



CERTIFICATE OF ANALYSIS

QUALITY CERTIFICATE OF HEAVY FUEL OIL



Date: 30-09-2024
Certificate No: 240023610205
Description Of Goods: Heavy Fuel Oil

ANALYSIS REPORT

No.	Test Method	Test Description	Result	Unit
1	ASTM D1298	Specific Gravity @ 15.6/15.6°C	0.9090
2	ASTM D1298	API Gravity @ 60°F	24.2
3	ASTM D1298	Density @ 15°C	0.9086	Kg/I
4	ASTM D445	Kinematic Viscosity @50°C	187.0	cst
5	ASTM D445	Kinematic Viscosity @100°C	19.9	cst
6	ASTM D5453	Total Sulfur	0.220	Wt.%
7	ASTM D93	Flash Point	104.0	°C
8	ASTM D97	Pour Point	42.0	°C
9	ASTM D189	Conradson Carbon Residue	7.70	Wt.%
10	ASTM D482	Ash Content	0.0055	Wt.%
11	ASTM 1796	Water Content	Trace	Vol.%
12	ASTM D4868	Gross Calorific Value	10654	Kcal/Kg
13	IP 288	Vanadium Content	<1	ppm

Sample: Heavy Fuel Oil; Sampling: Sampled by: By GITO; Customer: Patek Star Raw Materials Trading Company; Ref.: 240023610205;

Issued by:

GITO Laboratory Analysis
42 Upper Berkeley St
London W1H 5 QL



Approved by:

Laboratory Manager



MI: internal method, UM: unit of measurement, U: measurement uncertainty (the expanded uncertainty of measurement calculated by the laboratory is to be considered with 95% trust level and coverage factor equal to 2. For chemical and molecular biological tests the measurement uncertainty is expressed with a maximum number of 2 significant figures; if reference documents define specific requirements for the expression of the associated test results, the uncertainty follows the regulations of the reference document and may not be included in the test report; for microbiological tests, according to ISO 19036, combined standard uncertainty has been taken as equal to the intralaboratory reproducibility standard deviation). L: Limit: legal limit; maximum admitted level; LL: internal limit (limit not foreseen by current legislation, established by the laboratory and / or by the customer, guide value and / or bibliographic value - Haccp manual limit and / or product technical sheet limit), R%: average recovery rate (the tests results are considered corrected with the recovery factor if declared, unless otherwise specified by the laboratory), LOQ: limit of quantification, LOD: limit of detection, D-ND: detected-not detected, MRL: maximum residue limit, P-A: presence-absence, S.P.: sampling point, Value: test result (for chemical and molecular biological tests the result is expressed with a number of decimal digits compatible with those of the measurement uncertainty, where present; for quantitative microbiological tests in food is an estimated number of microorganisms if it is = 4 UFC/mL or = 40 UFC/g and < 10 UFC/mL or < 100 UFC/g, for quantitative microbiological tests in waters is an estimated number of microorganisms if it is = 3 UFC/mL and < 10 UFC/mL)

The Laboratory operates in compliance with the provisions of the reference documents in formulating statements of conformity of the test results to a specification. If the reference documents do not give indications, the laboratory applies the provisions of ILAC-G8 par. 4.2.1 for microbiological tests (does not consider the range defined by the extended uncertainty). Quantitative microbiological tests shall be performed on a single replicate and two consecutive dilutions. The results contained in this Test Report refer only to the tested sample; if sampling is carried out by the customer, they refer to the sample tested as received. The Laboratory is responsible for all the information contained in this Test Report, with the exception of the information provided by the customer. The Test Report must not be reproduced, if not entirely, without the approval of the Laboratory.