



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**(CFXHF)**

Machine Id

**PIPER 41508-8-12**

Component

**Front Piston Aircraft Engine**

Fluid

**SHELL AEROSHELL W 15W50 MGR (4 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0933985</b>	WC0811222	WC0612730
Sample Date		Client Info		<b>15 May 2024</b>	15 Jun 2023	13 May 2022
TSN	hrs	Client Info		<b>0</b>	0	0
TSO	hrs	Client Info		<b>171</b>	157	134
Oil Age	hrs	Client Info		<b>16</b>	22	32
Filter Age	hrs	Client Info		<b>16</b>	22	32
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	SEVERE

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>78</b>	107	86
Chromium	ppm	ASTM D5185(m)	>20	<b>26</b>	33	▲ 51
Nickel	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	2	2
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>19</b>	22	▲ 25
Lead	ppm	ASTM D5185(m)	>20000	<b>1585</b>	2135	2573
Copper	ppm	ASTM D5185(m)	>25	<b>15</b>	24	25
Tin	ppm	ASTM D5185(m)	>30	<b>2</b>	4	8
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

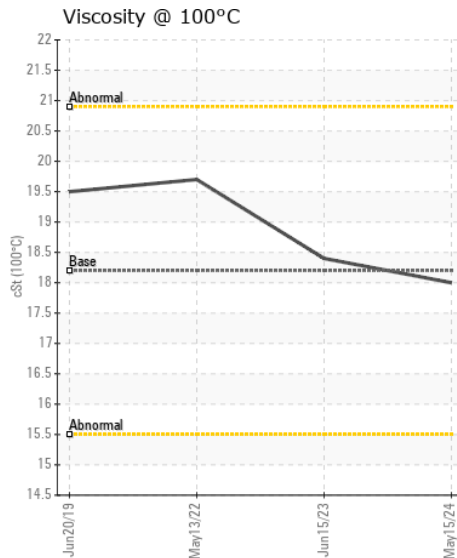
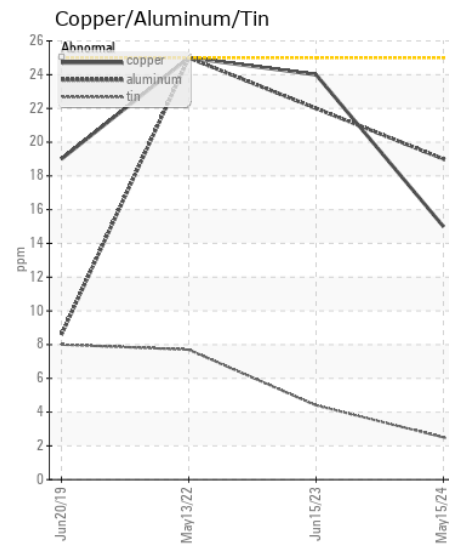
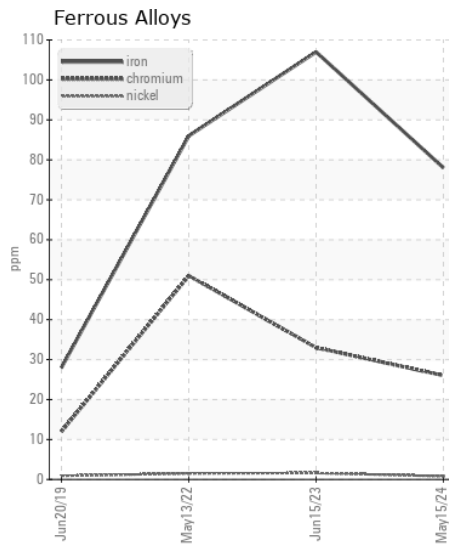
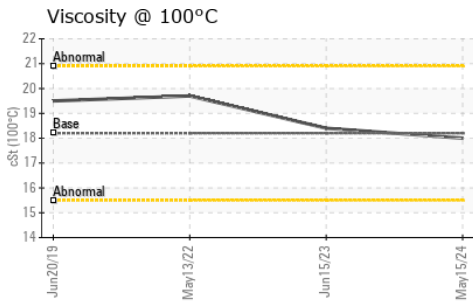
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<b>8</b>	14	14
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	16
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	10	<b>&lt;1</b>	<1	3
Calcium	ppm	ASTM D5185(m)	10	<b>1</b>	2	7
Phosphorus	ppm	ASTM D5185(m)	1280	<b>1124</b>	1196	1212
Zinc	ppm	ASTM D5185(m)	10	<b>11</b>	14	16
Sulfur	ppm	ASTM D5185(m)	1800	<b>1167</b>	1109	1492
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	<b>18.0</b>	18.4	19.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0933985  
**Lab Number** : 02636345  
**Unique Number** : 5785507  
**Test Package** : AVI 1  
**Received** : 17 May 2024  
**Tested** : 17 May 2024  
**Diagnosed** : 21 May 2024 - Kevin Marson

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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.