



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(C-GKSP)

Machine Id

L-10122-61A

Component

Left Piston Aircraft Engine

Fluid

SHELL AEROSHELL W 15W50 MGR (10 LTR)

RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0882972	WC0882968	WC0882931
Sample Date		Client Info		20 Apr 2024	10 Mar 2024	27 Jan 2024
TSN	hrs	Client Info		0	0	0
TSO	hrs	Client Info		1440	1338	1231
Oil Age	hrs	Client Info		53	58	37
Filter Age	hrs	Client Info		53	58	37
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				SEVERE	ABNORMAL	ABNORMAL

WEAR

Copper ppm levels are severe. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185(m)	>90	69	71	66
Chromium	ppm	ASTM D5185(m)	>20	11	5	6
Nickel	ppm	ASTM D5185(m)	>15	7	4	4
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	12	9	10
Lead	ppm	ASTM D5185(m)	>20000	5778	4717	3992
Copper	ppm	ASTM D5185(m)	>25	▲ 54	▲ 40	▲ 32
Tin	ppm	ASTM D5185(m)	>30	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	VLITE	NONE	VLITE

CONTAMINATION

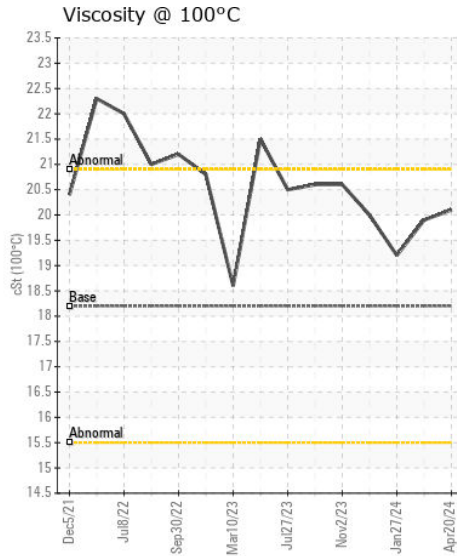
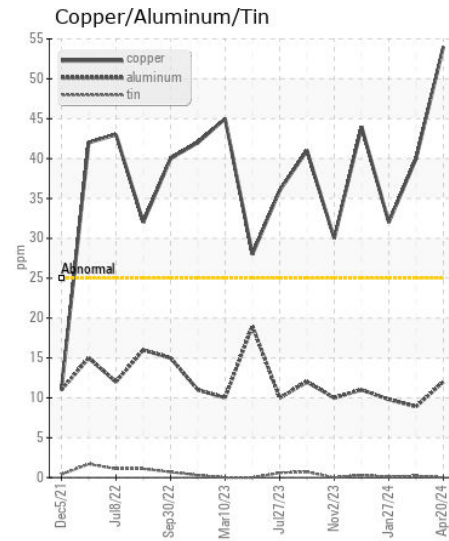
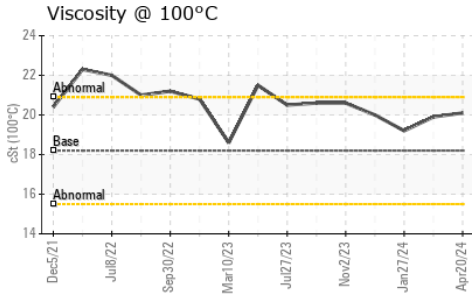
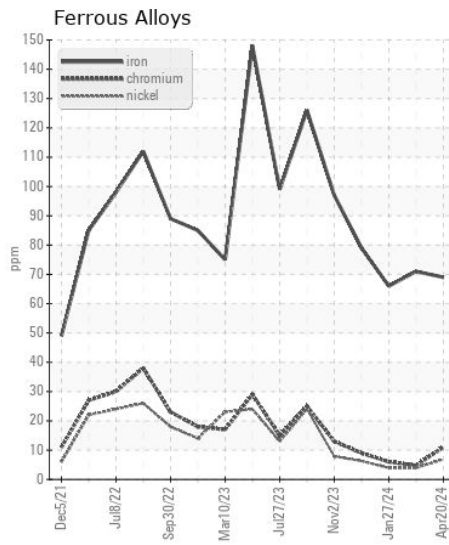
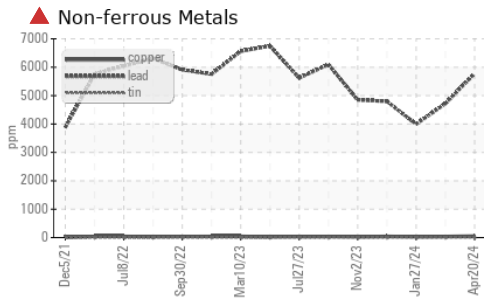
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	5	3	6
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<1	<1	0
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	5	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	10	15	15	8
Calcium	ppm	ASTM D5185(m)	10	2	3	<1
Phosphorus	ppm	ASTM D5185(m)	1280	1221	1239	1241
Zinc	ppm	ASTM D5185(m)	10	43	66	38
Sulfur	ppm	ASTM D5185(m)	1800	1553	1442	1807
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	20.1	19.9	19.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0882972
Lab Number : 02636340
Unique Number : 5785502
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.