To Whom It May Concern

Saybolt
A CORE LABORATORIES COMPANY

Print Date: 03-11-2020 08:55

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Analysis Report

Main Object : Somtrans Lng Place of sampling : Esso Rotterdam

Petroleumhaven

Report Date : 03-11-2020 Date received : 02-11-2020
Date of issue : 02-11-2020 Date completed : 03-11-2020
Sample object : Somtrans Lng Sample number : 10725167

Sample type : Composite

Sample submitted as : Naphtha Light Virgin

Marked : Barge Somtrans Lng multiple tank composite after loading

Composite (10725167)					
SAMPLE NR	OBJECT	DESCRIPTION	RATIO		
10724893	Somtrans Lng	Barge Somtrans Lng P1 running after loading			
10724894	Somtrans Lng	Barge Somtrans Lng P2 running after loading			
10724895	Somtrans Lng	Barge Somtrans Lng P3 running after loading			
10724896	Somtrans Lng	Barge Somtrans Lng P4 running after loading			
10724897	Somtrans Lng	Barge Somtrans Lng P5 running after loading			
10724898	Somtrans Lng	Barge Somtrans Lng P6 running after loading			
10724899	Somtrans Lng	Barge Somtrans Lng P7 running after loading			
10724900	Somtrans Lng	Barge Somtrans Lng S1 running after loading			
10724901	Somtrans Lng	Barge Somtrans Lng S2 running after loading			
10724902	Somtrans Lng	Barge Somtrans Lng S3 running after loading			
10724903	Somtrans Lng	Barge Somtrans Lng S4 running after loading			
10724904	Somtrans Lng	Barge Somtrans Lng S5 running after loading			
10724905	Somtrans Lng	Barge Somtrans Lng S6 running after loading			
10724906	Somtrans Lng	Barge Somtrans Lng S7 running after loading			

All results in this report refer to the sample(s) tested as taken or submitted like specified in this Analysis report. Uncertainties, available on request, apply in the evaluation of the test results. All tests are conducted according to the latest version of the methods, unless another version is specifically indicated. Where available and for convenience purposes, the tested sample has been checked for compliance with supplied specifications, without accepting any liability. In case of dispute or concern, we refer to the interpretation of test results as defined in ASTM D3244, IP 367, ISO 4259 or GOST 33701. This report shall not be partially copied and reproduced without the written permission of the laboratory.

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Analysis Report

Report number : 12004/00127453.1/L/20 Composite prep date : 02-11-2020 : Esso Rotterdam Main Object Place of sampling : Somtrans Lng

Petroleumhaven

Report Date : 03-11-2020 Date received : 02-11-2020 Date of issue : 02-11-2020 Date completed : 03-11-2020 Sample object : Somtrans Lng Sample number : 10725167

Sample type : Composite

Sample submitted as : Naphtha Light Virgin

Marked : Barge Somtrans Lng multiple tank composite after loading

NAME	METHOD	UNIT	RESULT
Appearance	Visual	-	Bright & Clear
Density at 15 °C	EN ISO 12185	kg/m³	677.0
PIONA	PNA-analyser		
Paraffins		vol %	75.9
I-paraffins		vol %	38.4
N-paraffins		vol %	37.4
Olefins		vol %	1.1
Naphtenes		vol %	20.7
Aromatics		vol %	2.4
Unsaturates		vol %	3.5
C4 & lighter		vol %	0.2
Benzene	GC	vol %	1.60
Total Organic Chloride	UOP 779	mg/kg	< 0.5
Color Saybolt	ASTM D 156	-	+ 28
Distillation	ASTM D 86		
Initial boiling point		°C	35.7
5% Evaporated		°C	44.7
50% Evaporated		°C	58.4
90% Evaporated		°C	82.2
Final boiling point		°C	101.4
Residue		vol %	0.7
5% - 90% Evaporated		°C	37.5
Lead (Pb)	GF-AAS	μg/kg	<10
Organic oxygenate compounds	ASTM D 7423		
Methanol		mg/kg	<5
Ethanol		mg/kg	<5
MTBE		mg/kg	<5
ETBE		mg/kg	<5
Total Oxygenates		mg/kg	75
Sulphur (S)	ASTM D 5453	mg/kg	79
Hydrogen Sulfide and Mercaptan Sulphur	UOP 163		
Hydrogen Sulfide, as S		mg/kg	4

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NAME	METHOD	UNIT	RESULT
Mercaptan, as S		mg/kg	37
Mercury (Hg)	DMA 80	μg/kg	<1
Free water	Visual	-	None
Motor Octane Number (MON)	ASTM D 2700	-	69
Research Octane Number (RON)	ASTM D 2699	-	71
Gum Content	ASTM D 381		
Gum Content (unwashed)		mg/1000 mL	<1
Gum Content (solvent-washed)		mg/1000 mL	<1
DVPE @ 100F	ASTM D 5191	kPa	71.7

Signed by: Fatih Eroglu - Sr Account Manager

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