



CERTIFICATE OF SAMPLING AND ANALYSIS

Vessel : "GLOVIS DIAMOND"
Vessel commenced loading: at 20.22 hrs on 01st of August, 2020
Vessel completed loading: at 21.24 hrs on 02nd of August, 2020
Commodity as declared : **Russian Steam Coal in bulk**
Quantity as per SGS Draft Survey: 79,760.00 MT
Loading port : Vanino, Russia
Discharge port as declared : One or Two South Korean Port(s)
B/L date : August 02nd, 2020

THIS IS TO REPORT that in accordance with instructions received from our Principal, SUEK AG, to perform sampling and analysis of the above mentioned shipment, we hereby report the following:

MECHANICAL SAMPLING - SGS, operated as per ASTM D2234 Condition I-B-1 / D7430 Part A. Samples collected throughout the entire loading of the vessel.

Mechanical Sampling System (MSS) was checked by SGS prior to loading and confirmed that the MSS was designed and operated in accordance with ASTM D2234 Condition I-B-1 / D7430 Part A. Performance Monitoring of the MSS, and collection of extraction ratios, confirmed that the MSS continues to perform as designed. Bias Test data was made available to SGS.

ANALYSIS: Reported results are based on a calculated weighted average of sub-lots analysis results using weights and qualities on the same moisture basis, and composite analysis results where applicable. Analysis performed in accordance with ASTM Standards at the SGS laboratory in Vanino Port, Russia:

Total Moisture	(As received basis)	10.4	PCT	ASTM D 3302/D3302M-15
Inherent Moisture	(Air dried basis)	3.5	PCT	ASTM D 3173-11
Ash	(Air dried basis)	10.5	PCT	ASTM D 3174-12
Ash	(Dry basis)	10.9	PCT	ASTM D 3174-12
Volatile Matter	(Air dried basis)	35.7	PCT	ASTM D 3175-11
Sulphur	(As received basis)	0.27	PCT	ASTM D 4239-14 ¹²
Nitrogen	(Dry Ash Free basis)	1.78	PCT	ASTM D3179-02e1
Fixed Carbon	(Air dried basis)	50.3	PCT	By difference
Calorific Value	(Gross, As received basis) (G.C.V.)	6398	kcal/kg	ASTM D 5865-13
Calorific Value	(Gross, Air dried basis)	6891	kcal/kg	
Calorific Value	(Net, As received basis) (N.C.V.)	6108	kcal/kg	
Grindability (HGI)		55	units	ASTM D 409/D 409M-12
Ash Fusion Temperature IDT (Reducing Atmosphere)		1224	Degree C	ASTM D 1857/D 1857M-04(2010)
Hydrogen (HD)	(Dry basis)	5.00	PCT	ASTM D 5373-14 ¹
Carbon (C)	(Dry basis)	70.89	PCT	ASTM D5373-16
Ash Analysis:				ASTM D 3682-13
Fe ₂ O ₃		5.55	PCT	
K ₂ O		2.73	PCT	
Na ₂ O		0.75	PCT	
SiO ₂		57.55	PCT	

Size Distribution:	above 50 mm	0.8	PCT	ASTM D 4749-87(2012)
	under 2 mm	29.0	PCT	

This document is a witness of survey services rendering.

Signed and dated at
VANINO, RUSSIA
August 05th, 2020



FOR AND ON BEHALF OF
SGS VOSTOK LIMITED
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