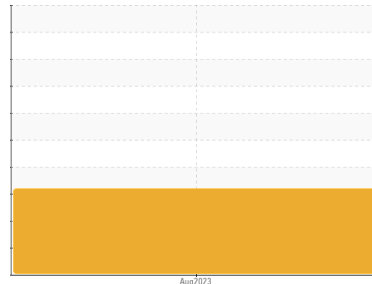




# PROBLEM SUMMARY

Sample Rating Trend



DIRT



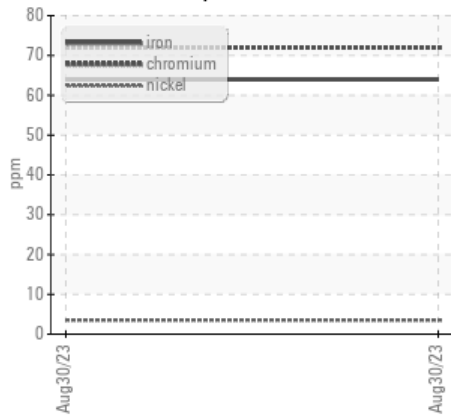
Machine Id  
**CESSNA C-FJTM**

Component  
**Front Piston Aircraft Engine**

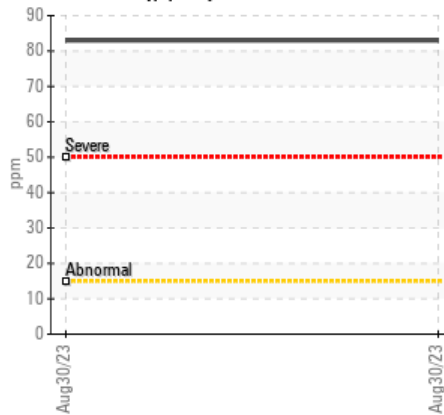
Fluid  
**PHILLIPS 66 AVIATION TYPE M SAE 20W50 (12 QTS)**

## COMPONENT CONDITION SUMMARY

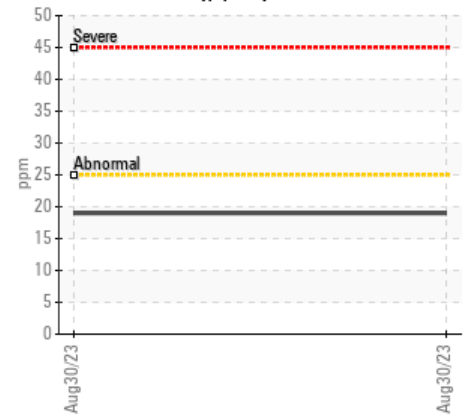
### ▲ Ferrous Alloys



### ▲ Silicon (ppm)



### ▲ Aluminum (ppm)



## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check the engine magneto timing. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. ( Customer Sample Comment: Engine is during break in after cylinder work )

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	▲ 72	---	---
Aluminum	ppm	ASTM D5185(m)	>25	▲ 19	---	---
Silicon	ppm	ASTM D5185(m)	>15	▲ 83	---	---

Customer Id: CAMGAR  
Sample No.: WC0809642  
Lab Number: 02579660  
Test Package: AVI 1



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

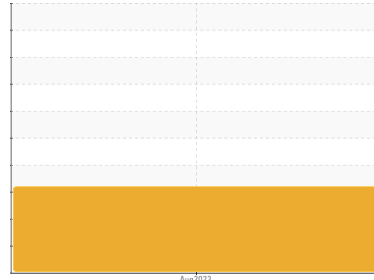
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.
Check Timing	---	---	?	We advise that you check the engine magneto timing.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



**DIRT**



Machine Id  
**CESSNA C-FJTM**

Component  
**Front Piston Aircraft Engine**

Fluid  
**PHILLIPS 66 AVIATION TYPE M SAE 20W50 (12 QTS)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check the engine magneto timing. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. ( Customer Sample Comment: Engine is during break in after cylinder work )

### ▲ Wear

Chromium ppm levels are abnormal. Aluminum ppm levels are noted. Ring wear is indicated.

### ▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0809642</b>	---	---
Sample Date	Client Info		<b>30 Aug 2023</b>	---	---
TSN	hrs	Client Info	<b>261</b>	---	---
TSO	hrs	Client Info	<b>261</b>	---	---
Oil Age	hrs	Client Info	<b>7</b>	---	---
Oil Changed		Client Info	<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	<b>64</b>	---
Chromium	ppm	ASTM D5185(m)	>20	<b>▲ 72</b>	---
Nickel	ppm	ASTM D5185(m)	>15	<b>4</b>	---
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	---
Aluminum	ppm	ASTM D5185(m)	>25	<b>▲ 19</b>	---
Lead	ppm	ASTM D5185(m)	>20000	<b>941</b>	---
Copper	ppm	ASTM D5185(m)	>25	<b>18</b>	---
Tin	ppm	ASTM D5185(m)	>30	<b>3</b>	---
Antimony	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---
Cadmium	ppm	ASTM D5185(m)		<b>3</b>	---

## ADDITIVES

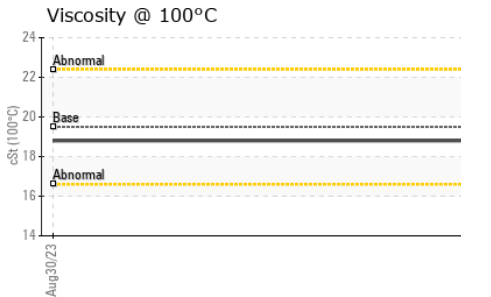
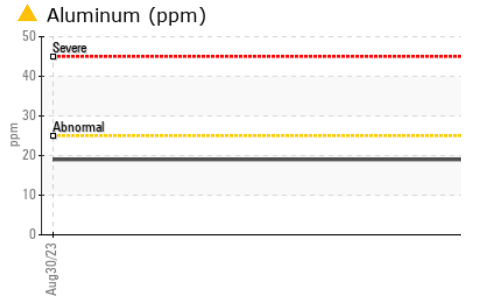
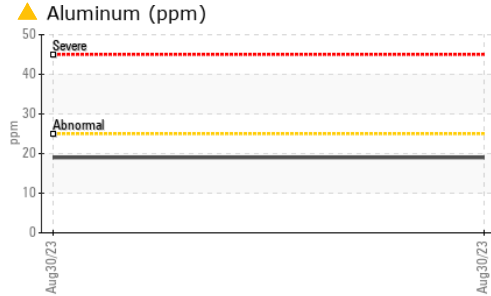
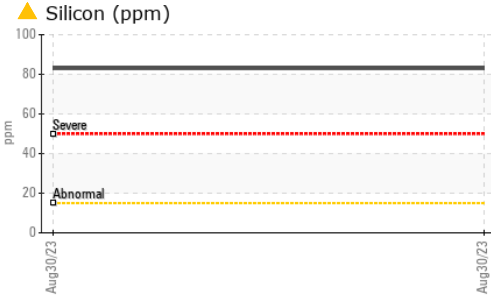
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Barium	ppm	ASTM D5185(m)		<b>1</b>	---
Molybdenum	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Manganese	ppm	ASTM D5185(m)		<b>5</b>	---
Magnesium	ppm	ASTM D5185(m)		<b>1</b>	---
Calcium	ppm	ASTM D5185(m)		<b>2</b>	---
Phosphorus	ppm	ASTM D5185(m)		<b>28</b>	---
Zinc	ppm	ASTM D5185(m)		<b>6</b>	---
Sulfur	ppm	ASTM D5185(m)		<b>1091</b>	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>▲ 83</b>	---
Sodium	ppm	ASTM D5185(m)		<b>1</b>	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---



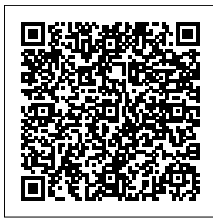
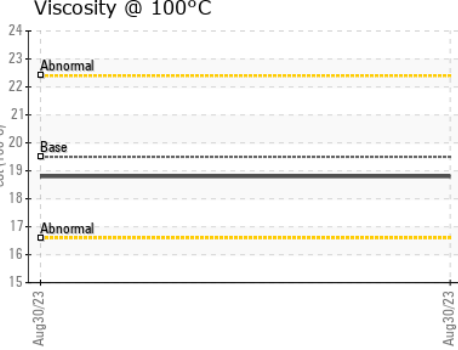
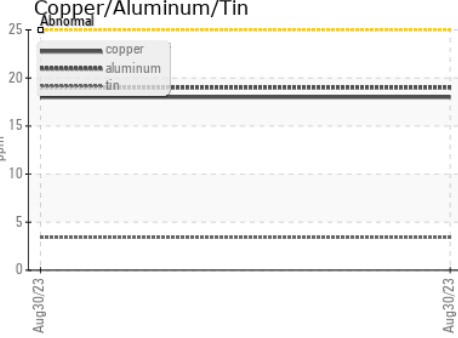
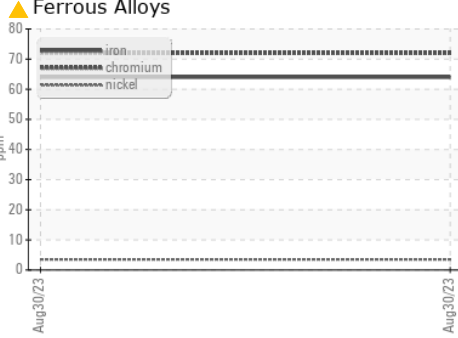
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	---
Free Water	scalar	Visual*		<b>NEG</b>	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	19.5	<b>18.8</b>	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0809642  
**Lab Number** : 02579660  
**Unique Number** : 5632720  
**Test Package** : AVI 1

**Received** : 31 Aug 2023  
**Diagnosed** : 01 Sep 2023  
**Diagnostician** : Kevin Marson

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.

**CAMX AEROSPACE**  
 8281 AVIATION RD  
 GARSON, ON  
 CA P3L 1V4  
 Contact: Kyle Marcoux  
 sales@camxaerospace.com  
 T: (866)279-7880  
 F: