MINISTRY OF NATURAL RESOURCES | KURDISTAN REGIONAL GOVERNMENT

وەزارەتی سامانە سروشتیەکان | حکومەتی هەرێمی کوردستان

Monthly Report

- Production Figures
- Domestic Fuel Consumption
- Export Figures
- Refining Figures
- Well Activity
- Rig Count
- Latest Employment Statistics
- PSCs Update

Issue 4
January
2014

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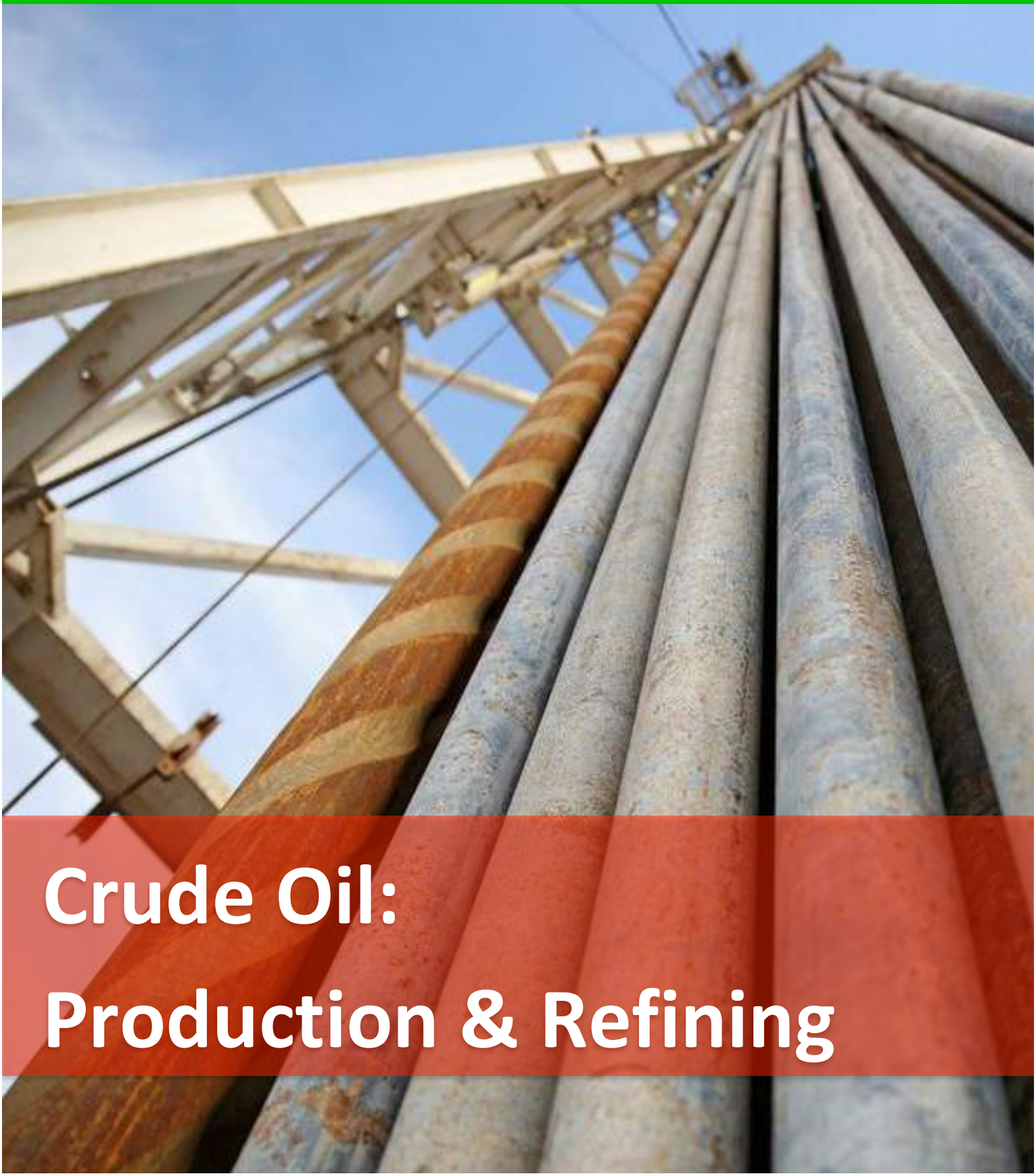
Section 1



Crude Oil: Production & Refining

Crude Oil Production, Export & Refined Quantities

IOCs	Beginning Stock Tank (BOE)	Stock Tank Production (BOE)	Export via SOMO (BOE)	Export via Trucking (BOE)	Export via KRG Pipeline (BOE)	Local Sales (BOE)	Supplied to Main Refineries (BOE)	Use in the Field (BOE)	End Stock Tank (BOE)
DNO	325,726	1,175,237	0	0	396,210	665,567	165,624	0	273,561
HKN	0	0	0	0	0	0	0	0	0
Genel Energy	1,338	7,633	0	0	0	8,971	0	0	0
Gulf Keystone	12,823	268,707	0	260,798	0	7,618	0	0	13,113
Exxon Mobil	0	0	0	0	0	0	0	0	0
Taqa	0	0	0	0	0	0	0	0	0
Hunt Oil	0	0	0	0	0	0	0	0	0
Hess	0	0	0	0	0	0	0	0	0
Kalegran Ltd	0	0	0	0	0	0	0	0	0
Chevron	0	0	0	0	0	0	0	0	0
Afren	13,804	28,474	0	0	0	29,728	0	0	12,550
Oryx	0	0	0	0	0	0	0	0	0
Marathon Oil	0	0	0	0	0	0	0	0	0
OMV	522	0	0	0	0	0	0	0	522
Repsol	0	0	0	0	0	0	0	0	0
Gas Plus Khalakan	0	0	0	0	0	0	0	0	0
TTOPCO	102,862	2,601,783	0	737,445	75,047	745,564	1,043,594	0,00	102,995
KNOC	0	0	0	0	0	0	0	0	0
Talisman	0	0	0	0	0	0	0	0	0
Oil Search	0	0	0	0	0	0	0	0	0
Western Zagros	3,940	0	0	0	0	0	0	0	3,940
Gazprom	0	0	0	0	0	0	0	0	0
Dana Gas	24,862	625,953	961	438,222	0	152,819	0	0	58,813
Khurmala	44,461	2,609,073	0	0	0	751,202	1,852,082	0	50,250
Total SA	0	0	0	0	0	0	0	0	0
Komet Group	0	0	0	0	0	0	0	0	0
Total	**530,338**	**7,316,860**	**961**	**1,436,465**	**471,257**	**2,361,469**	**3,061,300**	**0**	**515,744**
Average Daily Rate	**17,107**	**236,028**	**31**	**46,338**	**15,202**	**76,176**	**98,752**	**0**	**16,636**

Table 1: See explainer on page 4 for definitions.

***Figures include Contractor share and Government share used for product swaps or product financing.**
****Currently in pipeline and storage (not sold).**

Crude Oil Production, Export & Refined Quantities Explainer

IOCs	**International Oil Company** (IOC) is the industry standard term used to describe foreign exploration and production companies. National Oil Companies (NOCs) also exist, such as Saudi Aramco (the NOC of Saudi Arabia). In general NOCs tend to only operate in their home country, however it is not unusual to see NOCs operating out of their home country.
Beginning Stock Tank (BOE)	Measured in Barrels of Oil Equivalent (BOE), the **Beginning Stock Tank** refers to the quantity in storage at the beginning of the month.
Stock Tank Production (BOE)	Measured in Barrels of Oil Equivalent (BOE), the **Stock Tank Production** refers to the quantity of oil or gas produced according to the stock tank meter.
Export Via SOMO (BOE)	Measured in Barrels of Oil Equivalent (BOE), **Export via SOMO** refers to the quantity of oil or gas exported through the **State Organisation for Marketing of Oil (SOMO)**. SOMO is part of the Iraqi Federal Ministry of Oil and manages all petroleum exports out of Southern Iraq.
Export Via Trucking (BOE)	Measured in Barrels of Oil Equivalent (BOE), **Export via Trucking** refers to oil exports out of the Kurdistan Region through trucks, under the current crude oil for products swaps arrangement through Turkey.
Export Via KRG Pipeline (BOE)	Measured in Barrels of Oil Equivalent (BOE), **Export via KRG Pipeline** refers to exports through the newly commissioned KRG pipeline to Turkey.
Local Sales (BOE)	Measured in Barrels of Oil Equivalent (BOE), **Local Sales** refers to the quantity of oil and gas sold domestically to local buyers. Locally purchased crude oil is processed in country at Topping Plants, and the majority of the refined products are consumed locally (except for Naphtha and Fuel Oil which are sometimes exported through Iran).
Supplied to Main Refineries (BOE)	Measured in Barrels of Oil Equivalent (BOE), **Supplied to Main Refineries** refers to the quantity of oil and gas supplied to the MNR monitored refineries; Kalak (operated by Kar Group), Bazian (operated by Bezhan Pet) and Tawke (operated by DNO). Almost all of the refined products from the main refineries are consumed locally, except for Naphtha and Fuel Oil which are sometimes exported through Iran to the international market.
Operational Use in the Field (BOE)	Measured in Barrels of Oil Equivalent (BOE), **Operational use in the field** refers to the quantity of oil or gas used by the operator to feed their energy requirements in order to conduct their operations.
End Stock Tank (BOE)	Measured in Barrels of Oil Equivalent (BOE), the **End Stock Tank** refers to the quantity in storage at the end of the month.

Refined Products Figures with Explainer

	Processed by Refineries (m3)
Crude Oil	474,766

Table 2 (a): Crude Oil processed by Refineries in m3

Product	Refined (m3)	Sold (m3)	Stored (m3)	Re-processed (m3)
Naphtha	149,284	41,217	13,736	114,467
Kerosene	25,469	23,698	4,984	0
Diesel	76,552	69,881	10,467	0
Fuel Oil	208,436	211,496	19,486	0

Table 2 (b): Refined Products from processing Crude Oil (see table 2a)

$$Refining\ Losses\ (\%) = \frac{Refined\ Naphtha\ (m3) + Refined\ Kerosene\ (m3) + Refined\ Diesel\ (m3) + Refined\ Fuel\ Oil\ (m3)}{Total\ processed\ by\ Refineries\ (m3)} =$$

$$\frac{459{,}741}{474{,}766} = 3.1\%$$ **(Losses incurred due to operational use, evaporation, and residue losses)**

	Re-processed (m3)
Naphtha	114,467

Table 2 (c): Refined Products from re-processing Naphtha in m3

Product	Refined (m3)	Sold (m3)	Stored (m3)	Re-processed (m3)
Gasoline	91,505	87,788	13,685	0
Liquid Gas	5,654	2,342	1,443	0
Sweet Naphtha	2,619	0	3,469	0

Table 2 (d): Derived products from the reforming process of Naphtha (see table 2c)

$$Re-processing\ of\ Naphtha\ Losses\ (\%) = \frac{Refined\ Gasoline\ (m3) + Refined\ Liquid\ Gas\ (m3) + Refined\ Sweet\ Naphtha\ (m3)}{Re-processed\ Naphtha\ (m3)} =$$

$$\frac{99{,}778}{114{,}467} = 12.8\%$$ **(Losses incurred due to operational use, evaporation, and residue losses)**

Product	**Refined petroleum products** are derived from crude oils through processes such as catalytic cracking and fractional distillation. These products have physical and chemical characteristics that differ according to the type of crude oil and subsequent refining processes. Refined petroleum products in the Kurdistan Region include, but are not limited to: Naphtha, Kerosene, Diesel, Fuel Oil, Gasoline, Liquid Gas, Sweet Naphtha and Benzene.
Refined	Measured in cubic metres (m^3), this is the **quantity of product produced** as a result of refining crude oil; also known as refinery output.
Sold	Measured in cubic metres (m^3), this is the **quantity of product sold**. All refined products are sold locally through the MNR. Almost all refined products are consumed locally except for Naphtha and Fuel Oil, which is occasionally exported to neighbouring countries.
Stored	Measured in cubic metres (m^3), this is the **quantity of product in storage** at the refineries at the time the data was captured.
Re-processed	Measured in cubic metres (m^3), this is the **quantity of product re-processed** at the refineries. This is typically Naphtha that is re-processed to produce Benzene.
Processed by Refineries	Measured in cubic metres (m^3), this is the **quantity of crude oil processed** by the refineries to produce petroleum products.

Overview: From Production to Consumption

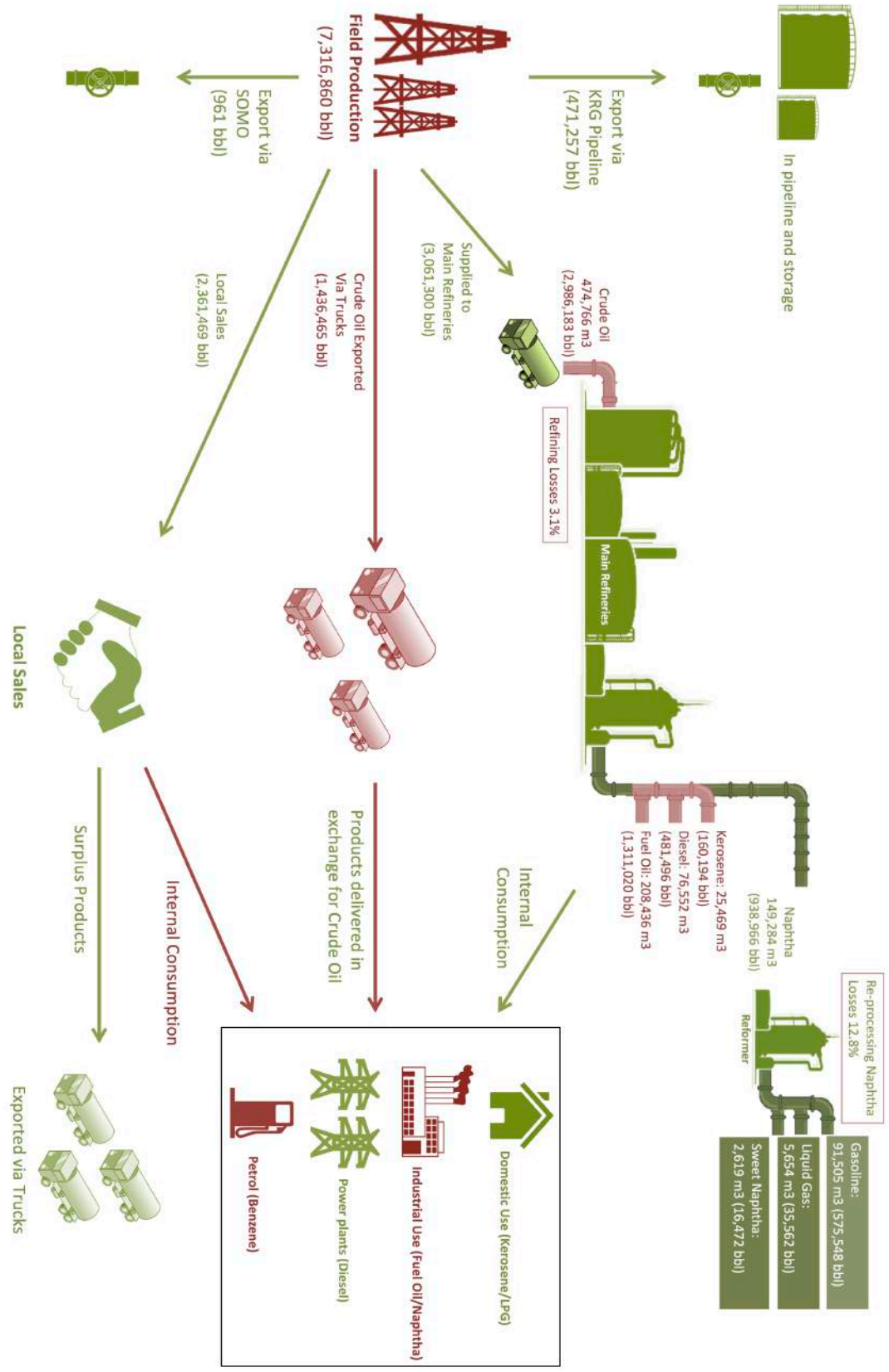
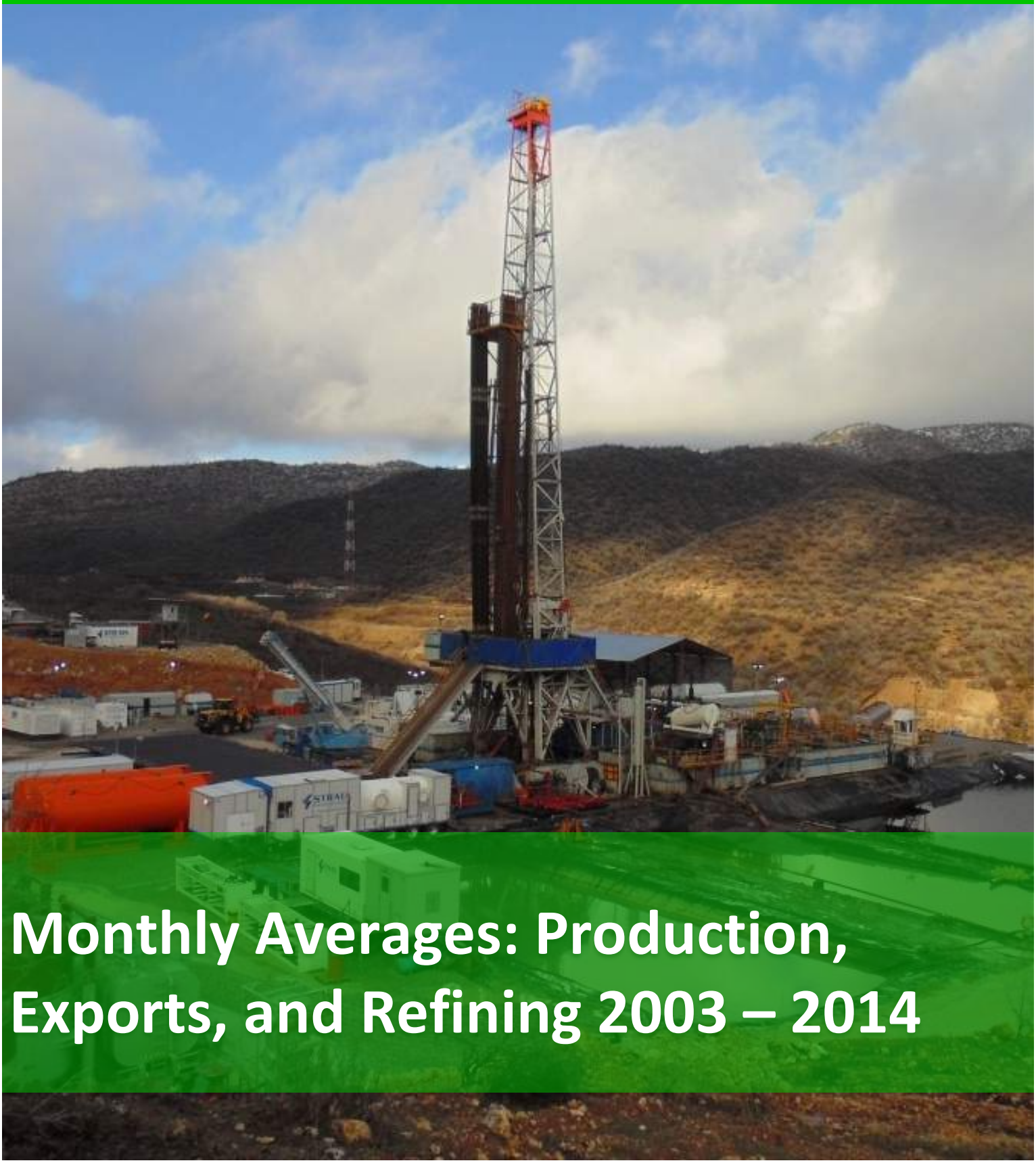


Diagram 1: Distribution of Crude Oil (bbl) from production to consumption.

IVI Minivib High Frequency Vehicles (Barda Rash block)

Section 2

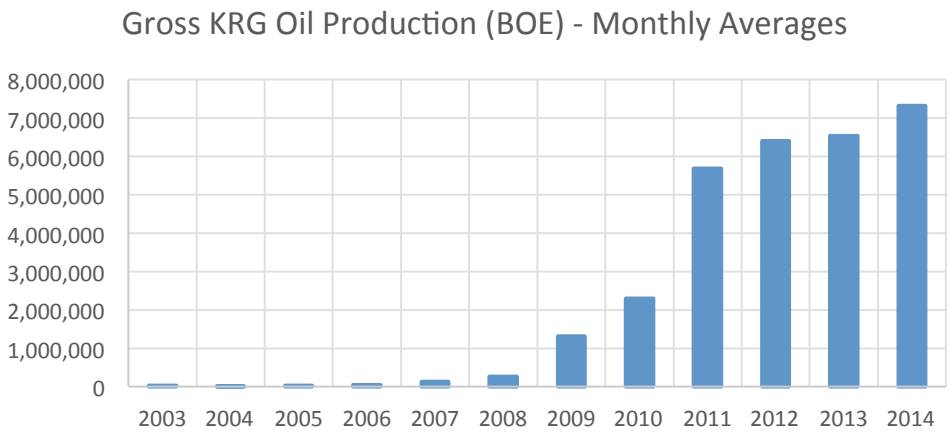


Monthly Averages: Production, Exports, and Refining 2003 – 2014

Monthly Averages: Production, Exports, and Refining 2003 – 2014

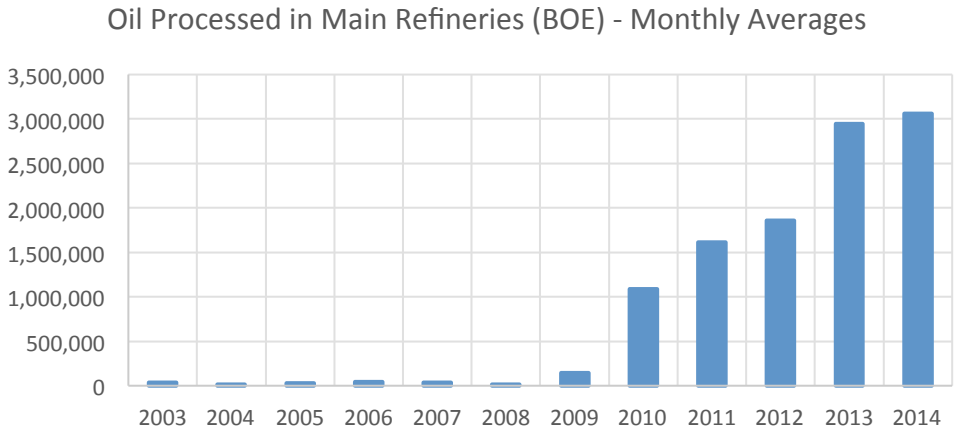
Gross KRG Oil Production (BOE) – Monthly Averages	
2003	32.995
2004	13.383
2005	30.645
2006	42.189
2007	127.018
2008	259.764
2009	1.307.421
2010	2.290.315
2011	5.685.957
2012	6.392.179
2013	6.538.627
2014	7.316.860

Table 3 (a): Gross KRG Oil Production in BOE – Monthly Averages



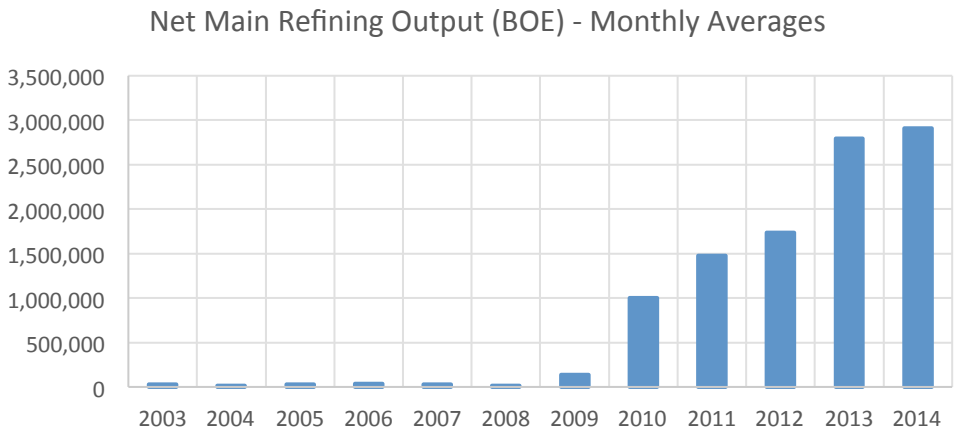
Oil Processed in Main Refineries (BOE) – Monthly Averages	
2003	32.926
2004	13.383
2005	30.645
2006	42.148
2007	32.635
2008	14.869
2009	143.017
2010	1.086.622
2011	1.613.161
2012	1.857.972
2013	2.948.539
2014	3,061,300

Table 3 (b): Oil Processed in Main Refineries in BOE – Monthly Averages



Net Main Refining Output (BOE) – Monthly Averages	
2003	30.207
2004	12.278
2005	28.114
2006	38.667
2007	29.939
2008	13.757
2009	136.379
2010	1.002.535
2011	1.478.679
2012	1.736.411
2013	2.791.990
2014	2,908,235

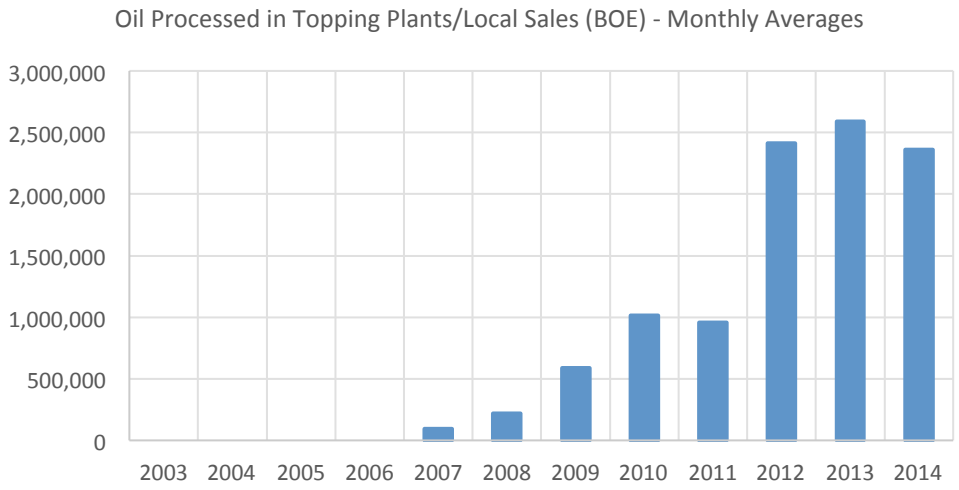
Table 3 (c): Net Main Refining Output in BOE – Monthly Averages



Monthly Averages: Production, Exports, and Refining 2003 – 2014

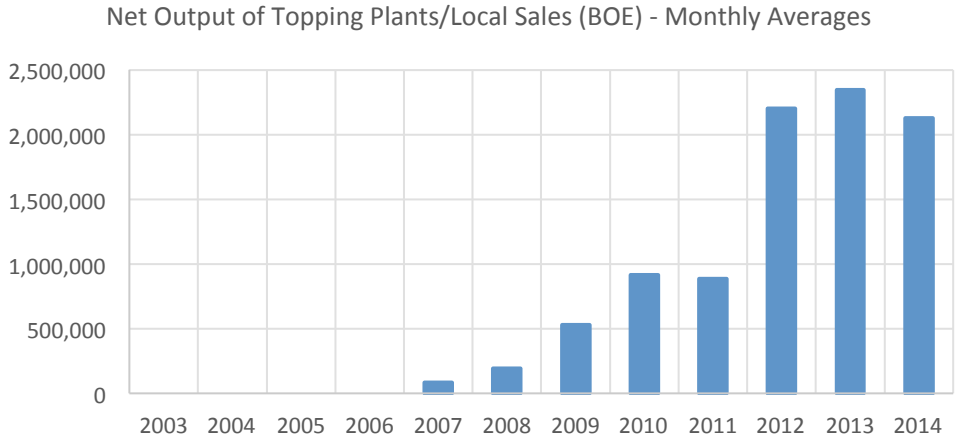
Oil Processed in Topping Plants/Local Sales (BOE) – Monthly Averages	
2003	0
2004	0
2005	0
2006	0
2007	93.183
2008	216.216
2009	588.770
2010	1.012.716
2011	959.383
2012	2.412.752
2013	2.587.803
2014	2,361,469

Table 4 (a): Oil Processed in Topping Plants/Local Sales in BOE – Monthly Averages



Net Output of Topping Plants/Local Sales (BOE) – Monthly Averages	
2003	0
2004	0
2005	0
2006	0
2007	83.864
2008	194.595
2009	529.893
2010	916.122
2011	884.235
2012	2.198.964
2013	2.342.344
2014	2,125,322

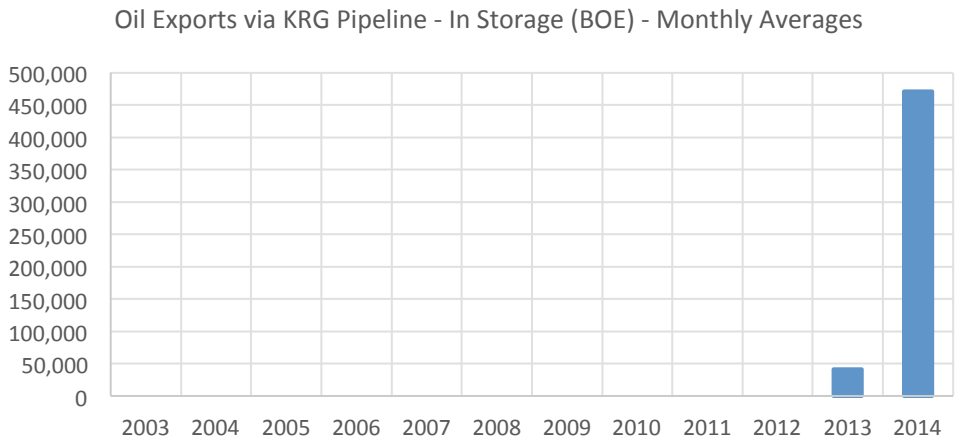
Table 4 (b): Net Output of Topping Plants/Local Sales (in BOE) – Monthly Averages



Monthly Averages: Production, Exports, and Refining 2003 – 2014

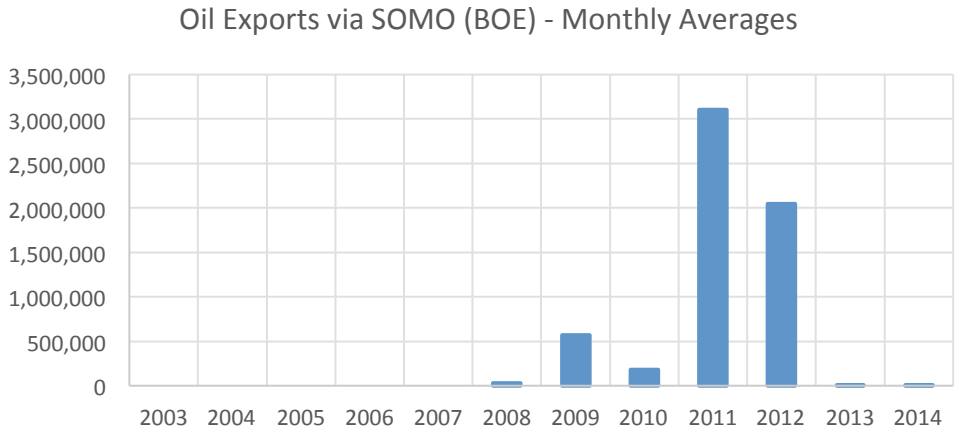
Oil Exports via KRG Pipeline - In Storage (BOE) – Monthly Averages	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	0
2013	40.927
2014	471.257

Table 5 (a): Oil Exports via KRG Pipeline – in Storage (In BOE) – Monthly Averages



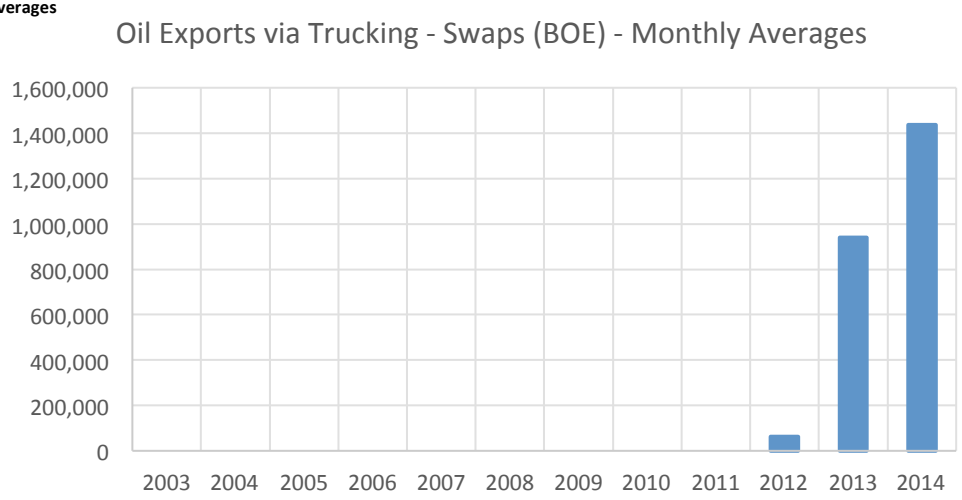
Oil Exports via SOMO (BOE) – Monthly Averages	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	27.392
2009	572.529
2010	181.399
2011	3.103.523
2012	2.042.268
2013	717
2014	916

Table 5 (b): Oil Exports via SOMO in BOE – Monthly Averages



Oil Exports via Trucking - Swaps (BOE) – Monthly Averages	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	62.464
2013	940.238
2014	1,436,465

Table 5 (c): Oil Exports via Trucking – Swaps in BOE – Monthly Averages



Section 3

Local Workforce Development

Employment Statistics

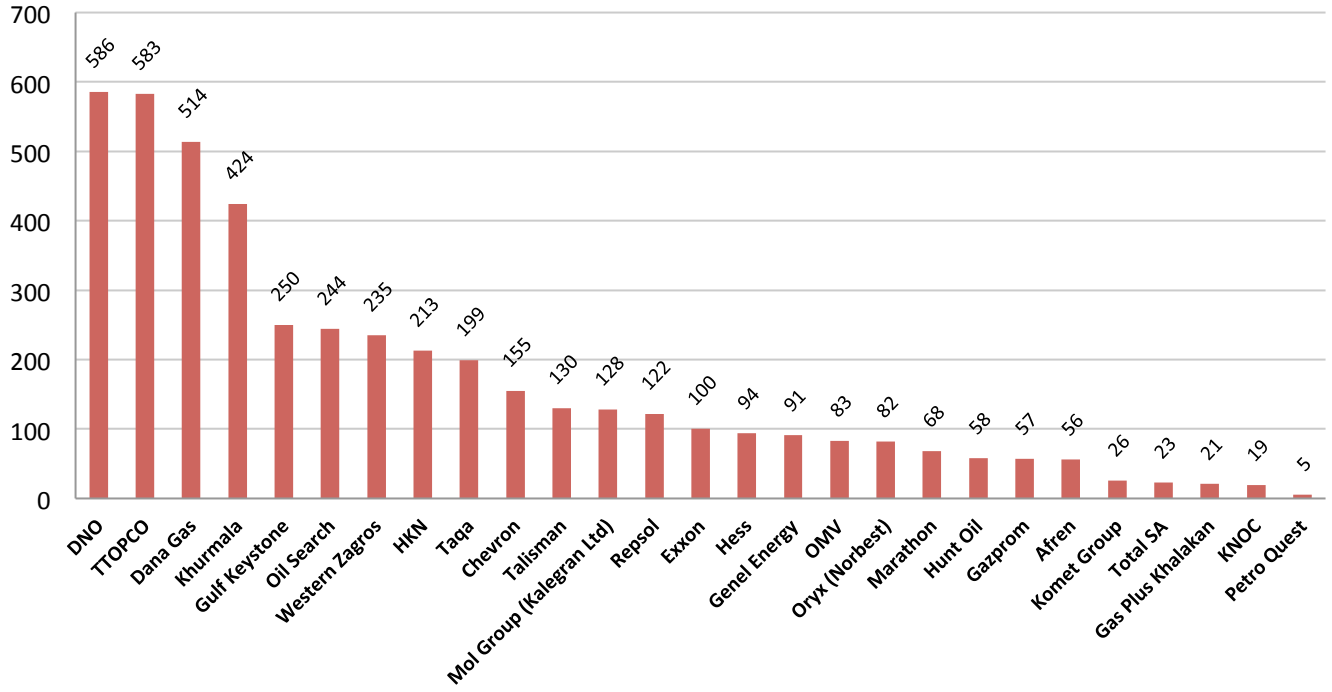
IOC	Total Staff	Total Locals	Percentage Locals
Khurmala	424	418	99%
HKN	213	173	81%
Dana Gas	514	399	78%
DNO	586	428	73%
Gas Plus Khalakan	21	15	71%
TTOPCO	583	413	71%
Gulf Keystone	250	171	68%
Western Zagros	235	147	63%
OMV	83	53	64%
Petro Quest	5	3	60%
Repsol	122	68	56%
Mol Group (Kalegran Ltd)	128	66	52%
Taqa	199	96	48%
Hess	94	44	47%
Oil Search	244	105	43%
Hunt Oil	58	25	43%
KNOC	19	8	42%
Genel Energy	91	36	40%
Marathon	68	26	38%
Total SA	23	8	35%
Exxon	100	35	35%
Talisman	130	43	33%
Komet Group	26	6	23%
Oryx	82	23	28%
Chevron	155	41	26%
Afren	56	13	23%
Gazprom	57	9	16%
Total	4566	2872	63%

Table 6: Total Staff and Total Local Staff Employment Statistics by IOC.

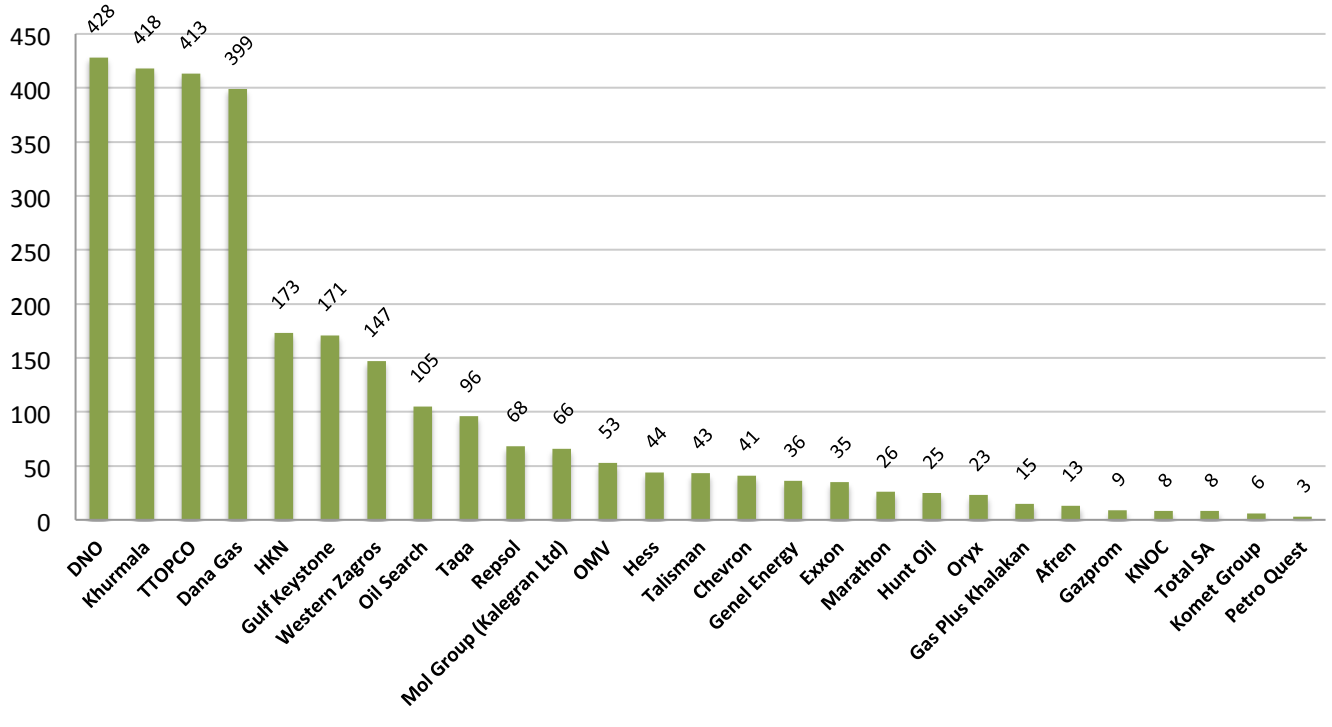
IOC	**International Oil Company** (IOC) is the industry standard term used to describe foreign exploration and production companies. National Oil Companies (NOCs) also exist, such as Saudi Aramco (the NOC of Saudi Arabia). In general NOCs tend to only operate in their home country, however it is not unusual to see NOCs operating out of their home country.
Total Employees	**Total Employees** refers to the total number of employees working directly for the IOC, including both foreign and local personnel.
Total Locals	**Total Locals** refers to the total number of local employees working directly for the IOC.
Percentage Locals	**Percentage Locals** refers to the percentage of local personnel of the total number of employees.

Employment Statistics - Tables

Total Staff



Total Locals



Employment Level Breakdown

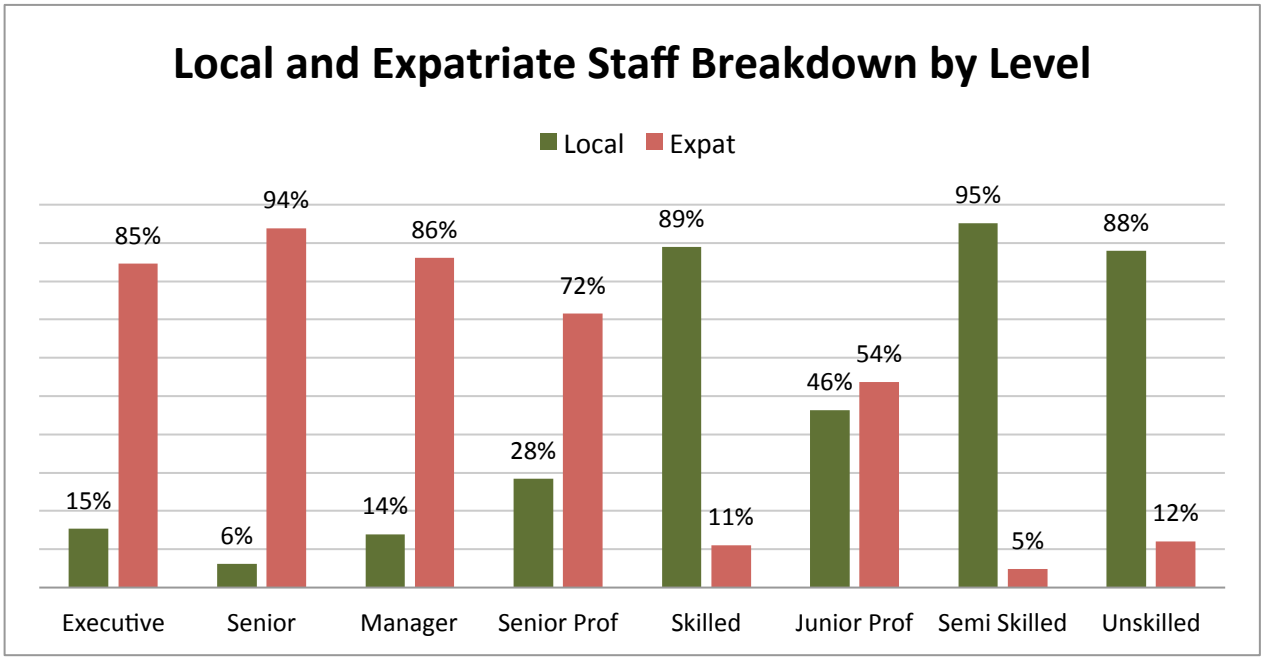


Figure 1: Local and Expatriate Staff Breakdown by Level. Note that the breakdown does not include numbers from KAR and Petro Quest.

Level:	Local Staff	Expatriates	Total
Executive	2	11	13
Senior Manager (GM, Country Manager, Deputy GM)	4	61	65
Functional Manager / Superintendent (Drilling, Production, Finance etc.)	54	334	388
Senior Professional (5+ years)	233	585	818
Skilled (Defined skill-set such as Drillers, Drilling Supervisors, Production Supervisors, Technicians)	444	55	499
Junior Professional (Graduate less than 5 years experience)	444	515	959
Semi Skilled - includes those in training (Drilling crews, production helpers etc.)	572	29	601
Unskilled (roustabouts, casual labour, camp labour, no prior experience needed)	698	96	794
Total	2451	1686	4137

Table 7: Local and Expatriate Breakdown by Level. Note that the breakdown does not include numbers from KAR and Petro Quest

As the Kurdistan Region's production capacity grows, the workforce is expanding. The recently established Production Operations Training Board forecasts the production workforce alone will increase (from around 1000 currently) by 200 new positions for every 100.000 barrels per day of capacity added.

Section 4

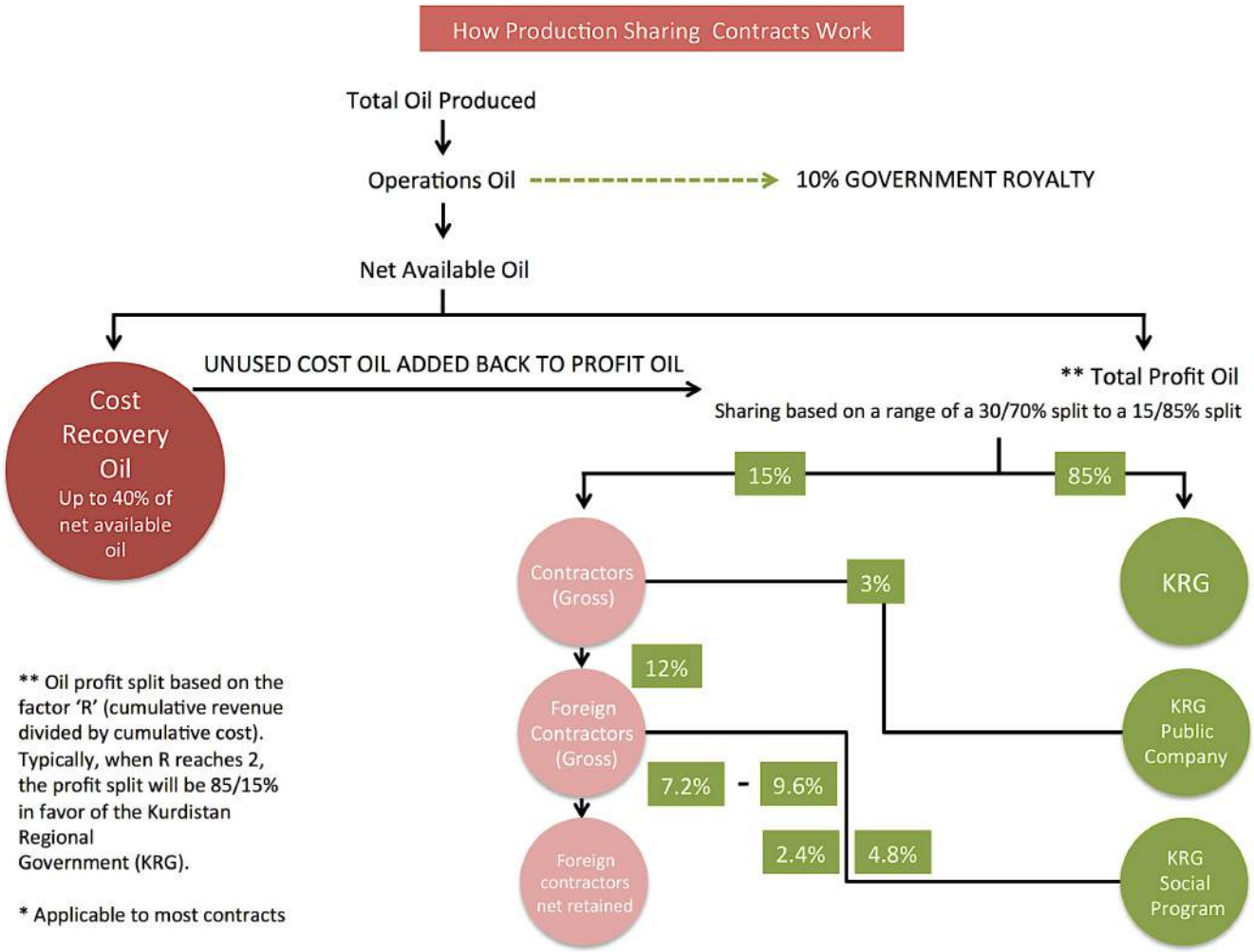
Production Sharing Contracts

Picture: Release of the Production Sharing Contracts online (September 2011).

Production Sharing Contracts - Explained

What is a Production Sharing Contract (PSC)?
In oil and gas, PSCs are a common type of contract signed between a government and an Exploration and Production (E&P) company to define how much of the production each party will receive. PSCs were first used in Bolivia in the 1950s, however were relatively uncommon until recent times, where they now dominate oil and gas agreements, especially in the Middle East and Central Asia.

Under PSC arrangements, the E&P company bears the financial risk until such time a discovery is made. If a discovery is not made, no cost is recovered by the E&P company. However if a discovery is made and the field begins to produce, the company is permitted to use the money from produced oil to recover capital and operational expenditures, known as "cost oil". The remaining money is known as "profit oil", and is split between the government and the company, typically at a rate of about 80% for the government, 20% for the company. Although in the Kurdistan region, that rate is typically closer to 90% for government.



Production Sharing Contracts - PSCs

Current Operator	PSC (Block)	PSC Signing Date
Chevron	Rovi	22/12/2006
Chevron	Sarta	22/12/2006
Hunt Oil	Ain Sifni	08/09/2007
Genel Energy	Miran	01/10/2007
Mol Group (Kalegran Ltd)	Akri Bijeel	06/11/2007
HKN	Sarsang	06/11/2007
GKPI	Shaikan	06/11/2007
Taqa	Atrush	10/11/2007
KNOC	Bazian	10/11/2007
Oryx	Hawler	10/11/2007
TTOPCO	Taq Taq - Kewa Chirmila	26/02/2008
Talisman	Kurdamir	28/02/2008
OMV	Bina Bawi	06/03/2008
DNO	Dohuk	13/03/2008
DNO	Erbil	13/03/2008
DNO	Tawke	13/03/2008
Afren	Barda Rash	20/06/2008
KNOC	Sangaw South	21/06/2008
Genel Energy	Ber Bahr	31/03/2009
Genel Energy	Chia Surkh	11/06/2009
Gas Plus Khalakan	Khalakan	11/06/2009
GKPI	Sheikh Adi	16/07/2009
Marathon	Harir	20/10/2010
Total SA	Safen	20/10/2010
Hess	Dinarta	26/07/2011
Western Zagros	Garmian	25/07/2011
Repsol	Piramagrun	26/07/2011
Repsol	Qala Dze	26/07/2011
Hess	Shakrok	26/07/2011
Oil Search	Taza	27/07/2011
Talisman	Topkhana	19/08/2011
Exxon Mobil	Al Qush	18/10/2011
Exxon Mobil	Baeshiqa	18/10/2011
Exxon Mobil	Betwata	18/10/2011
Exxon Mobil	East Arbat	18/10/2011
Exxon Mobil	East Arbat	18/10/2011
Exxon Mobil	Pirmam	18/10/2011
Exxon Mobil	Qara Hanjeer	18/10/2011
Turkish Entity	Arbat - 2nd PSC	01/05/2012
Turkish Entity	Choman	01/05/2012
Turkish Entity	Hindren	01/05/2012
Turkish Entity	Jebel Kand	01/05/2012

Table 8 (a): See explainer on page 21 for definitions

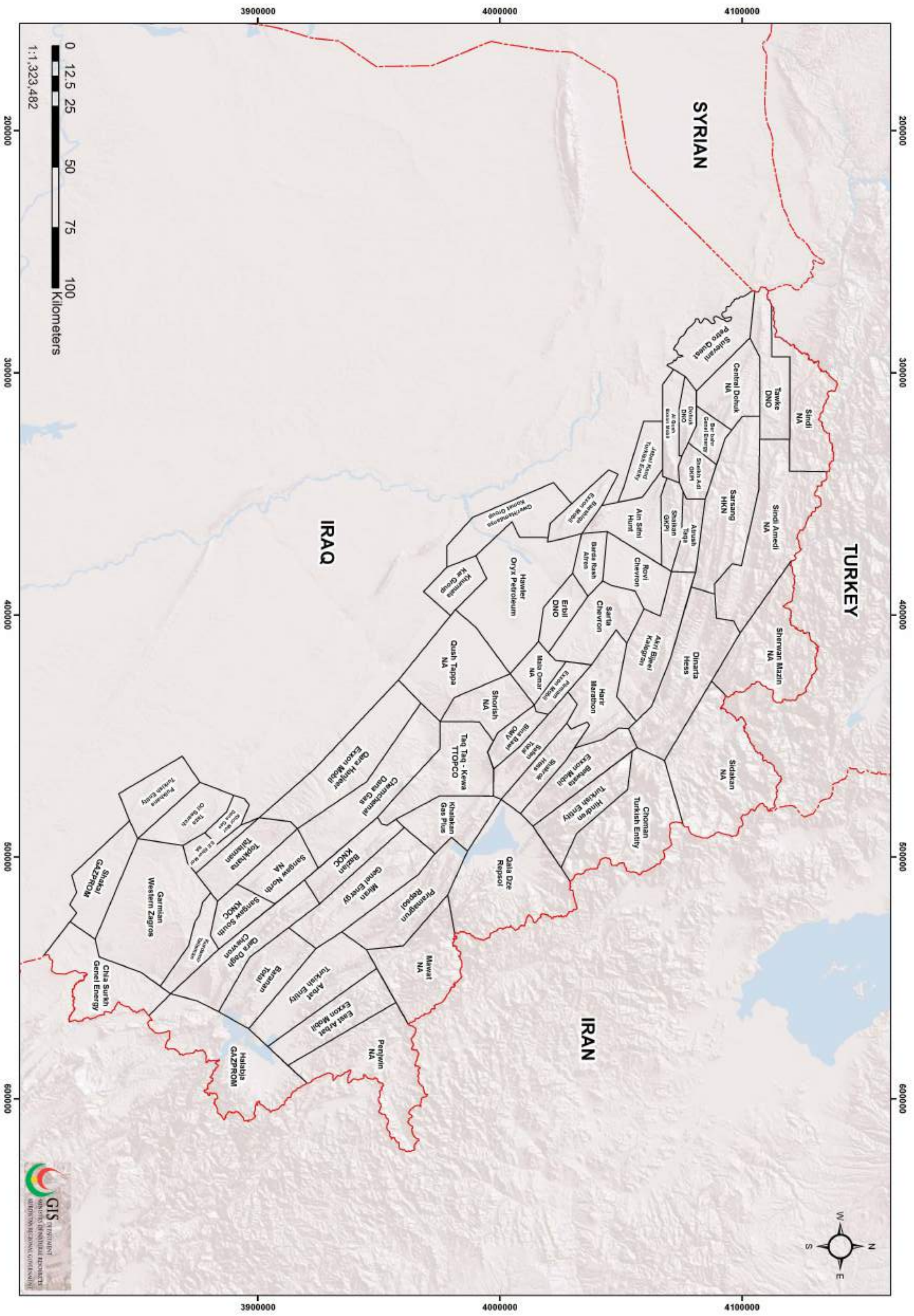
Production Sharing Contracts - PSCs

IOC	Block	Signing Date
Turkish Entity	Pulkhana - 2nd PSC	01/05/2012
Gazprom	Shakal - 2nd PSC	31/07/2012
Gazprom	Halabja	18/02/2013
Total	Baranan - 2nd PSC	25/04/2013
Komet Group	Gwer/Hamdanya	06/06/2013
Chevron	Qara Dagh - 2nd PSC	11/06/2013

Table 8 (b): See below explainer for definitions

IOC	**International Oil Company** (IOC) which is the industry standard term used to describe foreign exploration and production companies. National Oil Companies (NOCs) also exist, such as Saudi Aramco (the NOC of Saudi Arabia). In general NOCs tend to only operate in their home country, however it is not unusual to see NOCs operating out of their home country.
Block	**Block** describes the territory assigned to the IOC for petroleum operations according to the Production Sharing Contract (PSC) between the IOC and the KRG. Block is termed as Contract Area in the contract.
Signing Date	**Signing Date** refers to the date that the Production Sharing Contract (PSC) was signed (may also be described as the Exploration start date).

Blocks Map


SYRIAN
IRAQ
TURKEY
IRAN
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300000
400000
500000
600000
Sarsang HKN
Sindi Amedi NA
Sherwan Mazin NA
Sidakan NA
Hawler Oryx Petroleum
Quish Tappa NA
Taq Taq - Kewa TTOPCO
Qala Dze Repsol
Mawat NA
Penjwin NA
Halabja GAZPROM
Garmian Western Zagros
Shakal GAZPROM
Chia Surkh Genel Energy
Harir Marathon
Choman Turkish Entity
Erbil DNO
Rovi Chevron
Sarta Chevron
Dinarta Hess
Akri Bijeel Kalegran
Shorish NA
Piramagrun Repsol
Miran Genel Energy
Bazian KNOC
Sangaw North NA
Sangaw South KNOC
Qara Dagh Chevron
Baranan Total
Arbat Turkish Entity
East Arbat Exxon Mobil
Qara Hanjeer Exxon Mobil
Chemchamal Dana Gas
Khalakan Gas Plus
Sindi NA
Tawke DNO
Central Dohuk NA
Ain Sifni Hunt
Topkhana Talisman

Barda Rash Block (operated by Afren MENA Ltd.)

Section 5

Rig Count & Activity

Rig Count & Activity

No.	Drilling Contractor	Rig Name	Arrival into Kurdistan	No. of wells drilled in Kurdistan previously
1	EDC Romfor	EDC Romfor Rig 22	2006	10
2	EDC Romfor	EDC Romfor Rig 23	2008	6
3	EDC Romfor	EDC Romfor Rig 24	2009	6
4	EDC Romfor	EDC Romfor Rig 25	2013	1
5	Rotary Drilling	R-67	10/01/2011	3
6	Rotary Drilling	R-68	02/03/2012	1
7	Guney Yildizi Petrol	RIG-8	01/08/2012	1
8	Weatherford Drilling	319	2009	3
9	Weatherford Drilling	842	2009	7
10	Weatherford Drilling	829	2010	3
11	Weatherford Drilling	887	2013	NA
12	Weatherford Drilling	888	2013	NA
13	DQE	DQ030	01/03/2013	2
14	DQE	DQ031	01/02/2011	5
15	DQE	DQ032	01/08/2012	2
16	DQE	DQ036	01/06/2013	1
17	DQE	DQ037	01/08/2011	4
18	DQE	DQ038	01/03/2012	2
19	DQE	DQ039	01/10/2005	17
20	DQE	DQ040	01/06/2006	16
21	DQE	DQ051	01/03/2012	4
22	Nabors	103	01/03/2013	0
23	Nabors	104	01/06/2013	0
24	Parker Drilling	247	15/08/2013	0
25	Parker Drilling	269	20/07/2013	0
26	Stone Energy	S101	NA	4
27	Stone Energy	PR 3	2010	6
28	Stone Energy	PR 4	2009	6
29	Performance Drilling	T-63	01/10/2011	3
30	Performance Drilling	T-80	2010	4
31	Performance Drilling	T-221	2011	2
32	KS Drilling	Discoverer-1	2008	7
33	KS Drilling	Di scovere-4	2011	2
34	GW Drilling	GW Drilling R83	10/05/2013	0
35	GW Drilling	GW Drilling R604	01/07/2013	0
36	Sakson Egypt	SK-601	2010	3
37	Sakson Egypt	SK-801	2012	0
38	CAT GmbH	Cardwell KB200C	2012	0
39	Ensign	Rig-941	01/06/2013	1
40	Viking	Rig 21	2013	0
41	Viking	Rig 11	2011	3
42	Viking	Rig 10	2010	2
43	Viking	Rig 7	2012	1
44	Tehnotop	IC 5	2012	NA
45	Tehnotop	T50	2012	NA
46	Tehnotop	Cardwell KB200C	2013	NA

Table 9: See explainer on page 26 for definitions

Rig Count & Activity - Explainer

Drilling Contractor	**Drilling Contractor** refers to the company whom operate and in most cases own the Drilling Rig.
Rig Name	**Rig Name** refers to the unique identification of the equipment (Drilling Rig) used to drill the well.
Arrival into Kurdistan	**Arrival in Kurdistan** refers to when the Rig arrived into Kurdistan.
No. of Wells Drilled in Kurdistan Previously	**No, of wells drilled in Kurdistan Previously** describes the number of wells previously drilled by that rig within the Kurdistan Region.

Rig Count & Activity

No.	Current location of rig (block name if drilling)	Well Name (if drilling)	Currently Drilling (yes/no)	Top Drive or Kelly Drive
1	Hawler	Zeg 1	Yes	TESCO TDS 250 HMI
2	Barda Rash	Barda Rash - 5	Yes	TESCO HS 650
3	Binari Serwan	BS-1	No	NOV TDS 11 SA
4	Yard, Gazna Road, Erbil	NA	No	NOV TDS 11 SA
5	Akri Bijeel	Bijell-4	Yes	Top Drive
6	Akri Bijeel	Bijell-1B	Yes	Top Drive
7	Sarsang	Mangesh-1	No	Top drive
8	Shaikan	SH-07C	Yes	Top Drive
9	Sheikh Adi	SA – 3A	Yes	Top Drive
10	Sarsang	EST-01	No	Top Drive
11	Pirman	Pirman – 1	No	Top Drive
12	Al Qosh	NA	No	Top Drive
13	KDM	KDM # 6	Yes	Kelly Drive
14	Atrush	Atrush-4	Yes	Top Drive
15	Tawke	Tawke-21	Yes	Top Drive
16	Bazian	BN-2	Yes	Top Drive
17	Yard, Erbil	NA	No	Top Drive
18	Yard, Erbil	NA	No	Top Drive
19	Benenan	Benenan-4	Yes	Top Drive
20	Tawke	Tawke-22	Yes	Top Drive
21	Shewashan	Shewashan-1	Yes	Top Drive
22	Sarta	Sarta 2	Yes	Top Drive
23	Rovi	Rovi 2	Yes	Top Drive
24	Dinarta	Kanibot #1	Mobilising	Varco TDS-11 SA
25	Piramagrun	Zewe-1	Yes	Varco TDS-11 SA
26	NA	NA	No	TDS11
27	NA	NA	Mobilising	TDS-11SA
28	NA	NA	No	TDS-11SA
29	Minar	Minar 5	No	TDS 11
30	Topkhana	Topkhana-2	Yes	TDS 1
31	Harir	Jisik-1	Yes	BENTEC
32	Hawler	Banan-1	Yes	Top Drive Varco 11S
33	Taq Taq	TT-22	Yes	Top Drive Varco 11S
34	Garmian	Hasira 1	Yes	Top Drive TDS-11SA
35	Garmian	Baram 1	Yes	Top Drive TDS-11SA
36	Hawler	Demir Dagh - 3	Yes	VARCO TDS11SA
37	Akri Bijeel	Bijeel-2	Yes	TESCO-750- ESI-1350
38	Khurmala	Khurmala 117	Yes	NA
39	Shakrok	Shakrok 1	Yes	Top Drive
40	Maqlub	Maqlub 1	Yes	Top Drive
41	Simrit	Simrit 4	No	Top Drive
42	Barda Rash	BD 4	Yes	Top Drive
43	Bina Bawi	BB3	Yes	Swivel
44	Khurmala	K293	No	NA
45	Khurmala	K306	No	NA
46	Khurmala	K117	No	NA

Table 10: See explainer on page 28 for definitions

Rig Count & Activity – Explainer

Current Location of Rig	**Current Location of Rig** describes where the Rig is located within the Kurdistan Region.
Well Name	A **well** describes the vertical or horizontal hole drilled in order to discover and produce oil and gas.
Currently Drilling	**Currently Drilling** refers to whether the Rig is currently operating or not.
Top Drive or Kelly Drive	A **Top Drive** is a mechanical device on a drilling rig that provides clockwise torque to the drill string to facilitate the process of drilling a well. A **Kelly Drive** refers to a type of well drilling device on a drilling rig that employs a section of pipe with a polygonal outer surface which passes through the bushing and rotary table. This bushing is rotated via the rotary table and thus the pipe and the attached drill string turn while the polygonal pipe is free to slide vertically in the bushing as the bit digs the well deeper.

Rig Count & Activity

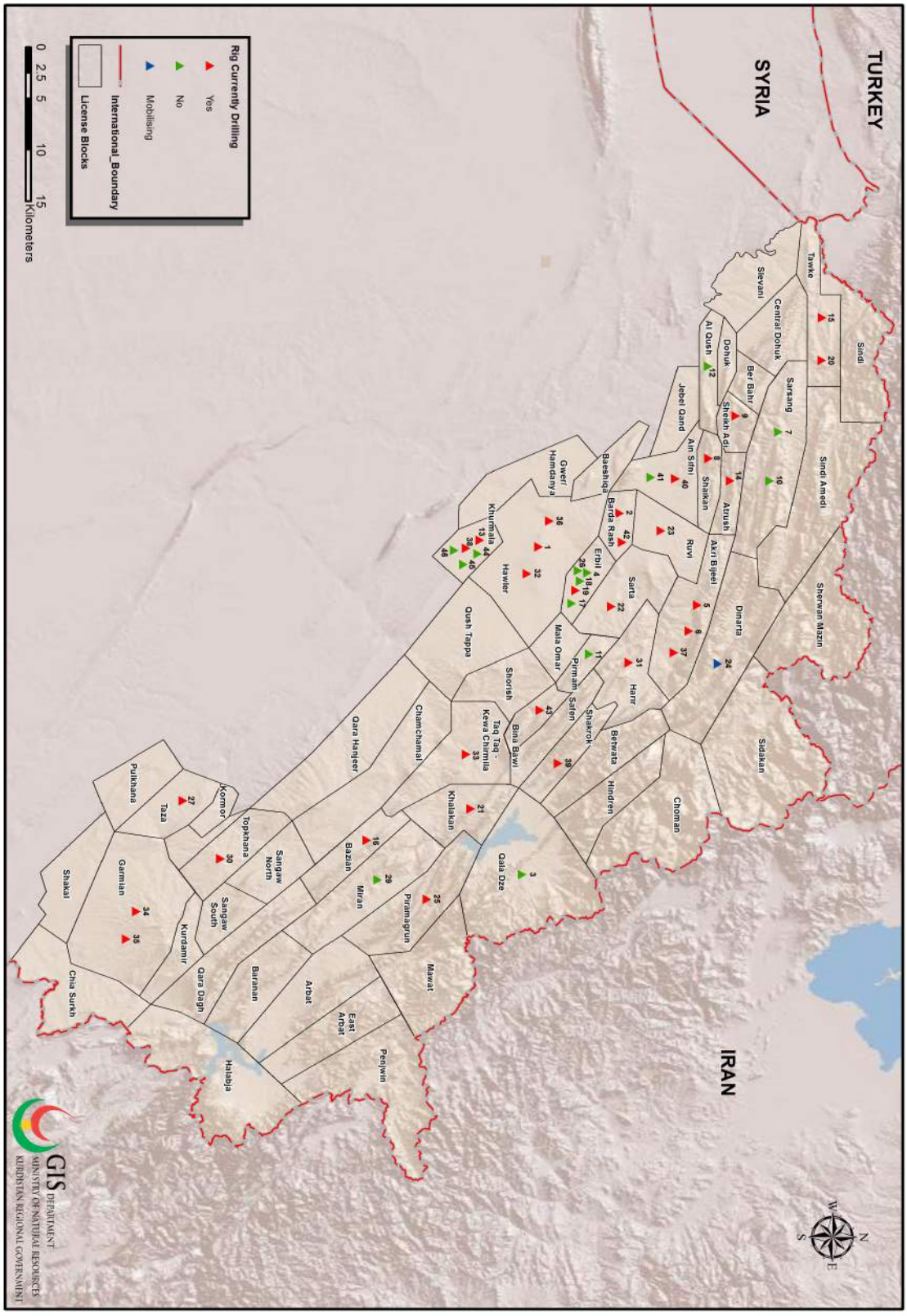
No.	HP	Date of manufacture	Manufacturer	Country of origin
1	1000	Rebuild 2013	Parco	USA
2	1500	NA	Parco	USA
3	1500	Rebuild 2013	Parco	USA
4	1500	2012	National Oilwell	USA
5	2000	2007	Nanyang RG Petro-Machinery (Group) Co. Ltd	China
6	1500	2007	Nanyang RG Petro-Machinery (Group) Co. Ltd	China
7	2000	1978	National	USA
8	3000	1999	Branham	USA
9	1500	2008	NOV	USA
10	2000	2009	Letouneau Industries	UAE/USA
11	2000	2013	Drillmec	Italy
12	2000	2013	Drillmec	Italy
13	750	01/02/2012	RG PETRO-MACHINERY (GROUP) CO.LTD	China
14	2000	01/07/2007	BaoJi Oilfield Machinery CO.LTD	China
15	2000	01/04/2012	BaoJi Oilfield Machinery CO.LTD	China
16	2000	01/05/2012	BaoJi Oilfield Machinery CO.LTD	China
17	2000	01/05/2011	BaoJi Oilfield Machinery CO.LTD	China
18	2000	01/11/2006	BaoJi Oilfield Machinery CO.LTD	China
19	1500	01/06/2005	BaoJi Oilfield Machinery CO.LTD	China
20	1500	01/03/2006	BaoJi Oilfield Machinery CO.LTD	China
21	1500	01/07/2010	BaoJi Oilfield Machinery CO.LTD	China
22	3000	2006 (Refurbished)	Lee C Moore	USA
23	3000	2013 (Refurbished)	Lee C Moore	USA
24	2000	2007	Bomco	China/USA
25	2000	Modified 2008	Loadmaster	USA
26	2000	2007	Bomco	China
27	2000	2008	Bomco	CHINA
28	2000	2008	Bomco	CHINA
29	2000	2011	Dreco	USA
30	2000	2009	Pyramid	USA
31	1500	2010	Bentec	Germany
32	1500	2007	Bomco	China
33	2000	2008	American Lock	America
34	2000	1981 (Refurbished 2013)	Lee-C-Moore	USA
35	2000	1978 (Refurbished 2013)	Dreco	USA
36	2000	2010	Bomco	CHINA
37	3000	2012	DRILLMEC	ITALY
38	460	1996	Cardwell	USA
39	2000	2001	IDM	USA
40	2000	2008	Bomco	China
41	2000	2008	Bomco	China
42	2000	2008	Bomco	China
43	650	2007	RJ	China
44	NA	NA	Upetrom	Romania
45	NA	NA	Upetrom	Romania
46	NA	NA	Cardwell	USA

Table 11: See explainer on page 30 for definitions

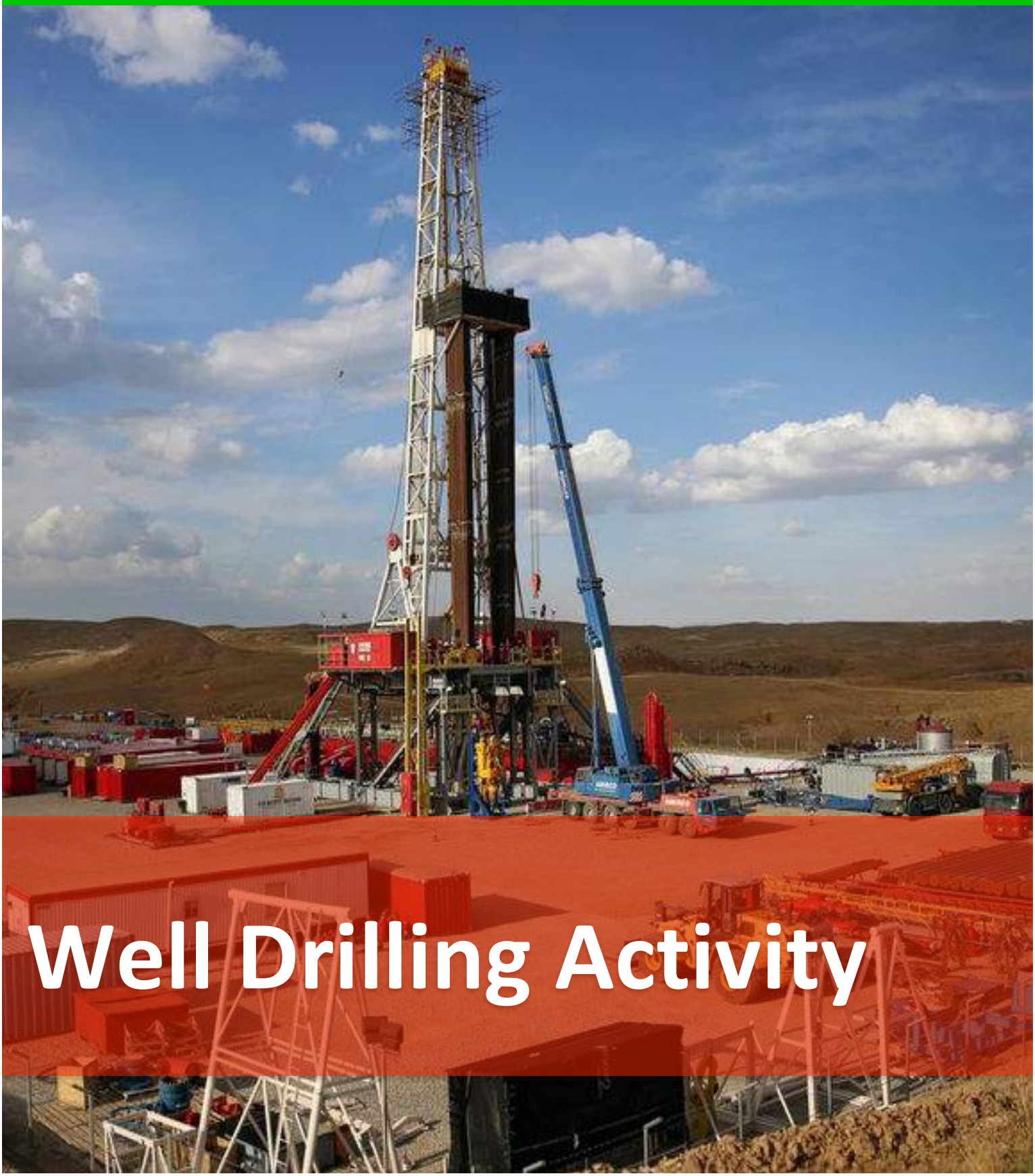
Rig Count & Activity - Explainer

HP	**Horsepower or HP** is the unit of measure of power of the Drilling Rig, where 1 HP is equal to 746 watts.
Date of Manufacture	**Date of Manufacture** refers to the date the Drilling Rig was manufacture.
Manufacturer	**Manufacturer** refers to the name of the manufacturing company.
Country of Origin	**Country of Origin** refers to where the Drilling Rig was manufacture.

Current Rig Locations



Section 6



Well Drilling Activity

Well Drilling Activity – General Information

No.	IOC	Block	Well Name	Rig Name	Drilling Contractor
1	Repsol	Piramagrum	Zewe-1	Parker 269	Parker
2	Chevron	Rovi	Rovi 2	104	Nabors
3	Chevron	Sarta	Sarta 2	103	Nabors
4	Talisman	Topkhana	Topkhana - 1	HL-10	Sakson
5	Talisman	Kurdamir	Kurdamir - 2	T-80	PDOS
6	Talisman	Kurdamir	Kurdamir - 3	T-80	PDOS
7	Talisman	Topkhana	Topkhana - 2	T-80	PDOS
8	Taqa	Atrush	AT-1	Viking 10	Viking
9	Taqa	Atrush	AT-2	DQE 031	DQE
10	Taqa	Atrush	AT-3	DQE 031	DQE
11	Taqa	Atrush	AT-4	DQE 031	DQE
12	Western Zagros	Garmian	Sarqala-1	Rig 23	Romfor
13	Western Zagros	Kurdamir	Kurdamir-1	Rig 23	Romfor
14	Western Zagros	Garmian	Sarqala-1 RE	Rig 23	Romfor
15	Western Zagros	Garmian	Mil Qasim-1	Rig I-10	Viking
16	Western Zagros	Garmian	MQUB-1	HiTech 3	Hitech Drilling
17	Western Zagros	Garmian	Hasira-1	GW 83	Grey Wolf
18	Western Zagros	Garmian	MQUB-2	HiTech 3	Hitech Drilling
19	Western Zagros	Garmian	Baram-1	GW 604	Grey Wolf
20	OMV	Shorish	Shorish 1	Rig 319	Weatherford
21	OMV	Bina Bawi	Bina Bawi 3	Rig 8	GYP
22	OMV	Mala Omar	Mala Omar 1	T-63 / PR-3	PDOS / Sakson
23	OMV	Bina Bawi	Bina Bawi 4	T-63	PDOS
24	OMV	Bina Bawi	Bina Bawi 5	PR-3	Sakson
25	OMV	Bina Bawi	Bina Bawi 6	T-63	PDOS
26	EMKRIL	Pirmam	Pirmam - 1	887	Weatherford
27	EMKRIL	Alqosh	Alqosh - 1	888	Weatherford
28	Oil Search	Taza	Taza-2	PR 3	Sakson
29	Oil Search	Taza	Taza-1	Romfor 101	EDC Romfor
30	Hess	Shakrok	Shakrok #1	Ensign 941	Ensign
31	TTOPCO	Taq Taq	TT-02	Ideco H-525	Unknown
32	TTOPCO	Taq Taq	TT-04	IRI-900	TTOPCO
33	TTOPCO	Taq Taq	TT-05	IRI-900	TTOPCO
34	TTOPCO	Taq Taq	TT-06	IRI-900	TTOPCO
35	TTOPCO	Taq Taq	TT-07	IRI-900	TTOPCO
36	TTOPCO	Taq Taq	TT-08	IRI-900	TTOPCO
37	TTOPCO	Taq Taq	TT-09	IRI-900	TTOPCO
38	TTOPCO	Taq Taq	TT-10	Kurdistan-1	TTOPCO
39	TTOPCO	Taq Taq	TT-11	IRI-900	TTOPCO
40	TTOPCO	Taq Taq	TT-12	IRI-900	TTOPCO

Table 12 (a): See explainer on page 35 for definitions

Well Drilling Activity – General Information

No.	IOC	Block	Well Name	Rig Name	Drilling Contractor
41	TTOPCO	Taq Taq	TT-13	IRI-900	TTOPCO
42	TTOPCO	Taq Taq	TT-14	IRI-900	TTOPCO
43	TTOPCO	Taq Taq	TT-15	IRI-900	TTOPCO
44	TTOPCO	Taq Taq	TT-16	IRI-900	TTOPCO
45	TTOPCO	Taq Taq	TT-17	IRI-900	TTOPCO
46	TTOPCO	Taq Taq	TT-18	IRI-900	TTOPCO
47	TTOPCO	Taq Taq	TT-19	IRI-900	TTOPCO
48	TTOPCO	Taq Taq	TT-20	IRI-900	TTOPCO
49	TTOPCO	Taq Taq	TT-21	IRI-900	TTOPCO
50	TTOPCO	Taq Taq	TT-22	Discoverer-4	AOS (KS Drilling)
51	TTOPCO	Tag Tag	TT-25	IRI-900	TTOPCO
52	TTOPCO	Tag Tag	TT-26	IRI-900	TTOPCO
53	TTOPCO	Taq Taq	TT-01	Saipem/NOC	NA
54	GKPI	Shaikan K-5	SH-1B	WDI 842	Weatherford
55	GKPI	Shaikan K-5	SH-1B	Dynamic 1	ARAR
56	GKPI	Shaikan K-5	SH-2	WDI 842	Weatherford
57	GKPI	Shaikan K-5	SH-3	Dynamic 1	ARAR
58	GKPI	Shaikan K-5	SH-4	Discoverer 4	AOS
59	GKPI	Shaikan K-5	SH-4	Rig 22	Romfor
60	GKPI	Shaikan K-5	SH-4	Rig 3	HiTech
61	GKPI	Shaikan K-5	SH-5B	Discoverer 1	AOS
62	GKPI	Shaikan K-5	SH-6	WDI 842	Weatherford
63	GKPI	Shaikan K-5	SH-7	WDI 319	Weatherford
64	GKPI	Shaikan K-5	SH-8	WDI 842	Weatherford
65	GKPI	Shaikan K-5	SH-10A	WDI 842	Weatherford
66	GKPI	Sheik Adi K-5	SA-1B	WDI 842	Weatherford
67	GKPI	Sheik Adi K-5	SA-2	Discoverer 4	AOS
68	GKPI	Sheik Adi K-5	SA-3	WDI 842	Weatherford
69	Gas Plus	Khalakan	Shewahan-1A	DQE-51	DQE
70	Gas Plus	Khalakan	Khalakan -1	DQE-51	DQE
71	Afren	Barda Rash	Barda Rash - 1	F-320	Casco Petroleum
72	Afren	Barda Rash	Barda Rash - 2	F-200	Casco Petroleum
73	Afren	Barda Rash	Barda Rash - 3	F-320	Casco Petroleum
74	Afren	Barda Rash	Barda Rash - 4	i10	Viking
75	Afren	Barda Rash	Barda Rash - 5	23	EDC Romfor
76	Afren	Barda Rash	Barda Rash - 1	23	Romfor
77	Afren	Barda Rash	Barda Rash - 2	23	Romfor
78	Afren	Barda Rash	Barda Rash - 3	23	Romfor
79	Genel Enerji	Chia Surkh	CS-1	NA	NA
80	Genel Enerji	Chia Surkh	CS-2	NA	NA
81	Genel Enerji	Chia Surkh	CS-3	NA	NA
82	Genel Enerji	Chia Surkh	CS-4	NA	NA
83	Genel Enerji	Chia Surkh	CS-5	NA	NA
84	Genel Enerji	Chia Surkh	CS-6	NA	NA
85	Genel Enerji	Chia Surkh	CS-7	NA	NA

Table 12 (b): See explainer on page 35 for definitions

Well Drilling Activity – General Information

No.	IOC	Block	Well Name	Rig Name	Drilling Contractor
86	Genel Enerji	Chia Surkh	CS-8	NA	NA
87	Genel Enerji	Chia Surkh	CS-9	NA	NA
88	Genel Enerji	Chia Surkh	CS-10A	PR4	SAKSON EGYPT
89	Genel Enerji	Chia Surkh	CS-11	RIG38	DAQING
90	Genel Enerji	Ber Bahr	Ber Bahr 1	PR4	SAKSON EGYPT
91	Genel Enerji	Ber Bahr	Ber Bahr1ST	RIG51	DAQING
92	Genel Enerji	Miran	Miran West 1	RIG10	GREAT WALL DRILLING
93	Genel Enerji	Miran	Miran West 2	GW-10	DAQING
94	Genel Enerji	Miran	Miran West 3	RIG37	DAQING
95	Genel Enerji	Miran	Miran West 4	RIG37	DAQING
96	Genel Enerji	Miran	Miran East 1	RIG38	DAQING
97	Genel Enerji	Miran	Miran West 5	RIG38	DAQING
98	Hunt Oil	Ain Sifni	Simrit # 1	Discoverer -1	AOS
99	Hunt Oil	Ain Sifni	Simrit # 2	Rig 11	Viking
100	Hunt Oil	Ain Sifni	Simrit # 3	Rig 11	Viking
101	Hunt Oil	Ain Sifni	Maqlub # 1	Rig 21	Viking
102	Oryx	Hawler	DD2	DS1	KS DRILLING
103	Oryx	Hawler	AAS1	SK601	SAKSON
104	Oryx	Hawler	ZEG1	DS1	KS DRILLING
105	Oryx	Hawler	ZEG1	R22	EDC
106	Oryx	Hawler	DD3	SK601	SAKSON
107	Oryx	Hawler	BAN1	DS1	KS DRILLING
108	Oryx	Hawler	DD2	R22	EDC
109	Oryx	Hawler	DD4	R22	EDC
110	Marathon Oil	Harir	Harir 1	T-221	PDOS
111	Marathon Oil	Safen	Safen 1	Rig-25	EDC Romfor
112	Marathon Oil	Harir	Mirawa 1	T-221	PDOS
113	Marathon Oil	Harir	Jisik 1	T-221	PDOS
114	KNOC	Bazian	Bn-2	DQ036	DQE
115	Kalegran	Akri-Bijeel	Bijell-2	S – 801	Sakson
116	Kalegran	Akri-Bijeel	Bijell – 1B	R – 68	Rotary
117	Kalegran	Akri-Bijeel	Bijell-4	R-67	Rotary
118	Khurmala	Khurmala	K-122 (KDS-22)	IC-5	Tehnotop
119	Khurmala	Khurmala	K-114 (KDM-14)	IC-5	Tehnotop
120	Khurmala	Khurmala	K-123 (KDS-23)	IC-5	Tehnotop
121	Khurmala	Khurmala	K-211 (KDS-24)	T 50	Tehnotop
122	Khurmala	Khurmala	K-212 (KDM-19)	IC-5	Tehnotop
123	Khurmala	Khurmala	K-113 (KDM-08)	IC-5	Tehnotop
124	Khurmala	Khurmala	K-153 (KDM-24)	T 50	Tehnotop
125	Khurmala	Khurmala	K-389 (KDS-17)	Sindy I	OilServ

Table 12 (c): See explainer on page 35 for definitions

Well Drilling Activity – General Information

No.	IOC	Block	Well Name	Rig Name	Drilling Contractor
126	Khurmala	Khurmala	K-277 (KDS-03)	Sindy I	OilServ
127	Khurmala	Khurmala	K-387 (KDS-16)	F 100-DH-T	OilServ
128	Khurmala	Khurmala	K-383 (KDS-13)	Cardwell 125	Tehnotop
129	Khurmala	Khurmala	K-398 (KDS-20)	T 50	Tehnotop
130	Khurmala	Khurmala	K-390 (KDS-18)	Cardwell 125	Tehnotop
131	Khurmala	Khurmala	K-295 (KDN-09)	IC-5	Tehnotop
132	Khurmala	Khurmala	K-117 (KDM-01)	Cardwell 125	Tehnotop
133	Khurmala	Khurmala	K-113 (KDM-08)	T 50	Tehnotop
134	Khurmala	Khurmala	K-293 (KDM-25)	IC-5	Tehnotop
135	Khurmala	Khurmala	K-397 (KDM-03)	Mena-3	NPS
136	DNO	Tawke	Tawke-1	Rig 9	DQE
137	DNO	Tawke	Tawke-1A	Rig 9	DQE
138	DNO	Tawke	Khanke-1	Rig 10	DQE
139	DNO	Tawke	Tawke- 2	Rig 9	DQE
140	DNO	Tawke	Tawke- 4	Rig 9	DQE
141	DNO	Tawke	Tawke- 3	Rig 10	DQE
142	DNO	Tawke	Tawke- 5	Rig 9	DQE
143	DNO	Tawke	Tawke- 6	Rig 9	DQE
144	DNO	Tawke	Tawke- 8	Rig 9	DQE
145	DNO	Tawke	Tawke- 5A	Rig 10	DQE
146	DNO	Tawke	Tawke- 12	Rig 10 / Sindy-1	DQE
147	DNO	Tawke	Tawke- 11	Rig 9 / Sindy-1	DQE
148	DNO	Tawke	Hawler-1	Rig 10	DQE
149	DNO	Duhok	Summail Extn-1	Rig 9	DQE
150	DNO	Erbil	Erbil-2	Rig 10	DQE
151	DNO	Tawke	Tawke-15	Rig 9	DQE
152	DNO	Tawke	Tawke- 10	Sindy-1	DQE
153	DNO	Tawke	Tawke- 9	Sindy-1	DQE
154	DNO	Erbil	Bastora-1	Rig 9 NC	DQE
155	DNO	Duhok	Summail-1	Rig 10	DQE
156	DNO	Tawke	Tawke-13	Rig 9 NC	DQE
157	DNO	Tawke	Peshkabir-1	Rig 9 NC	DQE
158	DNO	Tawke	Tawke-16	Rig 10	DQE
159	DNO	Tawke	Tawke-14	Rig 10	DQE
160	DNO	Tawke	Tawke-18	Rig 10	DQE
161	DNO	Erbil	Benenan-3	Rig 9 NC	DQE
162	DNO	Tawke	Tawke -19	Rig 10	DQE
163	DNO	Tawke	Tawke-14AST	Rig 51	DQE
164	DNO	Tawke	Tawke-20	Rig 10	DQE
165	DNO	Erbil	Bastora-2 Pilot	Rig 9 NC	DQE

Table 12 (d): See explainer on page 35 for definitions

Well Drilling Activity – General Information with Explainer

No.	IOC	Block	Well Name	Rig Name	Drilling Contractor
166	DNO	Tawke	Tawke-17	Rig 32	DQE
167	DNO	Tawke	Tawke-23	Rig 10	DQE
168	DNO	Tawke	Tawke-21	Rig 32	DQE
169	DNO	Erbil	Benanan-4	Rig 9 NC	DQE
170	DNO	Tawke	Tawke-22	Rig 10	DQE
171	DNO	Tawke	Tawke-24	Rig 9	DQE
172	DNO	Tawke	Tawke -26	Rig 32	DQE
173	DNO	Duhok	Summail-3	Rig 10	DQE
174	Dana Gas	Kormor	KM-1	NA	IPC (Operator)
175	Dana Gas	Kormor	KM-2	NA	IPC (Operator)
176	Dana Gas	Kormor	KM-3	NA	NOC (Operator)
177	Dana Gas	Kormor	KM-4	Rig 24	Romfor
178	Dana Gas	Kormor	KM-5	NA	NOC (Operator)
179	Dana Gas	Kormor	KM-6	NA	NOC (Operator)
180	Dana Gas	Kormor	KM-7	NA	NOC (Operator)
181	Dana Gas	Kormor	KM-8	NA	NOC (Operator)
182	Dana Gas	Kormor	KM-9	Rig 24	Romfor
183	Dana Gas	Chamchamal	CH-1	NA	IPC (Operator)
184	Dana Gas	Chamchamal	CH-2	NA	IPC (Operator)
185	Dana Gas	Chamchamal	CH-3	Rig 101	Sakson
186	HKN	Sarsang	Swara Tika-1	319	Weatherford
187	HKN	Sarsang	Swara Tika-2	829	Weatherford
188	HKN	Sarsang	Mangesh-1	8	GYP
189	HKN	Sarsang	Gara-1	24	Romfor
190	HKN	Sarsang	East Swara Tika-1	829	Weatherford

Table 12 (e): See below explainer for definitions

IOC	**International Oil Company** (IOC) is the industry standard term used to describe foreign exploration and production companies. National Oil Companies (NOCs) also exist, such as Saudi Aramco, the NOC of Saudi Arabia. In general NOCs tend to only operate in their home country, however it is not unusual to see NOCs operating out of their home country.
Block	**Block** describes the territory assigned to the IOC for petroleum operations according to the Production Sharing Contract (PSC) between the IOC and the KRG. Block is termed as Contract Area in the contract.
Well Name	A **well** describes the vertical or horizontal hole drilled in order to discover and produce oil and gas.
Rig Name	**Rig Name** refers to the unique identification of the equipment (Drilling Rig) used to drill the well.
Drilling Contractor	**Drilling Contractor** refers to the company whom operate and in most cases own the Drilling Rig.

Well Drilling Activity – Specific Information

No.	Spud Date	Current Status	Current Depth (m)	Target Depth (m)	Date TD was Reached (or Estimated)
1	05/11/2013	Drilling	2450	3500	30/03/2014
2	23/07/2013	Drilling	3883	4200	NA
3	25/06/2013	Drilling	2588	3350	NA
4	31/01/2011	Suspended	3140	3400	28/10/2011
5	25/10/2011	EWT	4000	4000	25/06/2012
6	22/02/2013	Completed	2895	2885	17/06/2013
7	06/12/2013	Drilling	2215	2757	20/03/2013
8	05/10/2010	Abandoned	3400	3400	20/01/2011
9	23/05/2012	Suspended	1570	1570	09/07/2012
10	25/03/2013	Suspended	1806	1806	23/06/2013
11	20/10/2013	Testing	2916	2459	21/01/2014
12	08/05/2008	Abandoned	4357	4750	16/01/2009
13	11/05/2009	Completion	4077	4000	22/12/2010
14	03/03/2011	Producing	3897	3818	13/04/2011
15	29/08/2011	Completion	2425	2400	24/11/2011
16	19/05/2013	Completion	570	559	30/05/2013
17	06/06/2013	Drilling	4181	4181	22/02/2014
18	19/06/2013	Completion	611	574	27/06/2013
19	13/08/2013	Suspended	3730	3732	03/02/2014
20	23/12/2010	Abandoned	3650	2722	09/02/2010
21	12/01/2011	Producing	3720	4121	20/09/2011
22	17/11/2011	Abandoned	4187	5280	17/11/2011
23	17/06/2012	Completion	4677	4220	06/07/2013
24	14/10/2012	Suspended	3421	3400	21/06/2013
25	28/07/2013	Suspended	2185	2454	17/12/2013
26	16/08/2013	Drilling	1574	3435	01/06/2014
27	NA	Rigging Up	0	3600	01/10/2014
28	03/07/2012	Abandoned	3425	3250	25/06/2013
29	01/12/2014	Drilling	1351	4016	01/07/2014
30	30/08/2013	Drilling	2200	3000	30/03/2013
31	18/05/1958	Abandoned	3984	NA	20/09/1978
32	13/06/1978	Completion	663	663	01/07/1978
33	13/05/2006	Producing	2286	2286	26/08/2006
34	23/10/2006	Producing	2070	2070	20/12/2006
35	08/01/2007	Producing	2265	2265	06/04/2007
36	30/04/2007	Producing	2187	2187	03/07/2007
37	19/07/2007	Producing	2366	2366	12/12/2007
38	30/08/2007	Water Injection	2444	2444	02/11/2007
39	14/08/2008	Producing	2247	2247	13/12/2008
40	04/09/2008	Completion	1000	1000	30/09/2008

Table 13 (a): See explainer on page 40 for definitions

Well Drilling Activity – Specific Information

No.	Spud Date	Current Status	Current Depth (m)	Target Depth (m)	Date TD was Reached (or Estimated)
41	12/12/2010	Producing	2179	2179	21/04/11
42	27/04/2011	Producing	2227	2227	11/07/11
43	14/07/2011	Producing	2354	2354	26/08/11
44	27/08/2011	Producing	2170	2170	25/10/11
45	29/10/2011	Producing	2392	2392	07/01/12
46	08/01/2012	Producing	2300	2300	28/03/12
47	24/10/2012	Producing	2175	2175	05/01/13
48	28/03/2012	Producing	2375	2375	30/06/12
49	15/06/2013	Producing	2422	2422	17/08/13
50	02/04/2013	Producing	2370	2370	30/05/13
51	27/03/2013	Drilling	4624	5427	31/03/14
52	06/10/2013	Completion	582	579	09/01/14
53	30/10/2013	Completion	582	582	07/12/13
54	28/04/2009	Suspended	2951	2951	14/10/2009
55	17/07/2010	Producing	NA	NA	25/08/2010
56	12/01/2010	Completion	3300	3300	18/07/2011
57	09/02/2010	Producing	1518	1210	12/02/2010
58	27/05/2011	Suspended	3387	3387	24/10/2011
59	28/12/2012	Completion	NA	NA	11/02/2013
60	01/12/2013	Mobilising	NA	NA	27/12/2013
61	28/10/2011	Completion	3745	3745	05/10/2012
62	17/12/2011	Completion	3544	3544	29/04/2012
63	16/06/2013	Drilling	1351	4546	01/06/2014
64	30/12/2012	Completion	2178	2178	30/10/2012
65	07/05/2013	Completion	2255	2255	25/09/2013
66	08/05/2010	Abandoned	3800	3800	07/12/2011
67	23/05/2012	Suspended	2754	2754	26/08/2012
68	NA	Mobilising	NA	3800	NA
69	26/03/2012	Abandoned	2900	2900	NA
70	29/09/2013	Drilling	1983	3620	NA
71	04/02/2009	Producing	3746	3300	11/06/2009
72	08/04/2010	Water Injection	3028	2750	22/12/2010
73	10/07/2010	Abandoned	3211	2750	20/02/2011
74	28/05/2013	Testing	4400	4400	16/10/2013
75	20/03/2013	Drilling	3329	4358	05/01/2014
76	06/12/2012	Producing	3746	3300	09/05/2012
77	29/12/2012	Water Injection	3122	2750	23/01/2013
78	23/09/2012	Abandoned	3211	2750	12/07/2012
79	08/11/1902	Abandoned	709	NA	06/05/1904
80	21/09/1903	Abandoned	415	NA	NA
81	15/07/1912	Abandoned	325	NA	16/08/1913
82	17/04/1922	Abandoned	588	NA	NA
83	26/07/1922	Abandoned	773	NA	10/01/1924
84	29/03/1930	Abandoned	986	NA	22/03/1931
85	01/11/1936	Abandoned	1669	NA	1951

Table 13 (b): See explainer on page 40 for definitions

Well Drilling Activity – Specific Information

No.	Spud Date	Current Status	Current Depth (m)	Target Depth (m)	Date TD was Reached (or
86	12/08/1938	Abandoned	2328	NA	1950
87	01/12/1952	Abandoned	3926	NA	28/08/1954
88	07/10/2012	Suspended	1696	2500	05/03/2013
89	12/05/2013	Suspended	1912	1750	06/07/2013
90	10/10/2011	Side Tracked	3933	4350	01/04/2012
91	23/02/2013	Suspended	1121	1120	04/03/2013
92	21/12/2008	Producing	2935	3000	24/03/2009
93	26/11/2009	Abandoned	4426	1959	22/10/2010
94	07/08/2011	Abandoned	3528	4180	27/04/2012
95	21/06/2012	Abandoned	1905	1567	16/07/2012
96	07/03/2012	Abandoned	4850	5250	01/11/2012
97	05/07/2013	Abandoned	1263	4350	NA
98	20/10/2009	Abandoned	3077	3657	05/05/2010
99	29/10/2011	Suspended	3800	3000	17/05/2012
100	28/08/2012	Suspended	3749	4400	13/08/2013
101	15/06/2013	Drilling	3700	3224	01/08/2014
102	10/07/2012	Suspended	4020	4200	20/12/2012
103	10/06/2013	Suspended	3039	4215	17/08/2013
104	16/04/2013	Suspended	4398	4468	05/08/2013
105	29/09/2013	Suspended	NA	NA	25/11/2013
106	12/11/2013	Drilling	4055	4135	NA
107	14/09/2013	Suspended	4000	4153	16/12/2013
108	9/12/2013	Completion	NA	NA	17/12/2013
109	27/12/2013	Completion	1917	2130	01/02/2014
110	30/07/2012	Abandoned	3820	3700	04/12/2012
111	18/04/2013	Abandoned	4200	3150	15/08/2013
112	19/03/2013	Completed	4260	3895	02/07/2013
113	26/12/2013	Drilling	1400	3900	19/03/2014
114	22/06/2013	Abandoned	4950	4800	24/12/2013
115	13/03/2013	Drilling	4394	5393	NA
116	17/11/2013	Drilling	3934	3945	NA
117	01/12/2013	Drilling	2352	4819	NA
118	02/02/2012	Producing	1083	1083	NA
119	13/03/2012	Producing	1005	1005	NA
120	30/03/2012	Observation Well	1233	1233	NA
121	17/04/2012	Observation Well	1024	1024	NA
122	05/02/2012	Observation Well	1100	1100	NA
123	29/05/2012	Producing	1028	1028	NA
124	15/07/2012	Producing	1004	1004	NA
125	17/07/2012	Producing	1030	1030	NA

Table 13 (c): See explainer on page 40 for definitions

Well Drilling Activity – Specific Information

No.	Spud Date	Current Status	Current Depth (m)	Target Depth (m)	Date TD was Reached (or Estimated)
126	10/09/2012	Producing	1035	1035	NA
127	17/08/2013	Completion	1025	1025	NA
128	03/09/2013	Producing	1034	1034	NA
129	05/03/2013	Producing	1035	1035	NA
130	06/11/2013	Producing	1024	1024	NA
131	18/02/2013	Producing	1021	1021	NA
132	23/09/2013	Completion	1018	2300	NA
133	28/08/2013	Completion	1045	1045	NA
134	24/08/2013	Completion	1030	1070	NA
135	14/09/2013	Completion	1047	1047	NA
136	28/11/2005	Producing	1403	NA	12/06/2006
137	24/06/2006	Producing	1337	NA	14/09/2006
138	02/07/2006	Producing	1428	NA	23/12/2006
139	25/09/2006	Producing	1402	NA	03/12/2006
140	14/12/2006	Producing	2400	NA	14/01/2007
141	10/01/2007	Producing	724	NA	21/05/2007
142	22/01/2007	Abandoned	3551	NA	01/03/2007
143	08/03/2007	Producing	712	NA	17/04/2007
144	27/04/2007	Producing	395	NA	18/09/2007
145	31/05/2007	Producing	2545	NA	31/08/2007
146	11/09/2007	Producing	580	NA	28/03/2008
147	29/09/2007	Future Injector	940	NA	23/06/2008
148	14/11/2007	Producing	2650	NA	28/04/2008
149	19/11/2007	Producing	2425	NA	09/05/2008
150	08/05/2008	Producing	2753	NA	24/10/2008
151	21/05/2008	Producing	2622	NA	16/10/2008
152	04/07/2008	Suspended	3510	NA	16/08/2008
153	23/08/2008	Abandoned	3688	NA	19/09/2008
154	07/09/2010	Suspended	4172	NA	18/05/2011
155	19/04/2011	Producing	3160	NA	14/12/2011
156	25/06/2011	Producing	636	NA	17/08/2011
157	09/04/2011	Producing	730	NA	07/07/2012
158	29/12/2011	Producing	3536	NA	01/03/2012
159	13/03/2012	Future Producer	3639	NA	16/05/2012
160	28/05/2012	Producing	2486	NA	22/09/2012
161	23/07/2012	Pending Sidetrack	4092	NA	15/11/2012
162	10/06/2012	Producing	2369	NA	26/11/2012
163	10/10/2012	Producing	2234	NA	18/11/2012
164	11/12/2012	Producing	2600	NA	24/04/2013
165	14/12/2012	Producing	3178	NA	25/07/2013

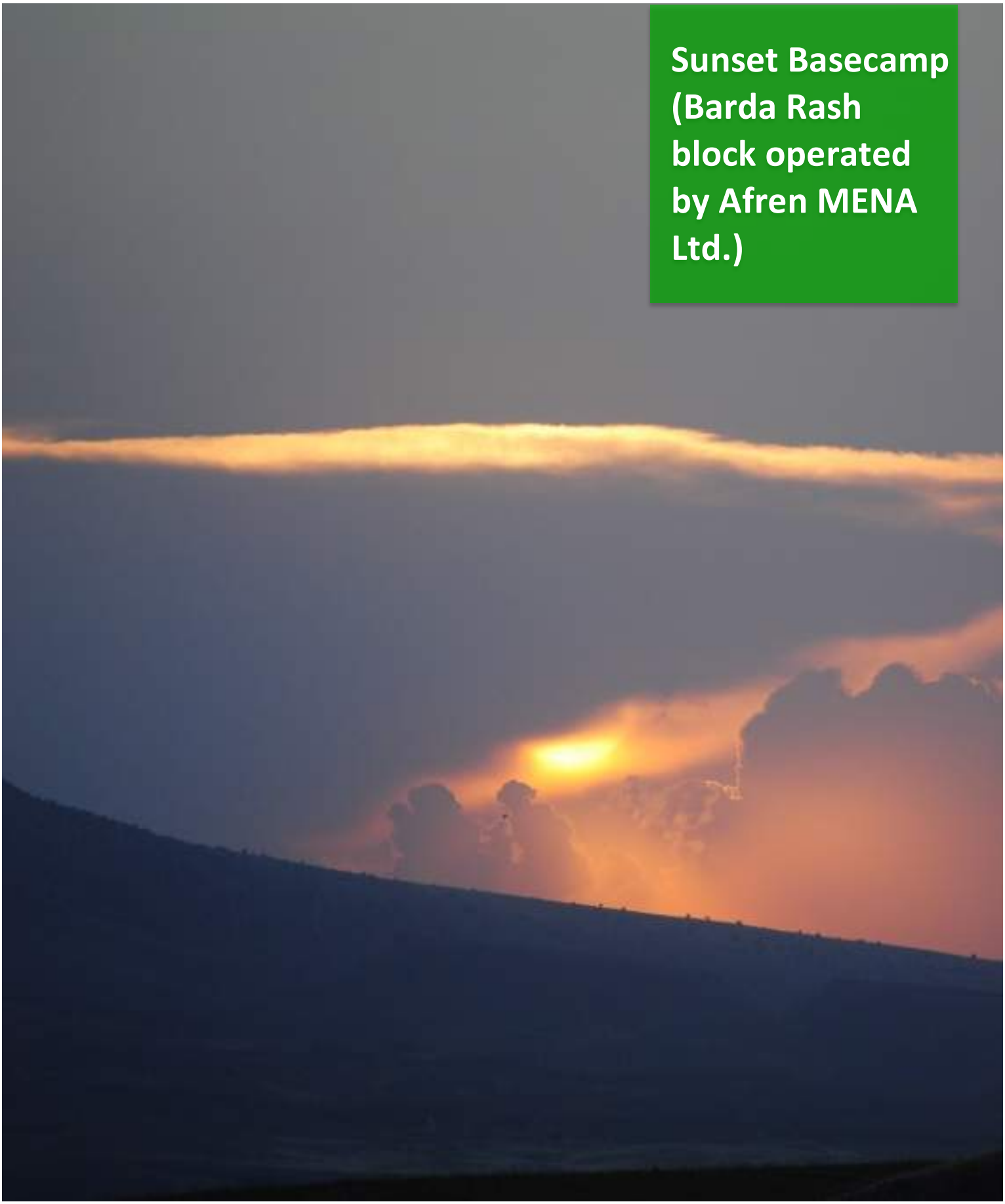
Table 13 (d): See explainer on page 40 for definitions

Well Drilling Activity – Specific Information with Explainer

No.	Spud Date	Current Status	Current Depth (m)	Target Depth	Date TD was Reached (or
166	30/08/2012	Pending Reservoir Assessment	4775	NA	05/07/2013
167	08/05/2013	Producing	2800	NA	21/08/2013
168	31/08/2013	Testing	2875	NA	22/01/2014
169	08/07/2013	Producing	3626	NA	11/09/2013
170	09/04/2013	Producing	2620	NA	15/11/2013
171	15/01/2014	Drilling	1393	3444	29/03/2014
172	28/02/2014	Drilling	27	3347	18/05/2014
173	22/01/2014	Completion	1640	1640	07/03/2014
174	26/11/1928	Abandoned	1990	NA	11/01/1930
175	19/08/1952	Abandoned	1623	NA	25/05/1953
176	30/01/1980	Producing	1720	NA	01/08/1980
177	16/06/2010	Producing	1460	1460	09/11/2010
178	1989	Producing	1403	NA	1990
179	1990	Producing	1337	NA	1990
180	1990	Producing	1428	NA	1990
181	1990	Producing	1402	NA	1990
182	26/01/2009	Suspended	3057	3016	30/06/2009
183	1929/1930	Abandoned	425	NA	1930
184	1952	Abandoned	2785	NA	1952
185	16/06/2009	Suspended	121	5100	NA
186	26/08/2010	Suspended	3795	3316	07/03/2011
187	01/12/2011	Suspended	3650	4306	23/07/2012
188	10/09/2012	Suspended	4525	2850	05/07/2013
189	04/11/2012	Abandoned	3875	2792	07/06/2013
190	15/07/2013	Suspended	1625	3400	25/05/2014

Table 13 (e): See below explainer for definitions

Spud Date	**Spud Date** refers to the first day of drilling.
Current Status	The **Current Status** describes the nature of the current operations taking place at the well. These typically include, but are not limited to: Drilling, Testing, Completion and Production.
Current Depth	Measure in meters (m), the **Current Depth** describes the depth reached by the drilling contractor.
Target Depth	Measure in meters (m), the **Target Depth** or **TD** describes the objective depth to be reached by the drilling contractor, as set by the IOC.
Date TD was Reached	**Date TD was Reached** refers to the day the target depth was reached, or if it has not yet been reached, the estimated date.



Sunset Basecamp (Barda Rash block operated by Afren MENA Ltd.)

Appendix 1

Iraq Domestic Consumption versus KRG Domestic Consumption

Iraq Domestic Consumption versus KRG Domestic Consumption Summary

Since 2004, in total Iraq has consumed 1,986,968,445 barrels of which 239,441,195 barrels have been consumed by the KRG, which is 12% of Iraq's total domestic consumption as opposed to the 17% entitlement of the KRG. Therefore the KRG has consumed 98,343,442 barrels of oil less than its entitlement.

Even when including the contractor's share of oil (for costs recovered according to the PSCs) as part of the KRG's consumption, the KRG would have consumed 309,758,231 barrels compared to a total domestic consumption of 2,057,285,486 barrels, which is 15% of Iraq's total domestic consumption as opposed to the 17% entitlement of the KRG. Therefore the KRG would have still consumed 39,980,301 barrels less than its entitlement.

Furthermore, due to weather and other economic and special conditions in the Kurdistan Region, the KRG believes its entitlement should be 20% of total domestic consumption in Iraq, as opposed to 17%. In which case the KRG would have consumed 157,952,495 barrels less than its entitlement, or 101,698,866 barrels less than its entitlement even when including the contractor's share.

PART 1: Iraq Domestic Consumption versus KRG Domestic Consumption – EXCLUDING CONTRACTOR'S SHARE

KRG DAILY LOCAL REFINING FIGURES

Year	Net Refining Output - KRG Use (B/D)	Net Topping Plant Output (Local Sales) - KRG Use (B/D)	Exports via Trucking KRG Use - Swaps (B/D)	Exports via KRG Pipeline (B/D)	Total KRG Refined & Used Excluding Supplied by MoO (B/D)
2004	404	0	0	0	404
2005	924	0	0	0	924
2006	1.271	0	0	0	1.271
2007	984	0	0	0	984
2008	452	2.029	0	0	2.482
2009	4.406	6.968	0	0	11.375
2010	30.683	4.355	0	0	35.038
2011	47.484	6.979	0	0	54.462
2012	54.544	20.398	2.052	0	76.994
2013	89.841	29.694	11.115	1.346	131.995

Table 14(a): KRG daily oil consumption excluding contractor share of processing in topping plants/local sales, exports via trucking (swaps)

IRAQ DAILY REFINING AND USAGE FIGURES

Year	MoO Supplied to Power Plants (B/D)	MoO Refined Products Consumed (B/D)	Total MoO Refined & Used (B/D)
2004	0	383.000	383.000
2005	30.000	352.000	382.000
2006	40.000	377.000	417.000
2007	45.000	295.000	340.000
2008	51.000	480.000	531.000
2009	70.000	445.000	515.000
2010	65.000	522.000	587.000
2011	67.000	567.000	634.000
2012	59.978	585.348	645.326
2013	92.665	600.829	693.494

Table 14(b): Iraq daily oil consumption

TOTAL IRAQ DAILY CONSUMPTION FIGURES

Year	Total Consumed Iraq including KRG (B/D)
2004	383.404
2005	382.924
2006	418.271
2007	340.984
2008	533.482
2009	526.375
2010	622.038
2011	688.462
2012	722.320
2013	825.489

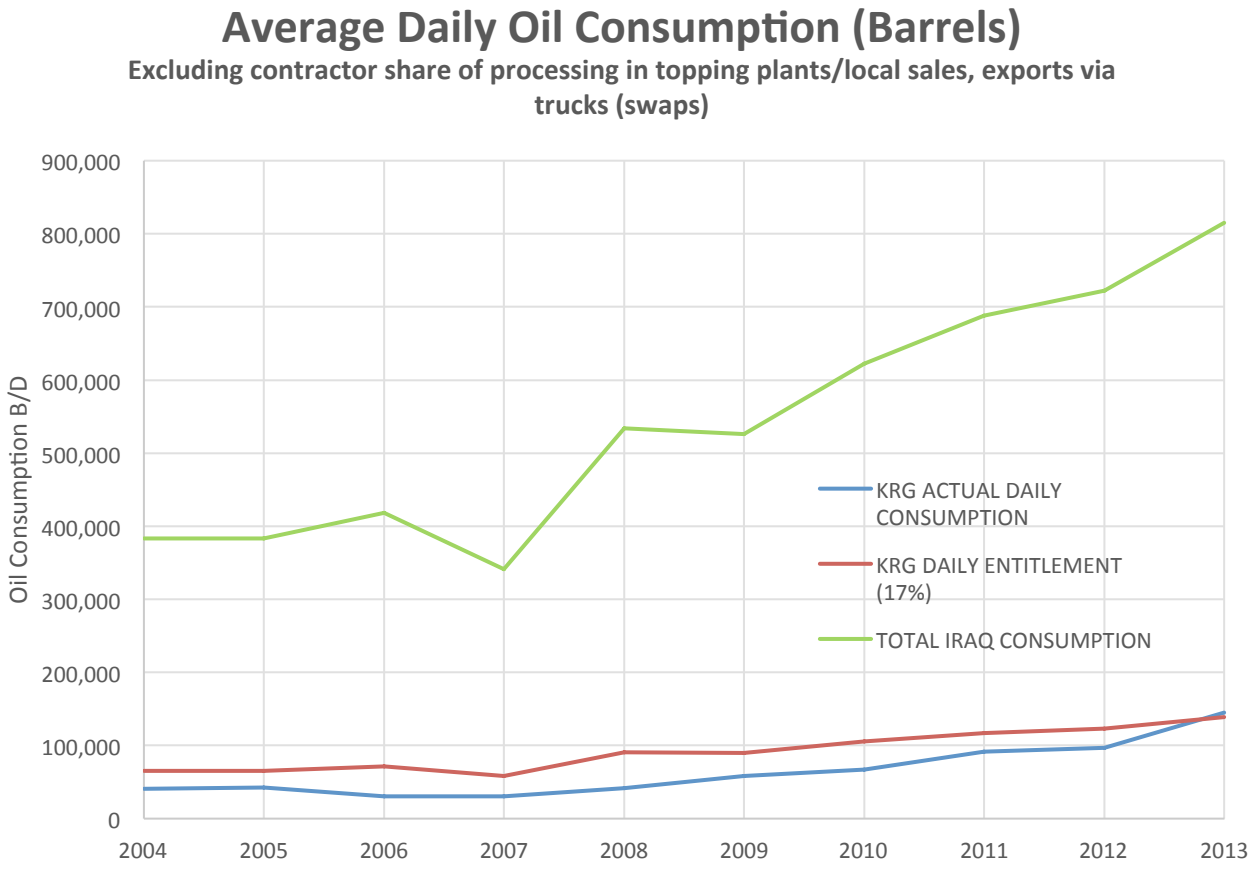
Table 14(c): Total Iraq daily oil consumption including KRG

PART 1: Iraq Domestic Consumption versus KRG Domestic Consumption – EXCLUDING CONTRACTOR'S SHARE

KRG OVERALL DAILY CONSUMPTION FIGURES

Year	MoO Products Supplied to the KRG (B/D)	Total KRG Consumption (B/D)	KRG 17% Entitlement (B/D)	Difference Between Consumed & Entitled (B/D)
2004	40.500	40.904	65.179	-24.275
2005	42.000	42.924	65.097	-22.173
2006	29.400	30.671	71.106	-40.435
2007	29.500	30.484	57.967	-27.483
2008	39.000	41.482	90.692	-49.210
2009	47.000	58.375	89.484	-31.109
2010	32.000	67.038	105.746	-38.708
2011	37.000	91.462	117.039	-25.576
2012	20.000	96.994	122.794	-25.800
2013	23.674	155.669	140.333	15.336

Table 14(d): KRG daily oil consumption excluding contractor share of processing in topping plants/local sales, exports via trucking (swaps)



PART 1: Iraq Domestic Consumption versus KRG Domestic Consumption – EXCLUDING CONTRACTOR'S SHARE

KRG OVERALL CUMULATIVE CONSUMPTION FIGURES

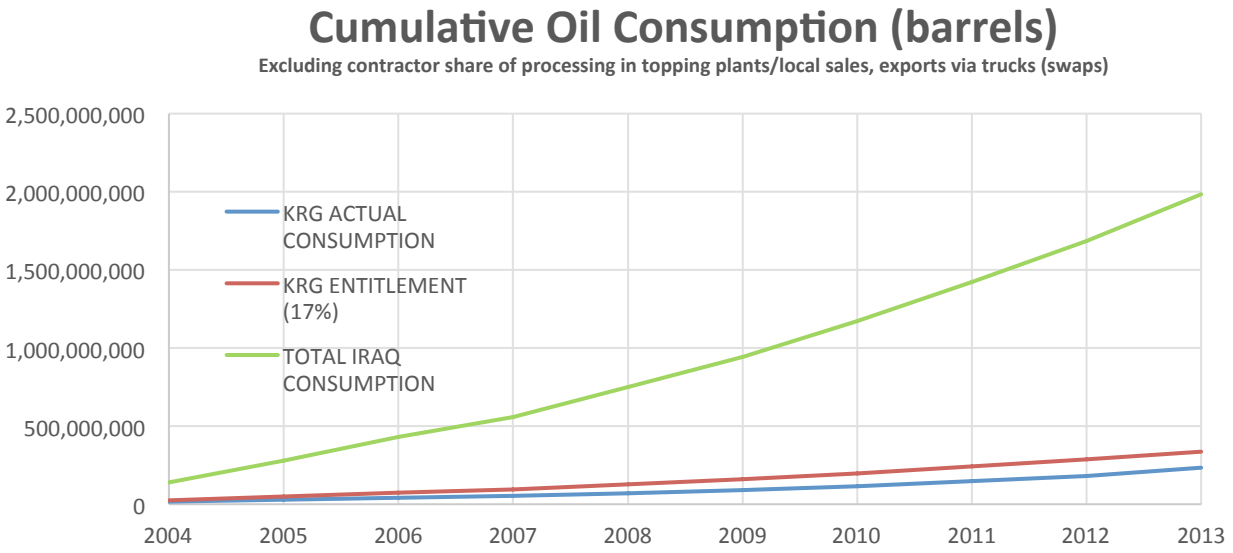
YEAR	KRG Cumulative Consumption Including Products Supplied by MoO (BOE)	17% KRG Cumulative Entitlement (BOE)	Cumulative Surplus/Defecit (BOE)
2004	14.929.834	23.790.197	-8.860.363
2005	30.597.196	47.550.648	-16.953.452
2006	41.792.199	73.504.379	-31.712.180
2007	52.918.968	94.662.455	-41.743.486
2008	68.059.720	127.764.982	-59.705.262
2009	89.366.436	160.426.524	-71.060.088
2010	113.835.360	199.023.991	-85.188.631
2011	147.219.136	241.743.083	-94.523.947
2012	182.621.909	286.563.035	-103.941.126
2013	239.441.195	337.784.636	-98.343.442

Table 15(a): KRG annual cumulative oil consumption excluding contractor share of processing in topping plants/local sales, exports via trucking (swaps)

TOTAL IRAQ CUMULATIVE CONSUMPTION FIGURES

YEAR	Cumulative KRG Refined & Used Excluding Supplied by MoO (BOE)	Cumulative MoO Refined & Used (BOE)	Total Iraq Cumulative Consumption incl. KRG (BOE)
2004	147.334	139.795.000	139.942.334
2005	484.696	279.225.000	279.709.696
2006	948.699	431.430.000	432.378.699
2007	1.307.968	555.530.000	556.837.968
2008	2.213.720	749.345.000	751.558.720
2009	6.365.436	937.320.000	943.685.436
2010	19.154.360	1.151.575.000	1.170.729.360
2011	39.033.136	1.382.985.000	1.422.018.136
2012	67.135.909	1.618.529.000	1.685.664.909
2013	115.314.139	1.871.654.310	1.986.968.449

Table 15(b): Iraq annual cumulative oil consumption excluding contractor share of processing in topping plants/local sales, exports via trucking (swaps)

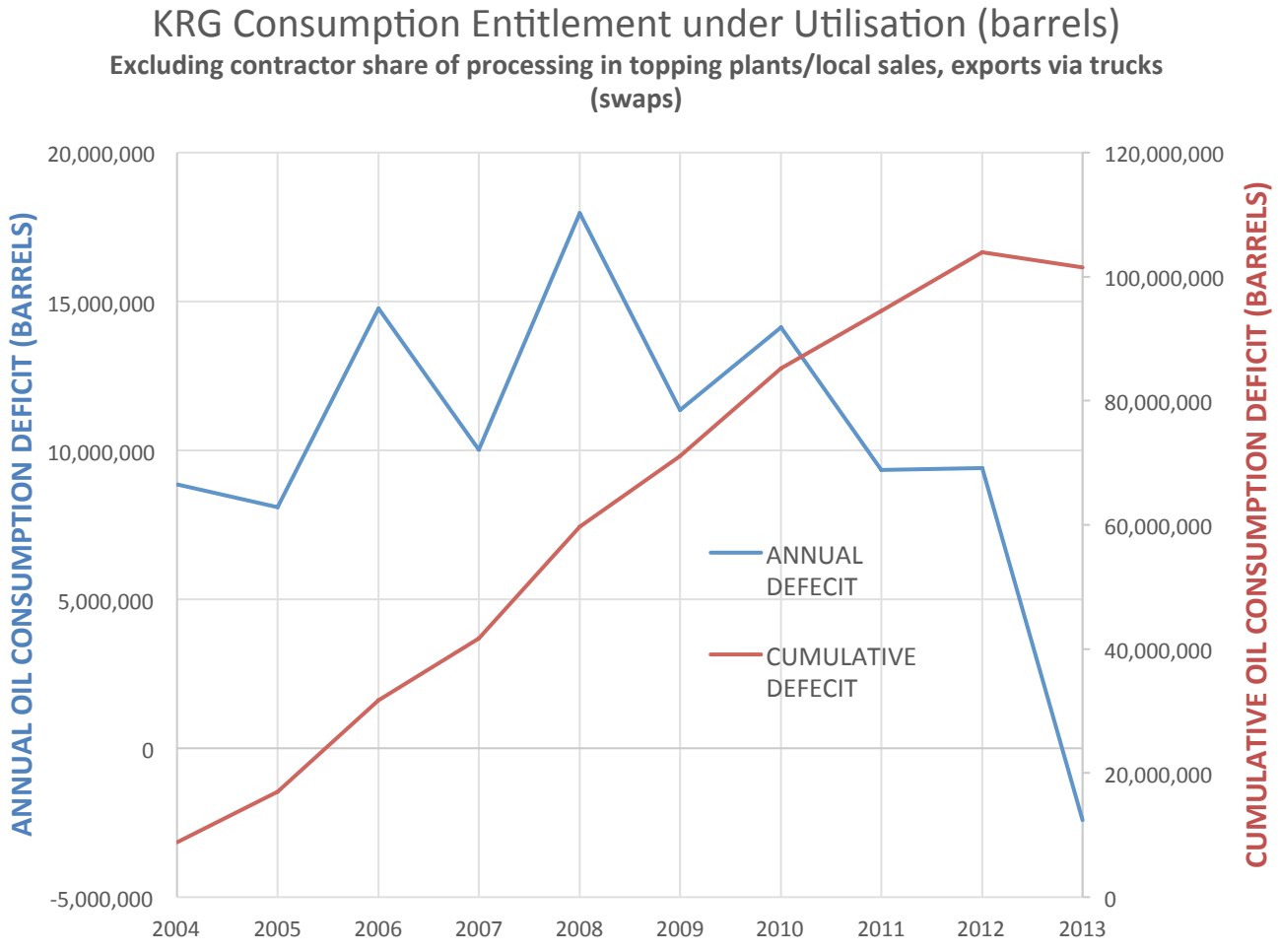


PART 1: Iraq Domestic Consumption versus KRG Domestic Consumption – EXCLUDING CONTRACTOR'S SHARE

KRG ANNUAL AND CUMULATIVE CONSUMPTION ENTITLEMENT UNDER UTILISATION

YEAR	Annual Surplus/Defecit (BOE)	Cumulative Surplus/Defecit (BOE)
2004	-8.860.363	-8.860.363
2005	-8.093.089	-16.953.452
2006	-14.758.728	-31.712.180
2007	-10.031.306	-41.743.486
2008	-17.961.776	-59.705.262
2009	-11.354.825	-71.060.088
2010	-14.128.544	-85.188.631
2011	-9.335.315	-94.523.947
2012	-9.417.179	-103.941.126
2013	5.597.684	-98.343.442

Table 16: KRG consumption entitlement under utilisation excluding contractor share of processing in topping plants/local sales, exports via trucking (swaps)



PART 2: Iraq Domestic Consumption versus KRG Domestic Consumption – INCLUDING CONTRACTOR'S SHARE

KRG DAILY LOCAL REFINING FIGURES

Year	Net Refining Output (B/D)	Net Topping Plant Output (Local Sales) (B/D)	Exports via Trucking Swaps (B/D)	Exports via KRG Pipeline (B/D)	Total KRG Refined & Used Excluding Supplied by MoO (B/D)
2003	993	0	0	0	993
2004	404	0	0	0	404
2005	924	0	0	0	924
2006	1.271	0	0	0	1.271
2007	984	2.757	0	0	3.741
2008	452	6.398	0	0	6.850
2009	4.484	17.421	0	0	21.905
2010	32.960	30.119	0	0	63.079
2011	48.614	29.071	0	0	77.685
2012	57.087	72.295	2.054	0	131.436
2013	92.017	77.009	30.912	1.346	201.283

Table 17(a): KRG daily oil consumption including contractor share of processing in topping plants/local sales, exports via trucking (swaps)

IRAQ DAILY REFINING AND USAGE FIGURES

Year	MoO Supplied to Power Plants (B/D)	MoO Refined Products Consumed (B/D)	Total MoO Refined & Used (B/D)
2003	0	0	0
2004	0	383.000	383.000
2005	30.000	352.000	382.000
2006	40.000	377.000	417.000
2007	45.000	295.000	340.000
2008	51.000	480.000	531.000
2009	70.000	445.000	515.000
2010	65.000	522.000	587.000
2011	67.000	567.000	634.000
2012	59.978	585.348	645.326
2013	92.665	600.829	693.494

Table 17 (b): Iraq daily oil consumption

TOTAL IRAQ DAILY CONSUMPTION FIGURES

Year	Total Consumed Iraq including KRG (B/D)
2003	993
2004	383.404
2005	382.924
2006	418.271
2007	343.741
2008	537.850
2009	536.905
2010	650.079
2011	711.685
2012	776.762
2013	894.777

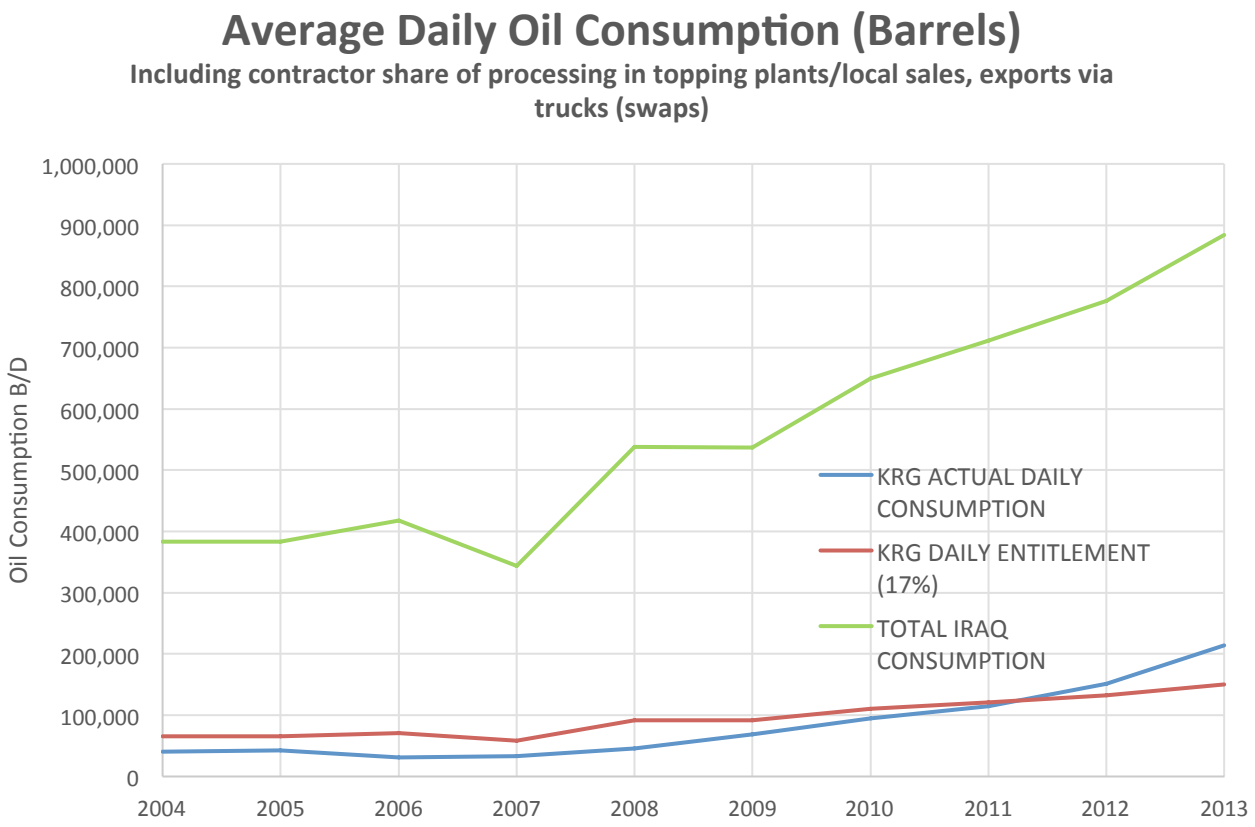
Table 17 (c): Total Iraq daily consumption figures

PART 2: Iraq Domestic Consumption versus KRG Domestic Consumption – INCLUDING CONTRACTOR'S SHARE

KRG OVERALL DAILY CONSUMPTION FIGURES

Year	MoO Products Supplied to the KRG (B/D)	Total KRG Consumption (B/D)	KRG 17% Entitlement (B/D)	Difference Between Consumed & Entitled (B/D)
2003	0	993	169	824
2004	40.500	40.904	65.179	-24.275
2005	42.000	42.924	65.097	-22.173
2006	29.400	30.671	71.106	-40.435
2007	29.500	33.241	58.436	-25.195
2008	39.000	45.850	91.434	-45.585
2009	47.000	68.905	91.274	-22.369
2010	32.000	95.079	110.513	-15.434
2011	37.000	114.685	120.986	-6.302
2012	20.000	151.436	132.050	19.386
2013	23.674	224.958	152.112	72.845

Table 17 (d): KRG daily oil consumption including contractor share of processing in topping plants/local sales, exports via trucking (swaps)



PART 2: Iraq Domestic Consumption versus KRG Domestic Consumption – INCLUDING CONTRACTOR'S SHARE

KRG OVERALL CUMULATIVE CONSUMPTION FIGURES

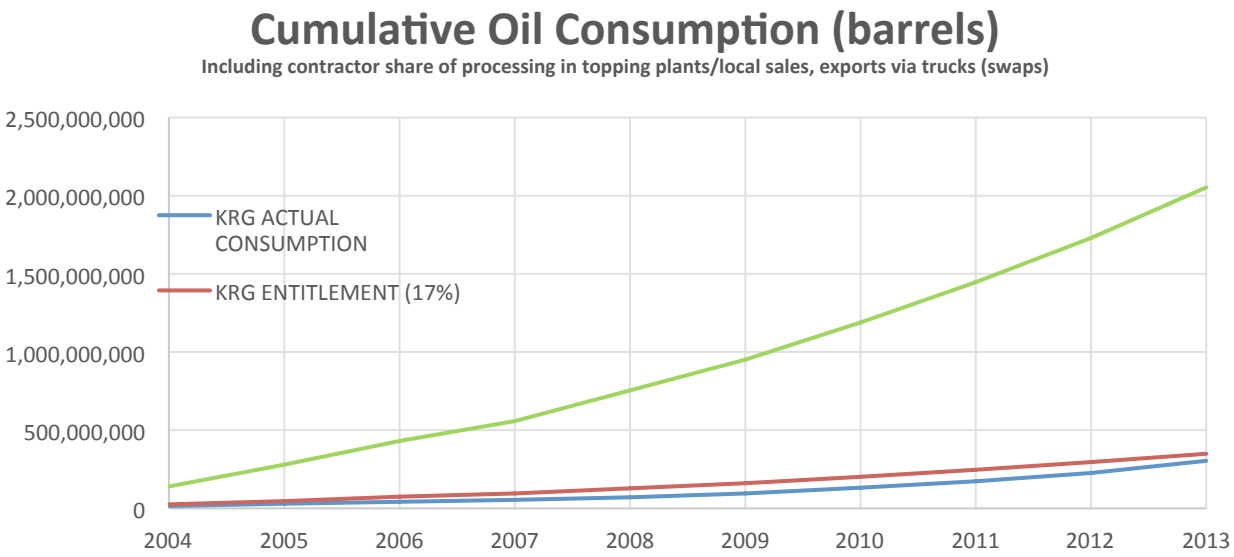
YEAR	KRG Cumulative Consumption Including Products Supplied by MoO (BOE)	17% KRG Cumulative Entitlement (BOE)	Cumulative Surplus/Defecit (BOE)
2004	14.929.834	23.790.197	-8.860.363
2005	30.597.196	47.550.648	-16.953.452
2006	41.792.199	73.504.379	-31.712.180
2007	53.925.340	94.833.538	-40.908.198
2008	70.660.556	128.207.124	-57.546.569
2009	95.810.816	161.522.069	-65.711.253
2010	130.514.699	201.859.479	-71.344.780
2011	172.374.673	246.019.524	-73.644.851
2012	227.648.732	294.217.594	-66.568.862
2013	309.758.231	349.738.533	-39.980.301

Table 18 (a): KRG annual cumulative oil consumption including contractor share of processing in topping plants/local sales, exports via trucking (swaps)

TOTAL IRAQ CUMULATIVE CONSUMPTION FIGURES

YEAR	Cumulative KRG Refined & Used Excluding Supplied by MoO (BOE)	Cumulative MoO Refined & Used (BOE)	Total Iraq Cumulative Consumption incl. KRG (BOE)
2004	147.334	139.795.000	139.942.334
2005	484.696	279.225.000	279.709.696
2006	948.699	431.430.000	432.378.699
2007	2.314.340	555.530.000	557.844.340
2008	4.814.556	749.345.000	754.159.556
2009	12.809.816	937.320.000	950.129.816
2010	35.833.699	1.151.575.000	1.187.408.699
2011	64.188.673	1.382.985.000	1.447.173.673
2012	112.162.732	1.618.529.000	1.730.691.732
2013	185.631.176	1.871.654.310	2.057.285.486

Table 18 (b): Iraq annual cumulative oil consumption including contractor share of processing in topping plants/local sales, exports via trucking (swaps)

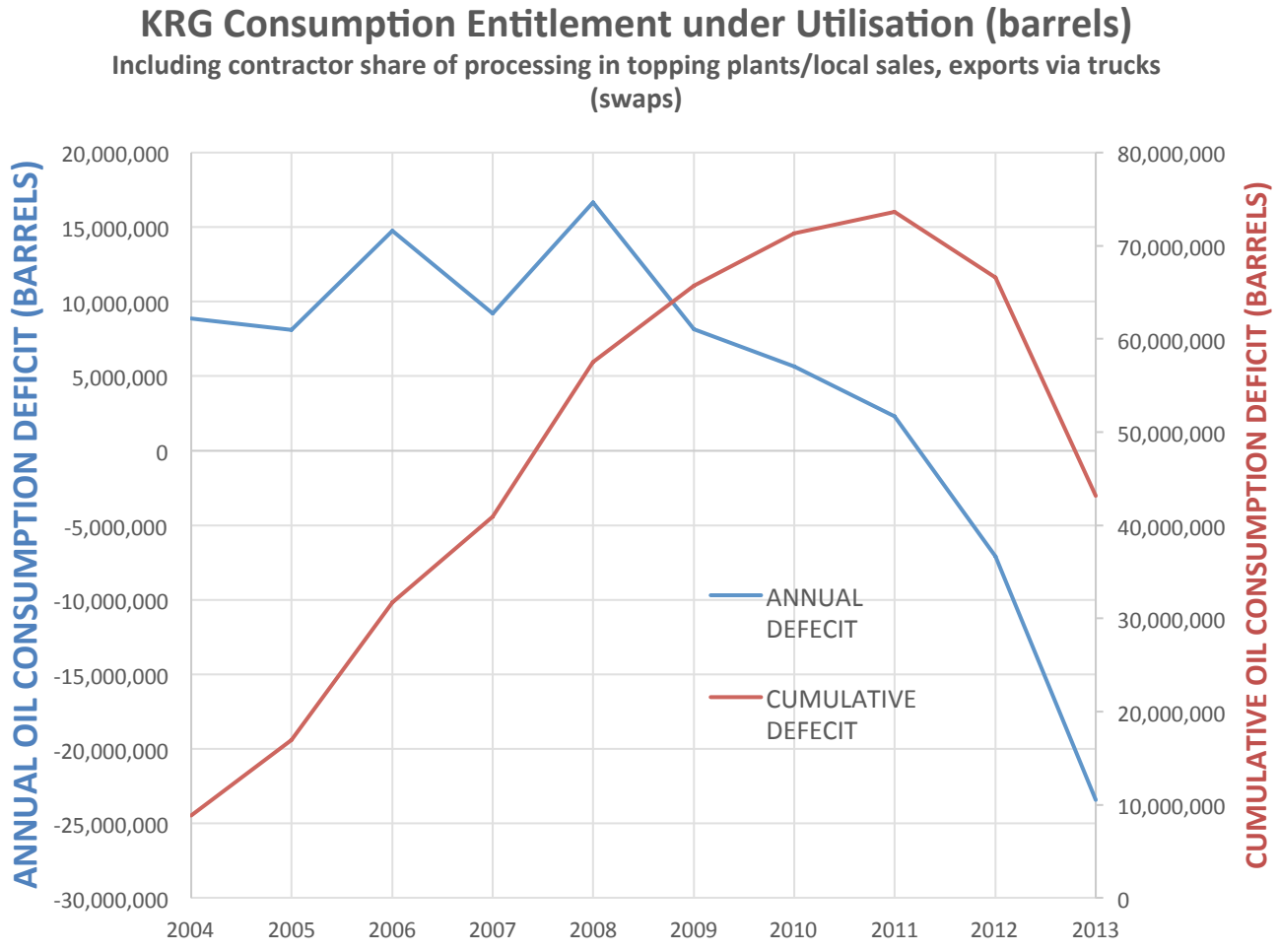


PART 2: Iraq Domestic Consumption versus KRG Domestic Consumption – INCLUDING CONTRACTOR'S SHARE

KRG ANNUAL AND CUMULATIVE CONSUMPTION ENTITLEMENT UNDER UTILISATION

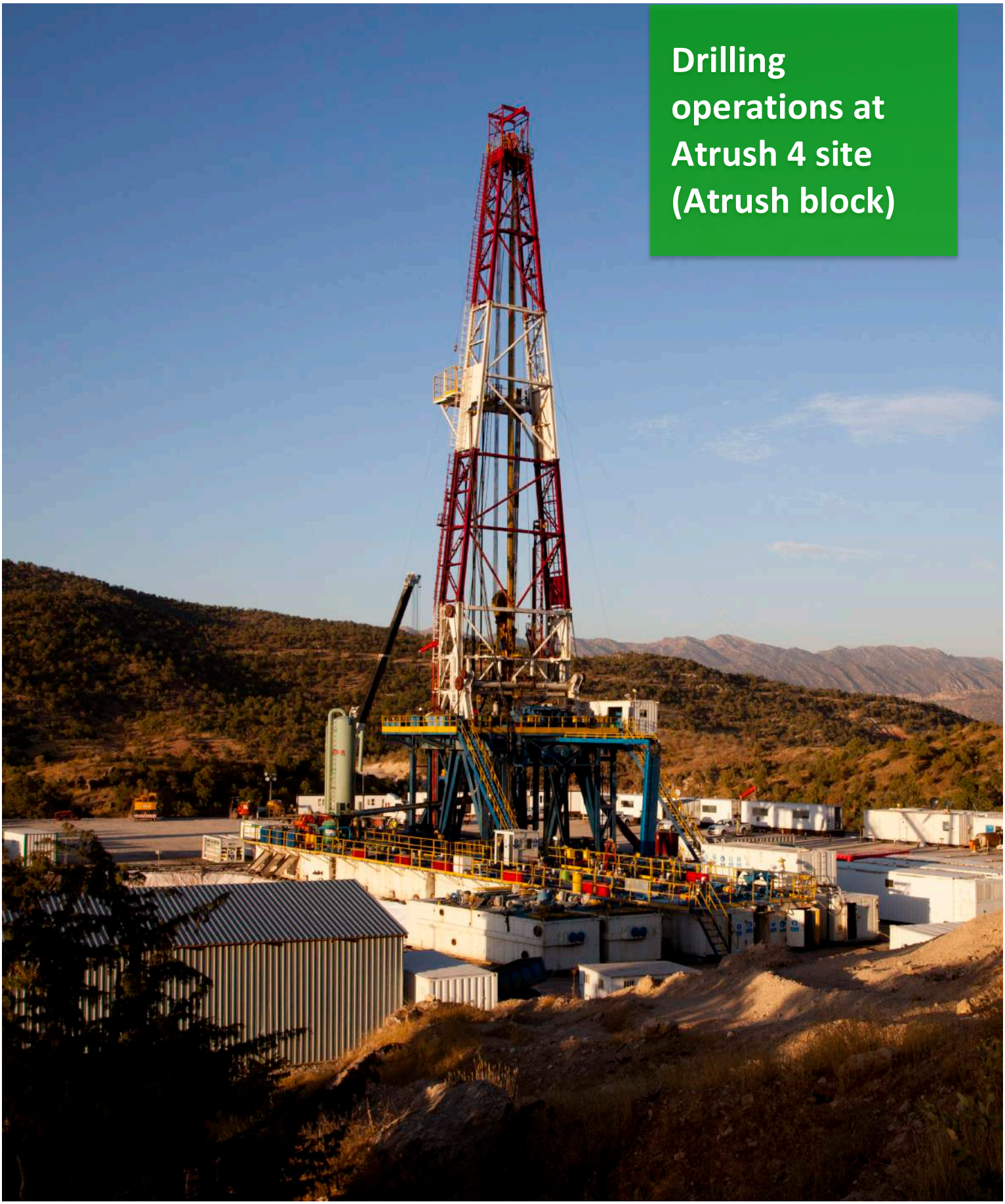
YEAR	Annual Surplus/Defecit (BOE)	Cumulative Surplus/Defecit (BOE)
2004	-8.860.363	-8.860.363
2005	-8.093.089	-16.953.452
2006	-14.758.728	-31.712.180
2007	-9.196.018	-40.908.198
2008	-16.638.371	-57.546.569
2009	-8.164.684	-65.711.253
2010	-5.633.527	-71.344.780
2011	-2.300.071	-73.644.851
2012	7.075.989	-66.568.862
2013	26.588.561	-39.980.301

Table 19: KRG consumption entitlement under utilisation including contractor share of processing in topping plants/local sales, exports via trucking (swaps)



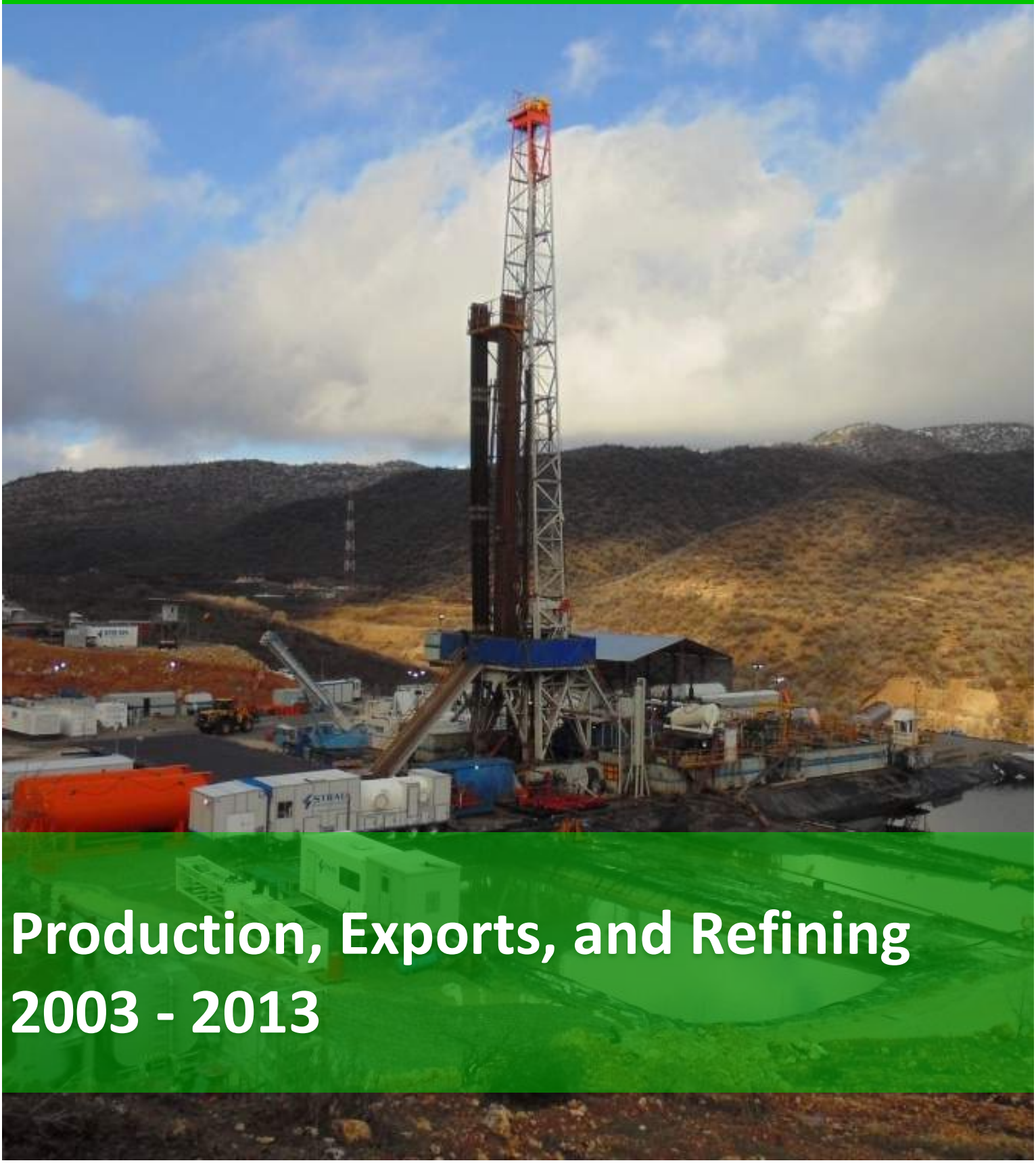
Iraq Domestic Consumption versus KRG Domestic Consumption Explainer

Net Refining Output (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), Net Refining Output refers to the net output of refined products from the main refineries (Sulaimaniyah – no longer in operation, Kalak, Tawke and Bazian).
Net Topping Plant Output (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **Net Topping Plant Output** refers to the output of refined products from local topping plants after losses.
Exports via Trucking (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **Export via Trucking** refers to oil and gas exports out of the Kurdistan Region through trucks, used for product swaps or product financing.
Exports via KRG Pipeline (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **Export via KRG Pipeline** refers to oil and gas exports out of the Kurdistan Region through the KRG pipeline. Crude oil exported through this pipeline is currently in storage at the border.
Total KRG Refined & Used Excluding Supplied by MoO (B/D)	This is the sum of Net Refining Output, Net Topping Plant Output, Exports via Trucking and Exports via KRG Pipeline
MoO Supplied to Power Plants (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **MoO Supplied to Power Plants** refers to crude oil supplied by the MoO to power plants in the south of Iraq.
MoO Refined Products Consumed (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **MoO Refined Products Consumed** refers to refined products consumed in the south of Iraq.
Total MoO Refined & Used (B/D)	This is the sum of MoO Supplied to Power Plants and Total MoO Refined & Used
Total Consumed Iraq including KRG (B/D)	This is the sum of Total KRG Refined and Used Excluding Supplied by MoO and Total MoO Refined & Used
MoO Products Supplied to the KRG (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **MoO Products Suppled to the KRG** refers to products delivered to the KRG by MoO (benzene, kerosene and diesel).
Total KRG Consumption (B/D)	This is the sum of Total KRG Refined and Used Excluding Supplied by MoO and Total KRG Consumption
KRG 17% Entitlement (B/D)	Measured in Barrels of Oil Equivalent per day (B/D), **KRG 17% Enetitlement** refers to the 17% share of total domestic consumption in Iraq that the KRG is entitled to.
Difference Between Consumed & Entitlement (B/D)	This is equal to KRG 17% Entitlement minus Total KRG Consumption



Drilling operations at Atrush 4 site (Atrush block)

Appendix 2

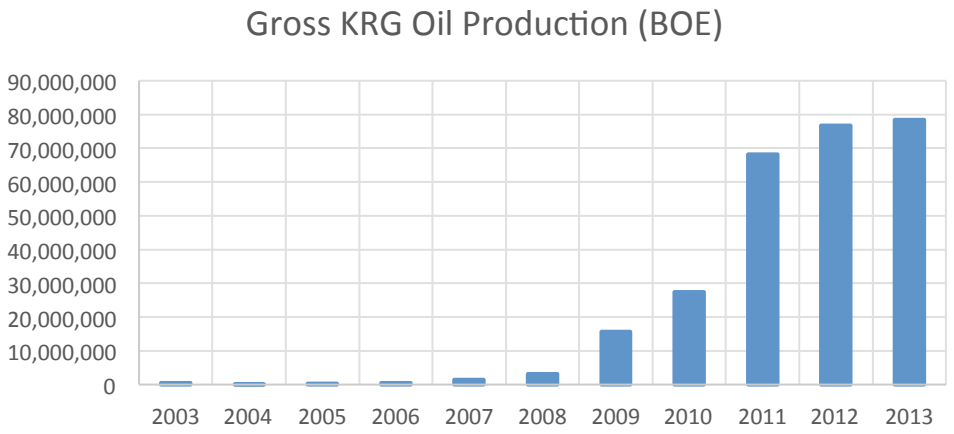


Production, Exports, and Refining 2003 - 2013

Production, Exports, and Refining 2003 – 2013

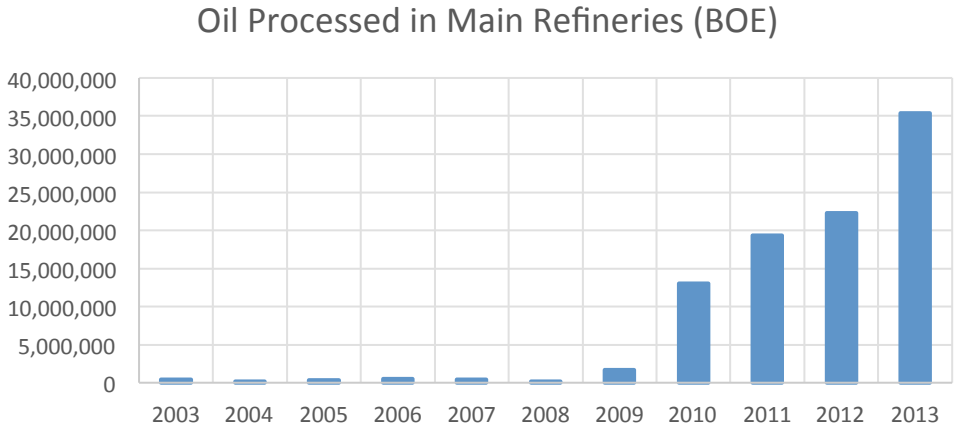
Gross KRG Oil Production (BOE)	
2003	395,945
2004	160,599
2005	367,738
2006	506,269
2007	1,524,211
2008	3,117,172
2009	15,689,046
2010	27,483,775
2011	68,231,486
2012	76,706,152
2013	78,463,518
Grand Total	272,645,911

Table 20 (a): Gross KRG Oil Production in BOE



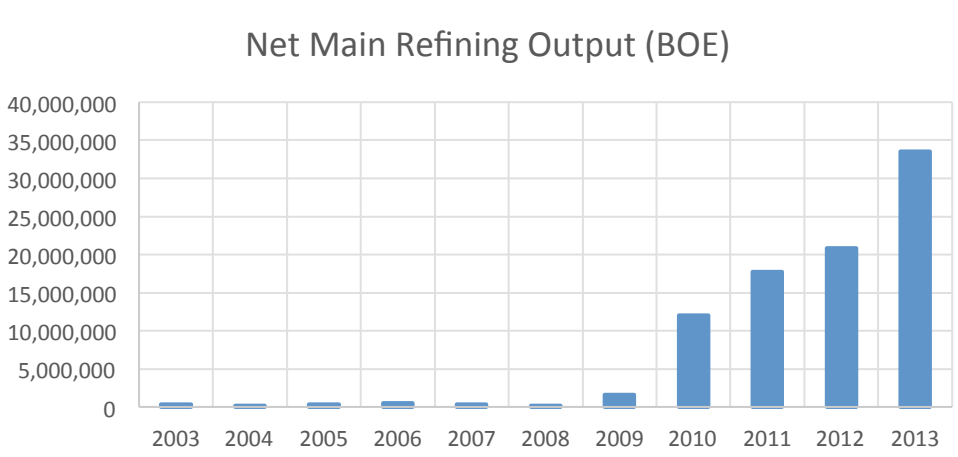
Oil Processed in Main Refineries (BOE)	
2003	395,117
2004	160,599
2005	367,738
2006	505,780
2007	391,617
2008	178,429
2009	1,716,206
2010	13,039,469
2011	19,357,929
2012	22,295,663
2013	35,382,470
Grand Total	93,791,016

Table 20 (b): Oil Processed in Main Refineries in BOE



Net Main Refining Output (BOE)	
2003	362,480
2004	147,334
2005	337,363
2006	464,003
2007	359,269
2008	165,080
2009	1,636,549
2010	12,030,419
2011	17,744,154
2012	20,836,929
2013	33,586,332
Grand Total	87,669,911

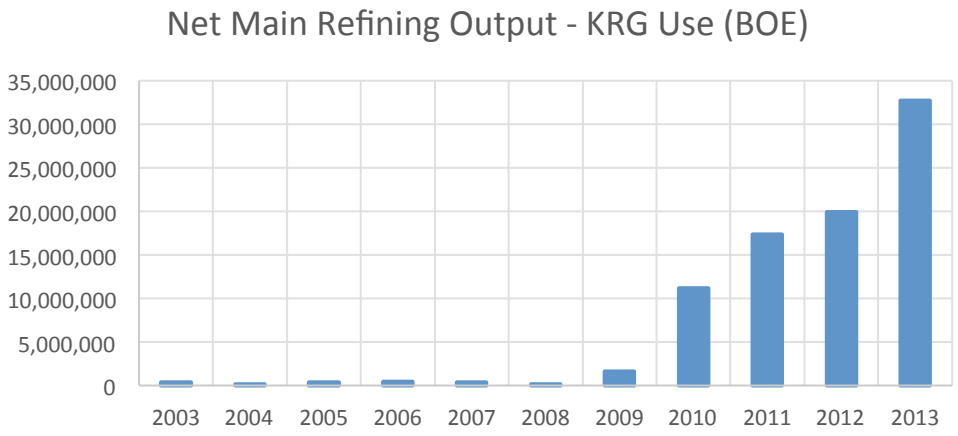
Table 20 (c): Net Main Refining Output in BOE



Production, Exports, and Refining 2003 – 2013

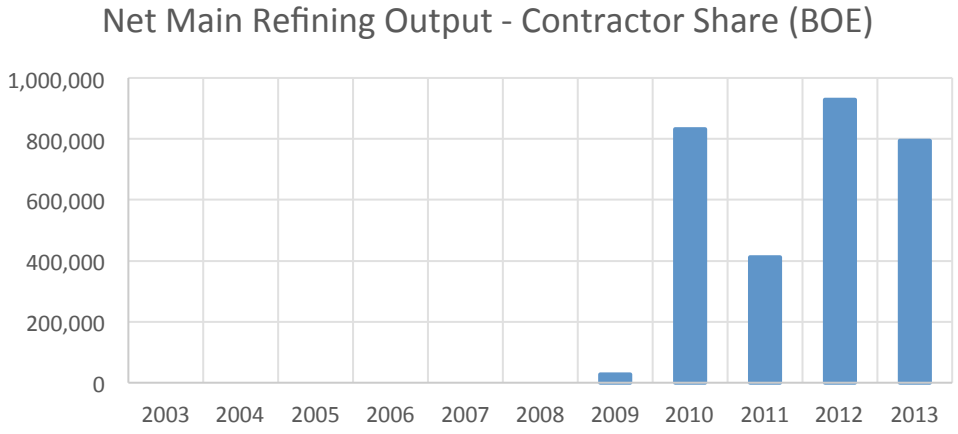
Net Main Refining Output - KRG Share (BOE)	
2003	362,480
2004	147,334
2005	337,363
2006	464,003
2007	359,269
2008	165,080
2009	1,608,232
2010	11,199,320
2011	17,331,504
2012	19,908,562
2013	32,791,843
Grand Total	84,674,990

Table 21 (a): Net Main Refining Output – KRG Use in BOE



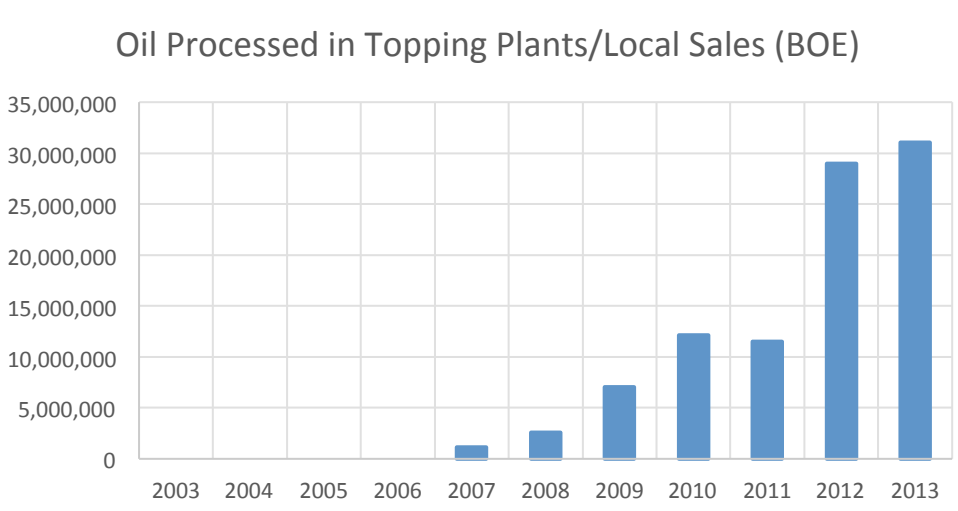
Net Main Refining Output - Contractor Share (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	28,317
2010	831,099
2011	412,649
2012	928,367
2013	794,488
Grand Total	2,994,921

Table 21 (b): Net Main Refining Output – Contractor Share in BOE



Oil Processed in Topping Plants/Local Sales (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	1,118,191
2008	2,594,596
2009	7,065,234
2010	12,152,594
2011	11,512,599
2012	28,953,021
2013	31,053,639
Grand Total	94,449,874

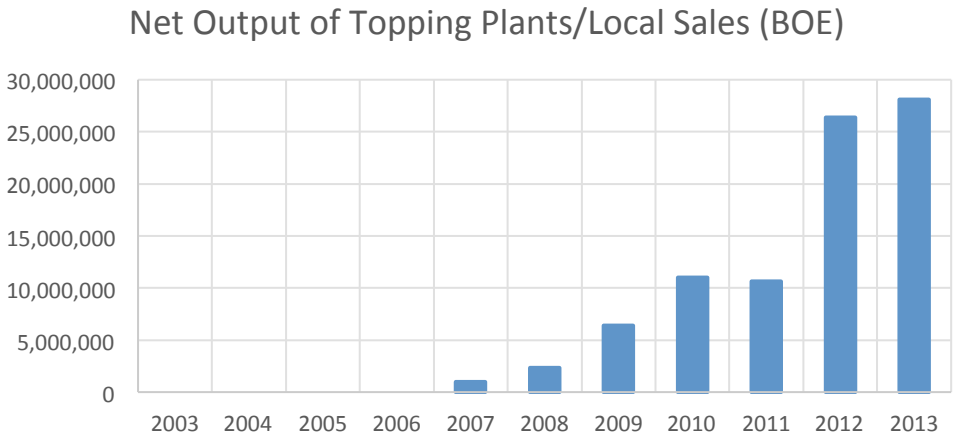
Table 21 (c): Oil Processed in Topping Plants/Local Sales in BOE



Production, Exports, and Refining 2003 – 2013

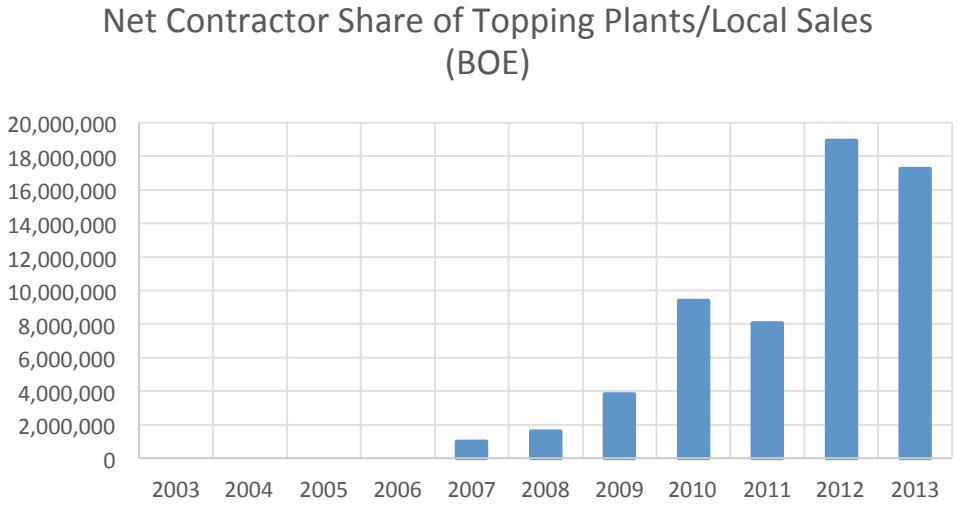
Net Output of Topping Plants/Local Sales (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	1.006,372
2008	2,335,136
2009	6,358,711
2010	10,993,464
2011	10,610,821
2012	26,387,563
2013	28,108,131
Grand Total	85,800,198

Table 22 (a): Net Output of Topping Plants/Local Sales (in BOE)



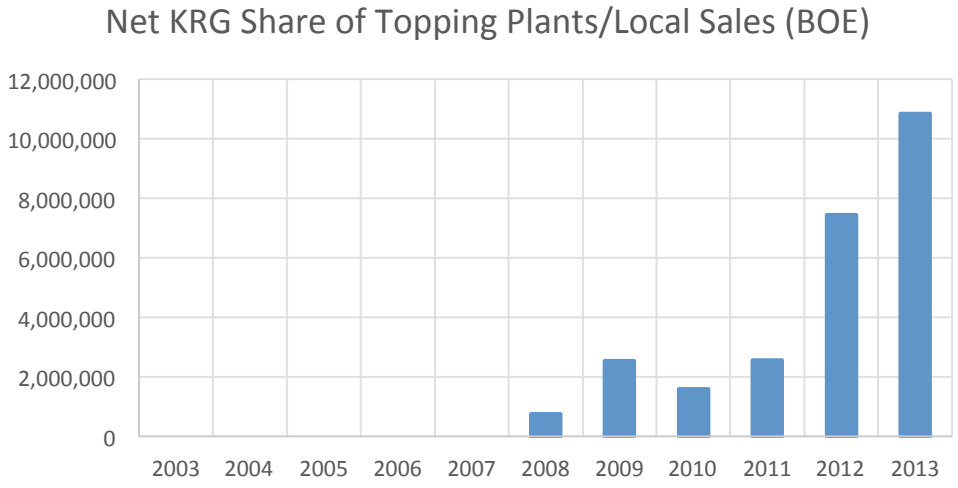
Net Contractor Share of Topping Plants/Local Sales (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	1,006,372
2008	1,594,464
2009	3,815,227
2010	9,403,861
2011	8,063,548
2012	18,942,262
2013	17,269,658
Grand Total	60,095,392

Table 22 (b): Net Contractor Share of Topping Plants/Local Sales in BOE



Net KRG Share of Topping Plants/Local Sales (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	740,672
2009	2,543,484
2010	1,589,604
2011	2,547,272
2012	7,445,301
2013	10,838,473
Grand Total	25,704,806

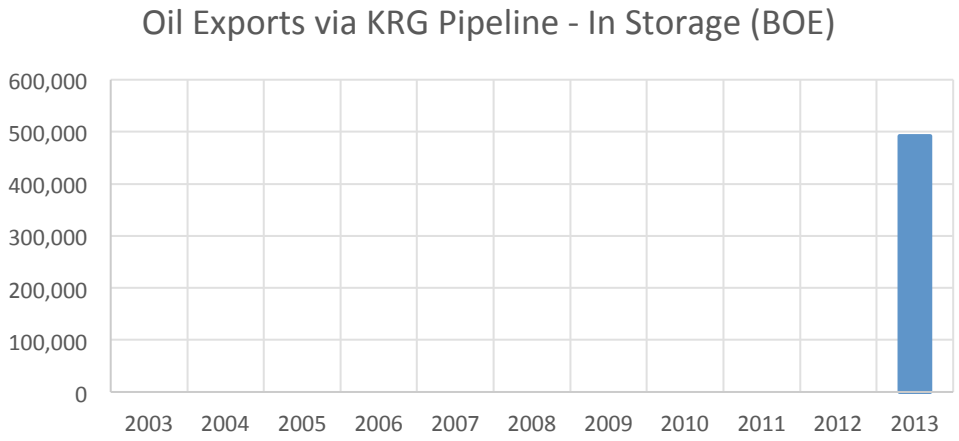
Table 22 (c): Net KRG Share of Topping Plants/ Local Sales in BOE



Production, Exports, and Refining 2003 – 2013

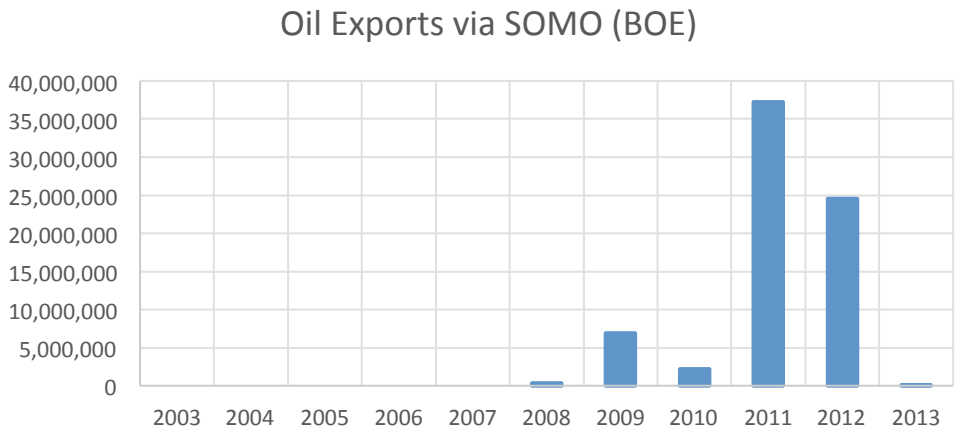
Oil Exports via KRG Pipeline - In Storage (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	0
2013	491,121
Grand Total	491,121

Table 23 (a): Oil Exports via KRG Pipeline – in Storage (In BOE)



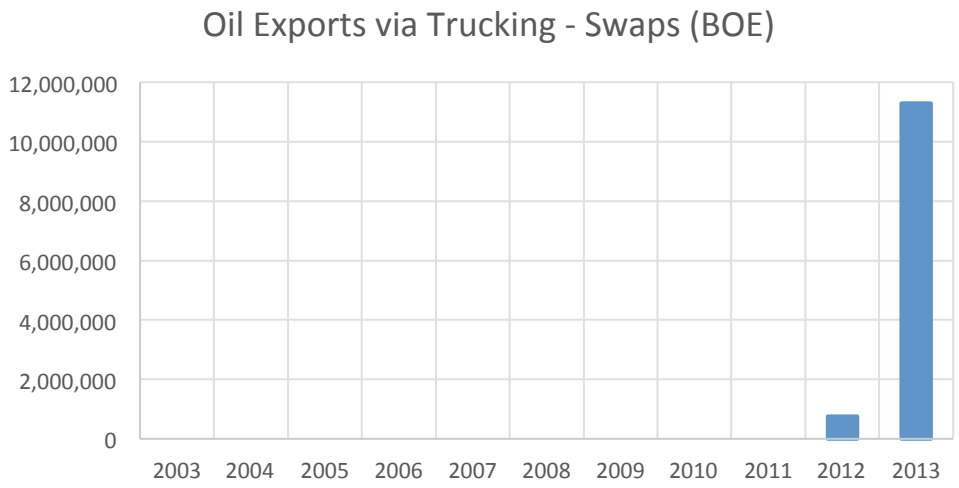
Oil Exports via SOMO (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	328,708
2009	6,870,351
2010	2,176,791
2011	37,242,281
2012	24,507,213
2013	8,602
Grand Total	71,133,945

Table 23 (b): Oil Exports via SOMO in BOE



Oil Exports via Trucking - Swaps (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	749,567
2013	11,282,860
Grand Total	12,032,427

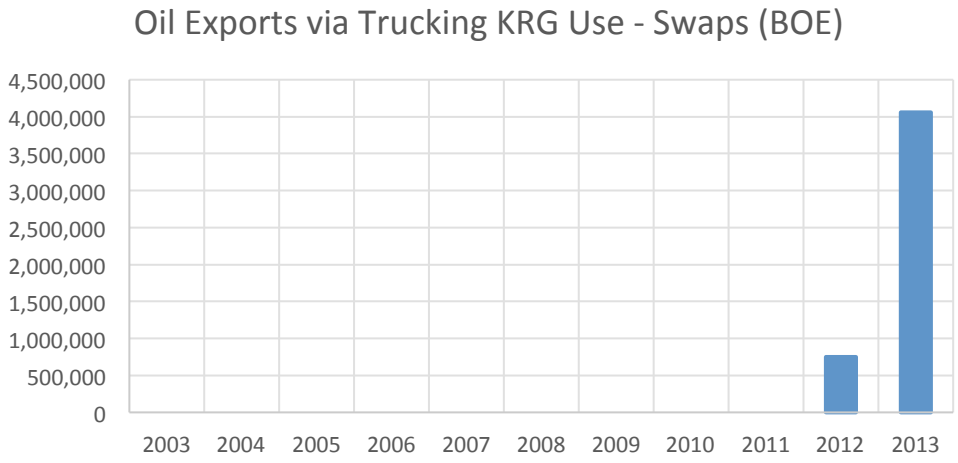
Table 23 (c): Oil Exports via Trucking – Swaps in BOE



Production, Exports, and Refining 2003 - 2013

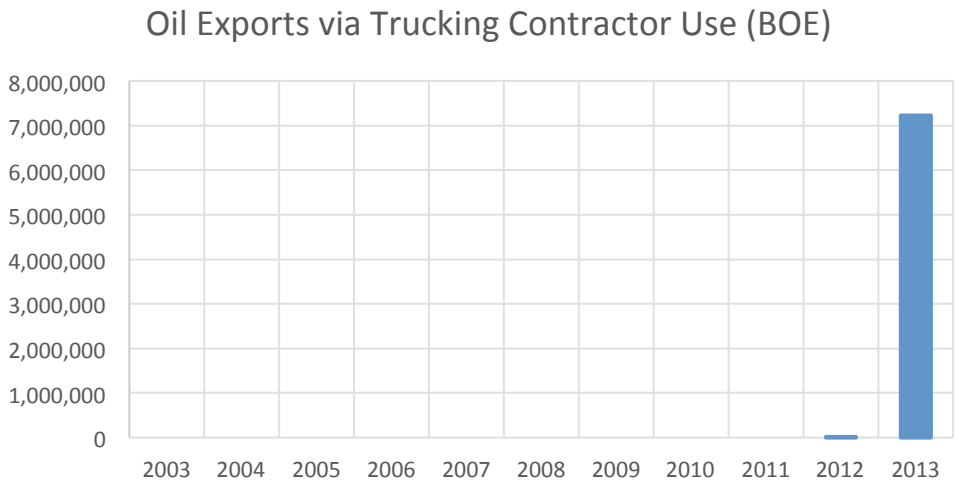
Oil Exports via Trucking KRG Use - Swaps (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	748,910
2013	4,056,793
Grand Total	4,805,703

Table 24 (a): Oil Exports via Trucking KRG Use – Swaps In BOE



Oil Exports via Trucking Contractor Use (BOE)	
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	0
2011	0
2012	657
2013	7,226,067
Grand Total	7,226,724

Table 24 (b): Oil Exports via Trucking Contractor Use in BOE



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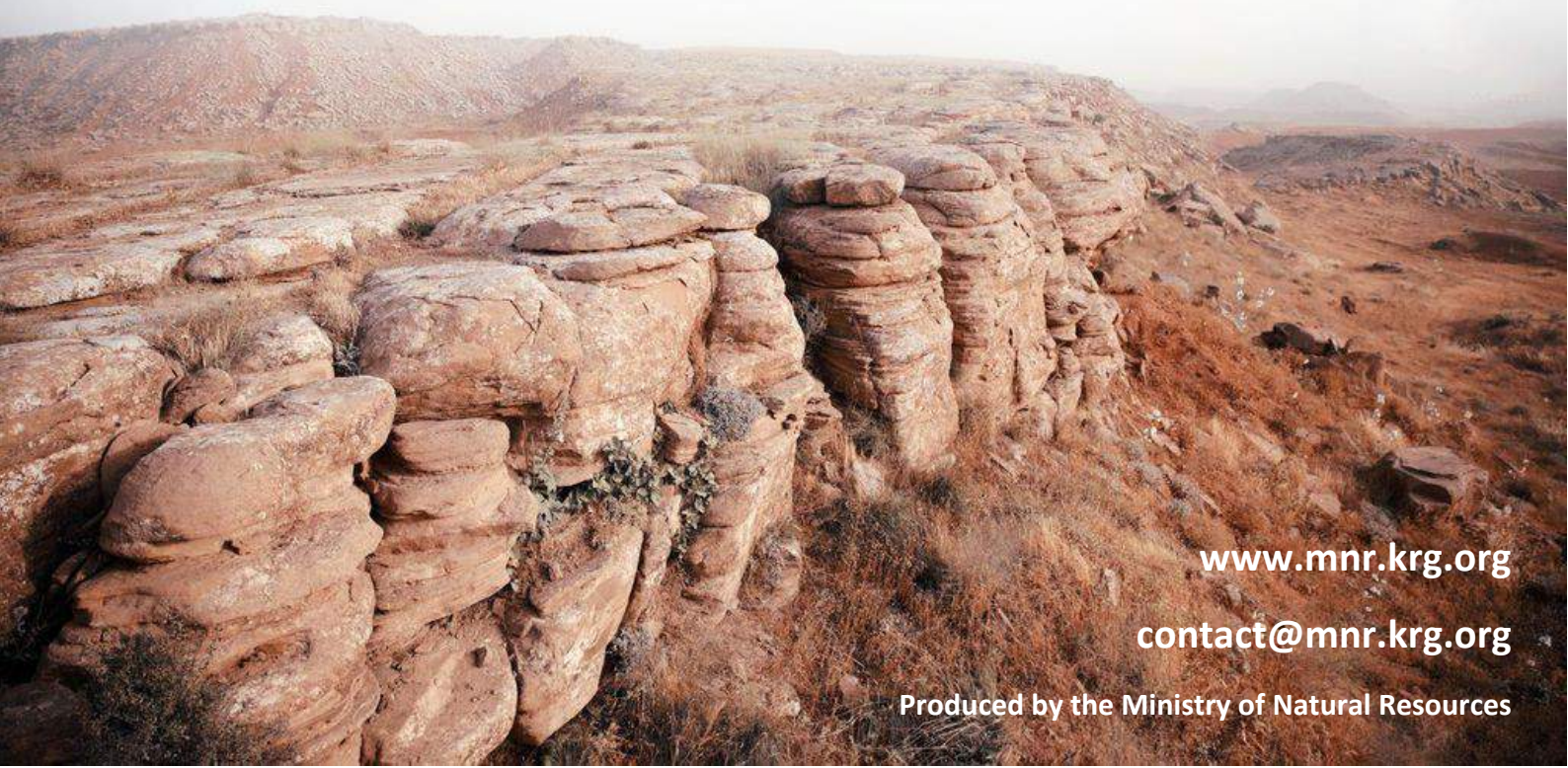

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