

UIN 081D1EA

Diesel Engine

Unit No. Serena

Unit: Make Model Serial No.

Eddie Reeves Site

Compartment:

Name Stbd Generator Engine

Make Northern Lights

Model

Serial No. 8434-45514C Capacity: 0.0 Ltrs

Customer:

TWO STAR MARITIME

4725 Thornton Ave Fremont CA 94536

USA

DIAGNOSIS

Engine wear levels appear satisfactory for first sample. Silicon level (dirt/sealant material) satisfactory. Water content acceptable. Viscosity within specified operating range. Action: Resample next service interval to monitor and establish wear trend.

ANALYST: Jon.Sowers















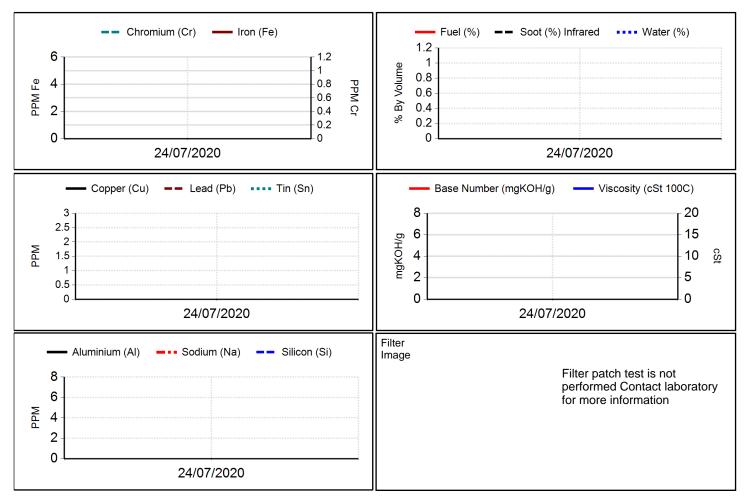
DATE SAMPLED	24-Jul-20	
DATE RECEIVED	25-Aug-20	
DATE REPORTED	18-Sep-20	
LAB NO.	42021538007	
SIF NO.	25500773	
TIME ON UNIT	4275	
TIME ON OIL	75	
OIL BRAND	Shell	
OIL TYPE	Rotella T4 Tri P (CK4)	
OIL GRADE	SAE 15W40	
OIL ADDED		
FILTER	Not Applicable	
OIL CHANGED	Not Provided	
WO NUMBER		
Metals (ppm)		
Iron (Fe)	6	
Chromium (Cr)	<1	
Lead (Pb)	<1	
Copper (Cu)	<1	
Tin (Sn)	3	
Aluminium (Al)	<1	
	<1	
Nickel (Ni)		
Silver (Ag)	<1	
Titanium (Ti)	<1	
Vanadium (V)	<1	
Contaminants (ppm)		
Silicon (Si)	7	
Sodium (Na)	2	
Potassium (K)	5	
Coolant	No	
Additives (ppm)		
Magnesium (Mg)	109	
Calcium (Ca)	2233	
Barium (Ba)	<1	
Phosphorus (P)	1138	
Zinc (Zn)	1339	
Molybdenum (Mo)	11	
Boron (B)	201	
Contaminants		
Water (%)	< 0.05	
Physical Tests		
Viscosity (cSt 100C)	15.0	
Fuel (%)	<1	
Soot (%) Infrared	0.3	
Physical / Chemical		
Base Number (mgKOH/g)	7.2	
` 5 ' 3/		



1-800-332-0952







Since services are based on samples and information supplied by others, and since corrective actions, if any, are necessarily taken by others, these services are rendered without any warranty or liability of any kind beyond the actual amount paid to ALS Tribology for the services. Reported recommendations are based on interpretations of the generated test results and historical data. Certain test results appearing in this report may have been tested at other ALS laboratories within the Tribology divisional network.

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UIN 081D1EA

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