



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(C-FAQR)

Machine Id

[C-FAQR] PIPER PA31-350 L-6997-61A

Component

Left Piston Aircraft Engine

Fluid

PHILLIPS 66 AVIATION X/C OIL SAE20W50 (11 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0896307	WC0896314	WC0838448
Sample Date		Client Info		18 Jun 2024	05 Jun 2024	11 Feb 2024
TSN	hrs	Client Info		0	0	0
TSO	hrs	Client Info		4028	3996	3806
Oil Age	hrs	Client Info		32	55	46
Filter Age	hrs	Client Info		32	55	46
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	31	53	34
Chromium	ppm	ASTM D5185(m)	>20	9	13	7
Nickel	ppm	ASTM D5185(m)	>15	10	▲ 19	9
Titanium	ppm	ASTM D5185(m)		<1	<1	0
Silver	ppm	ASTM D5185(m)	>5	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	6	10	5
Lead	ppm	ASTM D5185(m)	>20000	4973	10513	8081
Copper	ppm	ASTM D5185(m)	>25	7	7	5
Tin	ppm	ASTM D5185(m)	>30	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

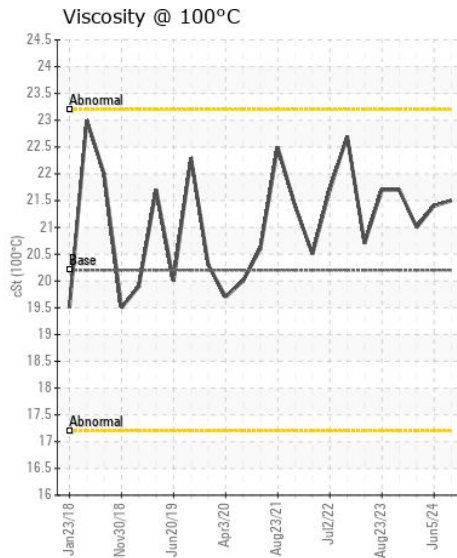
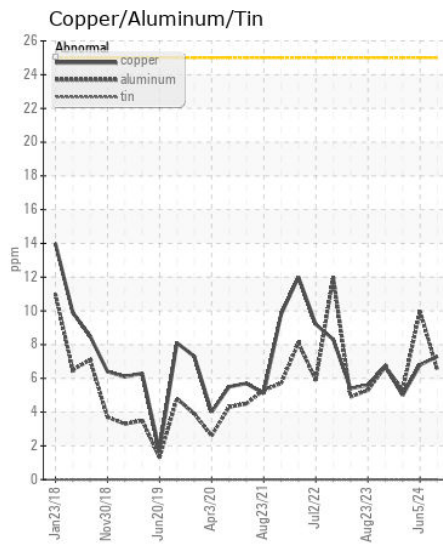
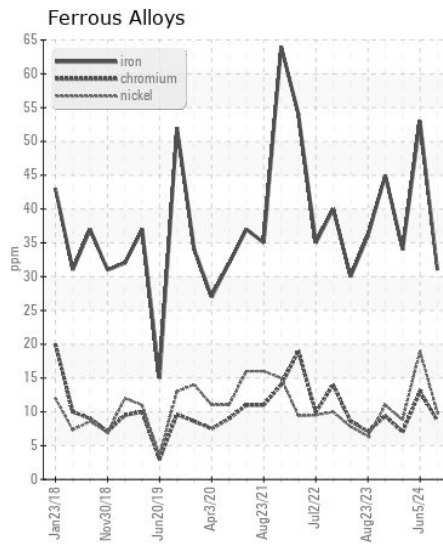
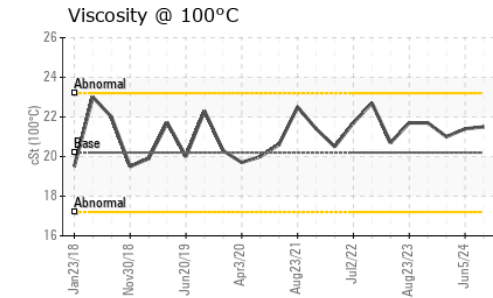
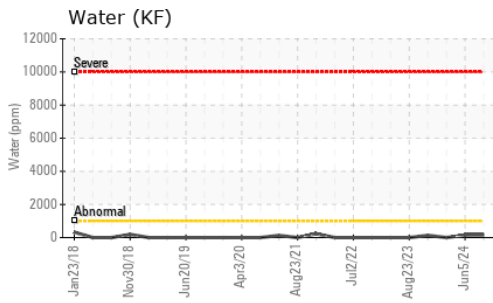
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	10	7	7
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water	%	ASTM D6304*	>0.1	0.014	0.014	---
ppm Water	ppm	ASTM D6304*	>1000	150	148	---
Glycol		WC Method		NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	VLITE	VLITE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	NONE
Appearance	scalar	Visual*	NORML	WGOIL	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	.5%	.5%	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<1	<1	0
Boron	ppm	ASTM D5185(m)	0.0	<1	<1	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	2	3	3
Calcium	ppm	ASTM D5185(m)	4.7	3	<1	1
Phosphorus	ppm	ASTM D5185(m)	0.0	2	0	0
Zinc	ppm	ASTM D5185(m)	0.1	4	3	3
Sulfur	ppm	ASTM D5185(m)	848	993	1016	1047
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	21.5	21.4	21.0



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0896307
Lab Number : 02643716
Unique Number : 5801255
Test Package : AVI 1 (Additional Tests: KF)

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 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.

SKYCARE AIR AMBULANCE
 BOX 289, 17 AIRPORT ROAD
 SIOUX LOOKOUT, ON
 CA P8T 1A3
 Contact: Jason Murphy
 prm@skycare.ca
 T: (807)737-0039
 F: (807)737-0040