



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(IMO 889648) MILLER SHIPPING LTD
Machine Id
MV WESTERN TUGGER
Component
2 Genset
Fluid
IRVING IDO UNIVERSAL SAE 10W30 (11 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Oil used is Irving 10W 30 CK-4)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		OF0001094	---	---
Sample Date		Client Info		02 May 2024	---	---
Machine Age	hrs	Client Info		17810	---	---
Oil Age	hrs	Client Info		20	---	---
Filter Age	hrs	Client Info		20	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>50	2	---	---
Chromium	ppm	ASTM D5185(m)	>4	0	---	---
Nickel	ppm	ASTM D5185(m)	>2	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>5	0	---	---
Aluminum	ppm	ASTM D5185(m)	>12	2	---	---
Lead	ppm	ASTM D5185(m)	>17	0	---	---
Copper	ppm	ASTM D5185(m)	>70	<1	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

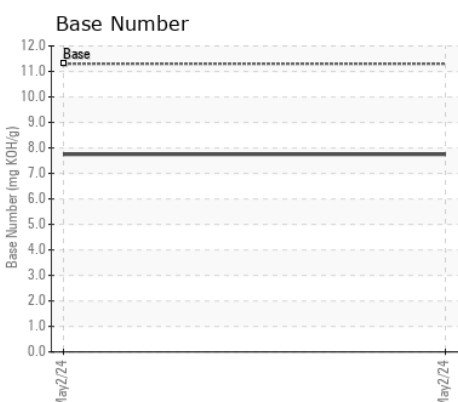
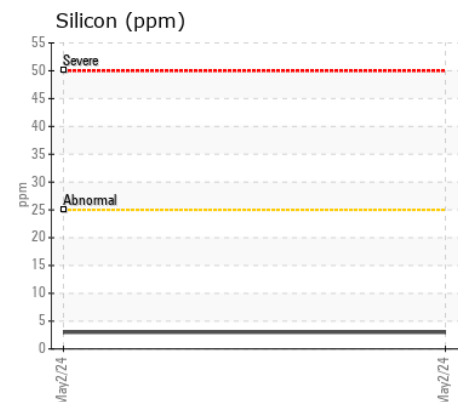
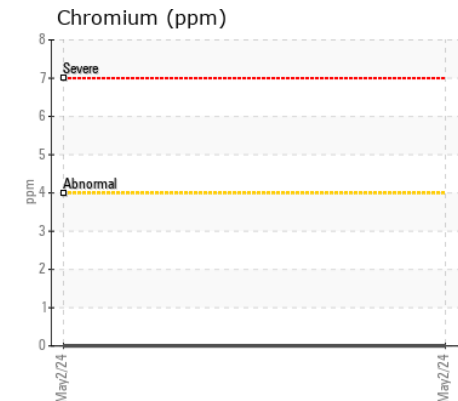
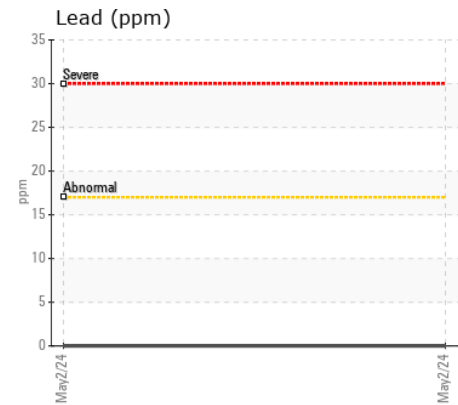
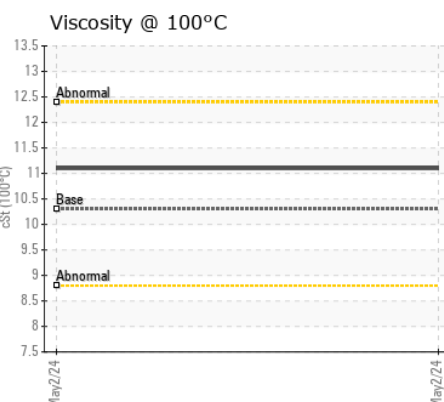
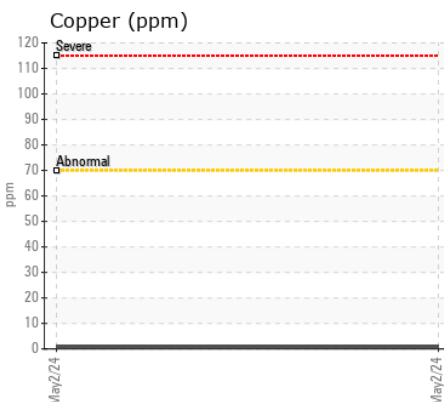
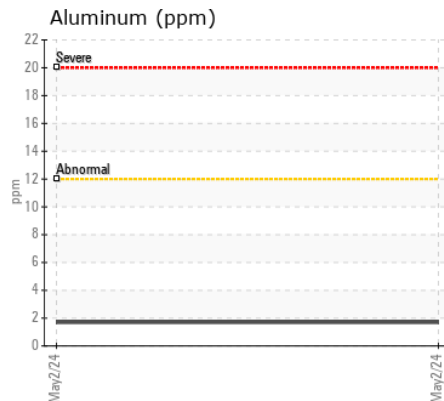
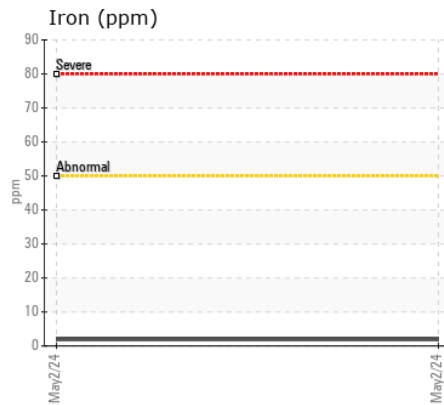
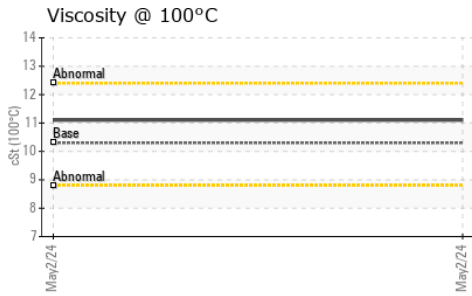
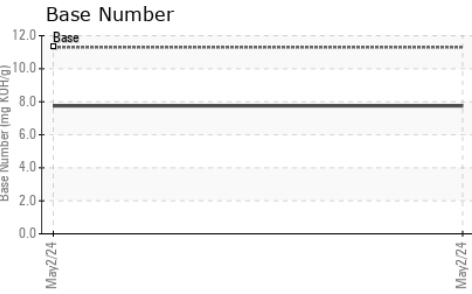
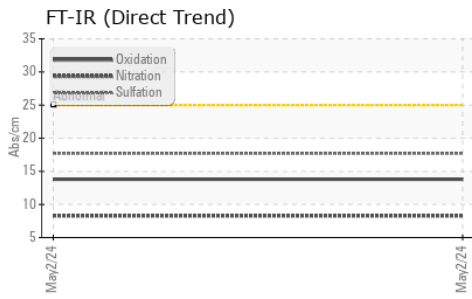
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	8.3	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.7	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		1	---	---
Boron	ppm	ASTM D5185(m)		65	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		3	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		12	---	---
Calcium	ppm	ASTM D5185(m)		2221	---	---
Phosphorus	ppm	ASTM D5185(m)		1039	---	---
Zinc	ppm	ASTM D5185(m)	1300	1182	---	---
Sulfur	ppm	ASTM D5185(m)		3318	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	11.3	7.75	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.3	11.1	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : OF0001094 **Received** : 13 Jun 2024
Lab Number : **02641634** **Tested** : 14 Jun 2024
Unique Number : 5799173 **Diagnosed** : 14 Jun 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: PQ)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.