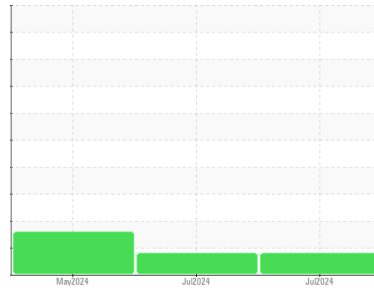




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

(C-GAVV)

Machine Id

[C-GAVV] IO-360-L2A L-34726-51EC

Component

Front Piston Aircraft Engine

Fluid

SHELL AEROSHELL OIL W 100 PLUS (--- LTR)

DIAGNOSIS

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.

Wear

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

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		WC0956615	WC0956617	WC0936591
Sample Date	Client Info		11 Jul 2024	02 Jul 2024	28 May 2024
TSN	hrs	Client Info	0	0	0
TSO	hrs	Client Info	1085	1071	1024
Oil Age	hrs	Client Info	14	47	48
Oil Changed		Client Info	Not Chngd	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	22	48	49
Chromium	ppm	ASTM D5185(m)	>20	6	10	13
Nickel	ppm	ASTM D5185(m)	>15	2	4	3
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	6	10	12
Lead	ppm	ASTM D5185(m)	>20000	2069	4468	5030
Copper	ppm	ASTM D5185(m)	>25	▲ 33	▲ 69	▲ 59
Tin	ppm	ASTM D5185(m)	>30	<1	1	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

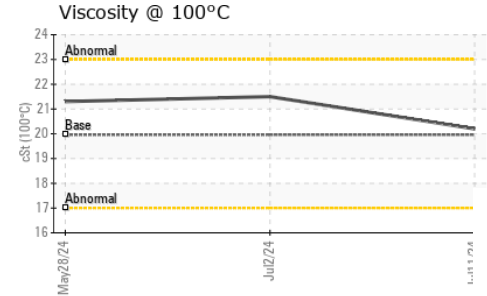
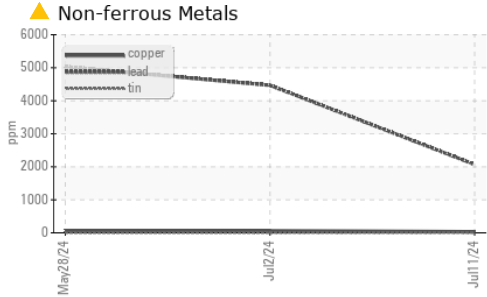
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)		1	<1	<1
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	0	3	1	<1
Phosphorus	ppm	ASTM D5185(m)		1075	1096	1057
Zinc	ppm	ASTM D5185(m)	0	8	11	9
Sulfur	ppm	ASTM D5185(m)	2600	3374	3420	3304
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	4	4	4
Sodium	ppm	ASTM D5185(m)		0	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0



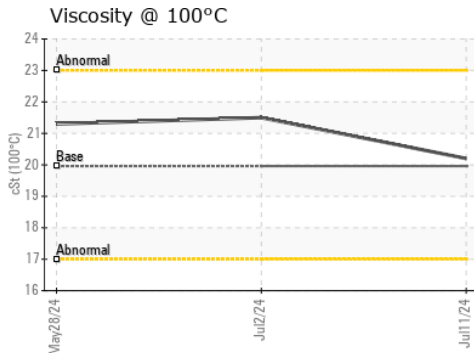
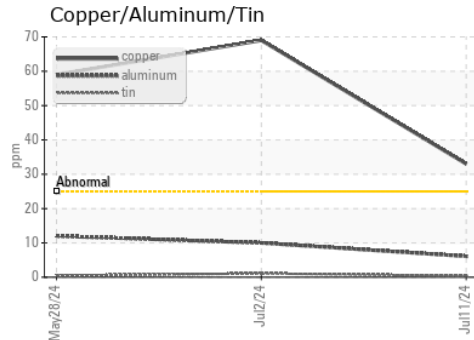
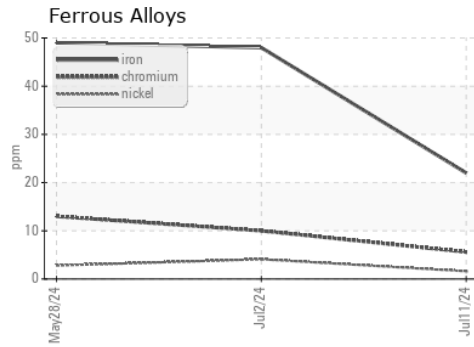
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	VLITE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	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 @ 100°C	cSt	ASTM D7279(m)	19.96	20.2	21.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0956615 **Received** : 12 Jul 2024
Lab Number : 02647620 **Tested** : 12 Jul 2024
Unique Number : 5813172 **Diagnosed** : 15 Jul 2024 - Kevin Marson
Test Package : AVI 1

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.

W.C.S. AVIATION LTD.
 2600 AIRPORT ROAD UNIT 108
 WINDSOR, ON
 CA N8V 1A1
 Contact: James V
 james@wcsaviation.com
 T: (519)972-7271
 F: (519)972-8355