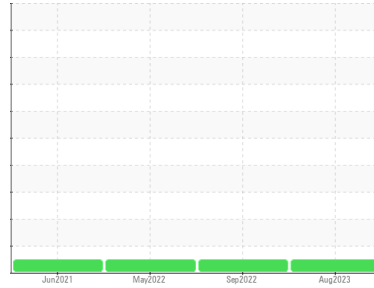




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
C06-5115 PORT SHIP SERVICE GENERATOR (S/N 1512585115)
 Component
Port Diesel Engine
 Fluid
SHELL ROTELLA T4 15W40 (13 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0770690	WC0696344	WC0696340
Sample Date	Client Info			08 Aug 2023	26 Sep 2022	03 May 2022
Machine Age	hrs	Client Info		2226	1511	0
Oil Age	hrs	Client Info		500	632	0
Oil Changed	Client Info			Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>4.0	<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>80	4	5	6
Chromium	ppm	ASTM D5185(m)	>6	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	<1
Lead	ppm	ASTM D5185(m)	>95	<1	1	4
Copper	ppm	ASTM D5185(m)	>85	2	15	111
Tin	ppm	ASTM D5185(m)	>9	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

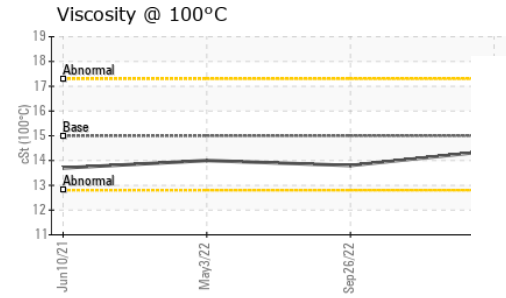
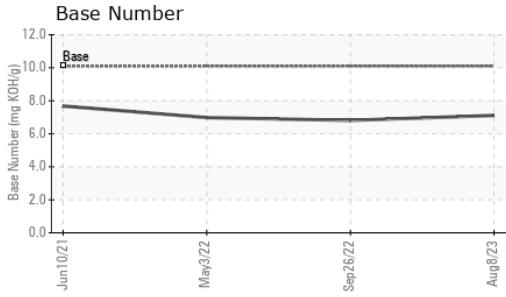
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		110	57	8
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		22	40	3
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		13	17	44
Calcium	ppm	ASTM D5185(m)		2298	2477	2285
Phosphorus	ppm	ASTM D5185(m)		1062	1068	970
Zinc	ppm	ASTM D5185(m)		1229	1249	1121
Sulfur	ppm	ASTM D5185(m)		3113	3558	2968
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	5	6
Sodium	ppm	ASTM D5185(m)		2	3	2
Potassium	ppm	ASTM D5185(m)	>20	6	3	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.1	9.6	7.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3	21.9	20.6



OIL ANALYSIS REPORT

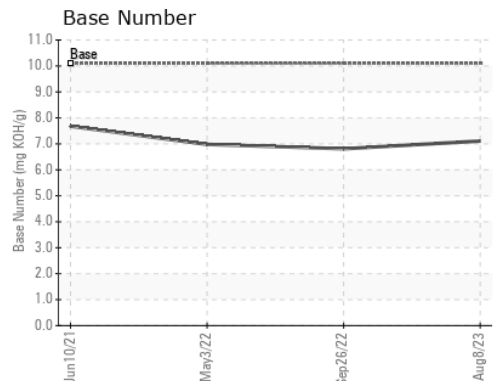
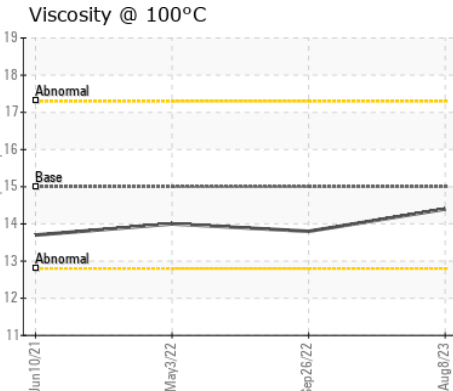
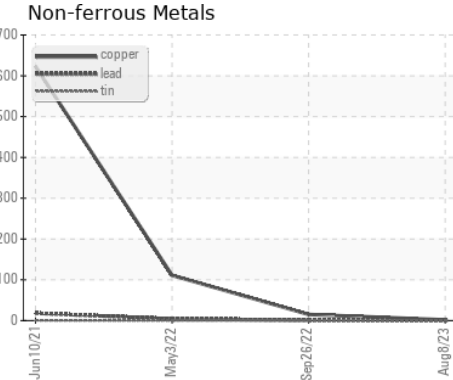
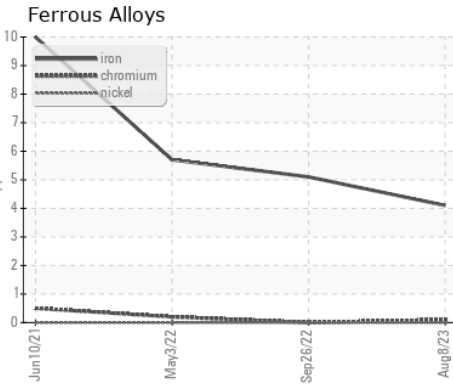


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.1	18.4	12.8
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	7.11	6.81	6.98

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15	14.4	13.8	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0770690
Lab Number : **02575097**
Unique Number : 5620148
Test Package : MAR 2

CANADIAN COAST GUARD
 CCGS COVE ISLE, 401 KING STREET WEST
 PRESCOTT, ON
 CA N9V 1X3
 Contact: Laurie Bosley
 Laurie.Bosley@dfo-mpo.gc.ca
 T:
 F: (519)383-1994

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.