



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
[C-GYHS] CESSNA 152 C-GYHS
 Component
Front Piston Aircraft Engine
 Fluid
SHELL AEROSHELL W 15W50 MGR (--- LTR)

RECOMMENDATION

We advise that you check for a possible too-lean mixture, or an over-advanced ignition timing. We advise that you monitor for an abnormal oil pressure drop and noise. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Aluminum and copper ppm levels are abnormal. High Aluminum (Al) level indicates abnormal bearing wear. Bearing and/or bushing wear is indicated.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

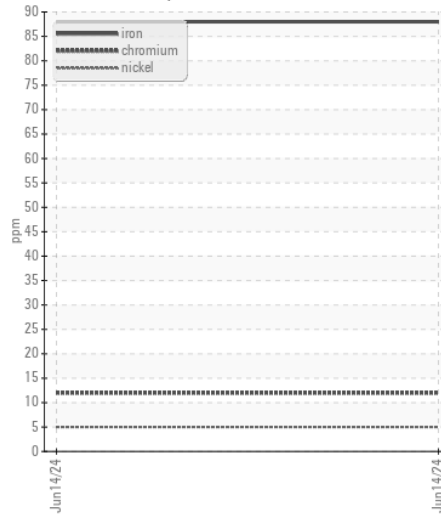
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0821898	---	---
Sample Date		Client Info		14 Jun 2024	---	---
TSN	hrs	Client Info		0	---	---
TSO	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		59	---	---
Filter Age	hrs	Client Info		59	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
<hr/>						
Iron	ppm	ASTM D5185(m)	>90	88	---	---
Chromium	ppm	ASTM D5185(m)	>20	12	---	---
Nickel	ppm	ASTM D5185(m)	>15	5	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>5	0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	▲ 26	---	---
Lead	ppm	ASTM D5185(m)	>20000	4458	---	---
Copper	ppm	ASTM D5185(m)	>25	▲ 44	---	---
Tin	ppm	ASTM D5185(m)	>30	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
<hr/>						
Silicon	ppm	ASTM D5185(m)	>15	11	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Silt	scalar	Visual*	NONE	VLITE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
<hr/>						
Sodium	ppm	ASTM D5185(m)		2	---	---
Boron	ppm	ASTM D5185(m)		<1	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)	5	0	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)	10	<1	---	---
Calcium	ppm	ASTM D5185(m)	10	5	---	---
Phosphorus	ppm	ASTM D5185(m)	1280	958	---	---
Zinc	ppm	ASTM D5185(m)	10	6	---	---
Sulfur	ppm	ASTM D5185(m)	1800	1450	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	137	162	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	20.1	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	148	143	---	---

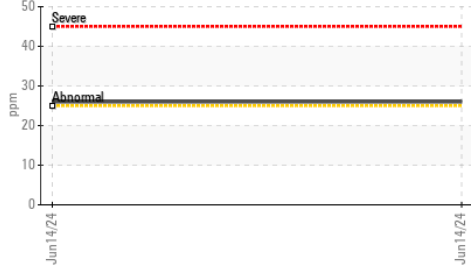
▲ Non-ferrous Metals



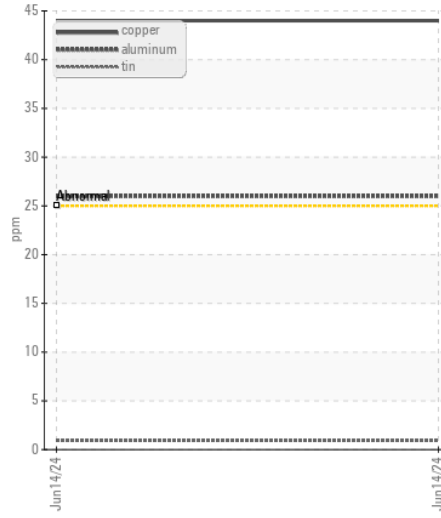
Ferrous Alloys



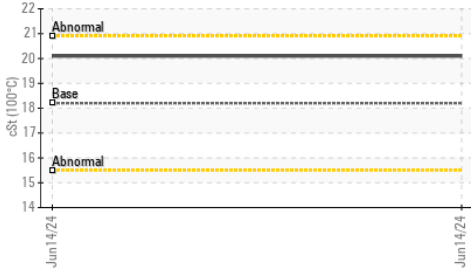
▲ Aluminum (ppm)



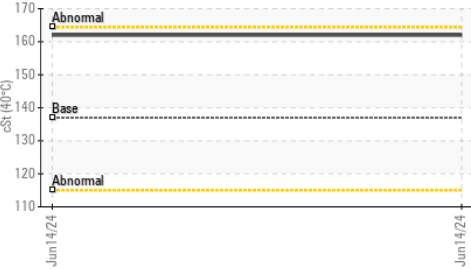
Copper/Aluminum/Tin



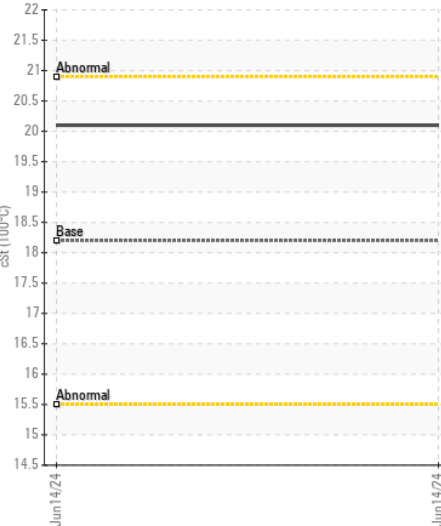
Viscosity @ 100°C



Viscosity @ 40°C



Viscosity @ 100°C



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0821898 **Received** : 20 Jun 2024
Lab Number : 02643187 **Tested** : 20 Jun 2024
Unique Number : 5800726 **Diagnosed** : 20 Jun 2024 - Kevin Marson
Test Package : AVI 1 (Additional Tests: KV40, VI)

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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.