



Document unique №: MA23-00035.001_6050

Date: 07/06/2023

SGS Oil, Gas and Chemicals
SGS Vostok Limited, Novorossiysk Branch,
Executing Office:
367009, Daghestan, Makhachkala,
Kammaeva str., 1

Neft-Servis OOO
85 Generala Plieva, Batako, North Osetia-Alania, RF
VHH 1513069699
OIPH 1181513001647

Analytical Report MA23-00035.001

PRODUCT DESCRIPTION:	Crude Oil	SGS SAMPLE No:	23MA-919
SAMPLE SOURCE:	Submitted by Client	SGS JOB N°:	181202-364914-OGC-NO-2023
SOURCE ID:	Заманкульское месторожд-е / Zamankul'skoe	SAMPLE RECEIVED:	03/06/2023
LOCATION:	North Osetia-Alania, Russia	DATE SAMPLED:	03/06/2023
SAMPLE TYPE:	Unknown	SAMPLE BY:	Client
SEAL NO:	SGS 13472558		

The sample(s) to which the findings recorded herein (the "Findings") relate was(were) drawn and / or provided by the Client or by a third party acting at the Client's direction. The Findings constitute no warranty of the sample's representativeness of any goods and strictly relate to the sample(s). The Company accepts no liability with regard to the origin or source from which the sample(s) is/are said to be extracted.

SAMPLE DETAILS: 1 of 1 Litre Amber Glass Bottle

PROPERTY	METHOD	UNITS	RESULT	
Density at 15°C	ASTM D1298	kg/l.	0.8424	
Use of Petroleum Measurement Tables	ASTM D1250			
Density at 20 °C		kg/l.	0.8388	
API Gravity at 60 °F		°API	36.4	
Total Sulfur Content	ASTM D4294	% (m/m)	0.141	
Hydrogen Sulfide	UOP 163	mg/kg	<1	S10
Mercaptan Sulfur	UOP 163	mg/kg	259	S10
Carbon Residue - Micro Method	ASTM D4530	% (m/m)	1.29	S10

This test method is not applicable for the analysis of this type of product.

Water Content by Distillation	ASTM D4006	% (m/m)	2.000	
Kinematic Viscosity at 37.8 °C (100 °F)	ASTM D445	mm²/s	5.016	S10
Maximum Pour Point	ASTM D5853 (Procedure A)	°C	-3	S10
Salt (as electrometric Chloride)	ASTM D3230	mg/kg	>500.0	S10

Sample was diluted. Result is outside of test method limits and/or analytical range used in method precision study, and therefore, precision parameters do not apply in the determination of the result.)

Sediment by Extraction	ASTM D473	% (m/m)	0.46	# S10
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The sample mixing procedure was performed in accordance with ASTM D 5854 (API Chapter 8.3) at 20.0/20.0 °C (before/after mixing).

Product description information was provided by the Client. The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Users of analytical results, when establishing conformance with commercial or regulatory requirements should note the full provisions of ASTM D3244, IP 367 and ISO 4259 in that context, the default confidence level of petroleum testing having been set at the 95% confidence level. Your attention is specifically drawn to Sections 7.3.6., 7.3.7 and 7.3.8 of ASTM D3244. With respect to the UOP methods listed in the report above the user is referred to the method and the statement within it specifying that the precision statements were determined using UOP Method 999. This report shall not be reproduced except in full, without the written approval of the laboratory. This document is issued by the Company under its General Conditions of Service accessible at <https://www.sgs.com/en/terms-and-conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's Instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

- Result is outside of test method limits and/or analytical range used in method precision study

Authorised Signatory
Kamil Aygumov-Chief Inspector

Authorised Signatory
Lab Manager-Irina Amaeva

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Please look at first page for sample details.

PROPERTY	METHOD	UNITS	RESULT
Flash Point by PMCC	ASTM D93 (Procedure B)	°C	< 40
<i>This test method is not applicable for the analysis of this type of product.</i>			
Reid Vapour Pressure - Procedure A (<180 kPa)	ASTM D323	kPa	13.75 S10
<i>SGS made explanations that testing H2S and/or RVP(DVPE) on a composite sample is not adequate to the test method reasoned by composing from individual samples and losing volatile components, however as per client's instructions, the analyses were performed on a composite sample. Therefore the results obtained on samples ex individual tanks may differ from the reported one.</i>			
Asphaltene	IP 143	% (m/m)	2.9 S10
Distillation of Petroleum Products at Atmospheric Pressure (Manual)	ASTM D86		S10
Recovered at 260 °C		% (v/v)	40.0
<i>This test method is not applicable for the analysis of this type of product.</i>			

The laboratory analyses for specified tests are provided by:
S10 - SGS Laboratory of oil and oil products in Tuapse

Product description information was provided by the Client. The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated. All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report. Precision parameters apply in the determination of the above results. Users of analytical results, when establishing conformance with commercial or regulatory requirements should note the full provisions of ASTM D3244, IP 357 and ISO 4259 in that context, the default confidence level of petroleum testing having been set at the 95% confidence level. Your attention is specifically drawn to Sections 7.3.6., 7.3.7 and 7.3.8 of ASTM D3244. With respect to the UOP methods listed in the report above the user is referred to the method and the statement within it specifying that the precision statements were determined using UOP Method 999. This report shall not be reproduced except in full, without the written approval of the laboratory. This document is issued by the Company under its General Conditions of Service accessible at <https://www.sgs.com/en/terms-and-conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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Kamil Aygumov-Chief Inspector

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文件编号 MA23-00035.001 6050
检测单位 SGS
送检单位：石油服务有限责任公司

日期：2023.6.7

检测报告：MA 23-00035.001

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产品名称： 样品来源： 样品 ID： 地点：	原油 客户递交 扎曼库产地-e/ Zamankuskoe 申请方递交 扎曼库-e/Zamankuskoe 未知	样品 No： N° SGS 工作 获得时间： 封样时间： 样品自：	23MA-919 181202-364914-OGC-NO-2023 03/06/2023 03/06/2023 客户
样品类型：	未知		
铅封号：	SGS 13472558		
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性质	方法	单位	结果	
密度在 15°C	ASTM D1298	千克/升	0.8424	
20°C时石油和石油产品密度计算标准手册	ASTM D1250	千克/升	0.8388	
密度 API 在 60°C		°API	36.4	
硫含量	ASTM D4294	%(质量/质量)	0.141	
硫化氢含量	UOP 163	毫克/千克	< 1	S10
硫醇硫	UOP 163	毫克/千克	259	S10
焦化性（混合法）	ASTM D4530	%(质量/质量)	1.29	S10
	此检测方法对该类型产品不采用			
蒸馏水水量	ASTM D4006	%(质量/质量)	2.000	
运动粘度 37.8°C (100°F)	ASTM 445	MM²/s	5.016	S10
流动性最高温度	ASTM D5853 (程序 A)	°C	-3	S10
氯化盐	ASTM D3230	毫克/千克	> 500.0	S10
样品被淹没了。结果超出了试验精准研究的方法限值和/或方法范围，因此，精度参数不适用于结果的确 定)				
机械杂质含量	ASTM D473	%(质量/质量)	0.46	# S10
	根据 ASTM D 5854 (API 8.3 章) 样品混合程序进 行样品混合在 20.0/20.0°C(混样前后)			
闭式基马氏坩埚闪点	ASTM D93 (程序 B)	°C	< 40	
	此检测方法对该类型产品不采用			
饱和蒸汽压力（方法 A） < 180kPa	ASTM D323	kPa	13.75	S10
	SGS 对 H2S 和/或 RVP(DVPE)样品组合测试方法进行了解释，该 方法不适用由单个样品组合而成的检测方法，会丢失不稳定成 分，但是，该测试方法是根据客户的指示，进行的组合测试。因			

	此，从单个储罐中获得的样品结果可能与报告的结果不同。			
沥青含量	IP 143	% (质量/质量)	2.9	S10 S10
大气压馏分（手动）馏出物 百分比在 260°C	ASTM D86	% (v/v)	40.0	
	此检测方法对该类型产品我们不采用			

对指定测试进行的上述实验分析由：

图阿普谢 S10-SGS 石油和石油产品实验室完成

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实验室主任-伊琳娜 阿玛耶娃

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