok Makmur)	125,294,688	8,783,332	28,658,162	62,634	16,113,489	6,196,066	1,054,169	1,948,794	1,368,226	-	-	985,953	3,574,553	39,362,250	17,187,061	86.28
4.	ASSET 4 (Cepu, Poleng, Sukowati 80%)	27,785,761	5,916,664	1,718,769	-	-	-	-	-	-	-	-	-	-	15,359,461	4,790,867	82.76
5.	ASSET 5 (Sangate, Bunyu, Sorong, Tanjung, Sanga-sanga)	5,529,663	2,738,069	2,341,764	-	-	-	-	-	-	-	-	-	-	-	449,830	91.87
Sub Total		362,116,876	35,003,505	50,171,214	62,634	71,011,540	15,193,356	7,945,167	2,090,675	1,368,226	-	-	56,717,375	3,574,553	83,752,821	35,225,811	90.27

II. Pertamina TAC

A. Onshore

1.	KSO Pertamina	3,706,353	821,420	-	-	-	-	-	-	-	-	-	-	-	-	2,884,933	22.16
2.	PMBS Jambi	41,549	-	-	-	-	-	-	-	-	-	-	-	-	-	41,549	-
3.	Senco	959,024	63,598	523,261	-	-	-	-	-	-	-	-	-	-	-	372,165	61.19
4.	Binaek Eka Kruh	73,000	12,000	-	-	-	-	-	-	-	-	-	-	-	-	61,000	16.44
5.	Samudera Energi Meruap	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.	Pilona Tanjung Lontar	365,000	24,400	-	-	-	-	-	-	-	-	-	-	-	-	340,600	6.68
7.	Elipse Energy	376,192	31,646	-	-	-	-	-	-	-	-	-	344,734	-	-	100,05 (188)	100.05
8.	Glam	840,910	11,622	688,823	-	-	-	-	-	-	-	-	-	-	-	140,465	83.30
Sub Total		6,362,028	964,686	1,212,084	-	-	-	-	-	-	-	-	344,734	-	-	3,840,524	39.63

B. Offshore

1.	Blue Sky Langsa	570,660	-	-	-	-	-	-	-	-	-	-	-	-	-	570,660	-
2.	Pertalihan Anebaara Natuna	1,682,857	808,765	-	-	-	-	-	-	-	-	-	-	-	-	874,092	48.06
Sub Total		2,253,517	808,765	-	-	-	-	-	-	-	-	-	-	-	-	1,444,752	35.89

III. JOB-PSC

A. Onshore

1.	Talisman (OK)	9932947	468438	-	-	2,424,439	-	-	-	-	-	-	-	-	-	40070	98.63	
2.	Golden Spike	162563	2444	-	-	-	-	-	-	-	-	-	-	-	-	160119	1.50	
3.	Medco E&P Tomori	49156542	835,209	-	-	-	-	-	-	-	42,292,235	-	-	-	-	6,029,098	87.73	
4.	Petrochina Salawati	1,547,499	386,897	307,448	-	-	-	-	-	-	-	-	-	-	-	853,154	44.87	
5.	Petrochina Tuban	1,873,259	746,284	-	-	-	-	-	905,649	-	-	-	-	-	-	221,326	88.18	
6.	Talisman Jambi Merang	34,315,141	1,378,453	15,822,297	1,230	-	-	-	-	-	-	-	-	143,429	307,913	-	90.29	
Sub Total		89,987,951	3,817,725	16,129,745	1,230	2,424,439	-	905,649	-	-	42,292,235	-	143,429	307,913	-	13,329,354	10,636,232	88.18

B. Offshore

1. EMP Gebang	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Pertamina + JOB + TAC	460,720,372	40,594,681	67,513,043	63,864	73,435,979	-	15,193,356	8,850,816	2,090,675	1,368,226	2,292,235	-	143,429	57,370,022	3,574,553	97,082,175	51,147,319	88.90



PRODUKSI DAN PEMANFAATAN GAS BUMI 2015
Production and Utilization of Natural Gas 2015

Lanjutan | Continued
MSCF

PERUSAHAAN Company	PRODUKSI BERSIH Net Production	PEMANFAATAN Utilization														TOTAL DIBAKAR Total Losses	%- PENG- GUNAAN GAS % Gas Utilization
		PENGUNAAN SENDIRI Own Use	PT PLN	GAS KOTA City Gas	PUPUK Fertilizer	PETRO KIMIA Petro Chemical	KILANG MINYAK Oil Refinery	LPG/LEX PABRIK LPG/lex Plant	KONDENSASI Condensation	TRANSPORTASI GAS / BKG Gas/BKG Transportation	LNG (FREE)	LNG LOKAL LNG Domestic	PIPA GAS Pipeline Gas	PTPN	PT KRAKATAU STEEL	INDUSTRI LAIN Other Industries	

IV. Production Sharing Contracts

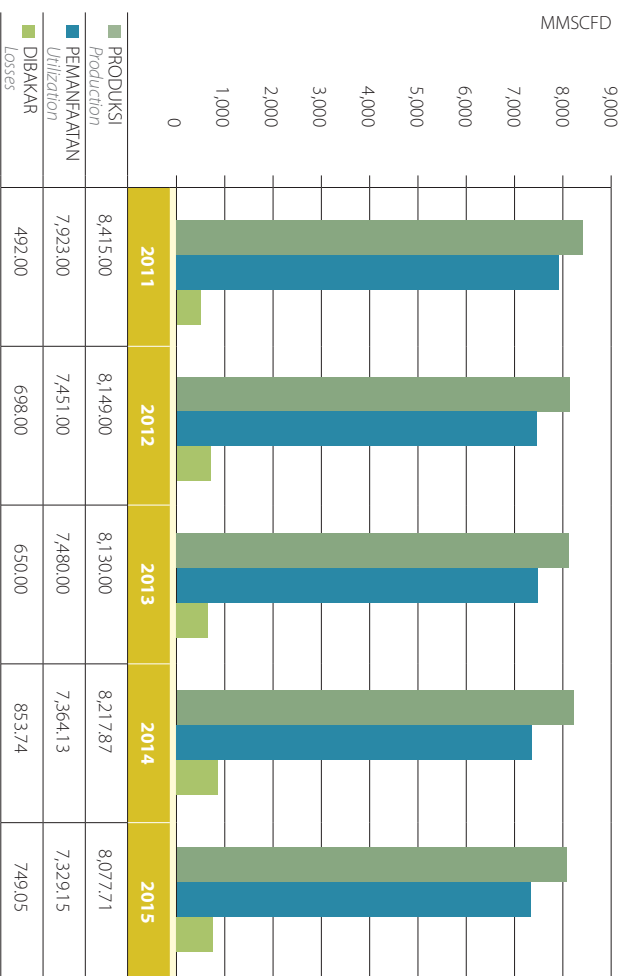
Onshore

1. Exxon Mobil	50,499,527	16,749,848	-	-	17,720,757	-	-	-	-	-	-	-	-	-	-	-	16,028,922	68.26
2. Mobil Cepu Ltd	6,500,730	430,014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,070,716	6.61
3. PT CPl	11,370,739	11,370,739	-	-	-	-	-	-	-	-	-	-	-	-	-	-	211,077	100.00
4. Petroseiat Ltd	211,140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.03
5. Conoco Phillips Grissik Ltd	393,303,868	5,274,150	12,093,664	-	-	-	-	-	-	-	-	-	74,473,499	151,018,548	-	83,859,367	66,584,641	83.07
6. ConocoPhillips South Jambi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. Medco E&P Indonesia Lematang	24,595,725	1,031,239	13,384,605	-	-	-	-	-	-	-	-	-	-	-	-	-	10,179,881	58.61
8. Medco E&P Indonesia (South Sumatra)	23,931,781	1,156,385	6,154,280	30,240	14,565,020	-	-	-	-	-	-	-	-	-	-	1,161,055	864,801	96.39
9. Medco E&P Indonesia (Rantau)	1,728,679	1,199,198	-	-	-	-	-	-	-	-	-	-	-	-	-	-	529,481	69.37
10. Medco E&P Indonesia Kalimantan	271,676	-	216,817	36,046	-	-	-	-	-	-	-	-	-	-	-	-	19,013	93.01
11. Kangsan Energy	88,559,119	1,852,747	28,325,211	-	22,286,505	-	-	-	-	-	-	-	-	-	-	34,743,104	1,351,552	98.47
12. Vico	114,590,826	9,478,316	101,831	-	9,722,929	5,459,267	-	227,845	671,003	-	86,154,998	-	-	-	-	3,419,391	254,094	99.78
13. Petrochina Bermuda	7,911,092	4,385,565	2,063,526	-	-	-	-	-	-	-	-	-	-	-	-	-	563,153	92.88
14. Petrochina Jabung	96,676,786	5,942,805	609,820	-	-	-	-	9,177,971	3,563,376	-	-	-	42,945,108	-	-	-	34,437,706	64.38
15. Petrochina Bangko	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16. Energy Equity Epic (Sengkang)	17,292,617	67,854	17,129,959	48,371	-	-	-	-	-	-	-	-	-	-	-	-	45,433	99.74
17. Lapindo Bontas	1,633,557	26,631	28,466	29,270	-	-	-	-	-	-	-	-	-	824,441	-	-	714,749	100.00
18. Citic Stream Energy Ltd (Cse)	646,142	540,912	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105,230	83.71
19. Montfor Oil Kuala Tungkal	304,608	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	304,608	-
20. Benua Taka	308,961	5,684	325,333	-	-	-	-	-	-	-	-	-	-	-	-	-	(22,056)	107.14
21. Kallia (Bentu)	17,292,399	2,212	11,439,859	-	-	-	-	-	-	-	-	-	-	-	5,839,719	-	10,609	99.94
22. Triangle Pae	-	62,904	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62,904	-
23. Sele Raja Mearngn Dua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24. Tarely NV	546,120	45,964	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500,156	84.2
25. PT Triara Bumi Petroleum	80,408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80,408	99.98
26. Mahabhan Kalimantan Inv.	115,748	2,150	111,295	-	-	-	-	-	22,77	-	-	-	-	-	-	-	26	-
Sub total	858,425,552	59,562,413	91,984,729	144,927	64,295,211	5,459,267	-	9,405,816	4,236,656	-	86,154,998	-	117,418,607	151,842,989	-	129,737,385	138,182,355	83.90

Offshore

1. Premier Oil	82,803,523	3,240,367	-	-	-	-	-	-	-	-	-	-	78,310,487	-	-	-	1,252,669	98.49
2. Conoco Phillips Natuna	123,675,370	16,669,108	-	-	-	-	-	5,197,778	-	-	-	-	103,530,224	-	-	-	(1,721,740)	101.39
3. Star Energi (Kakap)	9,949,016	1,655,837	-	-	-	-	-	-	-	-	-	-	7,276,404	-	-	-	1,016,775	89.78
4. EIM Malacca Strait	2,600,013	746,884	617,888	-	-	-	-	-	-	-	-	-	-	-	-	865,381	369,860	85.77
5. CNOOC SCS	40,807,264	11,963,686	17,836,337	-	-	-	-	-	-	-	-	-	-	-	-	-	11,007,241	73.03
6. Pertamina Hulu Energi (PHE) WMO	37,895,349	838,809	29,457,023	-	-	-	-	-	-	-	-	-	-	-	-	2,453,989	734,847	98.06
7. Pertamina Hulu Energi (PHE) OKWJ	65,421,083	8,097,527	33,205,726	-	14,693,405	-	7,500,953	-	321,715	27,446	-	-	-	-	-	1,574,311	97,59	97.59
8. BP Berau (Tangguh)	464,197,662	35,800,000	-	-	-	-	-	-	1,125,446	-	327,277,219	45,025,981	-	-	-	-	54,968,416	88.16
9. Camar Res. Canada	966,441	9,275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	957,166	0.96
10. Chevron Ind.Co	36,021,601	6,829,766	-	-	2,565,525	-	16,840,348	550,461	62,601	-	7,085,507	-	-	-	-	-	1,696,393	95.29
11. Chevron Makasar	4,950,220	1,465,235	-	-	883,829	-	-	14,342	12,040	-	2,202,873	-	-	-	-	-	153,901	96.89
12. Total E & P Indonesia	646,688,481	21,761,925	9,062,279	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13. Santos (Madura Offshore)	25,172,523	941,346	8,331,726	-	49,606,443	26,091,371	-	-	-	454,492,606	-	61,039,835	-	15,875,104	-	-	15,875,104	99.90
14. Santos (Sampang)	22,694,452	491,289	22,022,249	-	-	-	-	-	-	-	-	-	-	-	-	-	1,809,914	99.20
15. Salek Pangkah	17,451,358	2,229,543	14,003,054	-	-	-	-	782,124	-	-	-	-	-	-	-	-	436,637	97.50
16. Pearl Oil Sebulu	34,997,280	1,093,780	-	-	32,185,932	-	-	-	-	-	-	-	-	-	-	-	1,891,223	95.09
17. Petronas Carigali Ketapang II Ltd.	1,224,890	127,020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,097,870	103.7
18. Petronas Carigali Murah Ltd.	11,704,380	167,800	11,450,177	-	-	-	-	-	-	-	-	-	-	-	-	-	86,403	99.26
Sub total	1,629,220,037	114,189,197	145,986,459	-	100,328,134	26,091,371	24,341,301	6,544,705	1,521,802	27,446	791,276,205	106,065,816	189,117,115	20,285,785	-	19,586,397	84,071,958	94.85
Total Production Sharing	2,487,665,389	173,711,610	237,971,188	144,927	164,623,345	31,550,638	24,341,301	15,950,521	5,758,458	27,446	877,431,203	106,065,816	306,535,722	172,128,774	-	149,323,782	222,254,313	91.07
Grand Total	2,948,345,761	214,306,291	305,484,231	208,791	238,059,324	31,550,638	39,534,657	24,801,337	7,849,133	1,395,672	919,723,488	106,065,816	306,679,151	229,498,796	3,574,553	246,405,957	273,401,632	90.73
Grand Total (MSCFD)	8,077,714	587,141	836,943	572	652,177	86,440	108,314	67,949	21,504	3,824	2,519,790	290,591	840,217	628,764	9,793	675,085	749,046	90.73

GRAFIK PRODUKSI DAN PEMANFAATAN GAS BUMI 2011-2015
Chart of Production and Utilization of Natural Gas 2011-2015



PRODUKSI MINYAK MENTAH DAN KONDENSAT 2015
Production of Crude Oil and Condensate 2015

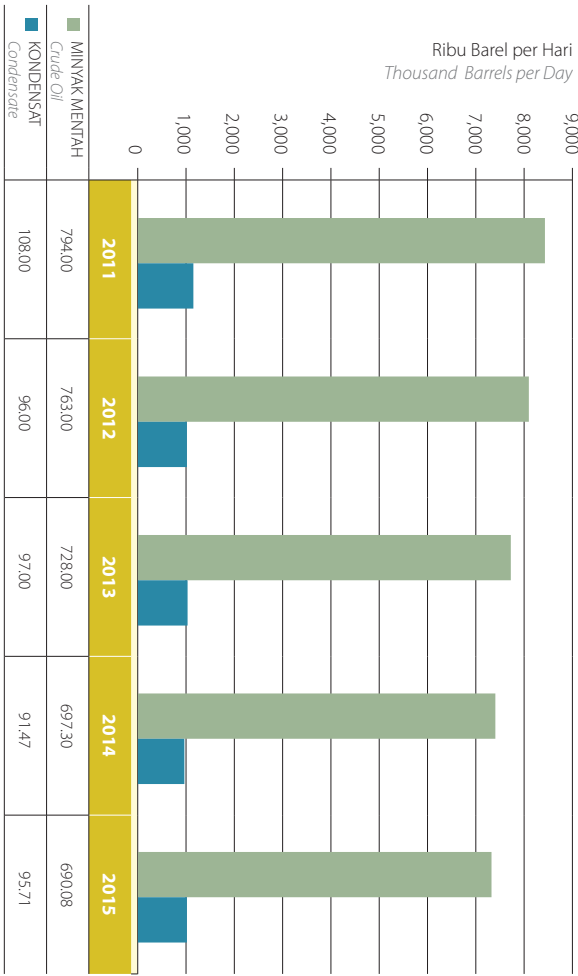
PERUSAHAAN Company	JUMLAH PRODUKSI DALAM SETAHUN Total Production in a Year			PRODUKSI HARIAN RATA-RATA Average Daily Production		
	MINYAK Crude Oil	KONDENSAT Condensate	TOTAL	MINYAK Crude Oil	KONDENSAT Condensate	TOTAL
I. PT. Pertamina Ep & Mitra	36,679,476	0	36,679,476	100,492	0	100,492
II. JOB PSC						
<i>A. Job PSC (Onshore)</i>						
1 JOB PERTAMINA - GOLDEN SPIKE	186,838	0	186,838	512	0	512
2 JOB PERTAMINA - MEDCO TOMORI LTD	292,605	1,224,556	1,517,161	802	3,355	4,157
3 JOB PERTAMINA - PETROCHINA EAST JAVA	1,791,016	0	1,791,016	4,907	0	4,907
4 JOB PERTAMINA - PETROCHINA SALAWATI	647,093	0	647,093	1,773	0	1,773
5 JOB PERTAMINA - TALISMAN (JM) LTD	0	1,612,104	1,612,104	0	4,417	4,417
6 JOB PERTAMINA - TALISMAN (OK) LTD	856,973	50,080	907,053	2,348	137	2,485
Sub Total JOB PSC Onshore	3,774,525	2,886,740	6,661,265	10,341	7,909	18,250
<i>B. JOB PSC (Offshore)</i>						
1 JOB Pertamina - EMP Gebang	0	0	0	0	0	0
Sub Total JOB PSC Offshore	0	0	0	0	0	0
Sub Total JOB PSC Onshore & Offshore	3,774,525	2,886,740	6,661,265	10,341	7,909	18,250
III. KKKS / PSC						
<i>A. KKKS / PSC (Onshore)</i>						
1 BOB PERTAMINA BUMI SIAK PUSAKO	4,782,156	0	4,782,156	13,102	0	13,102
2 CITIC SERAM ENERGY LMD	1,211,191	0	1,211,191	3,318	0	3,318
3 PT CHEVRON PACIFIC INDONESIA	99,889,838	2,180,011	102,069,849	273,671	5,973	279,643
4 PT CHEVRON PACIFIC INDONESIA C & T (SIAK)	0	0	0	0	0	0
5 CONOCO PHILIPS (GRSSIK) LTD.	176,657	2,659,744	2,836,401	484	7,287	7,771
6 CONOCO PHILIPS SOUTH JAMBI	0	0	0	0	0	0
7 EXXONMOBIL OIL INDONESIA / PHE NSB-NSO	0	561,170	561,170	0	1,537	1,537
8 KALIREZ PETROLEUM (SERAM) LTD	130,224	0	130,224	357	0	357
9 KANGKAN ENERGY INDONESIA LTD.	0	28,849	28,849	0	79	79
10 LAPINDO BRANTAS INC	0	0	0	0	0	0
11 PT MEDCO LEMATANG	0	0	0	0	0	0
12 PT MEDCO E&P INDONESIA	4,043,184	0	4,043,184	11,077	0	11,077
13 PT MEDCO E&P INDONESIA	1,877,261	0	1,877,261	5,143	0	5,143
14 MEDCO KAMPAR	503,658	0	503,658	1,380	0	1,380
15 PT MEDCO E&P TARAKAN	666,260	0	666,260	1,825	0	1,825
16 EXXONMOBIL CEPU LTD.	26,094,070	0	26,094,070	71,491	0	71,491
17 MONITDOK/PEARL OIL (TUNGKAL) LTD	503,406	0	503,406	1,379	0	1,379
18 PETROCHINA BANGKO LTD	2,921	0	2,921	8	0	8
19 PETROCHINA INTERNATIONAL BERMUJDA LTD	1,459,747	304,503	1,764,250	3,999	834	4,834
20 PETROCHINA INTERNATIONAL LABUNG LTD	1,918,638	3,275,382	5,194,020	5,257	8,974	14,230
21 PETROSLAT	92,062	0	92,062	252	0	252

PRODUKSI MINYAK MENTAH DAN KONDENSAT 2015
Production of Crude Oil and Condensate 2015

Lanjutan | Continued
Barrels

PERUSAHAAN <i>Company</i>	JUMLAH PRODUKSI DALAM SETIAHUN <i>Total Production in a Year</i>			PRODUKSI HARIAN RATA-RATA <i>Average Daily Production</i>		
	MINYAK <i>Crude Oil</i>	KONDENSAT <i>Condensate</i>	TOTAL	MINYAK <i>Crude Oil</i>	KONDENSAT <i>Condensate</i>	TOTAL
22. PT. SARANA PEMBANGUNAN RIAU *)	142,139	0	142,139	389	0	389
23. SELE RAYA	382,995	0	382,995	1,049	0	1,049
24. TRIANGLE (PASE)	0	0	0	0	0	0
25. PT WICO INDONESIA	3,948,606	1,736,738	5,685,344	10,818	4,758	15,576
26. PT SUMATERA PERSADA ENERGI	118,189	0	118,189	324	0	324
27. EMP TONGA (EX. MOSES PETROLEUM)	3,733	0	3,733	10	0	10
28. ENERGY EQUITY EPIC (SENGANG) PTY. LTD.	0	140	140	0	0	0
29. TATELY NV	341,277	0	341,277	935	0	935
30. PHE SIAK	628,478	0	628,478	1,722	0	1,722
31. TIARA BUMI	150,858	0	150,858	413	0	413
Sub Total KKKS / PSC (Onshore)	149,067,548	10,746,537	159,814,085	408,404	29,443	437,847
B. KKKS / PSC (Offshore)						
1. BP TANGGUH	0	2,107,480	2,107,480	0	5,774	5,774
2. CNOOC S.E.S LTD	12,078,879	0	12,078,879	33,093	0	33,093
3. CAMAR RESOURCES CANADA	170,308	0	170,308	467	0	467
4. CHEVRON INDONESIA COMPANY	6,904,683	390,375	7,295,058	18,917	1,070	19,986
5. CHEVRON MAKASSAR LTD.	12,133,745	14,350	1,228,095	3,325	39	3,365
6. CONOCO PHILLIPS INDONESIA LTD	8,338,262	0	8,338,262	22,845	0	22,845
7. SAKA INDONESIA PANGKAH LTD.	1,826,848	0	1,826,848	5,005	0	5,005
8. PHE WMO / KODECO ENERGY CO LTD	4,907,188	3,082	4,910,270	13,444	8	13,453
9. EMP MALACCA STRAIT S.A (EX KONDUR)	1,414,295	0	1,414,295	3,875	0	3,875
10. PERTAMINA HULU ENERGY WEST JAVA LTD	14,554,141	57,259	14,611,400	39,874	157	40,031
11. PREMIER OIL NATUNA SEA BV	227,778	297,391	525,169	624	815	1,439
12. SANTOS (SAMPANG) PTY. LTD.	413,828	16,311	430,139	1,134	45	1,178
13. STAR ENERGY (KAKAP) LTD	1,142,343	126,490	1,268,833	3,130	347	3,476
14. TOTAL E&P INDONESIA	7,300,833	18,256,254	25,557,087	20,002	50,017	70,019
15. PEARL OIL (SEBUKU) Ltd.	0	32,242	32,242	0	88	88
16. MANHATTAN KALIMANTAN INVESTMENT	0	1,014	1,014	0	3	3
17. PETRONAS CARIGALI KETAPANG II	1,864,015	0	1,864,015	5,107	0	5,107
Sub Total KKKS / PSC (Offshore)	62,357,146	21,302,248	83,659,394	170,841	58,362	229,204
Sub Total KKKS / PSC (Onshore + Offshore)	211,424,694	32,048,785	243,473,479	579,246	87,805	667,051
Total Indonesia	251,878,695	34,935,525	286,814,220	690,079	95,714	785,792

GRAFIK PRODUKSI MINYAK MENTAH DAN KONDENSAT 2011-2015
Chart of Production of Crude Oil and Condensate 2011-2015





HARGA MINYAK MENTAH INDONESIA 2015

Indonesian Crude Oil Price 2015

(ICP) (US\$/Bbl)

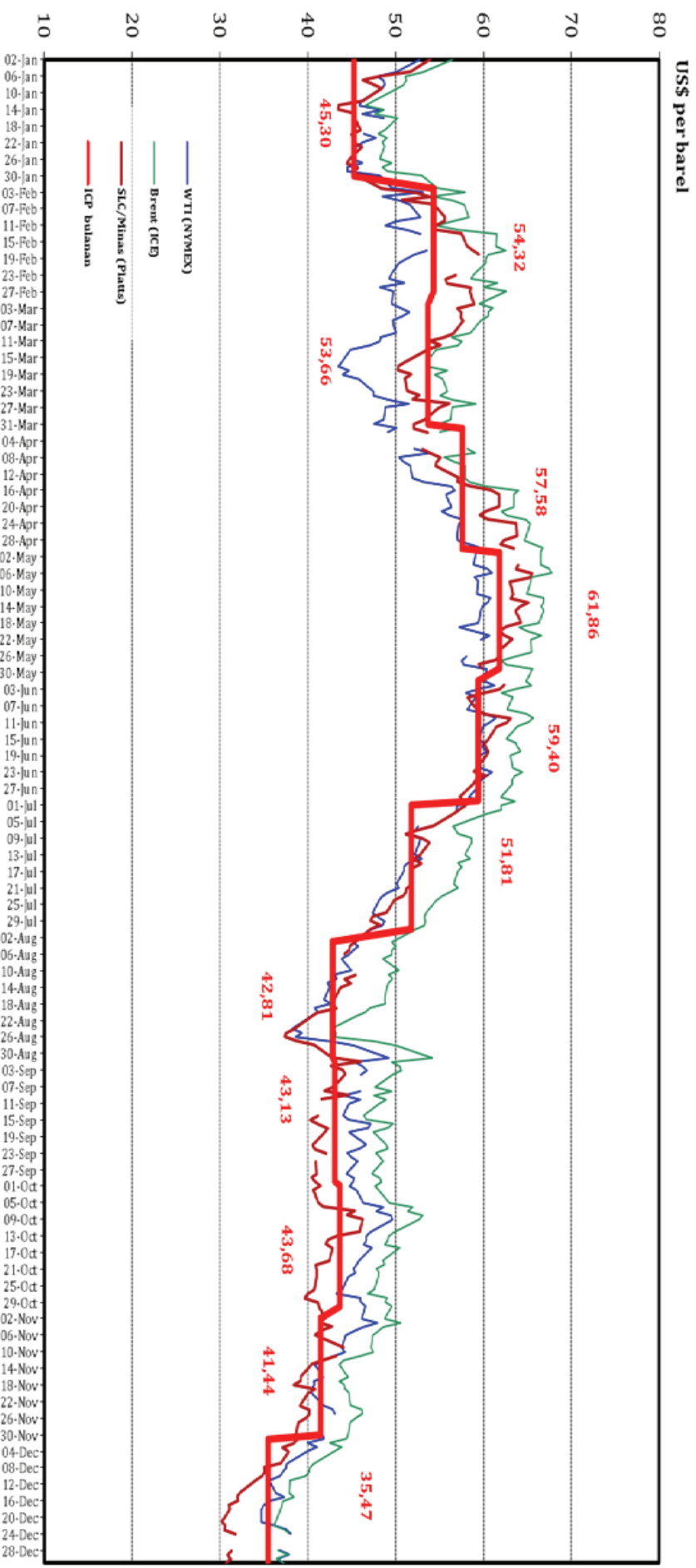
PERKEMBANGAN HARGA MINYAK MENTAH INDONESIA (ICP) (US\$/BBL) Crude Oil Price Development in Indonesia (ICP) (US\$/BBL)													
MINYAK MENTAH Crude Oil	2015												RATA-RATA Average Jan'15 s/d Des'15
	Jan	Feb	Mar	Apr	Mei	Jun	Juli	Agst	Sep	Ok	Nov	Des	
1 SLC	45.56	54.11	54.19	59.92	62.70	59.54	51.91	43.21	42.96	42.92	41.03	34.61	49.39
2 Arjuna	44.79	53.69	52.63	55.86	60.93	58.67	50.86	41.84	42.76	43.72	41.33	35.45	48.54
3 Ataka	47.38	56.36	55.21	58.47	63.66	61.55	53.98	44.75	45.54	46.49	43.72	37.27	51.20
4 Cirta	45.82	53.69	52.41	55.49	61.02	58.60	51.20	41.78	42.46	42.77	39.87	33.50	48.22
5 Duri	44.75	55.10	52.53	54.64	60.75	58.49	51.47	42.11	41.04	40.55	37.42	32.34	47.60
6 Wuluri	45.37	53.91	53.56	55.99	61.15	58.76	51.37	41.97	42.61	42.92	40.02	33.63	48.44
7 Belida	48.85	57.57	56.49	59.74	65.35	63.09	55.38	46.04	46.84	47.83	45.43	38.81	52.62
8 Seripah Condensate	48.09	57.33	57.41	60.17	64.86	63.23	56.00	46.06	46.75	48.08	45.94	41.09	52.92
9 Anoa	47.78	56.76	55.61	58.87	64.06	61.95	54.38	45.15	45.94	46.89	44.12	37.67	51.60
10 Anun Condensate	48.09	57.33	57.41	60.17	64.86	63.23	56.00	46.06	46.75	48.08	45.94	41.09	52.92
11 Badak	47.38	56.36	55.21	58.47	63.66	61.55	53.98	44.75	45.54	46.49	43.72	37.27	51.20
12 Bekapai	47.38	56.36	55.21	58.47	63.66	61.55	53.98	44.75	45.54	46.49	43.72	37.27	51.20
13 Belanak	39.83	48.73	47.67	50.90	55.97	53.71	45.90	36.88	37.80	38.76	36.37	30.49	43.58
14 Benayan	43.60	52.15	52.23	57.96	60.74	57.58	49.95	41.25	41.00	40.96	39.07	32.65	47.43
15 Bonang Return Condensate (BRC)	43.23	55.39	55.38	57.56	60.04	58.89	51.15	43.76	44.81	46.92	46.95	43.68	50.65
16 Bula	44.25	54.60	52.03	54.14	60.25	57.99	50.97	41.61	40.54	40.05	36.92	31.84	47.10
17 Bunyu	45.56	54.11	54.19	59.92	62.70	59.54	51.91	43.21	42.96	42.92	41.03	34.61	49.39
18 Camar	45.17	54.07	53.01	56.24	61.31	59.05	51.24	42.22	43.14	44.10	41.71	35.83	48.92
19 Cepu	40.15	49.05	47.99	51.22	56.29	54.03	46.22	37.20	38.12	39.08	36.69	30.81	43.90
20 Geragai/Makmur	45.75	54.30	54.38	60.11	62.89	59.73	52.10	43.40	43.15	43.11	41.22	34.80	49.58
21 Geragai Condensate/Makmur Condensate	42.97	55.13	55.12	57.30	59.78	58.63	50.89	43.50	44.55	46.66	46.69	43.42	50.39
22 Handil Mix	44.94	53.84	52.78	56.01	61.08	58.82	51.01	41.99	42.91	43.87	41.48	35.60	48.69
23 Jambi	45.75	54.30	54.38	60.11	62.89	59.73	52.10	43.40	43.15	43.11	41.22	34.80	49.58
24 Jabang	45.56	54.11	54.19	59.92	62.70	59.54	51.91	43.21	42.96	42.92	41.03	34.61	49.39
25 Jene/Pendopo	45.56	54.11	54.19	59.92	62.70	59.54	51.91	43.21	42.96	42.92	41.03	34.61	49.39
26 Kaji/Mata	45.96	54.51	54.59	60.32	63.10	59.94	52.31	43.61	43.36	43.32	41.43	35.01	49.79
27 Kerapu	48.51	57.23	56.15	59.40	65.01	62.75	55.04	45.70	46.50	47.49	45.09	38.47	52.28
28 Klamono	44.25	54.60	52.03	54.14	60.25	57.99	50.97	41.61	40.54	40.05	36.92	31.84	47.10

Lanjutan (Continued)
(ICP) (US\$/Bbl)

PERKEMBANGAN HARGA MINYAK MENTAH INDONESIA (ICP) (US\$/BBL) Crude Oil Price Development in Indonesia (ICP) (US\$/BBL)													
MINYAK MENTAH Crude Oil	2015												RATA-RATA Average Jan'15 s/d Des'15
	Jan	Feb	Mar	Apr	Mei	Jun	Juli	Agst	Sep	Ok	Nov	Des	
29 Komplek Palembang Selatan (KPS)/Air Serdang/Guruh	43.05	51.95	50.89	54.12	59.19	56.93	49.12	40.10	41.02	41.98	39.59	33.71	46.80
30 Lalang	45.61	54.16	54.24	59.97	62.75	59.59	51.96	43.26	43.01	42.97	41.08	34.66	49.44
31 Langsa	46.98	55.96	54.81	58.07	63.26	61.15	53.58	44.35	45.14	46.09	43.32	36.87	50.80
32 Lirik	45.45	54.00	54.08	59.81	62.59	59.43	51.80	43.10	42.85	42.81	40.92	34.50	49.28
33 Madura/Poeng	44.92	53.82	52.76	55.99	61.06	58.80	50.99	41.97	42.89	43.85	41.46	35.58	48.67
34 Mengoepeh	45.75	54.30	54.38	60.11	62.89	59.73	52.10	43.40	43.15	43.11	41.22	34.80	49.58
35 Mesui	44.21	53.19	52.04	55.30	60.49	58.38	50.81	41.58	42.37	43.32	40.55	34.10	48.03
36 Mudi Mix	44.49	53.39	52.33	55.56	60.63	58.37	50.56	41.54	42.46	43.42	41.03	35.15	48.24
37 NSC/Karapa/Arbei	47.27	56.25	55.10	58.36	63.55	61.44	53.87	44.64	45.43	46.38	43.61	37.16	51.09
38 Pagerungan Condensate	47.34	56.58	56.66	59.42	64.11	62.48	55.25	45.31	46.00	47.33	45.19	40.34	52.17
39 Pam. Luara/Sengat Mix/Luarburungan	45.66	54.21	54.29	60.02	62.80	59.64	52.01	43.31	43.06	43.02	41.13	34.71	49.49
40 Pangkah	43.49	52.39	51.33	54.56	59.63	57.37	49.56	40.54	41.46	42.42	40.03	34.15	47.24
41 Rambat/Tempino	45.75	54.30	54.38	60.11	62.89	59.73	52.10	43.40	43.15	43.11	41.22	34.80	49.58
42 Rimauf/Tabuhan	45.46	54.01	54.09	59.82	62.60	59.44	51.81	43.11	42.86	42.82	40.93	34.51	49.29
43 Sangatta	45.56	54.11	54.19	59.92	62.70	59.54	51.91	43.21	42.96	42.92	41.03	34.61	49.39
44 Selat Panjang	45.56	54.11	54.19	59.92	62.70	59.54	51.91	43.21	42.96	42.92	41.03	34.61	49.39
45 Sepingan Yakin Mix	44.79	53.69	52.63	55.86	60.93	58.67	50.86	41.84	42.76	43.72	41.33	35.45	48.54
46 South Jambi Condensate	46.15	55.39	55.47	58.23	62.92	61.29	54.06	44.12	44.81	46.14	44.00	39.15	50.98
47 Tanjung	45.75	54.30	54.38	60.11	62.89	59.73	52.10	43.40	43.15	43.11	41.22	34.80	49.58
48 Tialang Akar Pendopo (TAP)/Air Hitam	43.26	52.16	51.10	54.33	59.40	57.14	49.33	40.31	41.23	42.19	39.80	33.92	47.01
49 Tika	41.75	52.10	49.53	51.64	57.75	55.49	48.47	39.11	38.04	37.55	34.42	29.34	44.60
50 Udag	45.64	54.19	54.27	60.00	62.78	59.62	51.99	43.29	43.04	43.00	41.11	34.69	49.47
51 Walio Mix	42.74	51.64	50.58	53.81	58.88	56.62	48.81	39.79	40.71	41.67	39.28	33.40	46.49
52 West Sano	46.73	55.71	54.56	57.82	63.01	60.90	53.33	44.10	44.89	45.84	43.07	36.62	50.55
Rata - Rata Tertinggi													49.21



PERKEMBANGAN HARGA MINYAK INDONESIA & MINYAK UTAMA DUNIA
(JANUARI 2015 - DESEMBER 2015/ HARIAN)
Price Developments of Indonesian Crude Oil & World Major Crude Oil
(January 2015 - December 2015 / Daily)





HILIR DOWNSTREAM

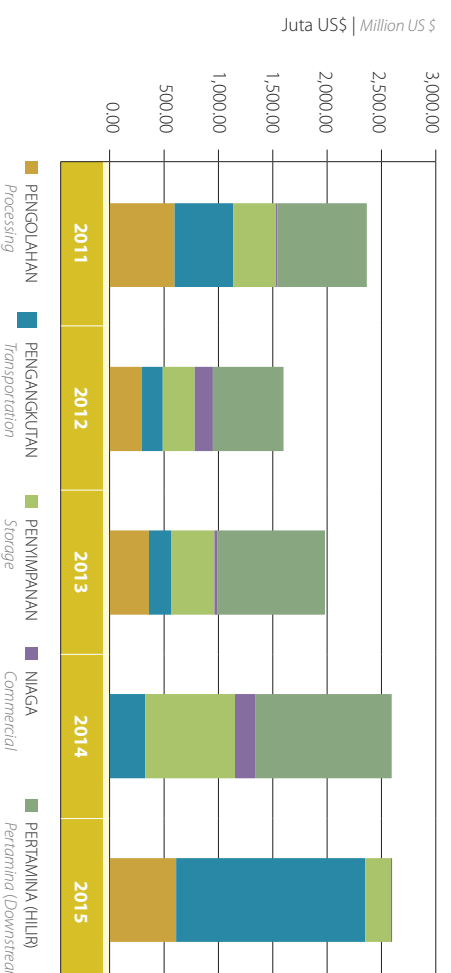
Direktorat Jenderal Minyak dan Gas Bumi
Kementerian Energi dan Sumber Daya Mineral

*Directorate General of Oil And Gas
Ministry of Energy and Mineral Resources*

INVESTASI HILIR MIGAS 2011-2015 Oil and Gas Downstream Investment 2011-2015

URAIAN Description	2011	2012	2013	2014	2015
HILIR Downstream	2,382.05	1,608.36	1,994.73	2,613.84	2,617.77
a. PENGOLAHAN Processing	598.88	296.13	363.84	0.00	615.15
b. PENGANGKUTAN Transportation	545.90	195.58	203.62	328.30	1,751.89
c. PENYIMPANAN Storage	394.30	297.11	403.14	830.29	238.99
d. NIAGA Commercial	11.41	167.61	24.13	187.92	11.74
e. PERTAMINA (HILIR) Pertamina (Downstream)	831.56	651.93	1,000.00	1,267.33	0.00

GRAFIK INVESTASI HILIR MIGAS 2011-2015
Chart of Oil and Gas Downstream Investment 2011-2015





PENGOLAHAN MINYAK MENTAH INDONESIA 2011-2015

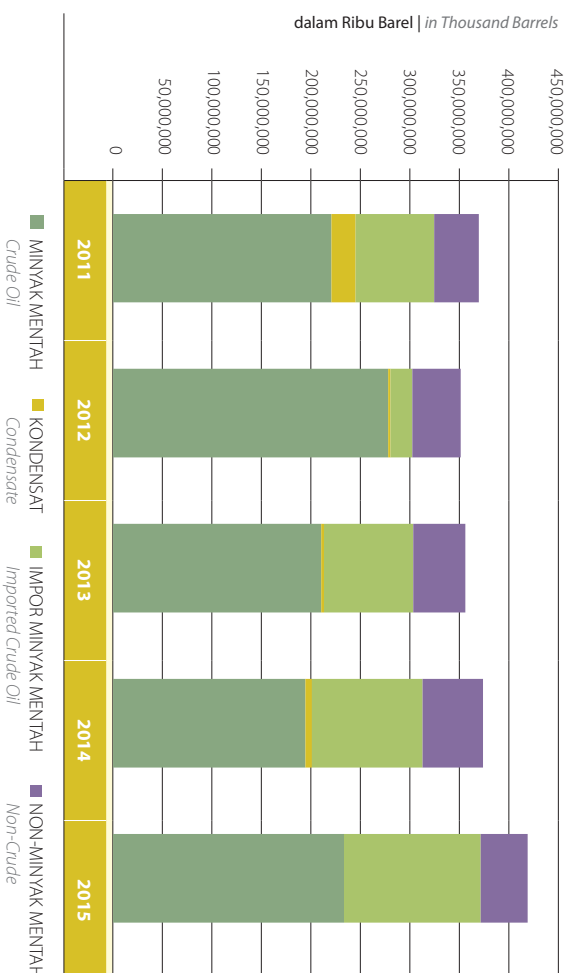
Indonesian Crude Oil Processing 2011-2015

PRODUK Products	2011	2012	2013	2014	2015
dalam Ribuan Barrel in Thousand Barrels					
MINYAK MENTAH Crude Oil	218.626.03	275.050.52	208.074.71	192.156.74	231.192.72
KONDENSAT Condensate	24.099.02	2.489.83	3.067.31	6.531.21	-
IMPOR MINYAK MENTAH Imported Crude Oil	78.276.47	21.718.73	88.993.66	110.757.37	136.598.86
NON-MINYAK MENTAH Non-Crude	44.810.24	48.596.32	52.304.80	60.346.89	47.018.80
Total	365.811.75	347.855.41	352.440.48	369.792.21	414.810.38

Data Unaudited

GRAFIK PENGOLAHAN MINYAK MENTAH INDONESIA 2011-2015

Chart of Indonesian Crude Oil Processing 2011-2015



HASIL PENGOLAHAN MINYAK INDONESIA 2011-2015

Indonesian Refined Products 2011-2015

PRODUK Products	2011	2012	2013	2014	2015
dalam Ribuan Barrel in Thousand Barrels					
A. BAHAN BAKAR Fuels					
Avtur	-	-	-	-	-
M. Bensin RON88	17.060.98	19.050.03	18.623.48	19.938.46	20.239.51
Kerosene	64.460.02	67.683.71	67.819.01	70.828.54	71.732.60
Gas Oil/ADO/HSD	14.378.12	10.807.63	9.614.33	7.332.29	4.977.11
Diesel Oil/IDO/MDF	119.568.24	122.099.35	122.907.40	129.501.56	129.305.98
Fuel Oil/DCO/FO/MFO	1.351.54	1.139.16	927.46	1.107.17	972.47
Fuel Oil/DCO/FO/MFO	20.276.34	15.042.80	13.878.81	12.243.15	11.978.51
Sub Total	237.095.24	235.822.68	233.770.49	240.951.17	239.206.18
BAHAN BAKAR KHUSUS Special Fuel					
M. Bensin RON95	736.38	51.409	566.46	545.07	627.34
M. Bensin RON 92	2.445.50	2.486.95	2.651.45	3.629.49	8.725.18
M. Bensin RON 100	-	-	-	0.27	45.00
Pertadex	28.16	122.34	516.91	381.64	242.47
Sub Total	3.210.04	3.123.37	3.734.83	4.556.46	9.639.99
TOTAL BAHAN BAKAR Total Fuels	240.305.28	238.946.05	237.505.32	245.507.63	248.846.17
B. NON BAHAN BAKAR Non Fuels					
L P G	9.143.20	7.287.91	6.635.11	6.361.88	8.084.28
Lube Base Oil	3.064.82	2.988.27	2.696.89	2.529.21	-
Green Coke	2.225.34	2.202.70	1.864.04	2.592.62	2.129.60
SPBX/SOLPHY	166.96	152.54	158.55	75.54	66.87
LAWS	140.04	152.65	454.77	104.28	140.38
Mustcool/HAP	5.17	4.36	4.62	8.50	2.00
PTCF	403.35	-	-	-	242.53
Polyram (Film/Yarn/Special/Pluff)	-	-	-	208.00	536.95
Propane	-	-	-	1.200	-
Paraxylene	4.364.21	-	-	548.20	1.688.83
Asphalt 60/70	1.965.24	2.050.91	1.714.80	1.687.61	1.719.75
Minasol	-	-	-	3.00	18.00
Pertasol CA	10.92	19.84	34.06	32.56	33.43
Pertasol CB	27.01	35.77	45.73	44.18	36.80
Pertasol CC	16.41	21.79	27.01	38.99	13.02
Minarex (A/B/H/I)	242.69	246.50	236.33	189.30	167.51
HMI (60/95/100/160B/160S/650)	-	-	-	61.600	1.871.00
HSR Wax	-	-	-	-	67.00

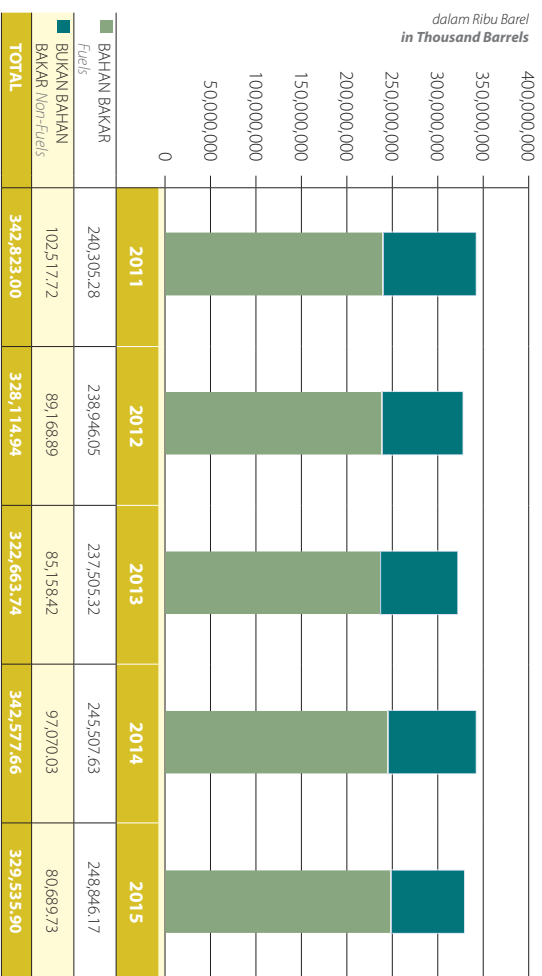


dalam Ribu Barrel in Thousand Barrel					
PRODUK Products	2011	2012	2013	2014	2015
OBW/Smooth Fluid	1806	2590	1839	5198	2800
Paraffinic (95/60/650)	18857	19743	12835	17594	14400
Benzene	2,192.17	-	-	25681	54692
Orthoxylene	1082	-	-	2329	061
Slack Wax	15567	9899	10195	15232	9200
Sulphur	3738	5091	3516	2130	2200
HSFO	-	-	-	300964	144800
Propylene	1,855.49	1,555.19	1,688.73	2,924.79	2,133.00
Reformate/Heavy Reformate	-	-	-	261.79	1,019.36
L PLAT/ H PLAT	-	-	-	2400	1300
Light Naphta	-	-	-	63056	31273
SR Naphta	-	-	-	-	5600
Sweet Naphta	-	-	-	-	42.15
Bitument Paint	-	022	085	013	-
Long Residue	-	-	-	43000	568300
Short Residue	-	-	-	-	7600
HVGO/LOMC/POD/HSDC	-	17057	-	825.12	3,131.09
LSWR (Mix V-500/V-1250)	2402088	26,308.07	23,742.95	2694633	9572.00
S.R. LSWR/LSWR/Residue/LSFO RU III/VTB	4621.45	5,541.87	9,346.67	733082	5,437.77
Flushing Oil	-	-	-	800	131.00
Flux	-	-	-	6900	124.00
Long Residue RU VII	-	-	-	313.00	423.00
Condensate/RFG	-	-	11.69	8.00	6.00
RFO ke LBO	-	-	-	-	36.00
Intermedia	-	-	-	106.00	747.00
Slops	0.23	-	-	218.00	174.00
UCO/NBF	-	-	-	-	1,995.00
ADO Feed	-	-	-	155.00	1.00
Clay Treater Charge	-	-	-	-	0.47
Heavy Aromate	234.84	-	-	14.74	43.00
Arm Residue	-	-	-	43.69	109.68
Treated Casoil	-	-	-	90.66	123.00
Naphta Ekspor	-	-	-	-	2065.00
LSWR (SR/Mix)	-	-	-	-	9703.00



dalam Ribu Barrel in Thousand Barrel					
PRODUK Products	2011	2012	2013	2014	2015
Decant Oil	4055.14	3461.17	3,154.63	3536.66	2,631.00
HOWC 92	11,908.33	10,405.28	6,566.74	8544.23	4,498.00
Naphta ke KLBB	28612.86	23,180.12	23,793.38	21,354.35	11,024.00
HSDC ex RU IV	-	-	31800	1,122.74	-
Lain-lain Intermedia	-	-	-	-	28000
HSWR	-	-	-	1.00	-
Special Boiling Point	-	-	-	20.75	-
LOMC	-	-	-	243.00	-
Unconverted Oil	2,389.57	2,528.41	2,286.59	2462.30	-
SRG	-	-	-	98.66	-
Marine Gas Oil	69.43	61.26	82.44	106.78	-
Toluene	-	-	-	9.28	-
Solvent Solphy II	0.20	-	0.26	0.10	-
Net Bottom Fractionator	35966	41441	608	412.30	-
Exdo-4	-	-	-	11.56	-
Yellow Batik Wax	340	5.30	649	3.54	-
H. Semi Refined (26B5)	8.20	0.36	0.16	-	-
Light Cycle Oil	-	0.20	-	-	-
Sub Total	102,517.72	89,168.89	85,158.42	97,070.03	80,689.73
C. TOTAL PRODUK Total Products	342,823.00	326,114.94	322,663.74	342,577.66	329,535.90
D. BALANCE	22,988.74	19,740.46	29,776.75	27,214.55	85,274.48
TOTAL	365,811.75	347,855.41	352,440.48	369,792.21	414,810.38

GRAFIK HASIL PENGOLAHAN MINYAK 2011-2015
Chart of Refined Products 2011-2015



Produksi LPG Tahun 2011-2015
Production of LPG 2011-2015

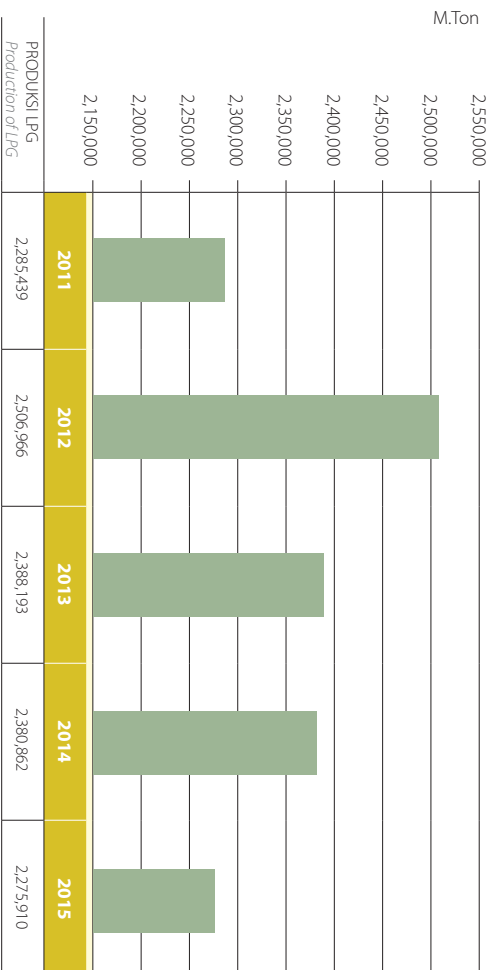
(M. Ton)

Nama Badan Usaha <i>Business Entity</i>	2011	2012	2013	2014	2015
KILANG MINYAK Oil Refinery					
Dumai (PT. Pertamina (Petro))	41,086	39,264	53,135	62,291	39,949
Musi (PT. Pertamina (Petro))	100,459	97,718	84,150	104,323	113,687
Cilacap (PT. Pertamina (Petro))	111,439	128,408	56,105	32,703	122,241
Balikpapan (PT. Pertamina (Petro))	82,139	79,794	66,232	30,847	57,656
Balongan (PT. Pertamina (Petro))	369,698	331,464	304,313	317,281	310,778
Sub Total	704,842	676,650	563,935	547,445	644,311
KILANG GAS POLA HULU Gas Refinery Upstream Pattern					
Bontang (Badak)	644,574	470,598	476,980	412,095	327,493
Santan (Chevron)	69,401	47,552	21,949	15,418	18,821
Ara (Petrochina)	3,159	2,524	2,218	2,837	2,795
Jabung (Petrochina)	514,376	559,908	556,180	541,031	545,076
Belanak (Conoco Phillips)	22,794	515,845	355,507	382,075	307,722
Pangkal (Hess)	48,873	47,272	34,221	39,241	45,868
Sub Total	1,303,177	1,643,698	1,447,055	1,392,697	1,247,775
KILANG GAS POLA HILIR Gas Refinery Downstream Pattern					
Mundul (PT. Pertamina (Petro))	1,595	6,016	4,510	0	3,649
P. Blandan (PT. Pertamina (Petro))	21,971	7,855	0	0	0
Langkat (PT. Maista Bumi Prima)*	4,458	4,277	4,755	3,961	0
Kaji (PT. Medco LPG Kaji)*	15,304	14,669	0	0	0
Prabumulih (PT. Titis Sampurna)	25,820	24,020	21,931	21,389	16,036
Tugu Barat (PT. Sumber Daya Kelola)	2,787	1,780	2,544	2,654	2,276
BBWM	0	22,804	18,128	8,440	6,915
Lembak (PT. Surya Esa Perkasa)	40,037	35,620	45,136	46,230	82,838
Ciamaya (PT. Yudhisitra Haka Perkasa)	11,362	10,070	9,401	11,766	4,505
Cemara (PT. Mahana Insanmugraha)	6,034	6,721	6,070	7,186	4,473
Gresik (PT. Media Kaya Sentosa I)	28,881	24,251	97,370	25,048	5,067
Gresik (PT. Media Kaya Sentosa II)	0	0	0	77,468	22,261
Tuban (PT. Tuban LPG Indonesia)	82,186	0	0	9,432	15,857
Pondok Lengah (PT. Yudisitra Energy)	12,612	26,389	26,457	26,333	27,999
Tuban (PT. GFI)	0	2,145	14,245	10,662	14,674
PT Pertamina Gas	0	0	126,656	190,150	177,775
Tanbun (Odia EP)	24,373	0	0	0	0
Sub Total	277,420	186,618	377,202	440,720	383,824
TOTAL KILANG GAS Total Gas Refinery	1,580,597	1,830,317	1,824,257	1,833,417	1,631,599
Grand Total of LPG Production	2,285,439	2,506,966	2,388,193	2,380,862	2,275,910

* Pada tahun 2015 stop produksi dikarenakan tidak ada pasokan gas
* In 2015, gas production was stopped because there was no gas supply



GRAFIK PRODUKSI LPG TAHUN 2011-2015
Chart of LPG Production 2011-2015

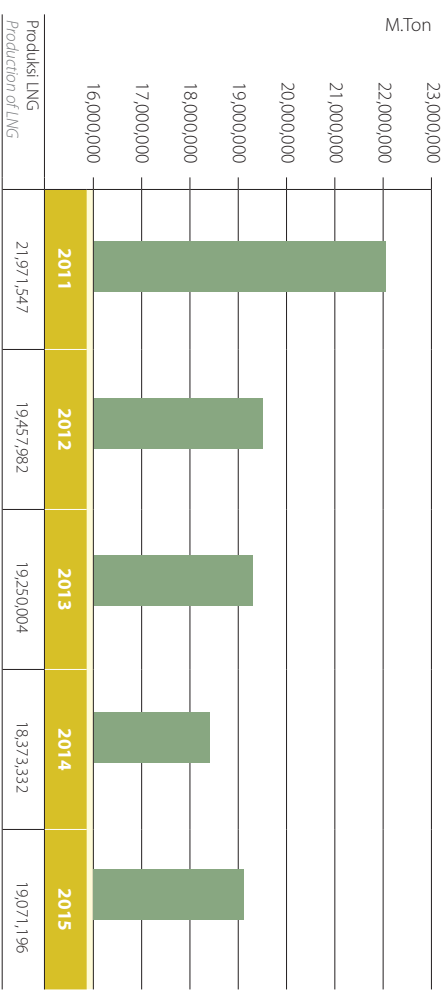


PRODUKSI LNG TAHUN 2011-2015
Production of LNG 2011-2015

Nama Badan Usaha <i>Business Entity</i>	(M. Ton)				
	2011	2012	2013	2014	2015
Arun (PT. Arun)*	1,172,435	886,074	696,213	-	-
Bontang (PT. Badak)	14,404,840	11,654,760	10,982,274	10,603,161	10,603,161
Tangguh (BP)	6,394,272	6,917,147	7,571,517	7,770,170	7,770,170
Donggi Senoro (PT DSLNG)	-	-	-	-	697,864
TOTAL PRODUKSI LNG <i>Total of LNG Production</i>	21,971,547	19,457,982	19,250,004	18,373,332	19,071,196

* Sejak tahun 2014, Arun sudah tidak beroperasi lagi
* Since 2014, Arun no longer in operation

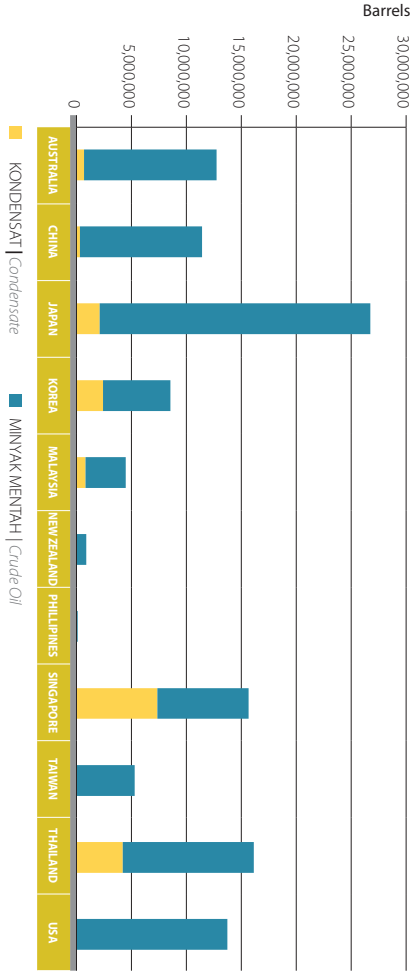
GRAFIK PRODUKSI LNG TAHUN 2011-2015
Chart of LNG Production 2011-2015



EKSPOR MINYAK MENTAH DAN KONDENSAT INDONESIA 2011-2015
Indonesian Export of Crude Oil and Condensate 2011-2015

KATEGORI Category	NEGARA TUJUAN Destination Country	2011	2012	2013	2014	2015
		BBL	BBL	BBL	BBL	BBL
KONDENSAT Condensate	AUSTRALIA	1,971,439	3,886,943	2,532,864	832,692	650,172
	BRAZIL	285,183	-	-	-	-
	CHINA	-	285,119	986,744	614,201	286,886
	JAPAN	3,615,361	3,572,692	2,126,779	1,701,430	2,082,865
	KOREA	2,978,618	2,315,388	1,708,726	1,422,063	2,370,992
	MALAYSIA	-	250,473	1,045,618	1,149,726	796,591
	PHILIPPINES	-	190,931	162,045	-	-
	SINGAPORE	8,052,105	4,988,845	7,049,521	7,723,832	7,310,544
	THAILAND	2,666,990	7,456,472	5,738,169	3,183,012	4,166,766
	AUSTRALIA	19,408,818	10,196,344	13,188,126	12,123,741	12,024,058
	CHINA	5,958,716	1,127,015	2,041,532	1,602,279	11,067,006
	JAPAN	36,297,490	45,803,648	40,914,933	30,923,651	24,550,737
	KOREA	16,567,622	13,285,773	8,387,594	6,164,416	6,109,785
	MALAYSIA	1,370,854	1,927,699	1,866,208	2,175,850	3,628,660
MINYAK MENTAH Crude Oil	NEW ZEALAND	262,460	663,657	211,866	274,929	869,482
	PHILIPPINES	200,229	-	-	-	80,042
	SINGAPORE	4,609,164	5,044,795	4,058,643	5,955,975	8,256,927
	TAIWAN	1,889,192	300,194	3,257,010	5,272,342	5,243,641
	THAILAND	1,163,629	3,039,870	3,642,074	5,149,368	11,874,404
	USA	5,729,075	2,148,740	5,872,420	6,810,770	13,647,887
	VIETNAM	324,984	-	-	-	-
TOTAL		113,351,929	106,484,598	104,790,872	93,080,276	115,017,446

GRAFIK EKSPOR MINYAK MENTAH DAN KONDENSAT INDONESIA 2015
Chart of Indonesian Export of Crude Oil and Condensate 2015



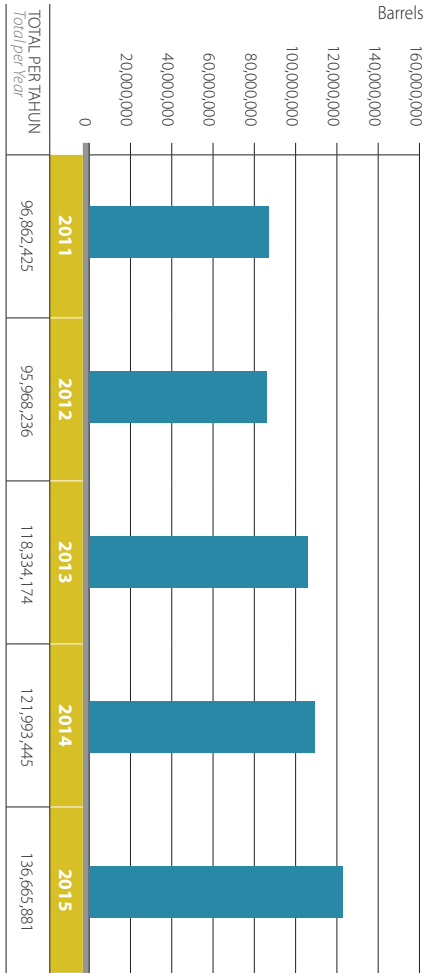


IMPOR MINYAK MENTAH PER NEGARA ASAL 2011-2015
Crude Oil Imports by Country 2011-2015

NEGARA ASAL Country	2011	2012	2013	2014	2015
SAUDI ARABIA	35,601,875	29,932,304	39,404,159	39,606,732	36,000,000
THAILAND	-	-	-	-	-
MALAYSIA	20,534,588	-	-	2,377,356	8,700,000
VIETNAM	485,782	-	-	609,279	-
AUSTRALIA	-	1,936,977	1,300,561	-	2,150,000
BRUNEI DARUSSALAM	8,925,211	2,373,653	5,758,350	5,147,937	1,800,000
NIGERIA	24,004,354	26,104,721	27,701,386	34,946,503	39,800,000
CHINA	-	-	-	-	-
LIBYA	-	6,063,710	3,321,988	-	-
ALGERIA	-	1,391,013	3,597,883	3,566,686	3,965,881
KAZAKHSTAN	-	-	625,295	-	-
UAE	-	261,029	-	-	-
ANGOLA	-	950,595	1,898,604	1,854,728	11,050,000
SUDAN	-	-	-	-	-
IRAK	-	-	1,976,291	-	-
RUSIA	1,813,992	2,972,810	1,883,580	1,224,743	1,800,000
KOREA	5,496,623	6,086,690	1,251,722	-	-
QATAR	-	615,648	-	-	-
BONGCA	-	952,061	-	-	-
TURKEY *)	-	16,588,054	29,353,326	603,440	-
AZERBAIJAN	-	-	-	32,056,040	22,050,000
CONGO	-	-	-	-	6,000,000
GUINEA	-	-	-	-	-
MEISR	-	-	-	-	2,150,000
TOTAL PER TAHUN Total Per Year	96,862,425	95,968,236	118,334,174	121,993,445	136,665,881

*) Turkey hanya peabuhan muat | * Turkey as loading port only

Data Unaudited



EKSPOR BAHAN BAKAR MINYAK INDONESIA 2011-2015
Indonesian Export of Fuel 2011-2015

JENIS Type	2011	2012	2013	2014	2015
BENSIN 88 Gasoline 88	12,653	10,909	-	-	-
MINYAK TANAH Kerosene	429,219	268,488	259,460	63,718	93,702
MINYAK SOLAR Higher Speed Diesel	17,975	14,668	-	23,510	-
AUTUR Aviation Turbin Fuel	1,015	2,115	218	2,049	2,455
MINYAK BAKAR Fuel Oil	-	-	686,795	511,211	218,983
BENSIN 92 Gasoline 92	840	9,570	2,125	25,279	2,340
TOTAL	461,702	305,750	948,598	623,766	317,480

IMPOR BAHAN BAKAR MINYAK INDONESIA 2011-2015
Indonesian Import of Fuels 2011-2015

JENIS Type	2011	2012	2013	2014	2015
AUTUR Aviation Turbin Fuel	815,556	707,610	947,757	981,406	1,201,960
ANGASI Aviation Gasoline	-	2,458	2,246	-	288
BENSIN 88 Gasoline 88	15,247,687	17,621,338	18,340,068	18,829,092	16,273,913
BENSIN 92 Gasoline 92	318,942	212,530	268,143	619,083	1,780,814
BENSIN 95 Gasoline 95	36,496	36,209	59,933	64,302	171,173
HOMC High Octane Mogas Component	157,492	524,894	1,014,695	1,092,609	997,531
MINYAK SOLAR Higher Speed Diesel	13,572,550	12,455,009	11,946,708	11,474,700	7,318,129
MINYAK BAKAR Fuel Oil	998,032	419,569	106,749	173,663	148,041
MINYAK DIESEL Diesel Fuel	-	-	6,344	6,703	6,394
TOTAL	31,146,754	31,979,617	32,692,643	33,241,558	27,898,244

*) Unaudited

IMPOR LPG INDONESIA 2011-2015
Indonesian Import of LPG 2011-2015

JENIS Type	2011	2012	2013	2014	2015
LPG	2,124,292	2,573,670	3,299,808	3,604,009	4,025,600
<i>Data Unrounded</i>					
<i>* Program konversi Kiln ke LPG dimulai tahun 2009</i>					
<i>* The conversion program from kiln to LPG began in 2009</i>					

EKSPOR LPG INDONESIA 2011-2015
Indonesian Export of LPG 2011-2015

JENIS Type	2011	2012	2013	2014	2015
LPG	76,566	205	286	483	392
<i>Data Unrounded</i>					

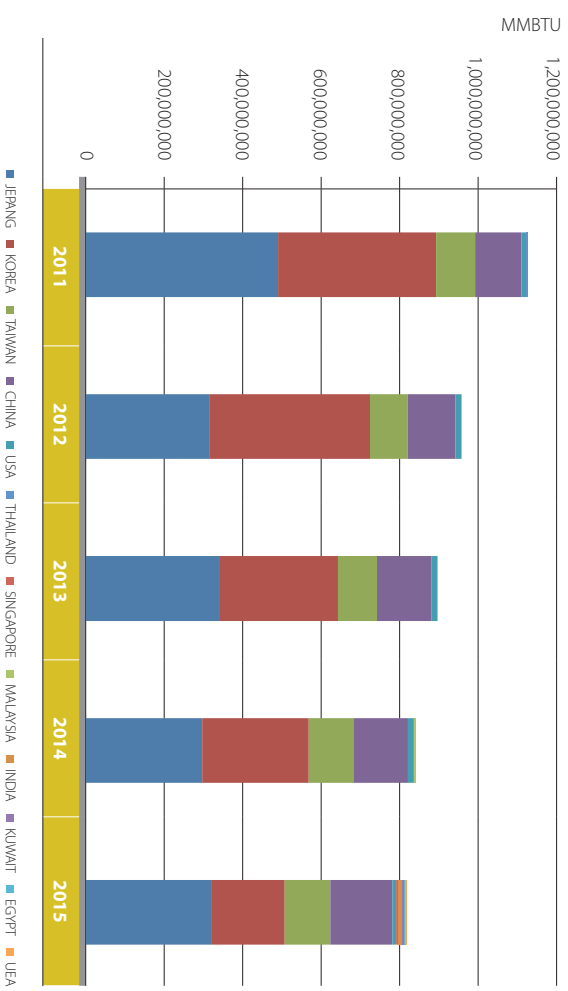
EKSPOR PRODUK KILANG 2011-2015
Indonesian Exports of Refinery Products 2011-2015

JENIS Type	2011	2012	2013	2014	2015
LSMR	2,251,620	2,472,409	1,976,343	2,329,005	1,700,199
Vacuum Residue (LSFO)	721,516	874,150	604,151	926,097	810,244
Decant Oil	567,641	488,928	550,748	453,665	543,677
Propylene	-	48,549	-	-	-
Base Oil	-	42,207	-	-	-
Green Coke	-	185,861	-	-	-
Naphtha	209,305	-	173,630	848,858	405,522
Pertamina Dex (ALFO)	-	-	-	-	-
Slack Wax	-	-	-	-	-
Gasoil	-	-	-	-	-
Heavy Aromatic	-	-	-	2,608	-
TOTAL	3,750,082	4,112,102	3,304,872	4,560,233	3,459,642

**) Data Unrounded*

EKSPOR LNG PER NEGARA TUJUAN 2011-2015
Export of LNG by Destination Country 2011-2015

NEGARA TUJUAN Destination Country	2011	2012	2013	2014	2015
JEPANG	485,631,803	313,783,267	339,166,264	294,527,328	318,365,599
KOREA	399,431,137	404,461,161	298,070,416	268,354,006	184,016,673
TAIWAN	98,443,500	95,283,030	98,472,860	114,780,967	115,078,500
CHINA	116,913,870	120,356,150	136,816,400	136,634,970	156,839,230
USA	12,263,021	15,557,837	15,877,802	12,558,937	9,361,253
THAILAND	3,314,780	-	-	-	-
SINGAPORE	-	-	-	3,619,110	6,600,000
MALAYSIA	-	-	-	3,767,608	-
INDIA	-	-	-	-	10,530,290
KUWAIT	-	-	-	-	3,330,030
EGYPT	-	-	-	-	3,683,840
UEA	-	-	-	-	3,237,604
TOTAL	1,115,998,111	949,441,445	888,403,742	834,242,926	811,043,009



REALISASI PENJUALAN BBM DI SELURUH INDONESIA 2011-2015
Indonesian Sales of Fuel Realization 2011-2015

Kiloliter | Kilolitre

JENIS Type	2011	2012	2013	2014	2015
BENSIN 88 Gasoline 88	25,836,804	28,459,985	29,501,773	29,707,002	28,107,022
BENSIN 90 Gasoline 90	-	-	-	-	379,959
BENSIN 92 Gasoline 92	750,852	666,461	850,408	1,062,920	2,761,956
BENSIN 95 Gasoline 95	168,950	149,424	158,714	154,888	278,758
MINYAK TANAH Kerosene	1,984,939	1,382,469	1,260,490	971,434	769,233
MINYAK SOLAR Higher Speed Diesel	33,624,959	34,209,757	34,047,721	32,673,230	29,172,694
MINYAK DIESEL Diesel Fuel	133,589	91,600	79,137	60,870	53,069
MINYAK BAKAR Fuel Oil	3,904,580	3,428,875	1,973,903	1,894,040	1,647,441
AVGAS Aviation Gasoline	2,214	2,606	2,868	1,499	3,070
AVTUR Aviation Turbin Fuel	3,267,453	3,898,832	4,159,010	4,229,094	4,336,624
TOTAL	69,674,338	72,290,008	72,034,024	70,744,978	67,509,826

PENJUALAN LPG INDONESIA 2011-2015
Indonesian Sales of LPG 2011-2015

M. Ton

URAIAN Description	2011	2012	2013	2014	2015
PENJUALAN Sales	4,347,000	5,079,000	5,607,430	6,093,138	6,376,990

Data Unrounded

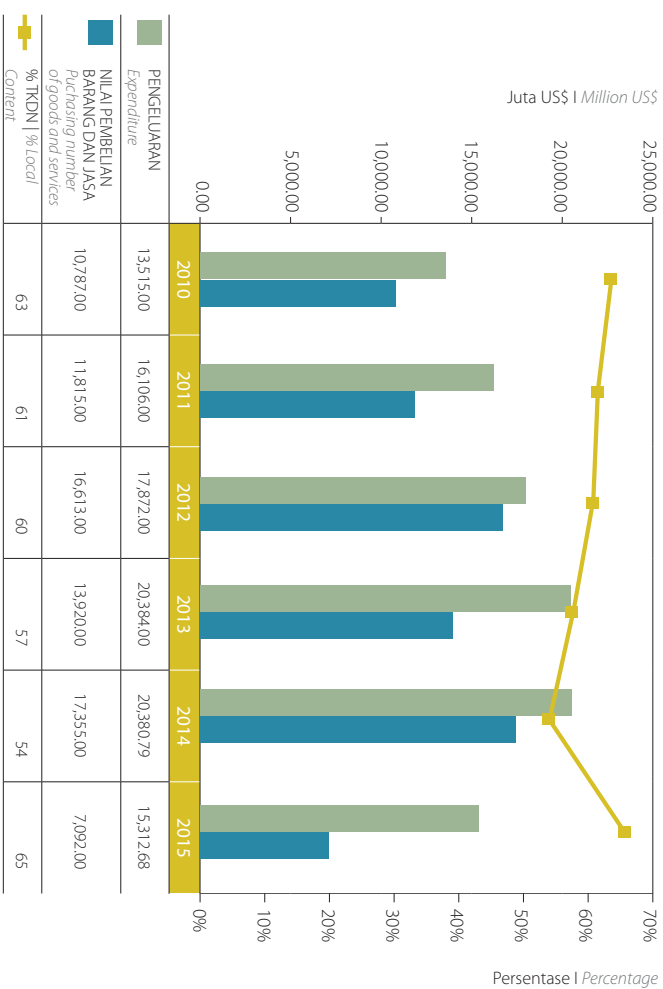


PENUNJANG
Supporting

Direktorat Jenderal Minyak dan Gas Bumi
Kementerian Energi dan Sumber Daya Mineral

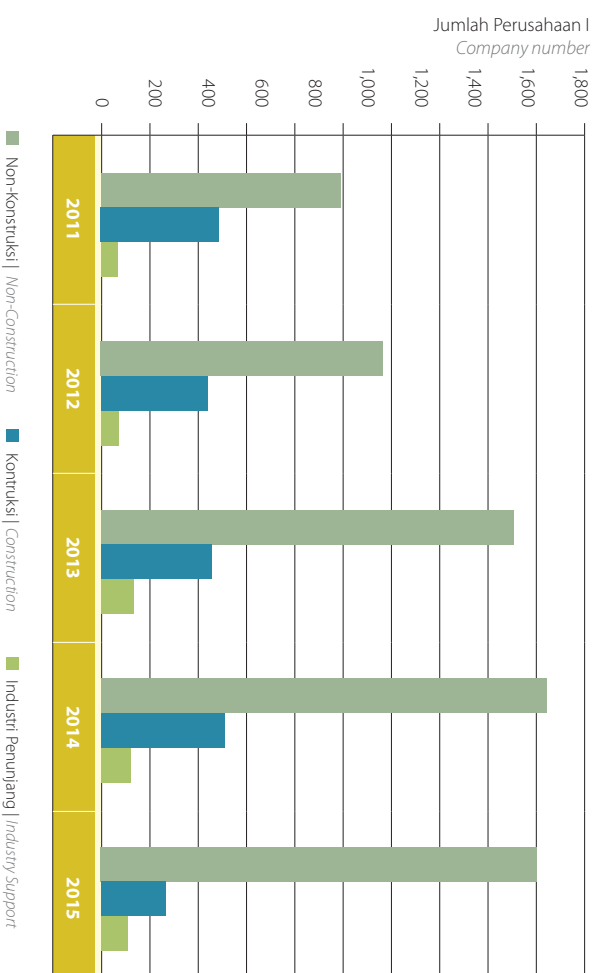
*Directorate General of Oil And Gas
Ministry of Energy and Mineral Resources*

CAPAIAN TKDN PADA KEGIATAN USAHA HULU MIGAS 2010-2015
Chart of Local Content Usage in Upstream Oil and Gas Activities 2010-2015



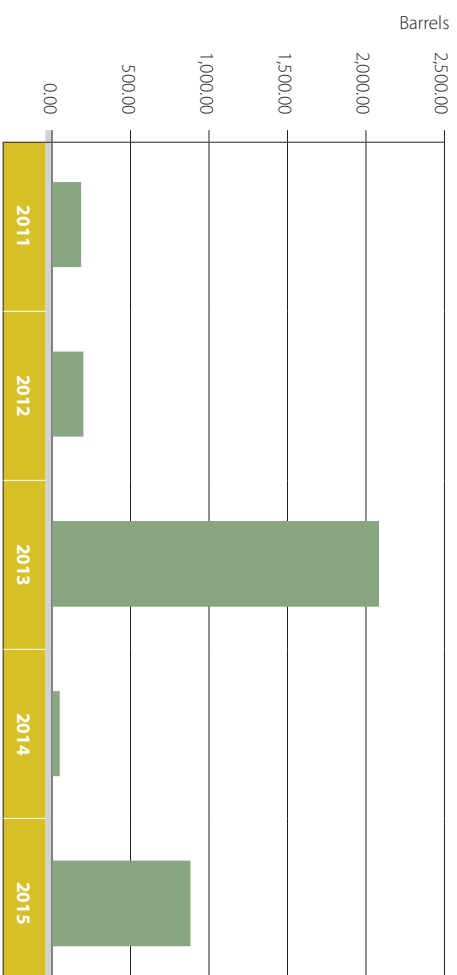
DATA STATISTIK SURAT KETERANGAN TERDAFTAR 2011-2015
Statistic Of Registered Certificate 2011-2015

URAIAN Description	2011	2012	2013	2014	2015
Non-konstruksi Non-Construction	890	1,048	1,533	1,655	1,620
Konstruksi Construction	439	396	412	460	239
Industri Penunjang Industry Support	63	65	121	109	99
Total	1,392	1,509	2,066	2,224	1,958



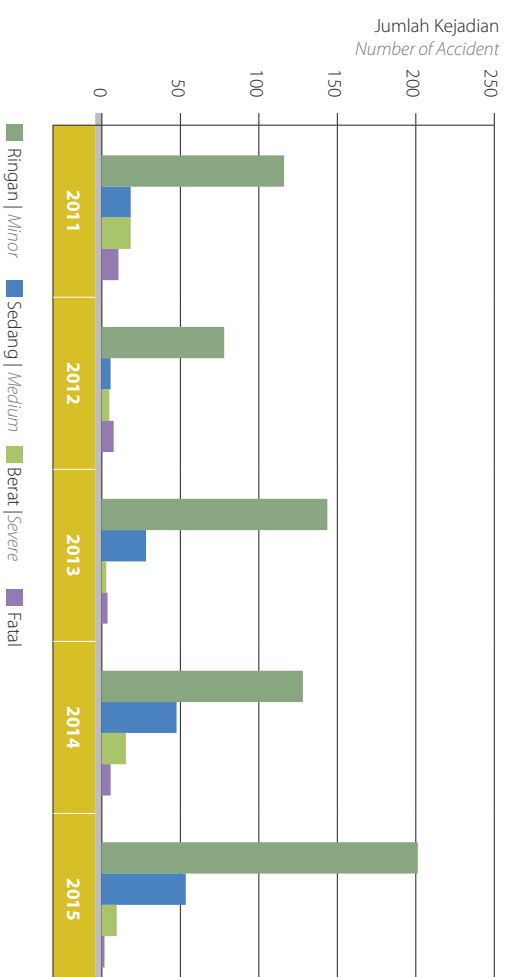
DATA TUMPAHAN MINYAK 2011-2015
Statistic of Oil Spill 2011-2015

URAIAN Description	2011	2012	2013	2014	2015
Hulu Upstream	181.80	197.60	2,071.37	46.70	91.38
Hilir Downstream	0.00	0.16	0.00	0.00	784.00
Total (Barrels)	181.80	197.76	2,071.37	46.70	875.38



DATA KECELAKAAN KERJA KEGIATAN HULU MIGAS 2011-2015
Statistic of Accident in Upstream Oil and Gas Activities 2011-2015

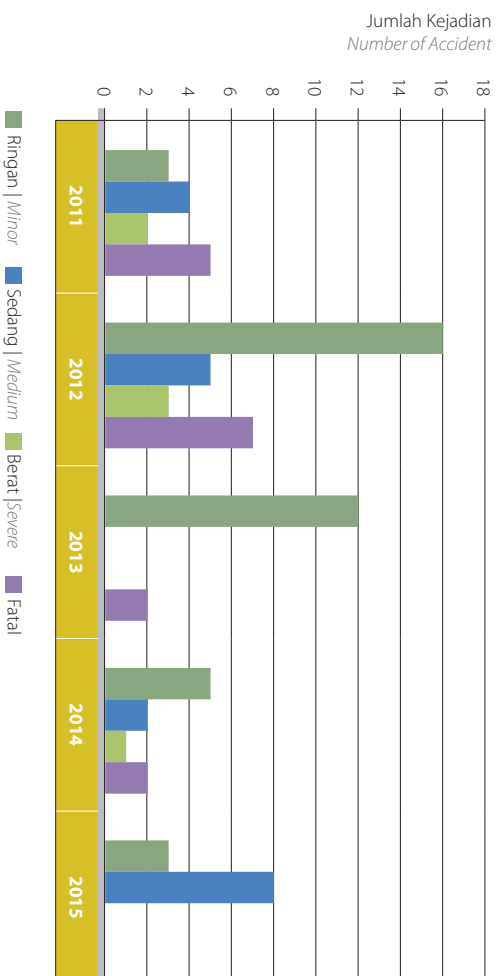
	2011	2012	2013	2014	2015
Ringan Minor	119	80	147	131	206
Sedang Medium	19	6	29	49	55
Berat Severe	19	5	3	16	10
Fatal	11	8	4	6	2
Total	168	99	183	202	273





DATA KECELAKAAN KERJA KEGIATAN HILIR MIGAS 2011-2015
Statistic of Accident in Downstream Oil And Gas Activities 2011 -2015

	2011	2012	2013	2014	2015
Ringan Minor	3	16	12	5	3
Sedang Medium	4	5	0	2	8
Berat Severe	2	3	0	1	0
Fatal	5	7	2	2	0
Total	14	31	14	10	11



RANCANGAN STANDAR KOMPETENSI KERJA NASIONAL INDONESIA BIDANG MIGAS TAHUN 2015
Draft of Indonesian National Work Competency Standard 2015

No	Golongan Pokok	Kep. Menakertrans	Tahun	Area pekerjaan/Kompetensi	Keterangan
1	Jasa arsitektur dan teknik sipil; Analisis dan Uji teknis <i>Architectural and civil engineering services; Analysis and technical inspection</i>	Nomor 52 Tahun 2015 <i>No. 52 year 2015</i>	2015	Inspeksi Kelistrikan <i>Electrical inspection</i>	
2	Jasa arsitektur dan teknik sipil; Analisis dan Uji teknis <i>Architectural and civil engineering services; Analysis and technical inspection</i>	Nomor 89 Tahun 2015 <i>No. 89 year 2015</i>	2015	Inspeksi Platform <i>Inspektor Platform</i>	
3	Jasa arsitektur dan teknik sipil; Analisis dan Uji teknis <i>Architectural and civil engineering services; Analysis and technical inspection</i>	Nomor 126 Tahun 2015 <i>No. 126 year 2015</i>	2015	Inspeksi Casing, Tubing dan Accessories <i>Inspektor Casing, Tubing, dan Accessories</i>	
4	Pertambangan Minyak Bumi dan Gas alam dan panas bumi <i>Oil and natural gas mining and geothermal</i>	Nomor 129 Tahun 2015 <i>No. 129 year 2015</i>	2015	Bidang Produksi <i>Subbidang Operasi Produksi</i>	Kaji Ulang <i>Review</i>
5	Pertambangan Minyak Bumi dan Gas alam dan panas bumi <i>Oil and natural gas mining and geothermal</i>	Nomor 133 Tahun 2015 <i>No. 133 year 2015</i>	2015	Bidang pengeboran Barat <i>Onshore drilling</i>	Kaji Ulang <i>Review</i>
6	Pertambangan Minyak Bumi dan Gas alam dan panas bumi <i>Oil and natural gas mining and geothermal</i>	Nomor 134 Tahun 2015 <i>No. 134 year 2015</i>	2015	Bidang Produksi <i>Subbidang Operasi Perawatan Sumur</i>	Kaji Ulang <i>Review</i>
7	Pertambangan Minyak Bumi dan Gas alam dan panas bumi <i>Oil and natural gas mining and geothermal</i>	Nomor 135 Tahun 2015 <i>No. 135 year 2015</i>	2015	Bidang Operasi Pesawat Angkat, Angkut, dan Ikat Beban <i>Lifting Machine, Transportation and heavy equipment binding</i>	Kaji Ulang <i>Review</i>
8	Pertambangan Minyak Bumi dan Gas alam dan panas bumi <i>Oil and natural gas mining and geothermal</i>	Nomor 267 Tahun 2015 <i>No. 267 year 2015</i>	2015	Bidang Keselamatan dan Kesehatan Kerja Industri Migas <i>Health and Safety in Oil and Gas Industry</i>	Kaji Ulang <i>Review</i>
9	Analisis dan Uji Teknis <i>Analysis and technical inspection</i>	Nomor 192 Tahun 2015 <i>No. 192 year 2015</i>	2015	Bidang Inspektor Rotating Equipment <i>Rotating Equipment Inspector</i>	
10	Jasa Pertambangan <i>Mining services</i>	Nomor 162 Tahun 2015 <i>No. 162 year 2015</i>	2015	Bidang Slickline <i>Slickline</i>	
11	Jasa Pertambangan <i>Mining services</i>	Nomor 193 Tahun 2015 <i>No. 193 year 2015</i>	2015	Bidang Wireline Logging <i>Wireline Logging</i>	
12	Konstruksi Khusus <i>Particular construction</i>	Nomor 266 Tahun 2015 <i>No. 266 year 2015</i>	2015	Bidang Pipe Fitter <i>Pipe Fitter</i>	
13	Jasa arsitektur dan teknik sipil; analisis dan uji teknis <i>Architectural and civil engineering services; Analysis and technical inspection</i>	Nomor 268 Tahun 2015 <i>No. 268 year 2015</i>	2015	Engineer Instrumen Sistem Alat Ukur <i>(Measurement System)</i>	

RANCANGAN STANDAR NASIONAL INDONESIA BIDANG MIGAS TAHUN 2015
Draft of Indonesian National Standard 2015

No.	Judul Title	Referensi Reference	Sub Komite Teknis Technical Sub-Committee	Bisnis Sektor Migas Oil and Gas Business Sector
Panitia Teknis : TC67				
1	Petroleum, Petrochemical and Natural Gas Industries cathodic protection of pipeline transportation system part 1: On Line pipelines	ISO 15589-1:2015	TC67/SC2	Hulu dan Hilir Upstream and Downstream
2	Petroleum and Natural Gas Industries- external coating for buried or submerged pipeline used in pipeline transportation system part 2: single layer fusion bonded epoxy coating	ISO 21809-2:2014	TC67/SC2	Hulu dan Hilir Upstream and Downstream
3	Pengukuran sifat pioppan digunakan dalam pelekahan hidrolik dan operasi gravel packing dan amandemen nya	ISO 13503-2: 2006 dan ISO 13503-2: 2009	TC67/SC3	Hulu Upstream
4	Prosedur untuk mengukur kehilangan lead off cairan kompres dalam kondisi dinamis	SO 13503-6: 2014	TC67/SC3	Hulu Upstream
5	Petroleum and natural gas Industries Rotary drilling equipment Part 1: Rotary drill stem elements	ISO 10424-1: 2004	TC67/SC4	Hulu Upstream
6	Petroleum and natural gas Industries Rotary drilling equipment Part 1: Rotary drill stem elements	ISO 10424-2: 2007	TC67/SC4	Hulu Upstream
7	Detail Flare untuk Servis Kilang Umum dan Petrokimia	ISO 25457: 2008	TC67/SC6	Hilir Downstream
Panitia Teknis : TC28				
8	Standard Test Method for Canadian Carbon Residue of Petroleum Products	ASTM D 189	TC28/SC4	Hilir Downstream
9	Standard Test Method for Oxidation Stability of Steam Turbine Oils by Rotating Pressure Vessel	ASTM D 2272	TC28/SC4	Hilir Downstream
10	Standard Test Method for Apparent Viscosity of Engine Oils and Base Stocks Between -10 °C and -35 °C Using Cold-Cracking Simulator	ASTM D 5293	TC28/SC4	Hilir Downstream
11	Standard Test Method for Measurement of Extreme Pressure Properties of Lubricating Grease (Four-Ball Method)	ASTM D 2596	TC28/SC4	Hilir Downstream
12	Standar Spesifikasi Bahan Bakar Minyak Jenis Avtur	-	TC28/SC7	Hilir Downstream



Peta Tematik

Thematic Map

Direktorat Jenderal Minyak dan Gas Bumi
Kementerian Energi dan Sumber Daya Mineral

Directorate General of Oil And Gas
Ministry of Energy and Mineral Resources

PETA TEMATIK | THEMATIC MAP

PETA CADANGAN MINYAK BUMI INDONESIA (Status 1 Januari 2015)
Map of Indonesia Crude Oil Reserve (Status in 1 Januari 2015)

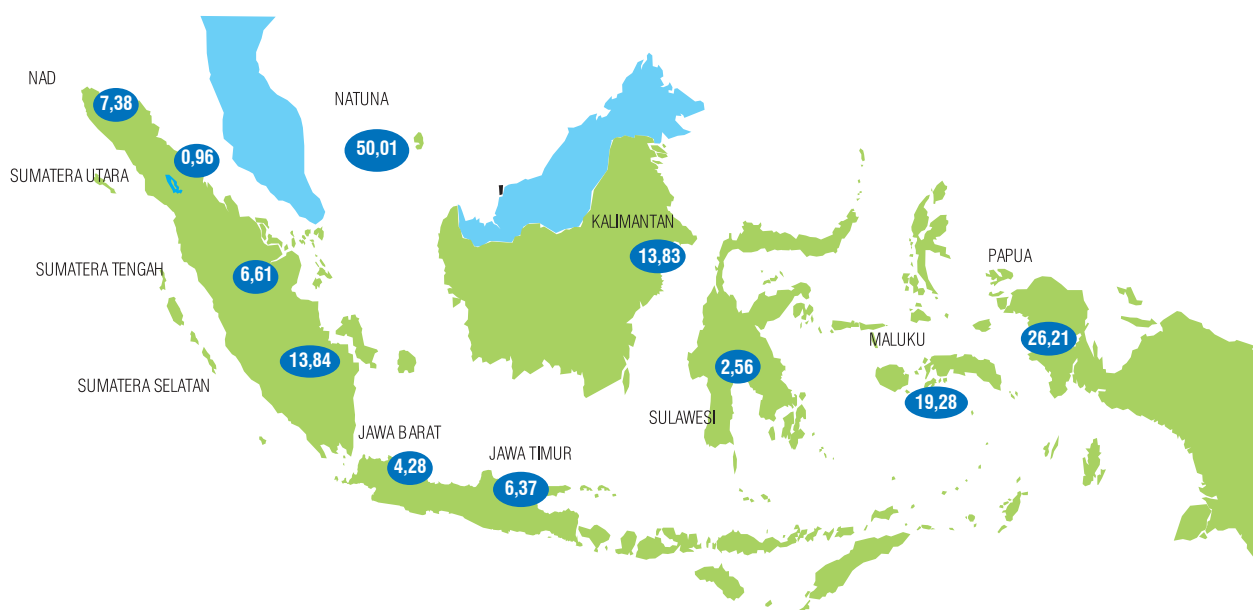


● CADANGAN MINYAK BUMI (MMSTB)
CRUDE OIL RESERVES (MMSTB)

TERBUKTI = 3.602,53 MMSTB
PROVEN
POTENSIAL = 3.702,49 MMSTB
POTENTIAL
TOTAL = 7.305,02 MMSTB

PETA TEMATIK | THEMATIC MAP

PETA CADANGAN GAS BUMI INDONESIA (Status 1 Januari 2015)
Map of Indonesia Gas Reserves (Status in 1 Januari 2015)

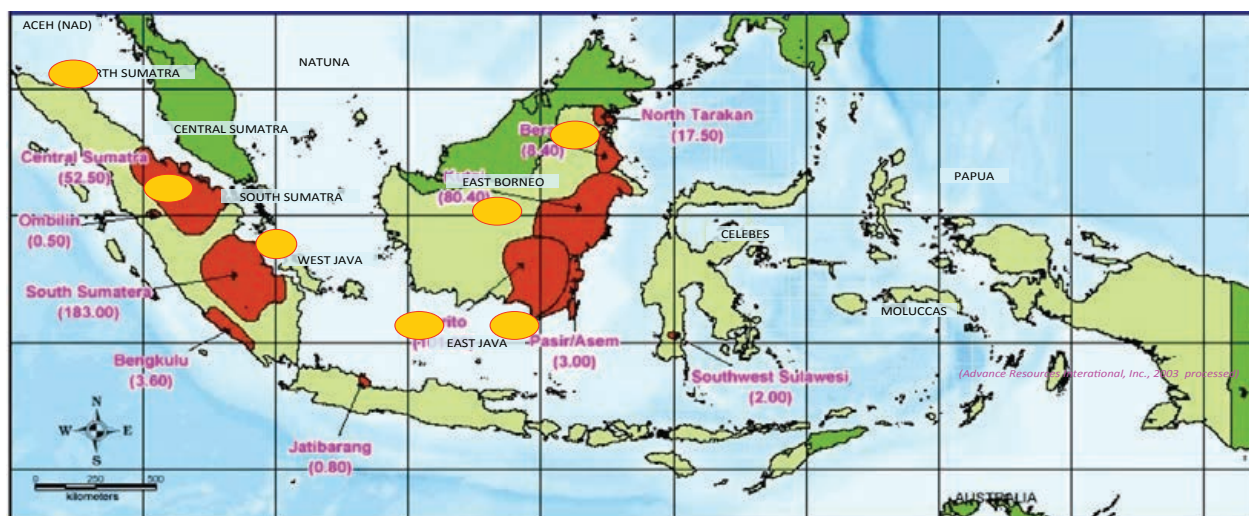


● CADANGAN GAS BUMI (TSCF)
GAS RESERVES (TSCF)

TERBUKTI = 97,99 MMSTB
PROVEN
POTENSIAL = 53,34 MMSTB
POTENTIAL
TOTAL = 151,33 MMSTB

PETA TEMATIK | THEMATIC MAP

PETA POTENSI GAS METHANA BATUBARA
CBM Resources & Shale Gas Potential



● CADANGAN GAS METANA
CBM Resources
= 453.30 TCF
TOTAL CEKUNGAN GAS METANA
= 11 (Advance Resources
International, Inc., 2003)
Total CBM Basin
= 11 (Advance Resources International, Inc.,
2003)

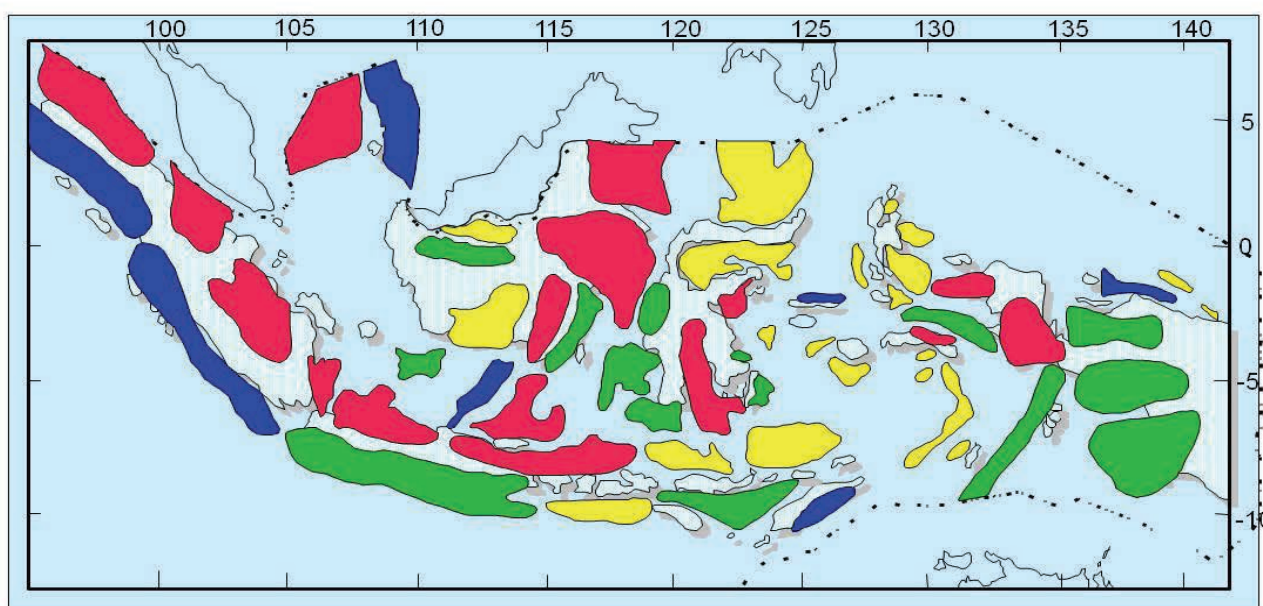
Jumlah WK Gas Metana Batubara (GMB atau CBM) yang pertama kali
ditandatangani di tahun 2008, sekarang sudah menjadi 55 WK
Total CBM Work Area which first signed in 2008, currently become 55 Work Area

● POTENSI GAS SHALE
Shale Gas Potential
Pada tahun 2013 untuk pertama kalinya WK shale gas ditandatangani
antara PHE MNK dengan SKK Migas dengan WK terletak di Sumatera
Utara; per 1 Juli 2014

In 2013 Work Area of shale gas was signed between PHE MNK with SKK
Migas with WK located in North Sumatra; As at July 1, 2014

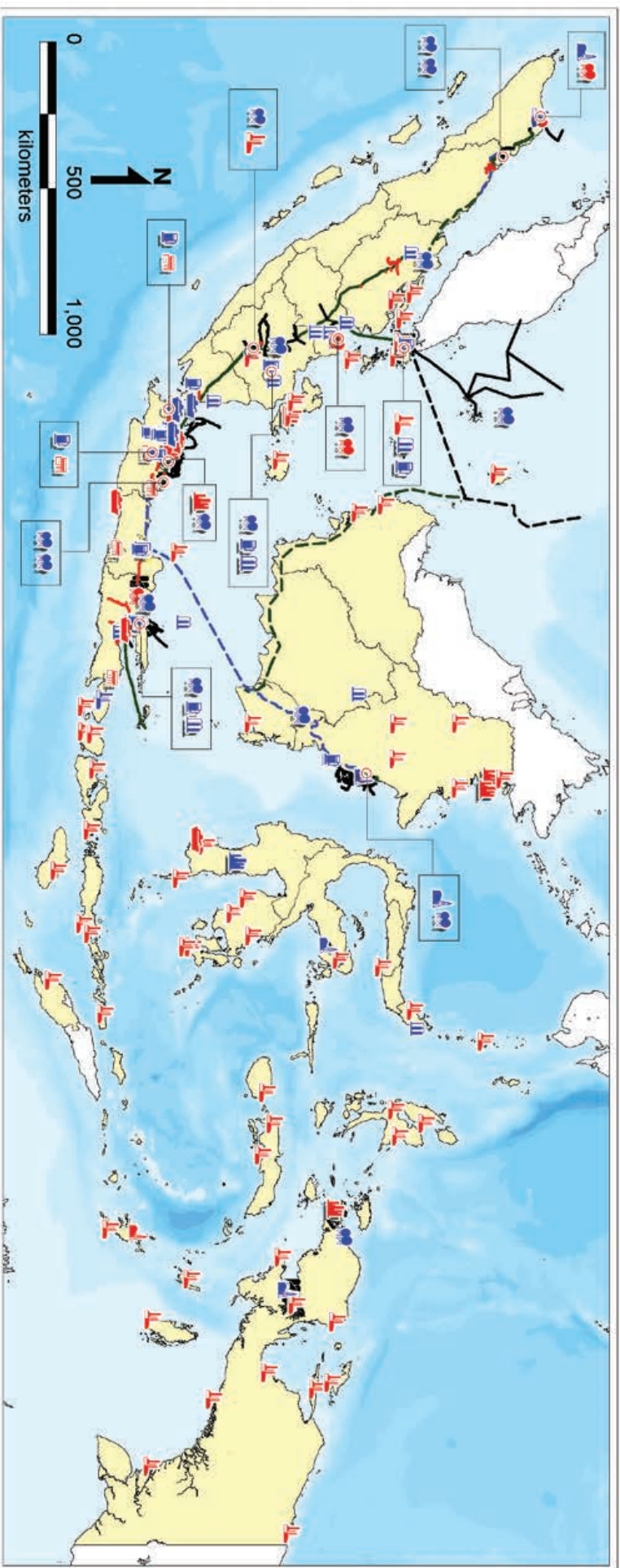
PETA TEMATIK | THEMATIC MAP

PETA CEKUNGAN HIDRO KARBON INDONESIA
Map of Hydrocarbons Basin Indonesia



○ Wilayah Eksplorasi (169)
● Cekungan Sudah Berproduksi (16)
● Cekungan telah ditemukan hidrokarbon, belum berproduksi (7)
● Cekungan telah dibor, belum ditemukan hidrokarbon (15)
● Cekungan belum dieksplorasi (22)

PETA INFRASTRUKTUR GAS BUMI 2015-2030
Map of Gas Infrastructure 2015-2030



Keterangan :

KATEGORI OPEN ACCESS

- Jaringan Pipa Transmisi (Existing) -- 4.362,3 Km
- Jaringan Pipa Transmisi (Rencana) -- 9.966 Km
- Jaringan Pipa Transmisi (Ongoing) -- 1.853,5 Km

KATEGORI DEDICATED HULU

- Jaringan Pipa Transmisi (Existing) -- 3.814,17 Km
- Jaringan Pipa Transmisi (Rencana) -- 917,4 Km

KATEGORI DEDICATED HILIR

- Jaringan Pipa Distribusi (Existing) -- 13.917,39 Km
- Jaringan Pipa Distribusi (Rencana) -- 778 Km

KATEGORI KEPENTINGAN SENDIRI

- Jaringan Pipa Transmisi (Existing)
- Jaringan Pipa Transmisi (Rencana) -- 30 Km

Wilayah Jaringan Distribusi Open Access
(Rencana) -- (4 Wilayah)

- Kilang CNG (Existing) -- (22 Fasilitas)
- Kilang CNG (Rencana) -- (8 Fasilitas)
- FSRU (Existing) -- (3 FSRU)
- FSRU (Rencana) -- (3 FSRU)
- Kilang LPG (Existing) -- (30 Kilang)
- Kilang LPG (Rencana) -- (3 Kilang)
- Kilang LNG (Existing) -- (4 Kilang)
- Kilang LNG (Rencana) -- (1 Kilang)

SPBG (Existing) -- (55 SPBG)

- SPBG (Rencana) -- (38 SPBG)
- Receiving Unit (Existing) -- (3 Unit)
- Receiving Unit (Rencana) -- (62 Unit)
- Kilang Mini LNG -- (1 Kilang)
- Kilang Mini LNG (Rencana) -- (5 Kilang)
- LCNG (Rencana) -- (8 Fasilitas)
- Jargas (Existing) -- (194.653 SRF)
- Jargas (Rencana) -- (28.449 SRF)

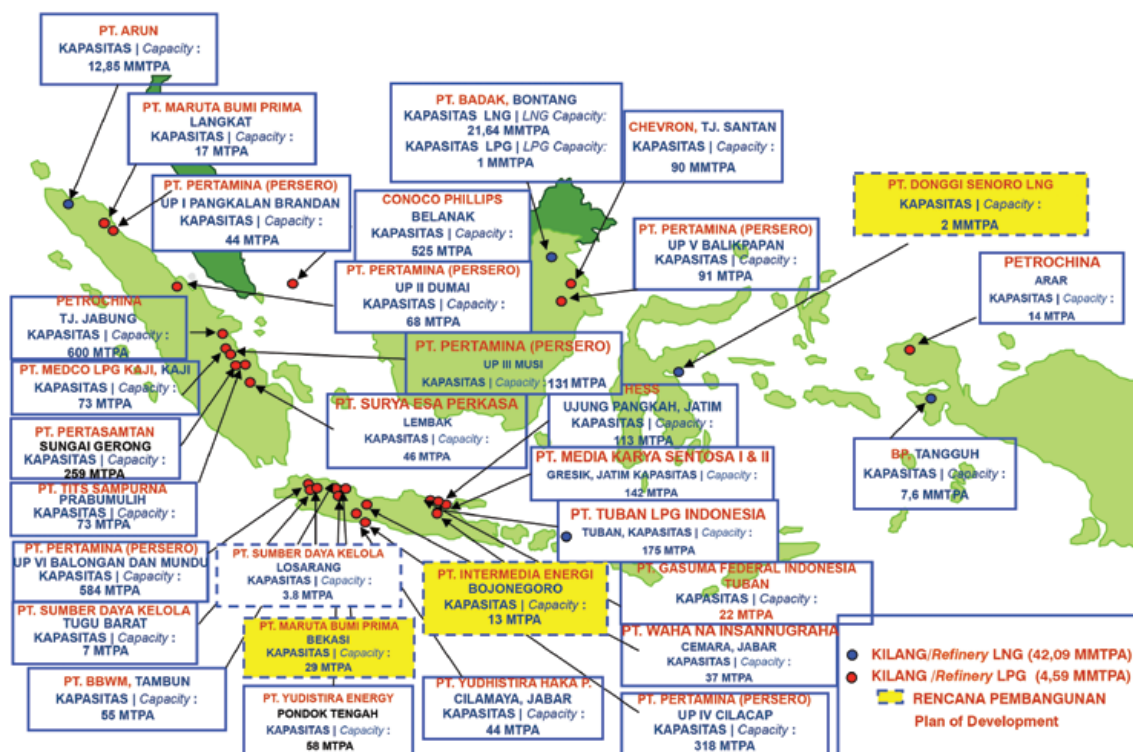
PETA TEMATIK | THEMATIC MAP

PETA KILANG MINYAK DI INDONESIA
Map of Oil Refinery in Indonesia



PETA TEMATIK | THEMATIC MAP

PETA KILANG LPG DAN LNG DI INDONESIA
Map of LPG and LNG Refinery in Indonesia





DAFTAR ISTILAH DAN LAMPIRAN

GLOSSARIUM AND APPENDICES

Direktorat Jenderal Minyak dan Gas Bumi
Kementerian Energi dan Sumber Daya Mineral

*Directorate General of Oil And Gas
Ministry of Energy and Mineral Resources*



Minyak Bumi (*Crude Oil*):

Campuran berbagai hidrokarbon yang terdapat dalam fase cair dalam reservoir di bawah permukaan tanah dan yang tetap cair pada tekanan atmosfer setelah melalui fasilitas pemisah di atas permukaan

The compounds of hydrocarbon in liquid phase in underground reservoir and will keep in the form of liquid in atmosphere pressure after passing through the separator facility above the ground

Kondensat (*Condensate*):

1. Hidrokarbon yang pada tekanan dan suhu reservoir berupa gas tetapi menjadi cair sewaktu diproduksi

Hydrocarbon in the form of gas under the reservoir pressure and temperature which turns into liquid in production phase

2. Produk cair yang keluar dari pengembunan

The liquid product from the condensation

3. Campuran hidrokarbon ringan yang dihasilkan sebagai produk cair pada unit daur ulang gas dengan cara ekspansi dan pendinginan

The compound of light hydrocarbon as liquid product in gas recycle through expansion and cooling

Gas Bumi (*Natural Gas*):

1. Semua jenis hidrokarbon berupa gas yang dihasilkan dari sumur; mencakup gas tambang basah, gas kering, gas pipa selubung, gas residu setelah ekstraksi hidrokarbon cair dan gas basah, dan gas nonhidrokarbon yang tercampur di dalamnya secara alamiah.

All hydrocarbons in the form of gas produced in reservoir, including wet mining gas, dry gas, seeth gas, residual gas after the extraction of liquid hydrocarbon and wet gas, and non-hydrocarbon gas mixed naturally

2. Campuran gas dan uap hidrokarbon yang terjadi secara alamiah yang komponennya terpentingnya ialah metana, etana, propana, butana, pentana dan heksana.

Mix of hydrocarbon gas and steam naturally in which its main components are methane, ethane, propane, butane, pentane and hexane.

Barel (*Barrel*):

Satuan ukur volume cairan yang biasa dipakai dalam peminyakan; satu barel kira-kira 159 liter

The measurement of liquid volume in petroleum; one barrel is equivalent to 159 liter

Setara Barel Minyak (*Barrel Oil Equivalent*):

Satuan energi yang besarnya sama dengan kandungan energi dalam satu barel minyak bumi (biasanya diperhitungkan 6,0-6,3 juta BTU/barel)

The energy measurement equivalent to energy in one barrel of oil (approximately 6,0 to 6,3 million BTU/barrel)

Barel Minyak per Hari (*Barrel Oil per Day*):

Jumlah barel minyak per hari yang diproduksi oleh sumur, lapangan, atau perusahaan minyak

The volume of barrel oil per day produced in well, field or oil company

Kaki Kubik (*Cubic Feet*):

Satuan pengukuran volume gas yang ditrumuskan dalam satuan area terhadap panjang

The measurement of gas volume in area to length unit

British thermal unit:

Satuan panas yang besarnya 1/180 dari panas yang diperlukan untuk menaikkan suhu satu pon (0,4536 kg) air dari 32 derajat Fahrenheit (0 derajat Celsius) menjadi 212 derajat Fahrenheit (100 derajat Celsius) pada ketinggian permukaan laut/basanya dianggap sama dengan jumlah panas yang diperlukan untuk menaikkan suhu satu pon air dari 63°F (17,2°C) menjadi 64°F (17,8°C)

Unit of heat of 1/180 from the heat needed to increase the temperature of 1 pound of water (0,4536 kg) from 32 degree Fahrenheit (0 degree Celsius) into 212 degree Fahrenheit (100 degree Celsius) in sea level height usually it is the same with the heat needed to increase the temperature of 1 pound of water from 63 degree Fahrenheit (17,2 degree Celsius) into 64 degree Fahrenheit (17,8 degree Celsius)

MMBTU (*Million Metric British Thermal Unit*):

Satuan panas yang dinyatakan dalam juta BTU (*British Thermal Unit*, yaitu panas yang dibutuhkan untuk menaikkan suhu satu pon air satu derajat Fahrenheit)

The heat in million BTU (British Thermal Unit, the heat needed to increase the temperature of one pound of water into one degree of Fahrenheit

Gas Metana Batubara (*Coal Bed Methane*):

Gas bumi (hidrokarbon) yang komponen utama metana terjadi secara alami dalam proses pembentukan batubara dan terperangkap di dalam endapan batubara

Hydrocarbon in which the main component of methane formed naturally in coal formation process and trapped in coal sediment

Serpit (*Shale*):

Batuan sedimen lempung, memiliki ciri bidang pelapisan yang mudah dibelah karena orientasi partikel mineral lempung yang sejajar dengan bidang pelapisan; tidak membentuk massa yang plastis jika basah

Clay sediment with the characteristic of easy to be parted since clay mineral particle is parallel with layer; it does not form elastic mass in wet condition

Kilang Minyak (*Refinery Oil*):

Instansi industri untuk mengolah minyak bumi menjadi produk yang lebih berguna dan dapat dipasarkan

The industry installation to process oil into products to be marketed

Gas Kilang (*Refinery Gas*):

Berbagai jenis gas yang dihasilkan dari penyulingan dan berbagai proses pengilangan; umumnya terdiri atas hidrokarbon C₁ sampai dengan C₄, gas dari distilasi dan refining process; generally consisted of hydrocarbon C₁ to C₄



LPG/Elpiji (Liquefied Petroleum Gas):

Gas hidrokarbon yang dicairkan dengan tekanan untuk memudahkan penyimpanan, pengangkutan, dan pemanfaatannya; pada dasarnya terdiri atas propana, butana, atau campuran keduanya

Pressured liquefied hydrocarbon gas to ease the storage, transportation, and management; consisted of propane, butane or mix of both

LNG (Liquefied Natural Gas):

Gas yang terutama terdiri atas metana yang dicairkan pada suhu sangat rendah (-160° C) dan dipertahankan dalam keadaan cair untuk mempermudah transportasi dan penyimpanan

Gas from liquefied methane in very low temperature (-160o C) and kept in liquid to ease the transportation and storage.

Eksplorasi (exploration):

Penelitian dan pengujian daerah yang diperkirakan mengandung mineral berharga dengan jalan survei geologi, survei geofisik, atau pengeboran dengan tujuan menemukan deposit dan mengetahui luas wilayahnya

The study and exploration on area predicted to have mineral resources through geological survey, geophysics survey, or drilling to discover deposit or to find out the area

Eksplotasi (Exploitation):

Pengusahaan sumber migas dengan tujuan menghasilkan manfaat ekonomi

The exploitation of oil and gas resources to discover the economic benefit

Kontaktor Kontrak Kerja Sama / KKKS (Contractor of Production Sharing Contract):

Badan usaha atau bentuk usaha tetap yang diberikan kewenangan dalam melaksanakan kegiatan eksplorasi dan eksploitasi pada suatu wilayah kerja migas berdasarkan kontrak kerja sama dengan pemerintah

Business entity or permanent business establishment with the authority to conduct exploration and exploitation in oil and gas working area based on cooperation contract with the government

Wilayah Kerja (Working Area):

Daerah tertentu dalam wilayah hukum pertambangan Indonesia untuk pelaksanaan eksplorasi dan eksploitasi sumber daya alam, termasuk kegiatan hulu migas

Area located in Indonesia mining legal territory for natural resources exploitation and exploitation, including the oil and gas upstream activity

Cadangan (Reserve):

Jumlah minyak atau gas yang ditemukan di dalam batuan reservoir

The quantity of oil and gas in reservoir

Metode Seismik (Seismic Method):

Metode eksplorasi untuk memperkirakan bentuk, jenis, dan ketebalan lapisan-lapisan batuan bawah permukaan dengan cara mempelajari penalaran gelombang getas

The exploration method to predict the form, type and thickness of underground rock layers by studying the vibration wave spread

Pengeboran (Drilling):

Kegiatan pembuatan lubang sumur dengan alat bor untuk mencari, mengeluarkan, atau memasukkan fluida formasi

The activity of making well holes with drilling tool to discover, extract or inject fluid formation

Avgas (Aviation Gasoline):

Bensin khusus untuk motor torak pesawat terbang yang nilai oktana dan stabilitasnya tinggi; titik bekunya rendah, serta trayek sulungnya lebih datar

Special gasoline for airplane piston engine with high octane and stability, low freezing point, and flatter distillation route

Avtur (Aviation Turbine Fuel):

Bahan bakar untuk pesawat terbang turbin gas jenis kerosin yang trayek dididinya berkisar antara 150°C-250°C

Fuel for airplane with gas turbine; type of kerosene with boiling route point between 150oC to 250oC

Bensin (Gasoline):

Hasil pengilangan minyak yang mempunyai trayek didih 30°C-220°C yang cocok untuk digunakan sebagai bahan bakar motor berbusi (motor bensin)

Oil refining with boiling point of 30oC to 220oC that is suitable for plugged engine fuel (gasoline engine)

RON (Research Octane Number):

Angka yang ditentukan dengan mesin penguji CFR FI pada kecepatan 600 putaran per menit/pedoman mutu antiknock bensin pada kondisi kecepatan rendah atau beban ringan

The number derived from CFR FI with the speed of 600 spins per minute, quality standard of anti-knock engine in the condition with low speed or light load

Minyak Tanah (Kerosene):

Minyak yang lebih berat dari fraksi bensin dan mempunyai berat jenis antara 0,79 dan 0,83 pada 60 derajat Fahrenheit/pakai unit lampu atau kompor

Heavy oil with higher fraction compared to gasoline with the density between 0,79 and 0,83 in 60o Fahrenheit; used for lamp or stove

Minyak Solar (Higher Speed Diesel/Automotive Diesel Oil):

Jenis bahan bakar minyak untuk mesin diesel putaran tinggi

Oil fuel for diesel engine with high spin

Minyak Diesel (Diesel Fuel/Industrial Diesel Oil/Marine Diesel Fuel):

Minyak yang digunakan sebagai bahan bakar mesin diesel dan jenis mesin industri (mesin kapal) yang mempunyai kecepatan putar rendah atau sedang

Oil for diesel engine fuel and industrial engine (ship engine) with low or medium spin

Minyak Bakar (Fuel Oil/Intermediate Fuel Oil/Marine Fuel Oil):

Sulingan berat, residu atau campuran keduanya yang dipergunakan sebagai bahan bakar untuk menghasilkan panas atau tenaga

Heavy distillation, residual, or mix of both used as fuel to produce heat or power

Minyak Bakar Berat (Heavy Fuel Oil/Residual Fuel Oil):

Residu kental atau minyak bumi tercampung yang digunakan sebagai bahan bakar

Viscous residue or mixed oil as fuel

Lube Base Oil:

Senyawa hidrokarbon yang dihasilkan dari proses distilasi vakum residu panjang; digunakan sebagai bahan baku minyak pelumas berbagai jenis permesinan baik berat maupun ringan

Hydrocarbon compounds from distillation process of long residue vacuum; used as raw material of lubricants for heavy and medium weight engine

Aspal (Asphalt):

Campuran antara bitumen dan zat mineral lembam yang terjadi secara alamiah atau buatan; di Indonesia dikenal aspal Buton, yakni aspal alam yang digali dan diproduksi di pulau Buton, Sulawesi Tenggara

A mix of bitumen and mineral substance naturally or artificially; in Indonesia, it is commonly known as Buton asphalt; natural asphalt produced in Buton Island, South East Sulawesi

Parafin (Paraffin):

Hidrokarbon jenuh dengan rantai terbuka

Saturated hydrocarbon with open chain

Nafta (Naphtha):

Sulingan minyak bumi ringan dengan titik didih akhir yang tidak melebihi 220°C

Distilled light oil with the boiling point less than 220°C

LSWR (Low Sulphur Waxey Residue):

Residu berat dengan kadar belerang rendah yang diperoleh dari penyulingan atmosferik minyak bumi, misalnya residu minyak Minas dari Sumatera

Waxed residue with low sulphur derived from oil atmospheric distillation, for example Minas oil residue from Sumatera

LSFO (Low Sulphur Fuel Oil):

Minyak bakar berat dengan tingkat kandungan sulfur kurang dari 1%
Heavy burning oil with the content of sulphur less than 1%

HSFO (Heavy Sulphur Fuel Oil):

Minyak bakar berat dengan tingkat kandungan sulfur 1% atau lebih
Heavy burning oil with the content of sulphur of 1% or more

Kokas Hijau (Green Coke):

produk karbonisasi pada primer yang diperoleh dari pendidihan tingkat tinggi fraksi hidrokarbon pada suhu di bawah 900K

Product of primary solid carbonization from high boiling of hydrocarbon fraction in the temperature below 900K

Pelarut (Solvent):

zat, biasanya berbentuk cairan yang mampu menyerap atau melarutkan zat cair, gas, atau benda padat, dan membentuk campuran homogen

Substance, usually in the form of liquid that is able to absorb or dissolve liquid, gas, or solid substance and to form homogeneous mix

SPBx (Special Boiling Point-X):

Pelarut memiliki komposisi senyawa hidrokarbon Aliphatik, Naphtenic, dan sedikit senyawa Aromatik

Solvent with hydrocarbon compounds Aliphatic

Laws (Low Aromatic White Spirit):

Pelarut yang terbentuk dari senyawa hidrokarbon, antara lain adalah parafin, cycloparafin/nafteatik, dan aromatik

Solvent from hydrocarbon compounds, such as paraffin, cycloparaffin/nafteatik, and aromatic

Smooth Fluid 05:

Fraksi dari minyak hidrokarbon yang digunakan sebagai komponen utama Oil Based Mud yang memiliki karakteristik yang baik dan juga ramah lingkungan.

Fraction from hydrocarbon as the main component of Oil Based Mud with good characteristic and environmentally friendly

Lumpur Dasar-Minyak (Oil Base Mud):

Lumpur pengeboran dengan padatan lempung yang teraduk di dalam minyak yang dicampur dengan satu sampai dengan 5% air/digunakan dalam pengeboran formasi tertentu yang mungkin sukar atau mahal apabila dibor dengan menggunakan lumpur berbasis air

Drilling mud with clay solid mixed in oil with 1% to 5 % water component; used in particular formation drilling that is difficult or expensive to be drilled with watered mud

HAP (Hydrocarbon Aerosol/Propellants):

Propelanat ramah lingkungan, dengan bahan dasar dari hidrokarbon murni yang berfungsi sebagai pendorong produk aerosol dari dalam kemasan sehingga produk dapat keluar dalam bentuk kabut; HAP merupakan hasil blending hidrokarbon fraksi ringan yang diformulasikan menjadi produk propellant dengan spesifikasi disesuaikan kebutuhan di industri pengguna



An environmentally friendly propellant with the basic component of pure hydrocarbon functioned as the booster of aerosol product from inside the package so that the product can be released in the form of fog. HAP is the result of light fraction hydrocarbon blending that is formulated into propellant product with the specification adjusted to the industry demand

Pertasoli:

Fraksi nafia ringan yang terbentuk dari senyawa aliphatic (paraffin dan cycloparaffin / naphenic) dan kandungan aromatic hydrocarbon yang rendah
Light naphtha fraction from aliphatic compounds (paraffin and cycloparaffin/naphenic) and low hydrocarbon aromatic compound

HOMC (High Octane Mogas Component):

Senyawa hidrokarbon yang mempunyai angka okтана tinggi. Umumnya dari jenis hidrokarbon aromatik dan olefin, digunakan sebagai bahan campuran untuk mendapatkan kinerja bahan bakar bensin yang baik
Hydrocarbon compound with high octane. It is generally from aromatic and olefin hydrocarbon; used as mixture to obtain good gasoline fuel performance

Propilena (Propylene):

Senyawa hidrokarbon yang berbentuk gas pada suhu dan tekanan normal untuk mempermudah penyimpanan dan handling-nya, diberikan tekanan tertentu mengubahnya ke dalam bentuk cair, digunakan sebagai bahan baku pembuatan polipropilena.
Hydrocarbon compound formed from gas in normal temperature and pressure; used to ease the storage and handling; it is given with particular pressure to change it into liquid; used as raw material of polypropylene

Sulfur (Sulphur):

Elemen kimia non-metall yang memiliki dua bentuk kristal, yaitu *alpha sulphur* rombic dan *beta sulphur* monoclinic. Kedua elemen tersebut memiliki warna kuning, tidak dapat larut dalam air, agak larut dalam alkohol dan ether, larut dalam karbon disulfide, karbon tetraklorida dan benzena
Non-metal chemical element with two crystal form namely *alpha sulphur* rombic and *beta sulphur* monoclinic. Both elements are yellow, insoluble in water, soluble in alcohol and ether, soluble in carbon disulfide, tetrachloride carbon and benzene

Minarex:

Jenis minyak proses yang digunakan sebagai bahan baku pembuatan industri ban, industri barang jadi karet (tali kanvas, suku cadang kendaraan), maupun industri tinta cetak dan sebagai *plasticizer / extender* pada industri kompon PVC.
Processed oil used as raw material of the industry, rubber industry (tan belt, vehicle spare part), print out ink industry and plasticizer/ extender in PVC industry

Musicooil:

Refrigerant hidrokarbon yang ramah lingkungan, dapat

digunakan pada semua jenis Mesin Pendingin, kecuali pada mesin jenis Sentrifugal

Environmentally friendly hydrocarbon refrigerant used in all type of cooling engine, except centrifugal engine

Marine Gas Oil:

Minyak bakar yang dirancang untuk digunakan di semua jenis mesin diesel ringan; memiliki kandungan sulfur maksimum 10mg/Kg.
Burning oil designed in all light diesel engines with maximum sulphur of 10 mg/Kg

Unconverted oil:

Bahan baku pembuatan pelumas sintetik kualitas tinggi
Raw material of high quality synthetic lubricants

Minyak Dekantasi (Decanted Oil):

Aliran dasar menara distilasi dari unit pemerkahan katalitik alir setelah dipisahkan dari katalis
Main stream of distillation tower from flow catalytic cracking after separated from catalyst

Liilin (wax):

Hidrokarbon padat yang mempunyai titik cair rendah dan tidak mudah larut; terdapat dalam minyak bumi, terutama yang bersifat parafinik dan dapat dikeluarkan dari minyak dengan proses ekstraksi larutan
Solid hydrocarbon with low melting point and difficult to dissolve; found in oil with paraffinic and able to be released from oil with liquid extraction process

Liilin Lunak (Slack Wax):

Liilin yang masih banyak mengandung minyak; diperoleh dengan cara penyangkai bertekanan dari distilat parafinik yang banyak mengandung liilin
Wax with oil component derived from pressured filtration of paraffinic distillate with wax

Bitumen:

1. Bagian bahan organik dalam batuan sedimen yang dapat larut dalam pelarut organik
Organic substance with sediment rocks that is soluble in organic solvent
2. Bahan organik padat atau setengah padat yang berwarna hitam atau coklat tua yang diperoleh sebagai residu dari distilasi vakum minyak bumi; meleleh jika dipanasi dan dapat larut dalam pelarut organik
Solid or medium-solid organic substance in black or dark brown color derived as residue from oil vacuum distillation; melting if heated and soluble in organic solvent

Solvent Solphyliil:

pelarut hidrokarbon yang merupakan salah satu bahan/ produk yang bersifat ramah lingkungan dan menjadi alternatif pengganti Bahan Perusak Ozon (BPO)
Hydrocarbon solvent as one of environmentally friendly products and can be an alternative of BPO

Perkiraan faktor konversi
Approximate conversion factors

Minyak Mentah | Crude oil*

From	To			
	tonnes (metric)	kilolitres	barrels	US gallons
Multiply by				
1 tonnes (metric)	1	1.165	17.33	307.86
Kilolitres	0.8581	1	6.2898	264.17
Barrels	0.1364	0.159	1	42
US gallons	0.00325	0.0038	0.0238	1
Barrels per day	-	-	-	-
				49.8

*Based on worldwide average gravity

Produk | Products

From	To convert			
	barrels to tonnes	tonnes to barrels	kilolitres to tonnes	tonnes to kilolitres
Multiply by				
Liquefied petroleum gas (LPG)	0.086	11.6	0.542	1.844
Gasoline	0.118	8.5	0.740	1.351
Kerosene	0.128	7.8	0.806	1.240
Gas oil/diesel	0.133	7.5	0.839	1.192
Residual fuel oil	0.149	6.7	0.939	1.065
Product basket	0.125	8.0	0.786	1.272

Gas Alam (NG) Gas Alam Cair (LNG) | Natural Gas (NG) and Liquefied Natural Gas (LNG)

From	To					
	billion cubic metres NG	billion cubic feet NG	million tonnes oil equivalent	million tonnes LNG	trillion British thermal units	million barrels oil equivalent
Multiply by						
1 billion cubic metres NG	1	35.3	0.90	0.74	35.7	6.60
1 billion cubic feet NG	0.028	1	0.025	0.021	1.01	0.19
1 million tonnes oil equivalent	1.11	39.2	1	0.82	39.7	7.33
1 million tonnes LNG	1.36	48.0	1.22	1	48.6	8.97
1 billion British thermal units	0.028	0.99	0.025	0.021	1	0.18
1 million barrels oil equivalent	0.15	5.35	0.14	0.11	5.41	1

Units

1 metric tonne	= 2204.62lb
1 kilolitre	= 1.1023 short tons
1 kilocalorie (kcal)	= 6.2898 barrels
1 kilocalorie (kcal)	= 1 cubic metre
1 kilocalorie (kcal)	= 4.187kJ
1 kilocalorie (kcal)	= 3.968Btu
1 kilocalorie (kcal)	= 0.239kcal
1 kilocalorie (kcal)	= 0.252kcal
1 British thermal unit (Btu)	= 1.055kJ
1 kilowatt-hour (kWh)	= 860kcal
1 kilowatt-hour (kWh)	= 3600kJ
1 kilowatt-hour (kWh)	= 3.412Btu

Calorific equivalents

One tonne of oil equivalent equals approximately:

Heat units	10 million kilocalories
	42 gigajoules
	40 million British thermal units
Solid fuels	1.5 tonnes of hard coal
	3 tonnes of lignite
Gaseous	tuens See Natural gas and liquefied natural gas table
Electricity	12 megawatt-hours

One million tonnes of oil or oil equivalent produces about 4400 gigawatt-hours (= 4.4 terawatt-hours) of electricity in a modern power station.

1 barrel of ethanol = 0.57 barrel of oil
1 barrel of biodiesel = 0.88 barrel of oil





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