INSPECTORATE
ISO 9001:2000 Certified

Certificate of Analysis

Vessel / Shore Tank :	**TANK 7**	Sample Submitted By :	IAC Portland
Product :	**RMG 380 (Bunker Fuel)**	Analysis Performed By :	IAC Portland
Client Reference :		Date Sampled :	10-Sep-2008
Terminal / Port / Office :	SPRAGUE ROLLING MILLS	Date Reported :	11-Sep-2008
Job ID :	0020-0000769	Submission ID :	2008-020-00992
Sample Details :			
Comments :			

		UML Composite	
	Sample Number	2008-020-00992-007	
Method	Test	**Result**	**Specification**
ASTM D287	API Gravity, ° API-U,M,L Calc Avg	11.4	
ASTM D1250	Density at 15°C	0.9896	991.0 Max
ASTM D4294	Sulfur Content, mass %-U,M,L Calc Avg	1.24	
ASTM D445	Test Temperature	50°C (122°F)	
	Kinematic Viscosity, cSt-U,M,L Calc Avg	291.0	380 Max (cst)
ASTM D2161	Test Temperature, ° F	122	
	Saybolt Furol Seconds, sec	137.5	
ASTM D95	Water, % (v/v)	0.00	0.5 Max
ASTM D473	Sediment Content, mass %	<0.01	
ASTM D1796	Water and Sediment, % (v/v)	0	
ASTM D93 Proc. B	Manual / Automated	Automatic	
	Flash Point, ° C / ° F	99.5 / 211	60 Min (C)
ASTM D482	Ash Content, mass %	0.0423	0.15 Max
IP 470	Aluminum, ppm (mg/kg)	30	80 Max (Al+Si)
	Silicon, ppm (mg/kg)	30	
	Sodium, ppm (mg/kg)	62	
	Vanadium, ppm (mg/kg)	21	300 Max
ASTM D5762	Nitrogen, %wt	0.3282	
ASTM D240	Gross Heat of Combustion Unit Conversion, BTU/l	18195 / 150054	
ASTM D4530	Carbon Residue, % (m/m)	9.7	18 Max
ASTM D97	Pour Point, ° C / ° F	0 / 32	30 Max (C)
ASTM D6560	Asphaltenes, % (m/m)	1.4	
ASTM D4870	Total Sediment,%(m/m)	<0.01	0.1 Max
ASTM D287	API Gravity, ° API		
	Upper	11.4	
	Middle	11.4	
	Lower	11.4	
ASTM D4294	Sulfur Content, mass %		
	Upper	1.24	
	Middle	1.24	
	Lower	1.25	
ASTM D445	Kinematic Viscosity, cst		
	Upper	289.3	
	Middle	291.7	
	Lower	292.0	

SPRAGUE PROVIDES THE ATTACHED INSPECTION REPORT/ANALYSIS REPRESENTING THE SPECIFICATIONS OF THE PRODUCT AT THE SPRAGUE TERMINAL IN TANK ON THE DATE OF INSPECTION NOTED ON THE CERTIFICATE. THIS ANALYSIS IS PROVIDED TO THE CUSTOMER FOR THE PURPOSE OF ESTABLISHING THE INDEPENDENTLY VERIFIED PRODUCT SPECIFICATION ON A COMPOSITE BASIS IN SPRAGUE'S TERMINAL SHORE TANK AS NOTED ON THE CERTIFICATE. THE INSPECTION REPORT IS NOT TO BE USED FOR ANY OTHER PURPOSE. SPRAGUE DISCLAIMS ANY LIABILITY FOR THE PRODUCT AFTER DELIVERY BY SPRAGUE TO CUSTOMER. SPRAGUE DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR AN INTENDED USE EXCEPT AS MAY BE SPECIFICALLY SET FORTH IN WRITING IN ANY CONTRACT OF TERMS OF SALE BETWEEN SPRAGUE AND A BUYER OF PRODUCT. SPRAGUE ASSUMES NO LIABILITY FOR CLAIMS OR LOSSES THAT MAY ARISE FROM CUSTOMER'S USE OF THIS INSPECTION REPORT/ANALYSIS.

For Inspectorate: Signature On File

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