

Crude Grade : NILE BLEND

Location : Sudan

Region : Africa

Whole Crude Property Data

Property	Value
API	34.5
SULFUR	0.06 Wt%
POUR PT.	91 Deg F
RVP	NA
H2S	NA
NICKEL	NA
VANADIUM	NA

Loadports

Marsa Bashayer

General Information

(18-Jun-01) Nile Blend is reportedly similar in quality to the Chinese Daqing crude.

(14-Aug-00) Trafigura (UK) and Petronas (Malaysia) market Nile Blend mostly to the Asian and Far East areas (Japan, China and South Korea).

(17-Feb-00) US Sanctions against Sudapet prohibits US companies from engaging in trade and financial transactions with Sudapet and GNPOC. Doing business with either of these companies carries criminal penalties of up to \$0.5 million per violation for corporations and up to \$0.25 million for individuals, as well as imprisonment of up to 10 years.

(25-Oct-99) Similar in quality to Nigeria's Brass River, Nile Blend is a light, sweet crude.

(27-Sep-99) Anti-government rebels damaged the Sudanese pipeline that carries the new Nile Blend crude during the week of 20-Sep-99.

(02-Aug-99) The quality of Nile Blend is similar to Indonesia's Minas crude. Initially, production of Nile blend will come from the following 6 oil fields - Heglig, Unity, El Nar, El Toor, El Harr and Toma South).

(27-Jul-99) Trafigura will be marketing 80% of Nile Blend starting Aug'99. Cargo sizes will be around 600 KB to 1 MB. First cargo is expected to go to the Mediterranean, with later cargoes going to the Far East.

(07-Jun-99) Revenue from Nile Blend is shared between the consortium and the Sudanese government, with the government receiving 60%.

(27-Apr-99) Nile blend is a light, sweet, waxy crude (34 API / around 0.05 wt% Sulfur). Initial exports are expected during 2H99 at around 140 kBD.

Field Location

(02-Apr-01) Nile Blend is located in the Muglad Basin in the southern part of Sudan.

Start Up Information

(27-Sep-99) Nile Blend came onstream at a production rate of 120 kBD. Output is expected to rise to 150 kBD by 2000.

(May 1999) Nile Blend (Heglig and Unity) is scheduled to startup 3Q99. Production is anticipated to average 110 kBD in 4Q99 and rise to 150 kBD by the end of 1999.

Field Reserves

(14-Aug-00) Reserves are estimated at 800 million barrels of oil in the Greater Nile Petroleum Operating Company's area in the Sudan.

(09-Dec-96) Proved reserves are estimated to be around 600 million barrels of oil.

(16-Aug-96) Recoverable reserves of Heglig/Unity field is estimated at 395 million barrels. This estimate is expected to increase further as new discoveries get reported.

Field Information

Field Table

(02-Apr-01)

Component Fields Table

Component	% Of Grade
EL HARR	--
EL NAR	--
EL TOOR	--
HEGLIG	--
TOMA SOUTH	--
UNITY	--

Field Update

(31-Jul-02) The Munga field is expected to start producing in August 2002. It will have the capability of producing 30 kBD. By 3Q 2003, the pipeline capacity will be increased to 300 kBD for Nile Blend.

(08-Aug-01) Production was suspended 05-Aug-01 at Heglig, due to an attempted attack on the field.

(20-Nov-00) A new discovery has been made in the Malout area of Sudan, which could add 60 kBD to the country's production within two years. It is anticipated that the output from this new field would become part of the Nile Blend stream.

(22-Feb-99) The following five Sudanese fields are under development: Heglig, Unity, El Toor, El Nar and Toma South. Production from these fields are to be blended into 34 gravity crude. Expected startup is in late 1999 at a rate of 150 kBD.

(10-Nov-97) The El Bakh well discovery flowed at 15 kBD of 36 API oil during testing. This well is located in the southwest quadrant of the Heglig development area. The project is run by the Sudan Project Consortium.

Producer Information

Producer Table

(09-Mar-2003)

Producer Table

Producer	% Equity	Operator
China National Petroleum Corp (CNPC)	40	Yes
ONGC (Indian State Owned)	25	No
Petronas Carigali	30	No
Sudapet Ltd	5	No

Producer Update

(07-Apr-03) ONGC is interested in purchasing the entire 240 kBD output from Nile Blend for processing at its own refining system in India. However, it is not likely that the other partners in this project will agree to ONGC's request.

(09-Mar-03) Talisman Energy has completed the deal for ONGC to purchase its 25% interest in the Greater Nile Oil project.

(05-Feb-03) Having missed both the Dec 31 and Jan 31 deadlines, the GNPOC partners are now expected to claim any right of first refusal by the end of 1Q 2003.

(25-Nov-02) ONGC's purchase of 25% interest in Nile Blend is the company's first acquisition of equity in an existing oil field. It is anticipated that their transaction with Talisman Energy will be completed before the end of Jan 2003. Any claims for the right of first refusal by the other GNOP partners must be made by the end of Dec 2002.

(30-Oct-02) Talisman Energy's sale of its 25% interest in Nile Blend to India's national oil company, Oil and Natural Gas Corporation Limited (ONGC), is now expected to be completed by the end of this year. Talisman acquired its 25% equity in 1998 through its acquisition of Arakis Energy Inc.

(09-Sep-02) ONGC is expected to complete its acquisition of Talisman's 25% interest in the Greater Nile Petroleum Operating Company by the end of Sept 2002.

(05-Aug-02) As a result of the peace agreement signed between the SPLA rebel group and the government of Sudan, Talisman Energy may not sell its equity in Nile Blend. The peace agreement would end the country's 19 year civil war.

(20-Jun-02) The government of India has given its approval for ONGC to acquire Talisman's 25% interest in the Nile Blend project. However, it is not yet known if the other remaining partners will exercise their pre-emptive rights to acquire Talisman's 25% equity.

(13-Jun-02) India's ONGC Videsh Ltd may be in the final stages of completing a deal to purchase Talisman Energy's 25% equity in Nile Blend.

(09-Aug-01) Talisman Energy has announced that it will not be leaving the GNPOC consortium, which operates Nile Blend.

(25-Jun-01) Talisman is considering selling its 25% equity interest in the GNPOC.

(12-Mar-01) The producers of this field make up a consortium known as the Greater Nile Petroleum Operating Company (GNPOC).

(07-Sep-00) Talisman may consider the sale of its interest in the production of Nile Blend.

(28-Aug-00) Formerly held by UK-based Trafigura, a new marketing contract has been granted by the Sudan Petroleum Company to Arcadia Petroleum for Nile Blend.

(17-Feb-00) Talisman acquired its 25% interest in Nile Blend from its takeover of Canadian independent Arakis Energy in Aug'98.

(24-Aug-98) Talisman is to takeover Canadian Independent Arakis Energy's share in Nile Blend. Before the takeover, Arakis planned to export 150 kBD from the Heglig and Unity fields by 2000.

Production Information

Production Table

(03-Feb-03)

Production (kBD)

Summer 1999	1H 2000	8/00	2000 Avg	3/01	4/01	6/01	1H2001	2001 Avg
130	176	184	180	190	211	225	200	213

Production (kBD)

05/02	06/02	4Q02	02/03
240	240	244	250

Production Update

(03-Feb-03) Nile Blend is producing at 240 - 250 kBD.

(30-Oct-02) Current output is about 240 kBD.

(22-May-02) Average 2001 production was 213 kBD.

(20-May-02) Current production is at 240 kBD and expected to increase to 250 kBD during 2H 2002. Within the next two years, output is anticipated to reach 300 kBD.

(24-Sep-01) Current production is at 225 kBD.

(13-Aug-01) Production was halted on 05-Aug-01 for two days due to an attack by anti-government rebels. During this year, output has averaged 200 kBD for Nile Blend.

(07-May-01) Production is anticipated to be more than 230 kBD by the end of 2001.

(02-Apr-01) Production is expected to increase to 260 kBD in 2002.

(12-Mar-01) Production of 250 kBD was anticipated at the end of 2000 - but, this target date has been postponed. Current production for Nile Blend is approximately 190 kBD.

(20-Nov-00) Currently producing at 200 kBD, output is expected to increase slightly next year to 206 kBD.

(28-Aug-00) Approximately one third of production is utilized domestically. The rest is exported.

(14-Aug-00) By the end of 2000, production is anticipated to increase to 200 kBD.

(31-Jul-00) Talisman expects production to rise to more than 250 kBD by the end of the year.

(15-May-00) 1Q 2000 production averaged 168 kBD. Production is expected to increase to 250 kBD by 2003.

(15-May-00) By the end of June 2000, output for Nile Blend is expected above 250 kBD.

(21-Feb-00) Production at Heglig is currently at 18 kBD.

(11-Feb-00) Peak production is expected at 185 kBD for the Heglig oilfields.

(25-Oct-99) Operator GNPOC anticipates that output from Nile Blend will rise to 135 kBD by the end of Oct'99. This is in line with previous plans to hit 150 kBD production target by year-end '99.

(06-Sep-99) Talisman predicts that production could hit the full capacity of its export pipeline (around 250 kBD) within four years.

(12-Aug-99) Production in Aug'99 had reached about 100 kBD, with first oil already flowing through the 930-mile pipeline. By 2000, Phase 1 of the development should be producing around 150 kBD. The Helig and Unity fields are both already producing.

(21-Jun-99) Successful exploration could push production level to 250 kBD within four years, according to Talisman. Targeted market for this waxy, sweet crude are Italy and Asia.

(19-Apr-99) Nile Blend is expected to startup 3Q99. Average production rate in 4Q99 is anticipated to be around 110 kBD, rising to 150 kBD by year-end '99.

(27-Jul-98) Production of Nile Blend from the Heglig and Unity oil fields is at around 90 kBD of 35 API, high pour oil. Most of the flow is from wells drilled by Chevron before they pulled out of Sudan due to civil unrest. Production rate is slated to reach 150 kBD.

(09-Dec-96) Arakis has completed 45 wells capable of delivering 15 kBD, had a pipeline been available.

Export Information

Export Update

(07-Apr-03) The first cargo of Nile Blend to be processed at the Mangalore Refinery in India is expected to arrive in Apr 2003.

(02-Dec-02) CNPC exports its portion of Nile Blend exports to China.

(19-Aug-02) Most of Nile Blend output is exported to Asia.

(28-Jun-02) On a trial basis, the Chinese Petroleum Corp is considering a purchase of a 600 kB cargo for processing at its Talin Refinery.

(22-May-02) The China National Oil and Gas Exploration Development Corp (a subsidiary of the China National Petroleum Corp) may be interested in building a refinery in Pakistan to process this Sudanese crude.

(01-Oct-01) Talisman Energy holds a 25% interest in the pipeline which extends from the field to Port Sudan on the Red Sea.

(18-Jun-01) Vitol and Trafigura are two trading companies who trade Nile Blend Crude.

(18-Jun-01) Approximately two 900 kB cargos per month are being exported to China.

(12-Mar-01) Of the approximate 200 kBD production, 25% is processed at the Khartoum Refinery. The remaining 75% of output is exported - mainly to China.

(22-Nov-00) Current exports of Nile Blend are averaging 120-130 kBD.

(07-Sep-00) First exports of Nile Blend began in Sept 1999.

(14-Aug-00) The export pipeline has a capacity of 250 kBD.

(Oct 1999) Shell purchased the first cargo of Nile Blend for its Singapore refinery, Pulau Bukom.

(12-Aug-99) Majority of Nile Blend will be exported through a pipeline to an export terminal at Port Sudan on the Red Sea. GNPOC anticipates that the likely markets will be the Mediterranean and the Far East.

(Aug 1999) Muglad, aka Nile Blend, will be exported starting Sep'99. Production from this field will plateau at 150 kBD. Trade embargo restrictions does not allow import of this crude into the US.

(07-Jun-99) Nile Blend will be exported beginning late summer '99 in the range of 130-150 kBD.

(19-Apr-99) This crude will be exported mainly to the Far East. However, the Mediterranean is also being targeted.

(11-Jan-99) First exports of 34 API Nile Blend (made up Heglig and Unity oil fields) are scheduled to start in late 1999.

(10-Mar-97) The Sudan Project Consortium signed a crude oil pipeline and lease agreement to undertake the construction and operation of a 250 kBD export pipeline by year-end 1999. The projected 930 mile pipeline will run from the Heglig field to an oil export terminal to be constructed south of Port Sudan, on the Red Sea coast. This pipeline will also serve the to be constructed 50 kBD refinery in Khartoum.

(Jan 1996) A pipeline from the Heglig/Unity fields to Marsa Nimeiri on the Red Sea is in the planning stages with exports forecasted to begin in early 1997.

Quality Tracking

Monthly Average Tables

(08-Apr-2003)

Monthly Cargo Averages (04/08/2003)

--	1/99	02/99	03/99	04/99	05/99	06/99	07/99	08/99	09/99	10/99	11/99	12/99
API	--	--	--	--	--	--	--	--	--	--	35.0	35.5
SUL	--	--	--	--	--	--	--	--	--	--	0.08	0.08

Monthly Cargo Averages (04/08/2003)

--	1/00	02/00	03/00	04/00	05/00	06/00	07/00	08/00	09/00	10/00	11/00	12/00
API	35.6	35.7	36.0	36.2	36.0	35.8	36.0	35.8	36.0	35.8	35.4	35.5
SUL	0.08	0.07	0.06	0.07	0.07	0.08	0.08	0.06	0.05	0.06	0.07	0.07

Monthly Cargo Averages (04/08/2003)

--	1/01	02/01	03/01	04/01	05/01	06/01	07/01	08/01	09/01	10/01	11/01	12/01
API	35.5	35.6	35.1	34.7	34.5	34.7	34.9	34.4	34.1	34.1	33.7	33.7
SUL	0.07	0.06	0.07	0.05	0.08	0.06	0.05	0.06	0.06	0.06	0.07	0.07

Monthly Cargo Averages (04/08/2003)

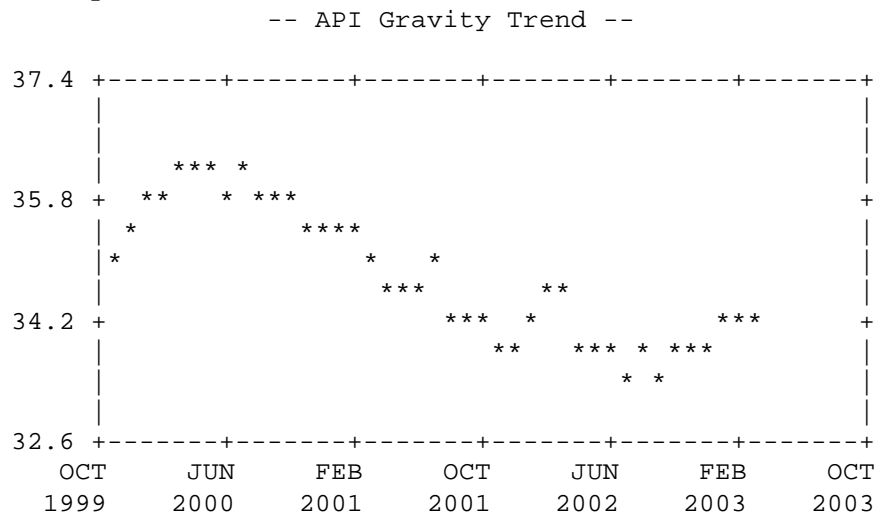
--	1/02	02/02	03/02	04/02	05/02	06/02	07/02	08/02	09/02	10/02	11/02	12/02
API	34.3	34.5	34.5	33.9	34.0	33.7	33.5	33.6	33.5	33.8	33.7	33.9
SUL	0.05	0.06	0.06	0.06	0.05	0.07	0.07	0.07	0.07	0.07	0.06	0.07

Monthly Cargo Averages (04/08/2003)

--	1/03	02/03	03/03	04/03	05/03
API	34.2	34.3	34.1	--	--
SUL	0.07	0.07	0.07	--	--

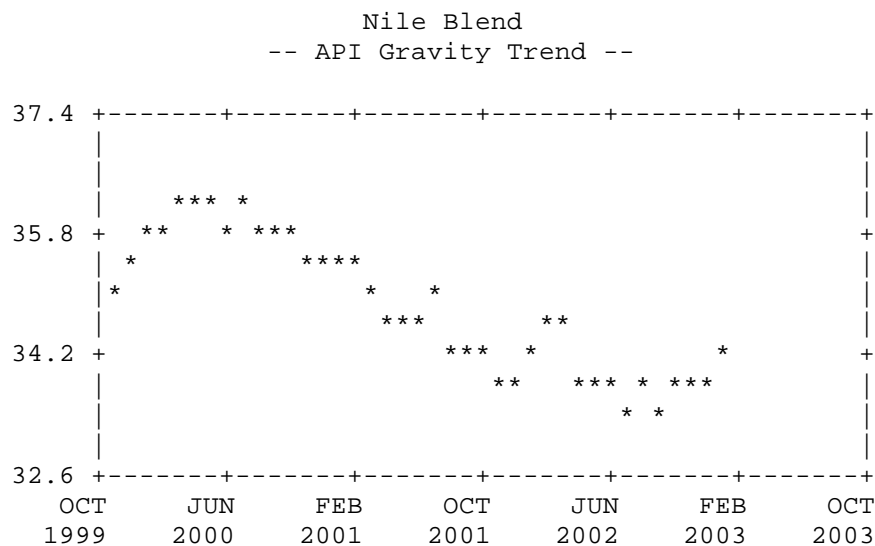
Monthly Average API Chart

(08-Apr-03)



Monthly Update Information

(Jan 2003)



(Jan 2003) Nile Blend quality was highlighted in mid-2002 as exhibiting a steady decline in gravity. Although Jan 2003 cargo data (34.2 API / 0.07 wt% Sulfur) was consistent with Dec 2002 (33.9 API / 0.07 wt% Sulfur), monthly data continues to indicate that the gravity has stabilized at the lower level. Refiners running this crude should consider re-assay.

(Jul 2002) * Munga, a new field component of Nile Blend, is expected to start producing by late August 2002. It will have the capability of producing 30 kBD. By 3Q 2003, the pipeline capacity will be increased to 300 kBD for Nile Blend.

(Jul 2002) * The recent reports of an end to the nearly 20 year civil war in Sudan is being welcomed by oil companies. A peaceful settlement might enable Canada's Talisman Energy to cancel its sale of 25% ownership in GNPOC (Greater Nile Petroleum Operating Company) - which operates Nile Blend (33.7 API / 0.05 wt% Sulfur), where current production is about 240 kBD.

(Jun 2002) Current Nile Blend cargo data continues to highlight the steady decline in gravity for this crude. June 2002 cargo data (33.7 API) is consistent with the previous two months. However, June 2002 data (33.7 API) is a decrease of 2.3 API in the past two years. Since changes in gravity could indicate other quality changes, refiners processing this crude should consider reassy.

(Apr 2002) A new oil well was recently drilled on the western portion of the GNPOC (Greater Nile Petroleum Operating Company) project. Further drilling is planned for the DIFFRA well which flowed on test at 6 kBD. Diffra is anticipated to become a component of Nile Blend. Reserve estimates for the western structures are estimated at 240 million barrels of oil.

(Sep 2001) Highlighted previously this year, the whole crude API for Nile Blend continues to decline. Sep 2001 average cargo data (34.1 API) is a decrease of 1.5 API since early 2001 at 35.6 API. Changes in gravity could indicate other quality changes. Refineries running this crude should consider reassy.

(May 2001) Originally highlighted two months ago, the whole crude API for Nile Blend continues to decline. The May cargo data indicates an average of 34.5 API. This is a decrease of 1.0 API since early 2001. Current quality is now 1.7 API heavier than the average API high of 36.2 API reported in April 2000. Refineries running this crude should consider reassy.

(Mar 2001) Based on 7 cargoes lifted during Mar 2001, the average gravity (35.1 API) for Nile Blend continues to decrease. The gravity is now trending 1.1 API heavier than the API high of 36.2 API in April 2000.

(Nov 2000) A new, unnamed discovery, has been made in the Malout area of Sudan. It is estimated that in two years, output of 60 kBD from this new field will become a component of Nile Blend (36.0 / 0.09 wt% sulfur).

Loadport : Marsa Bashayer

General Information

(11-Mar-03) the Greater Nile Oil Project owns the 930 mile pipeline which transports oil to Port Sudan on the Red Sea.

(07-Sep-00) A newly built 900 mile pipeline to the Red Sea is being used to export Nile Blend crude.

(15-May-00) The Marsa Bashaiyr export terminal currently has a capacity of 250 kBD. With additional pump stations, this can be increased to 450 kBD.

(08-May-00) The Sudanese pipeline carrying Nile Blend crude to its Red Sea loadport was attacked by anti-government rebels. However, no production delays were reported.

(08-May-00) Nile Blend crude is exported from the Red Sea port of Bashayer.

(02-Feb-00) Marsa Bashaver Crude Oil Marine Terminal is located about 16 miles south of Port Sudan. Initially, the terminal is capable of receiving vessels up to 150,000 dwt.