AVI

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(C-FAJR)
Machine Id
[C-FAJR] PIPER PA31-350 L-5571-61A
Component
Left Piston Aircraft Engine
Fluid
PHILLIPS 66 AVIATION X/C OIL SAE20W50 (--- GAL)

RECOMMENDATION

We recommend an early resample to monitor this condition.

WEAR

Nickel ppm levels are marginal. All other component wear rates are normal.

CONTAMINATION

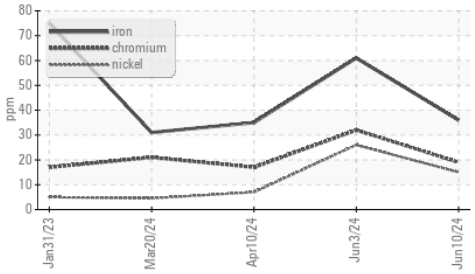
There is no indication of any contamination in the oil.

FLUID CONDITION

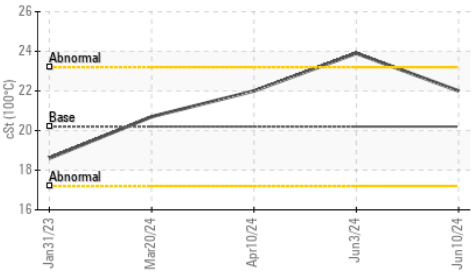
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0945316	WC0838458	WC0896316
Sample Date		Client Info		10 Jun 2024	03 Jun 2024	10 Apr 2024
TSN	hrs	Client Info		0	0	0
TSO	hrs	Client Info		4436	426	290
Oil Age	hrs	Client Info		18	65	24
Filter Age	hrs	Client Info		18	65	24
Oil Changed		Client Info		Not Changd	Changed	N/A
Filter Changed		Client Info		Not Changd	Changed	N/A
Sample Status				MARGINAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>90	36	61	35
Chromium	ppm	ASTM D5185(m)	>20	19	▲ 32	17
Nickel	ppm	ASTM D5185(m)	>15	▲ 15	▲ 26	7
Titanium	ppm	ASTM D5185(m)		<1	<1	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	10	14	5
Lead	ppm	ASTM D5185(m)	>20000	4648	9583	4127
Copper	ppm	ASTM D5185(m)	>25	7	10	10
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	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>15	8	8	12
Potassium	ppm	ASTM D5185(m)	>20	0	0	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	VLITE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	VLITE	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
Sodium	ppm	ASTM D5185(m)		<1	2	3
Boron	ppm	ASTM D5185(m)	0.0	<1	0	0
Barium	ppm	ASTM D5185(m)	0.0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	0	0	0
Manganese	ppm	ASTM D5185(m)	0.0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	3	4	4
Calcium	ppm	ASTM D5185(m)	4.7	<1	<1	1
Phosphorus	ppm	ASTM D5185(m)	0.0	<1	<1	1
Zinc	ppm	ASTM D5185(m)	0.1	3	5	4
Sulfur	ppm	ASTM D5185(m)	848	987	1014	962
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	22.0	▲ 23.9	22.0

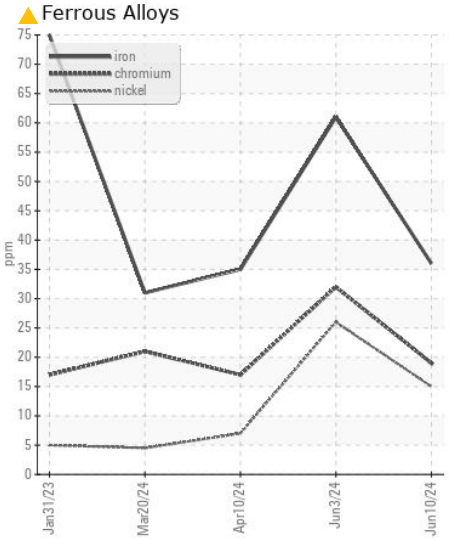
Ferrous Alloys



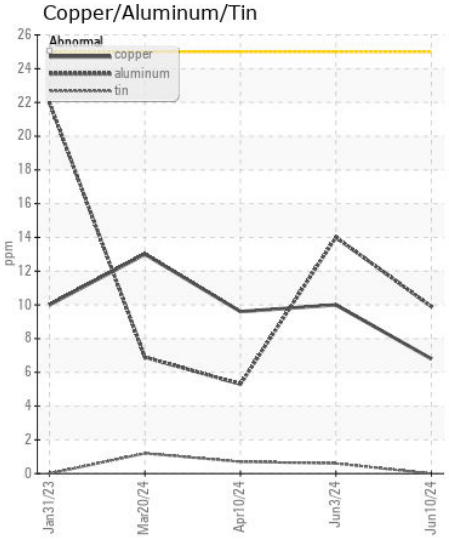
Viscosity @ 100°C



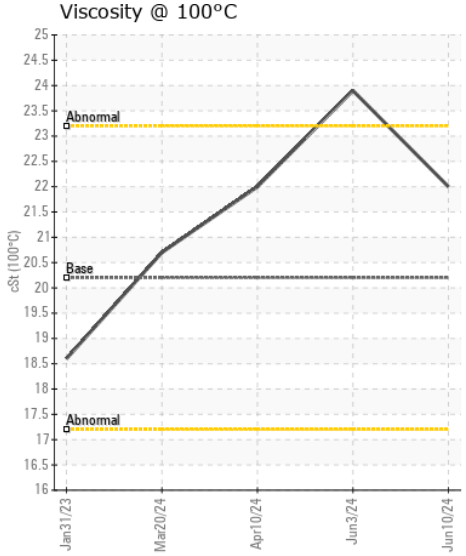
Ferrous Alloys



Copper/Aluminum/Tin



Viscosity @ 100°C



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0945316
Lab Number : 02641679
Unique Number : 5799218
Test Package : AVI 1

Received : 13 Jun 2024
Tested : 13 Jun 2024
Diagnosed : 13 Jun 2024 - Kevin Marson

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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