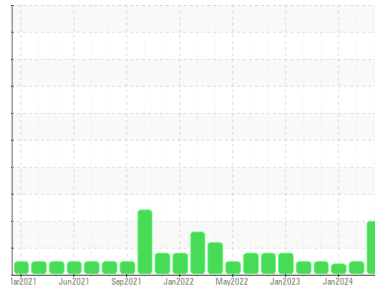




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area

(C-GYDM)

Machine Id

[C-GYDM] CESSNA 421C 243007-R

Component

Right Piston Aircraft Engine

Fluid

PHILLIPS 66 AVIATION X/C OIL SAE20W50 (13 LTR)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is a moderate concentration of dirt present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0918433	WC0901551	WC0882497
Sample Date	Client Info	12 Apr 2024	21 Feb 2024	16 Jan 2024
TSN	hrs	Client Info	0	0
TSO	hrs	Client Info	855	807
Oil Age	hrs	Client Info	27	24
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>90	54	59	99
Chromium	ppm	ASTM D5185(m)	>20	15	10	15
Nickel	ppm	ASTM D5185(m)	>15	16	18	26
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	10	4	7
Lead	ppm	ASTM D5185(m)	>20000	5243	4484	4988
Copper	ppm	ASTM D5185(m)	>25	11	4	5
Tin	ppm	ASTM D5185(m)	>30	0	0	0
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)		3	2	3

ADDITIVES

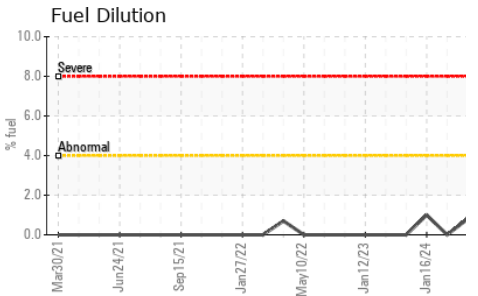
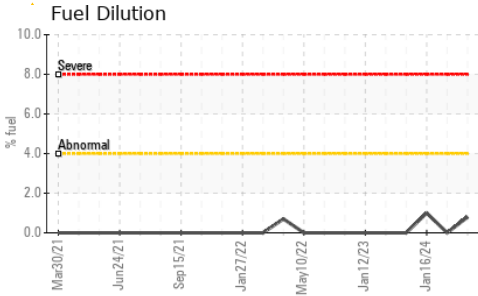
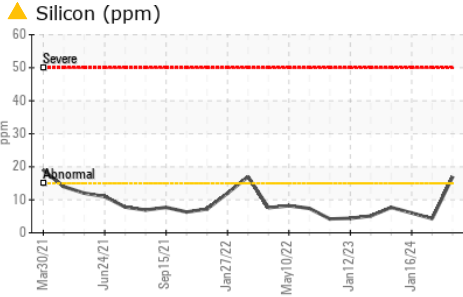
method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)		0	0	0
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		5	5	7
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		<1	2	2
Calcium	ppm	ASTM D5185(m)		<1	3	2
Phosphorus	ppm	ASTM D5185(m)		1	<1	<1
Zinc	ppm	ASTM D5185(m)		3	3	3
Sulfur	ppm	ASTM D5185(m)		812	1017	1028
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>15	▲ 17	4	6
Sodium	ppm	ASTM D5185(m)		4	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel	%	ASTM D7593*	>4.0	0.8	<1.0	1



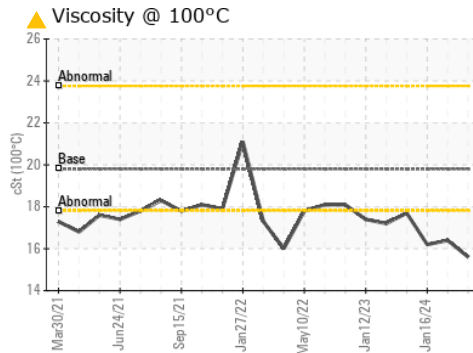
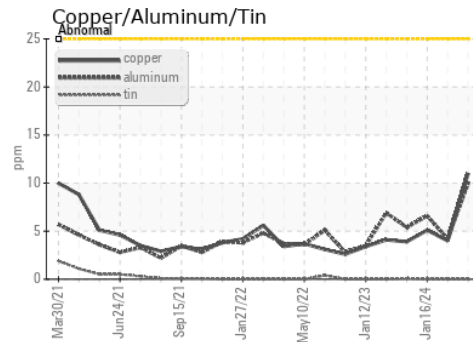
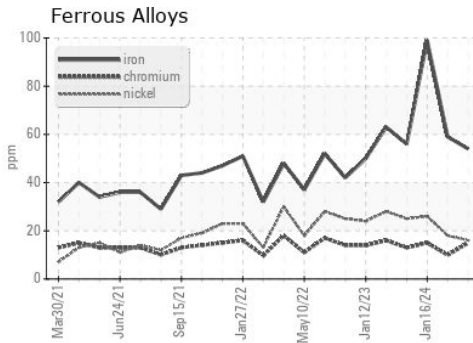
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	VLITE	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)	19.8 ▲ 15.6	16.4	▲ 16.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0918433 **Received** : 16 Apr 2024
Lab Number : 02629194 **Tested** : 18 Apr 2024
Unique Number : 5762326 **Diagnosed** : 18 Apr 2024 - Kevin Marson
Test Package : AVI 1 (Additional Tests: FuelDilution, PercentFuel)

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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