



OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CRUSADER MARINE PORT ENGINE
 Component
Port Gasoline Engine
 Fluid
MERCURY 4 STROKE SAE 25W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0840676	---	---
Sample Date	Client Info			21 Aug 2023	---	---
Machine Age	hrs	Client Info		2006	---	---
Oil Age	hrs	Client Info		35	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				NORMAL	---	---

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>150	18	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>5	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>40	3	---	---
Lead	ppm	ASTM D5185(m)	>50	2	---	---
Copper	ppm	ASTM D5185(m)	>155	12	---	---
Tin	ppm	ASTM D5185(m)	>10	<1	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		<1	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		117	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		51	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		12	---	---
Calcium	ppm	ASTM D5185(m)		2096	---	---
Phosphorus	ppm	ASTM D5185(m)		733	---	---
Zinc	ppm	ASTM D5185(m)		808	---	---
Sulfur	ppm	ASTM D5185(m)		1876	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

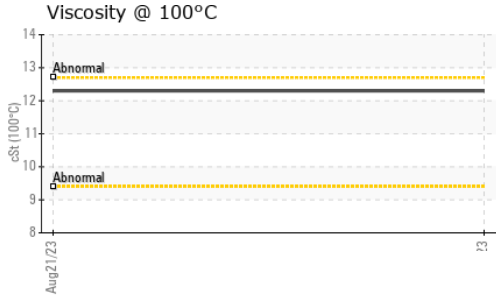
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	10	---	---
Sodium	ppm	ASTM D5185(m)	>400	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	0	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	7.5	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.3	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	11.4	---	---



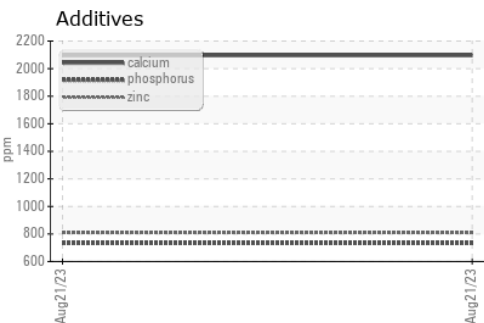
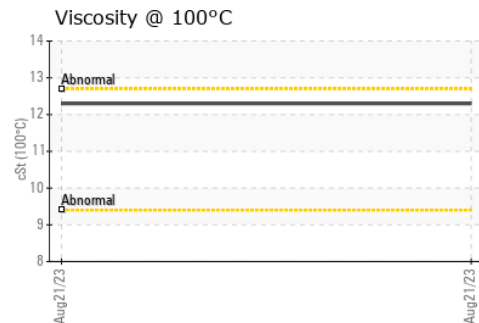
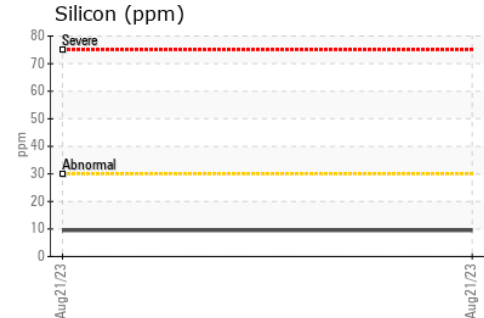
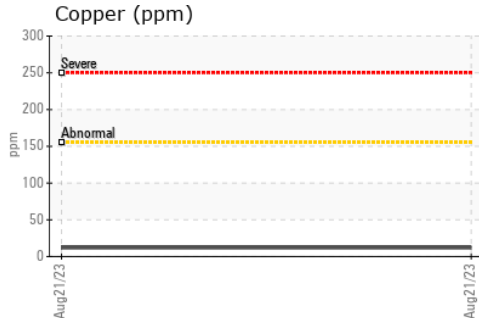
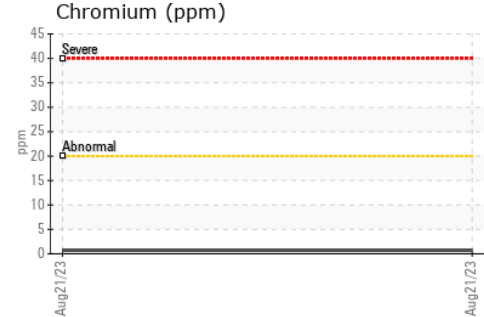
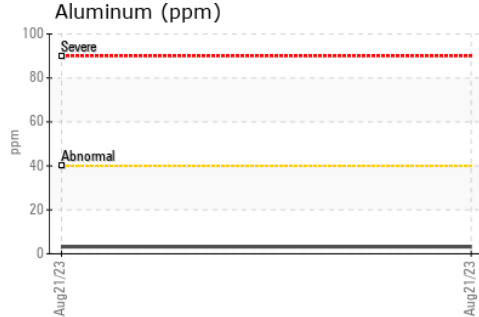
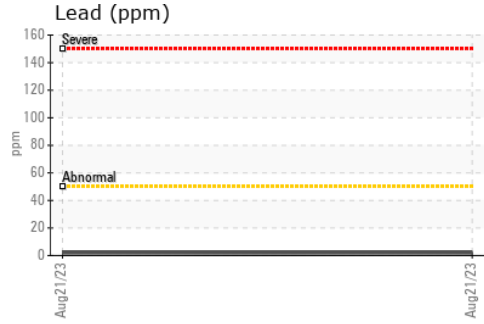
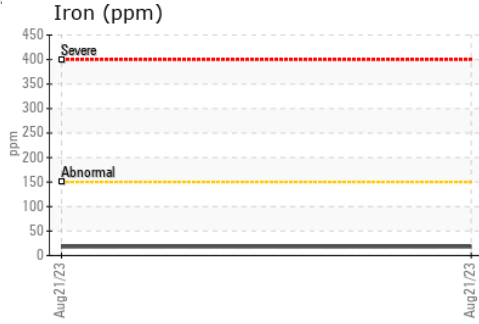
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.3	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0840676 **Received** : 29 Aug 2023
Lab Number : **02579020** **Diagnosed** : 29 Aug 2023
Unique Number : 5632080 **Diagnostician** : Wes Davis
Test Package : MOB 1

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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.