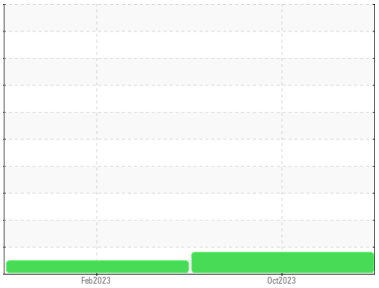
PROBLEM SUMMARY

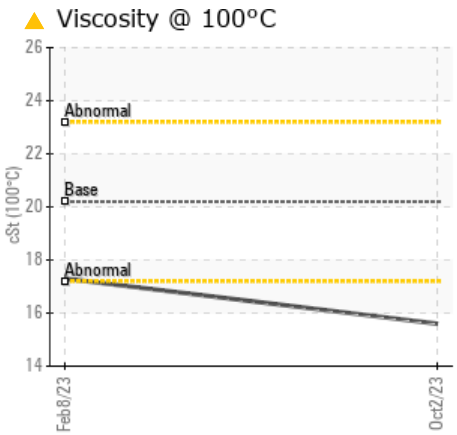
Sample Rating Trend

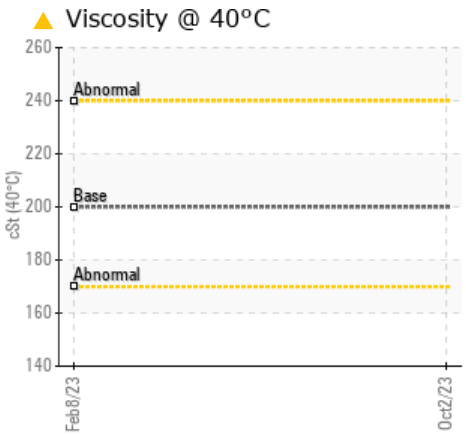


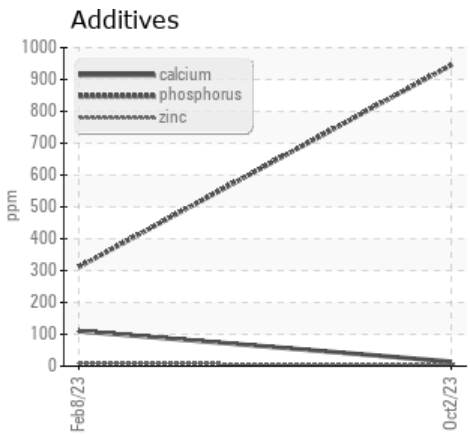
VISCOSITY

Area
(C-GZEF)
Machine Id
[C-GZEF] LONG E2E L-18633-15
Component
Piston Aircraft Engine
Fluid
SHELL AEROSHELL W 100 (6 QTS)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	---
Visc @ 40°C	cSt	ASTM D7279(m)	200	▲ **149**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	▲ **15.6**	17.3	---

Customer Id: ITPLON
Sample No.: WC0844062
Lab Number: 02587984
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

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

08 Feb 2023 Diag: Kevin Marson

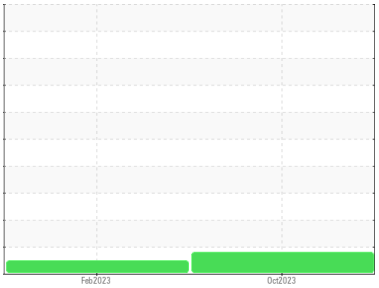
NORMAL

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.All component wear rates are normal. The direct-reading & analytical ferrographic results are normal indicating no abnormal wear in the system. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
(C-GZEF)
Machine Id
[C-GZEF] LONG E2E L-18633-15
Component
Piston Aircraft Engine
Fluid
SHELL AEROSHELL W 100 (6 QTS)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0844062**	WC0721000	---
Sample Date		Client Info		**02 Oct 2023**	08 Feb 2023	---
TSN	hrs	Client Info		**2516**	2511	---
TSO	hrs	Client Info		**0**	83	---
Oil Age	hrs	Client Info		**25**	13	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	NORMAL	---

CONTAMINATION	method	limit/base	current	history1	history2
Glycol	WC Method		**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	**35**	22	---
Chromium	ppm	ASTM D5185(m)	>20	**10**	8	---
Nickel	ppm	ASTM D5185(m)	>15	**2**	1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)	>5	**<1**	0	---
Aluminum	ppm	ASTM D5185(m)	>25	**12**	11	---
Lead	ppm	ASTM D5185(m)	>20000	**1632**	1361	---
Copper	ppm	ASTM D5185(m)	>25	**14**	10	---
Tin	ppm	ASTM D5185(m)	>30	**0**	0	---
Antimony	ppm	ASTM D5185(m)		**0**	<1	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**3**	2	---

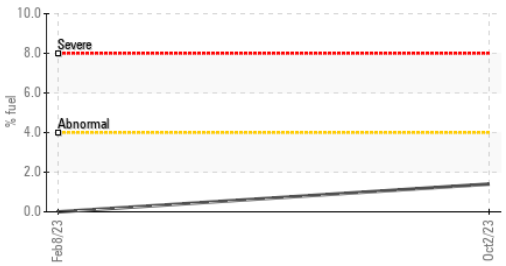
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	---
Barium	ppm	ASTM D5185(m)	0	**<1**	0	---
Molybdenum	ppm	ASTM D5185(m)		**0**	0	---
Manganese	ppm	ASTM D5185(m)		**0**	0	---
Magnesium	ppm	ASTM D5185(m)	0	**4**	1	---
Calcium	ppm	ASTM D5185(m)	0	**14**	110	---
Phosphorus	ppm	ASTM D5185(m)	0	**945**	311	---
Zinc	ppm	ASTM D5185(m)	0	**6**	8	---
Sulfur	ppm	ASTM D5185(m)	3800	**1823**	3299	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**8**	10	---
Sodium	ppm	ASTM D5185(m)		**2**	2	---
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	---
Fuel	%	ASTM D7593*	>4.0	**1.4**	<1.0	---

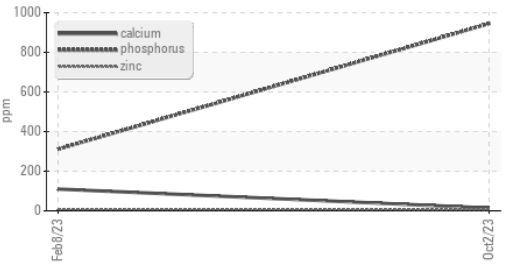
OIL ANALYSIS REPORT

Viscosity @ 40°C

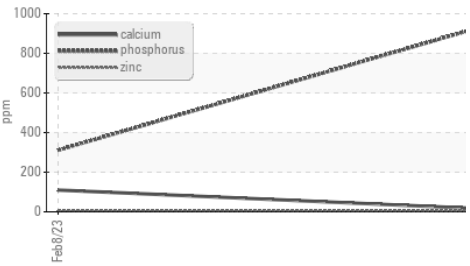
Fuel Dilution



Additives



Additives

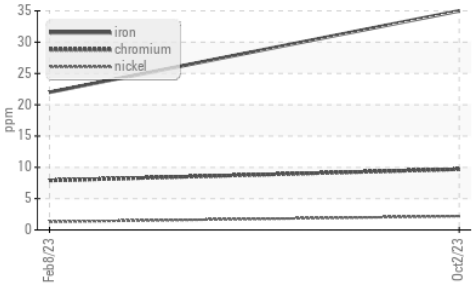


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	---
Silt	scalar	Visual*	NONE	**NONE**	NONE	---
Debris	scalar	Visual*	NONE	**NONE**	NONE	---
Sand/Dirt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

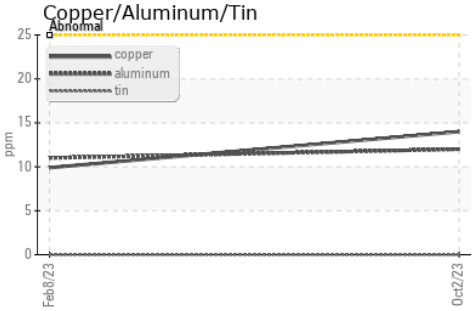
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	200	▲ **149**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	▲ **15.6**	17.3	---
Viscosity Index (VI)	Scale	ASTM D2270*	118	**107**	---	---

GRAPHS

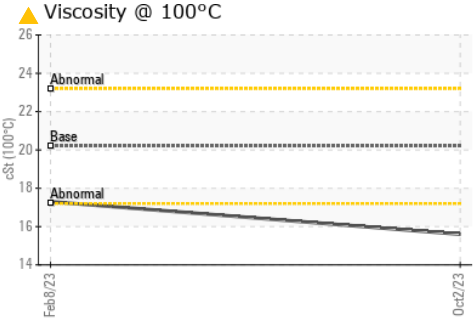
Ferrous Alloys



Copper/Aluminum/Tin



Viscosity @ 100°C



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0844062 **Received** : 10 Oct 2023
Lab Number : 02587984 **Diagnosed** : 11 Oct 2023
Unique Number : 5657050 **Diagnostician** : Kevin Marson
Test Package : AVI 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

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.

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