



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
HILL ENTERPRISES LTD
Machine Id
FISHING VESSEL M/V ATLANTIC TITAN
Component
2 Genset
Fluid
SHELL ROTELLA T 15W40 (25 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		OF0000490	OF0000474	OF0000484
Sample Date		Client Info		15 Mar 2024	30 Jul 2022	16 Mar 2022
Machine Age	hrs	Client Info		0	6534	4773
Oil Age	hrs	Client Info		468	1761	2
Filter Age	hrs	Client Info		468	250	2
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>50	6	▲ 62	5
Chromium	ppm	ASTM D5185(m)	>4	0	2	0
Nickel	ppm	ASTM D5185(m)	>2	<1	▲ 5	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>12	4	8	1
Lead	ppm	ASTM D5185(m)	>17	0	5	<1
Copper	ppm	ASTM D5185(m)	>70	1	18	1
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

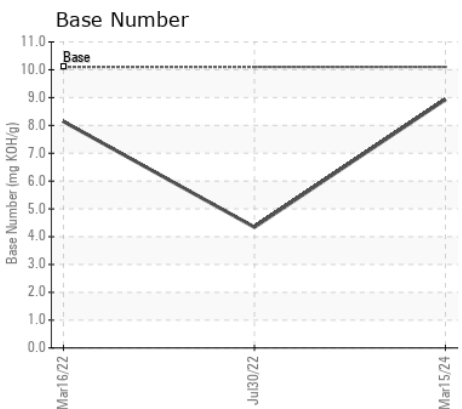
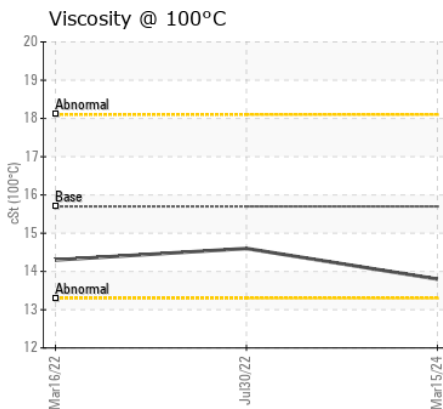
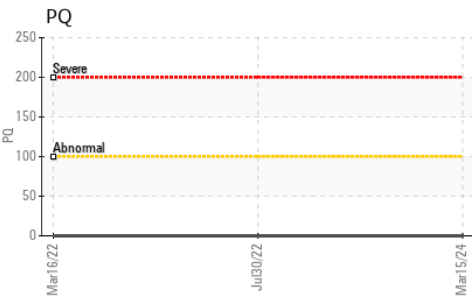
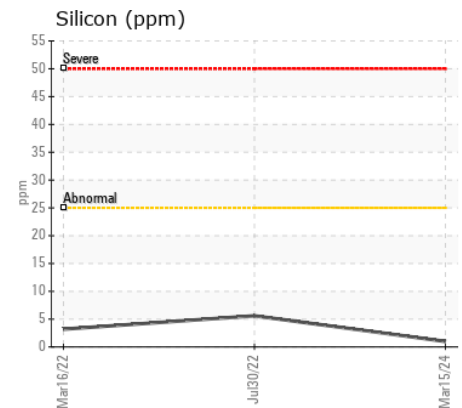
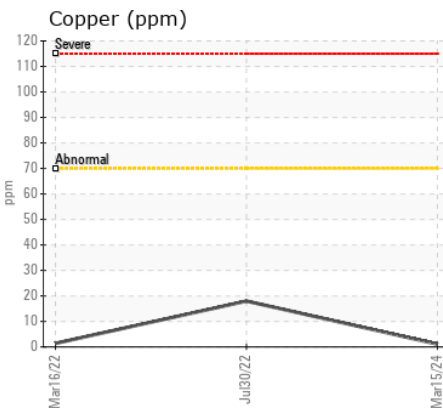
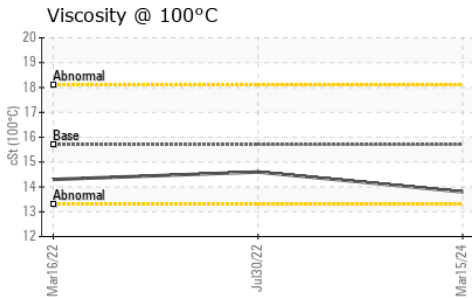
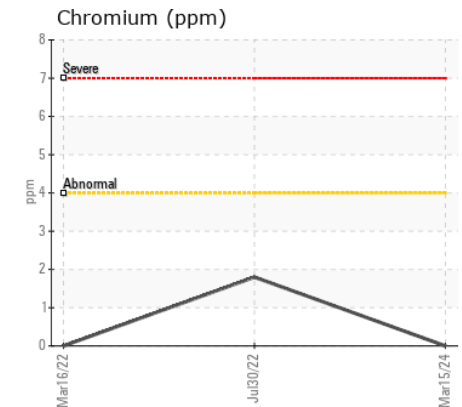
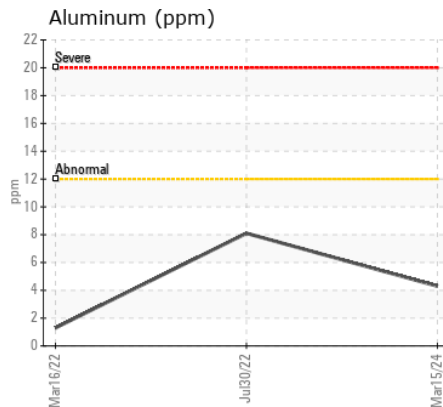
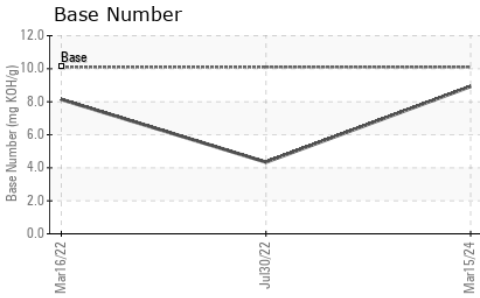
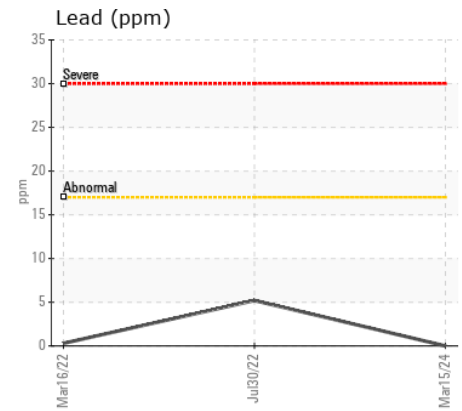
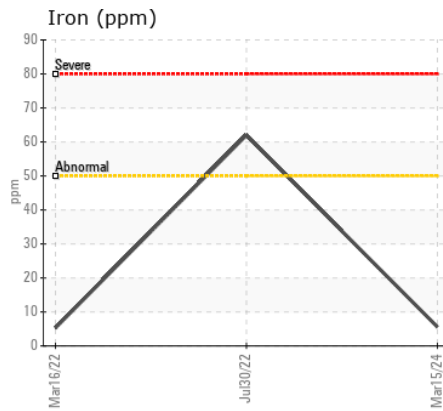
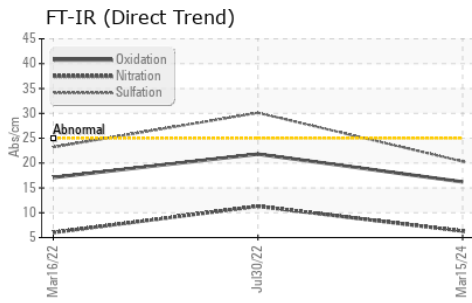
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	1	6	3
Potassium	ppm	ASTM D5185(m)	>20	2	4	5
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	1	0
Nitration	Abs/cm	ASTM D7624*	>20	6.3	11.3	6.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	30.1	23.2
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	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)		2	14	2
Boron	ppm	ASTM D5185(m)	35	134	11	159
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	4	17	<1
Manganese	ppm	ASTM D5185(m)	0	0	1	0
Magnesium	ppm	ASTM D5185(m)	10	77	267	11
Calcium	ppm	ASTM D5185(m)	2340	2123	2015	2081
Phosphorus	ppm	ASTM D5185(m)	1110	1002	999	1030
Zinc	ppm	ASTM D5185(m)	1210	1147	1204	1125
Sulfur	ppm	ASTM D5185(m)	3890	2986	2882	3037
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.2	21.8	17.1
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	8.93	4.34	8.14
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	13.8	14.6	14.3



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : OF0000490 **Received** : 30 Apr 2024
Lab Number : 02632226 **Tested** : 30 Apr 2024
Unique Number : 5773379 **Diagnosed** : 30 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: PQ, Visual)

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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.