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ASSAY

**Research of
Synthetic Crude Oil INFRA-VDR1
for
LLC «INFRA Technologies»**

Manager of Moscow Laboratory Center
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1. Introduction

The research of synthetic Crude Oil has performed on the sample “INFRA-VDR1”, which was submitted by Client LLC “INFRA Technologies”, to MLC MD 08/08/2011. Sample of Crude Oil had been given in 10-liters container (1 piece). The sample which was marked as:

ООО «ИНФРА Технологии».
Синтетическая нефть.
Количество 10 л.

MLC MD Job Number – 26028/00582000/11.

The Quality Indexes of the Crude Oil were determined during the research:

- quality indexes of the synthetic Crude Oil;
- potential content of fractions was established by atmosphere distillation ASTM D 86;
- following fractions were collected during atmosphere distillation ASTM D 86:
IBP-180°C, 180-360 °C, 360+°C.
- quality indexes of the fractions IBP-180°C, 180-360 °C were determined.

2. Quality indexes of Crude Oil

The following quality indexes were performed on the submitted sample of Crude Oil. The results are given in the Table 2.1.

Quality indexes of Crude Oil

Table 2.1.

N ^o	Test	Method	Result
1.	Density at 15°C, kg/l	ASTM D 5002	0.7491
2.	Flash Point by Tag, °C	ASTM D 56	Minus 9.0
3.	Water content, % v/v	ASTM D 4006/ API MPMS, ch. 10.2	Nil (Less 0.025) (*)
4.	Pour Point (upper), °C	ASTM D 5853(A)	Nil
5.	Distillation: °C	(+)ASTM D 86	
	- IBP		83.0
	- 5% v/v recovered at		110.5
	- 10% v/v recovered at		121.0
	- 20% v/v recovered at		136.0
	- 30% v/v recovered at		151.0
	- 40% v/v recovered at		167.5
	- 50% v/v recovered at		186.5
	- 60% v/v recovered at		206.5
	- 70% v/v recovered at		232.5
	- 80% v/v recovered at		265.0
	- 90% v/v recovered at		307.5
	- 95% v/v recovered at		351.0
	- FBP		366.0
	- Recovery % v/v		96.5
	- Residue % v/v		1.7
	- Loss % v/v		1.8

Remarks: (*) – the actual result has been reported for information only.

(+) – this method is not applicable to this type of product.

3. Potential content of fractions in Crude Oil

According to the research program the Crude Oil sample was distilled into fractions in accordance to ASTM D 86.

During the atmospheric distillation ASTM D 86 the following fractions were collected: IBP-180°C; 180-360°C; residue 360+°C.

The data of Crude Oil distillation are given in Tables 3.1.

Material balance of Crude Oil distillation in accordance to ASTM D 86

Table 3.1.

№	Temperature, °C	Recovery, % m/m	
		Fraction	Total
1.	IBP-180	45.0	45.0
2.	180-360	50.0	95.0
3.	Residue 360+	3.2	98.2
4.	Loss	1.8	100.0

