



OIL ANALYSIS REPORT

WEAR	ABNORMAL
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. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0882931	WC0706059	WC0706030
Sample Date		Client Info		27 Jan 2024	06 Jan 2024	02 Nov 2023
TSN	hrs	Client Info		0	0	0
TSO	hrs	Client Info		1231	1195	1044
Oil Age	hrs	Client Info		37	50	54
Filter Age	hrs	Client Info		37	50	54
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

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

Iron	ppm	ASTM D5185(m)	>90	66	79	▲ 97
Chromium	ppm	ASTM D5185(m)	>20	6	9	13
Nickel	ppm	ASTM D5185(m)	>15	4	6	8
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	10	11	10
Lead	ppm	ASTM D5185(m)	>20000	3992	4797	4848
Copper	ppm	ASTM D5185(m)	>25	▲ 32	▲ 44	▲ 30
Tin	ppm	ASTM D5185(m)	>30	<1	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	VLITE	NONE	NONE

CONTAMINATION

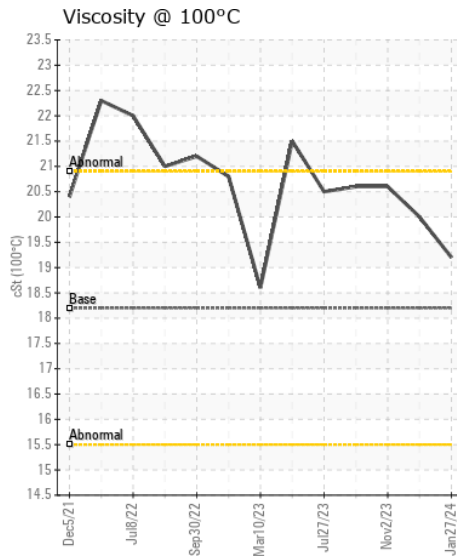
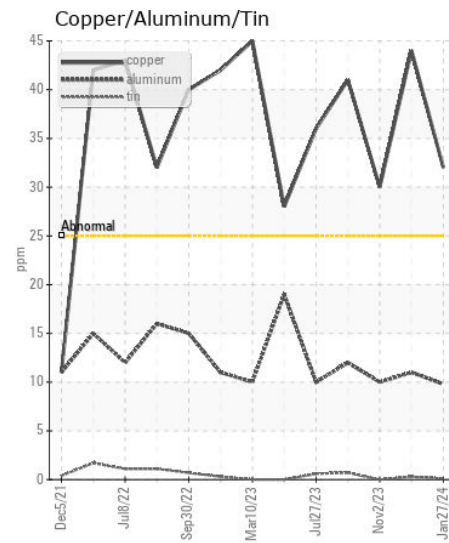
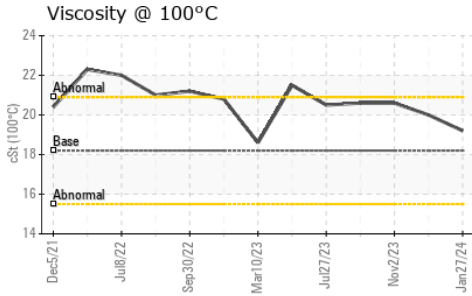
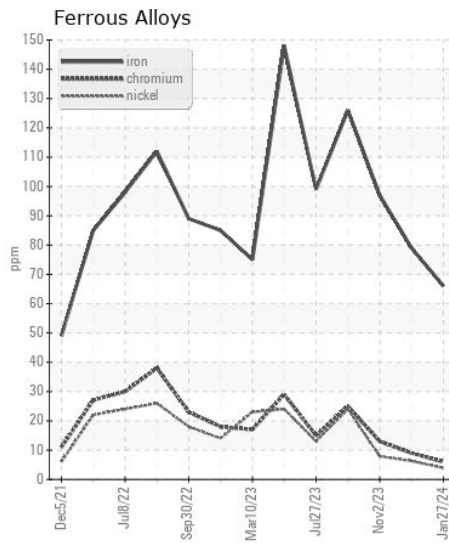
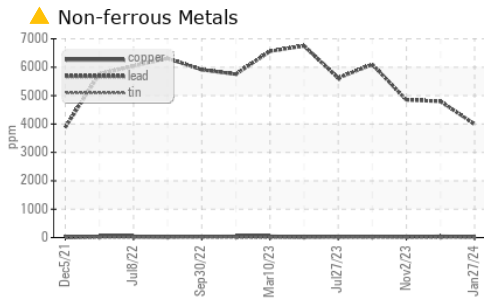
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	6	5	5
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0
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	NONE	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)		0	<1	<1
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	8	10	5
Calcium	ppm	ASTM D5185(m)	10	<1	4	1
Phosphorus	ppm	ASTM D5185(m)	1280	1241	1318	1143
Zinc	ppm	ASTM D5185(m)	10	38	51	32
Sulfur	ppm	ASTM D5185(m)	1800	1807	1579	1626
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	19.2	20.0	20.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0882931
Lab Number : 02615953
Unique Number : 5733063
Test Package : AVI 1
Received : 15 Feb 2024
Tested : 15 Feb 2024
Diagnosed : 15 Feb 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.