

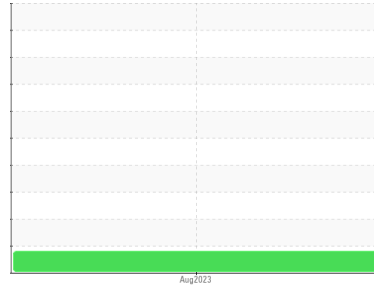


PROBLEM SUMMARY

Sample Rating Trend

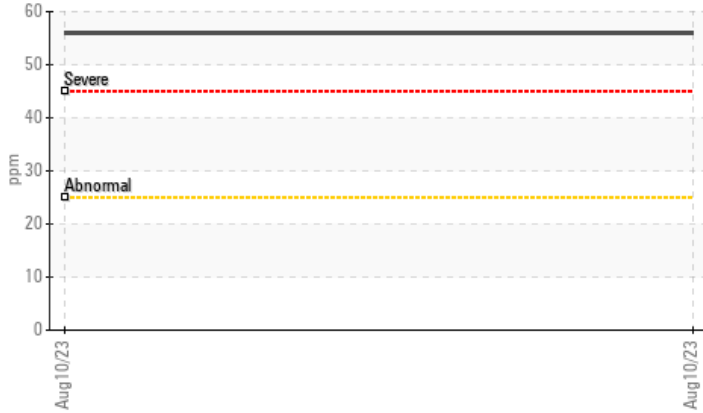
WEAR

Area
(C-FIYQ)
 Machine Id
[C-FIYQ] CESSNA 414 237118-R
 Component
Left Piston Aircraft Engine
 Fluid
AVIATION ENGINE OIL SAE 15W50 (12 GAL)



COMPONENT CONDITION SUMMARY

▲ Aluminum (ppm)



RECOMMENDATION

We advise that you check for a possible too-lean mixture, or an over-advanced ignition timing. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AVIATION ENGINE OIL SAE 15W50. Please confirm.

PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL		---	---		
Aluminum	ppm	ASTM D5185(m)	>25	▲ 56	---	---

Customer Id: ITPLON
 Sample No.: WC0844064
 Lab Number: 02577153
 Test Package: AVI 1



To manage this report scan the QR code

To discuss the diagnosis or test data:
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 Gloria Gonzalez +1 (289)291-4643 x4643
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RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AVIATION ENGINE OIL SAE 15W50. Please confirm.
Information Required	---	---	?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AVIATION ENGINE OIL SAE 15W50. Please confirm.
Check Timing	---	---	?	We advise that you check for a possible too-lean mixture, or an over-advanced ignition timing.

HISTORICAL DIAGNOSIS



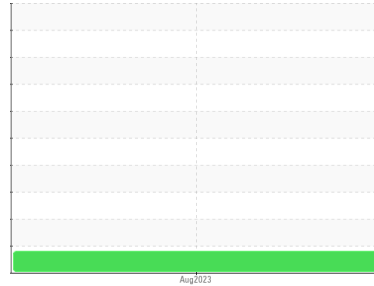
OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Area
(C-FIYQ)
 Machine Id
[C-FIYQ] CESSNA 414 237118-R
 Component
Left Piston Aircraft Engine
 Fluid
AVIATION ENGINE OIL SAE 15W50 (12 GAL)



DIAGNOSIS

Recommendation

We advise that you check for a possible too-lean mixture, or an over-advanced ignition timing. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AVIATION ENGINE OIL SAE 15W50. Please confirm.

Wear

Aluminum ppm levels are abnormal. High Aluminum (Al) level indicates abnormal bearing wear.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0844064	---	---
Sample Date	Client Info	10 Aug 2023	---	---
TSN	hrs Client Info	0	---	---
TSO	hrs Client Info	269	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

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
PQ	ASTM D8184*	7	---	---
Iron	ppm ASTM D5185(m) >90	114	---	---
Chromium	ppm ASTM D5185(m) >20	32	---	---
Nickel	ppm ASTM D5185(m) >15	14	---	---
Titanium	ppm ASTM D5185(m)	<1	---	---
Silver	ppm ASTM D5185(m) >5	0	---	---
Aluminum	ppm ASTM D5185(m) >25	▲ 56	---	---
Lead	ppm ASTM D5185(m) >20000	5511	---	---
Copper	ppm ASTM D5185(m) >25	14	---	---
Tin	ppm ASTM D5185(m) >30	2	---	---
Antimony	ppm ASTM D5185(m)	0	---	---
Vanadium	ppm ASTM D5185(m)	0	---	---
Beryllium	ppm ASTM D5185(m)	0	---	---
Cadmium	ppm ASTM D5185(m)	2	---	---

ADDITIVES

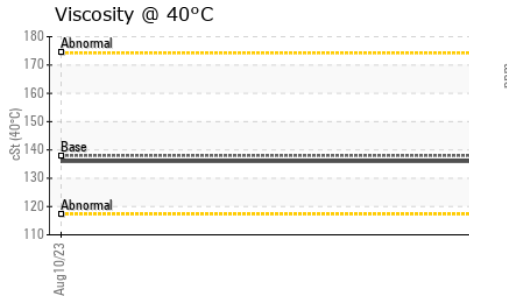
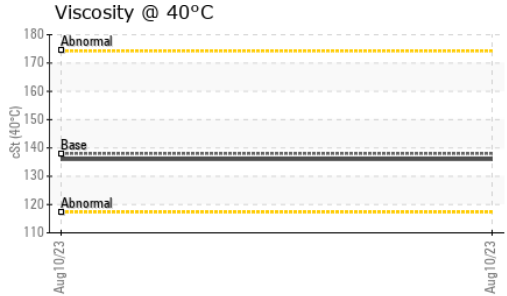
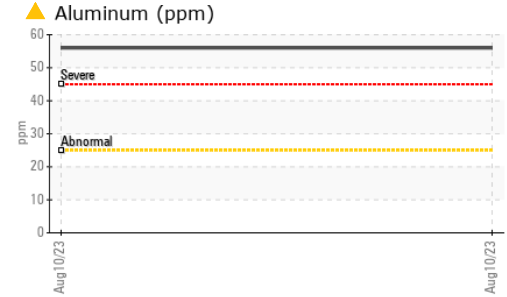
method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 5	<1	---	---
Barium	ppm ASTM D5185(m) 5	0	---	---
Molybdenum	ppm ASTM D5185(m) 12	9	---	---
Manganese	ppm ASTM D5185(m)	0	---	---
Magnesium	ppm ASTM D5185(m) 5	2	---	---
Calcium	ppm ASTM D5185(m) 5	2	---	---
Phosphorus	ppm ASTM D5185(m) 1000	1201	---	---
Zinc	ppm ASTM D5185(m) 12	8	---	---
Sulfur	ppm ASTM D5185(m) 3500	1756	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	9	---	---
Sodium	ppm ASTM D5185(m)	<1	---	---
Potassium	ppm ASTM D5185(m) >20	<1	---	---



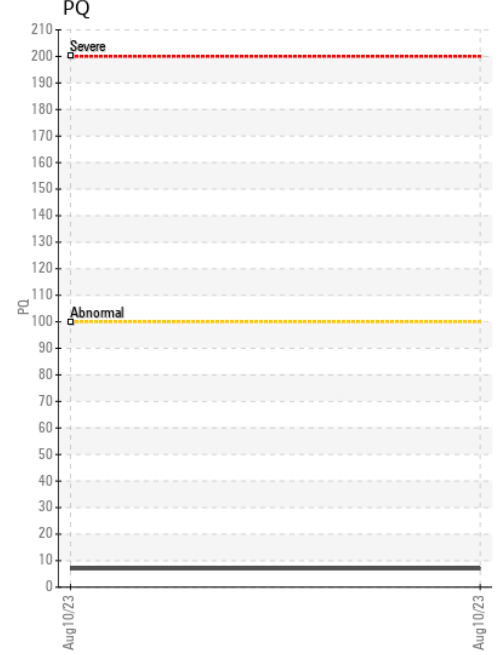
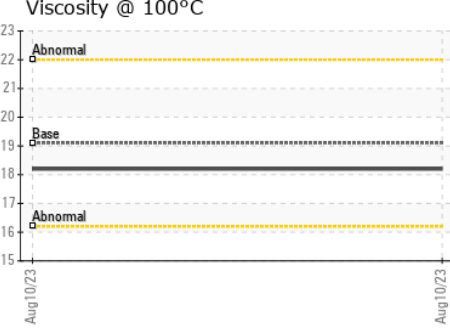
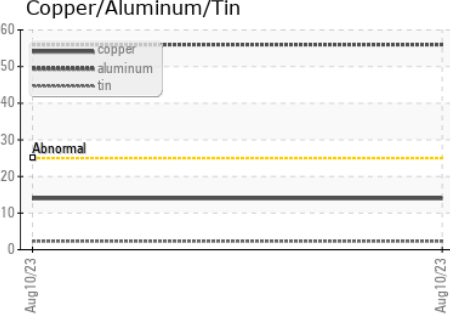
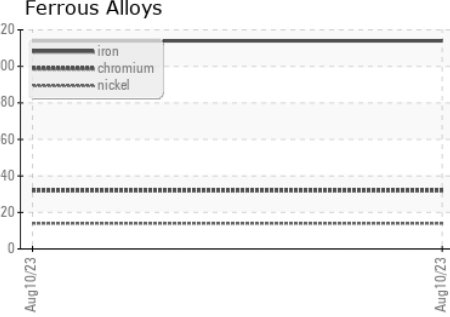
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	MODER	---
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	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	138	136	---
Visc @ 100°C	cSt	ASTM D7279(m)	19.1	18.2	---
Viscosity Index (VI)	Scale	ASTM D2270*	157	149	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0844064 **Received** : 21 Aug 2023
Lab Number : 02577153 **Diagnosed** : 22 Aug 2023
Unique Number : 5630213 **Diagnostician** : Kevin Marson
Test Package : AVI 1 (Additional Tests: Bottom, KV40, PQ, 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.