



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
Stbd Main Engine (S/N T2P01047)
Component
Starboard Main Engine
Fluid
CAT DIESEL ENGINE OIL 15W40 (68 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0829991	WC0829970	WC0754143
Sample Date		Client Info		28 Apr 2024	15 Oct 2023	07 Jun 2023
Machine Age	hrs	Client Info		19500	19000	18000
Oil Age	hrs	Client Info		500	500	500
Filter Age	hrs	Client Info		500	500	500
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	7	10	10
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>40	<1	<1	1
Copper	ppm	ASTM D5185(m)	>300	6	10	8
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

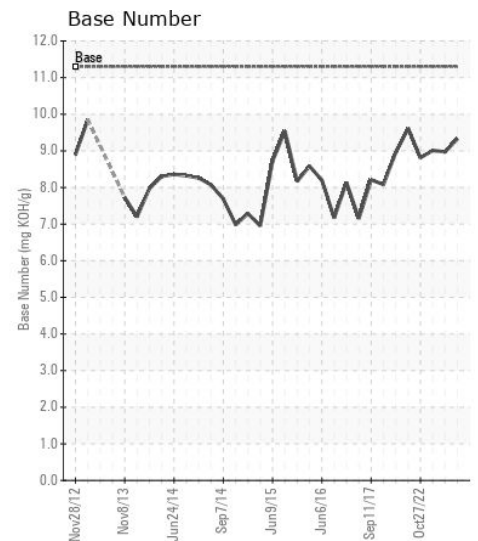
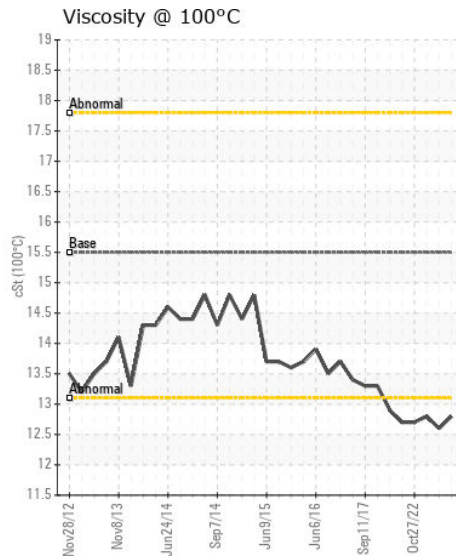
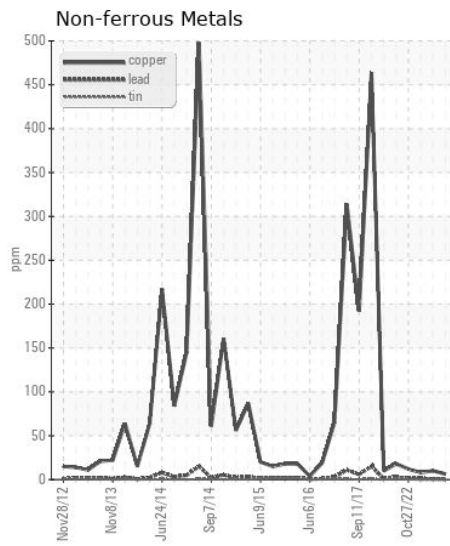
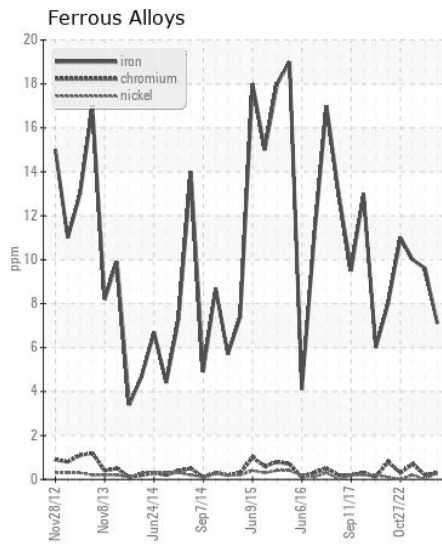
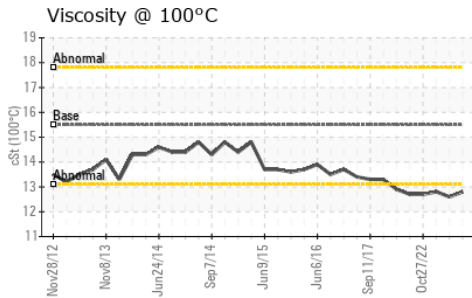
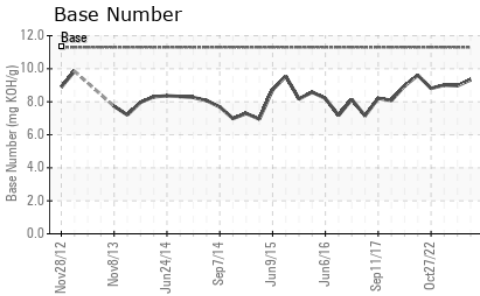
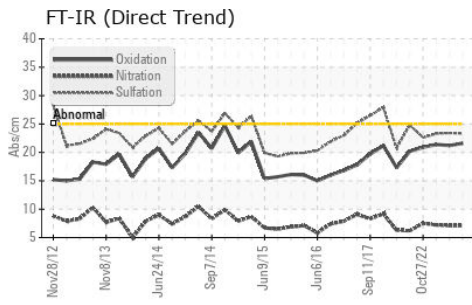
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
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	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	7.1	7.1	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.3	23.4	23.3
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)		3	3	3
Boron	ppm	ASTM D5185(m)		48	46	45
Barium	ppm	ASTM D5185(m)		<1	<1	0
Molybdenum	ppm	ASTM D5185(m)		40	43	43
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)		495	512	516
Calcium	ppm	ASTM D5185(m)		1665	1722	1699
Phosphorus	ppm	ASTM D5185(m)		881	919	964
Zinc	ppm	ASTM D5185(m)	1460	1048	1083	1082
Sulfur	ppm	ASTM D5185(m)		2369	2424	2384
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.6	21.2	21.4
Base Number (BN)	mg KOH/g	ASTM D2896*	11.3	9.33	8.97	9.01
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	12.8	12.6	12.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0829991
Lab Number : 02643062
Unique Number : 5800601
Test Package : MAR 2

Received : 20 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

CANADIAN COAST GUARD
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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.