

LIMITED LIABILITY COMPANY LLC RN-BUZULUK GAS PROCESSING PLANT

Legal address: Russia, 461040, Orenburg region, Buzuluk city, Technicheskaya str. 10. *Telephone:* (35342) 39-601, fax (35342) 39-602, email bgpp_phemnaya@rosneft.ru

Production address: Russia, Orenburg region, Pervomaisky district, Zaikinskoe GPP (main stepdown substation)



QUALITY CERTIFICATE NO. 3166 Hydrocarbon liquefied fuel gas grade

propane-butane technical (PBT) GOST R 52087-2018

The EAC Declaration of Conformity No. RU D-RU.RA01.V.08046/21 is valid until 12.04.2024.

OKPD 2 19.20.31 CUCC FEA 2711139700

Batch No. 3166Date of product manufacture30.12.2021Tank No. 50888791Date of sampling30.12.2021Net weight, tRD of the sampling methodGOST 14921Net volume*, lTest date:30.12.2021

Sampling and testing were carried out by PCL of RN-BGPP LLC, certificate of accreditation No. RA.RU.21HB22 dated 06.03.2018.

Item No.	Name of indicator	Testin <mark>g meth</mark> od	The norm for the EAEU TR 036/2016	The norm according to GOST 52087-2018	Actual value
1	Octane number	Appendix B GOST EN 589	Not standardized		93.5
2	Mass fraction of components, % the amount of methane, ethane and ethylene		Not standardized		1.13
	the amount of propane and propylene		Not standardized Not standardized		61.51
	including propane				61.51
	the amount of butanes and butylenes, minimum, including:	GOST 10679	Not standardized	60	37.38
	isobutane	Not standardized		dardized	11.45
	n-butane		Not standardized		25.90
	butylene	Not standardized		0.03	
	the amount of unsaturated hydrocarbons		Not standardized		0.03
3	Volume fraction of liquid residue at 20°C, %, max	GOST 52087 item 8.2	1.8	1.6	less than 0.1
4	Saturated vapor pressure is excessive, MPa, at temperature: plus 45 °C, max	GOST 28656 item 2	1.6 Not standardized		1.25
	minus 20 °C				0.18
	minus 30 °C		Not standardized		0.11
5	Mass fraction of hydrogen sulfide and mercaptan sulfur, %, max	GOST 32918	0.013 0.003		0.004
	including hydrogen sulfide,%, max				0.0002
6	Free water and alkali content	GOST 52087 item 8.2	Absence		Absence
7	Odor intensity, points, minimum	GOST 22387.5	3		3
8	Density of liquefied gas at 15°C, kg/m3	GOST 28656 item 1	Not standardized		530.48

The product complies with the requirements of the EAEU TR 036/2016 "Requirements for liquefied petroleum gases for their use as fuel" as fuel for municipal and industrial consumption.

The product complies with the requirements of GOST R 52087-2018 item 4.2, Table.2 for the PBT grade.

The gas is odorized, yes/no - yes

The quality certificate is formed on the basis of test report No. 5224

Date of issue of the quality certificate No. 3166

30.12.2021



Shift Supervisor

Signature

LIMITED LIABILITY COMPANY A. V. Shakalin

Signature

LLC RN-BUZULUK GAS PROCESSING PLANT

Full name

Full name

The manufacturer guarantees that the product meets the requirements of the standard within 3 months from the date of manufacture, subject to the rules of transportation and storage.

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