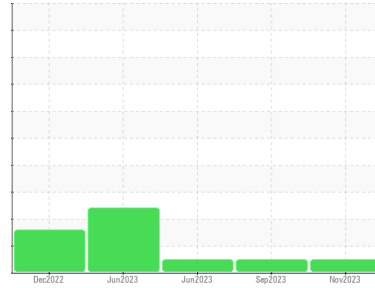




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(C-FTJX)**  
Machine Id  
**[C-FTJX] PIPER PA31-350 L1971-68A**  
Component  
**Right Piston Aircraft Engine**  
Fluid  
**PHILLIPS 66 AVIATION X/C OIL SAE20W50 (12 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0323400</b>	WC0830822	WC0577259
Sample Date	Client Info		<b>30 Nov 2023</b>	08 Sep 2023	26 Jun 2023
TSN	hrs	Client Info	<b>11402</b>	0	0
TSO	hrs	Client Info	<b>2024</b>	1827	1657
Oil Age	hrs	Client Info	<b>42</b>	52	28
Oil Changed		Client Info	<b>Not Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	<b>27</b>	27	29
Chromium	ppm	ASTM D5185(m)	>20	<b>9</b>	11	8
Nickel	ppm	ASTM D5185(m)	>15	<b>11</b>	7	10
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>6</b>	11	6
Lead	ppm	ASTM D5185(m)	>20000	<b>7419</b>	7251	3533
Copper	ppm	ASTM D5185(m)	>25	<b>6</b>	8	12
Tin	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	<1

## ADDITIVES

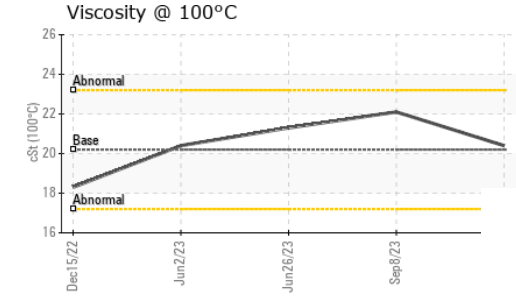
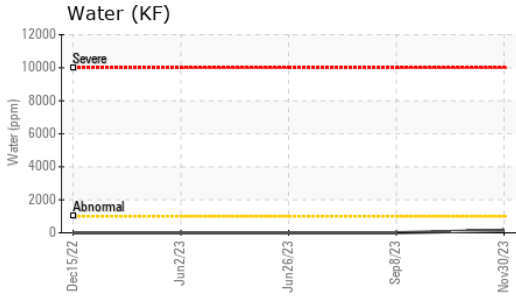
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	0	0
Barium	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0.0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0.0	<b>5</b>	2	1
Calcium	ppm	ASTM D5185(m)	4.7	<b>2</b>	<1	<1
Phosphorus	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	<1	<1
Zinc	ppm	ASTM D5185(m)	0.1	<b>5</b>	7	4
Sulfur	ppm	ASTM D5185(m)	848	<b>996</b>	972	906
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<b>8</b>	5	12
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	2
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	2
Water	%	ASTM D6304*	>0.1	<b>0.015</b>	---	---
ppm Water	ppm	ASTM D6304*	>1000	<b>151</b>	---	---



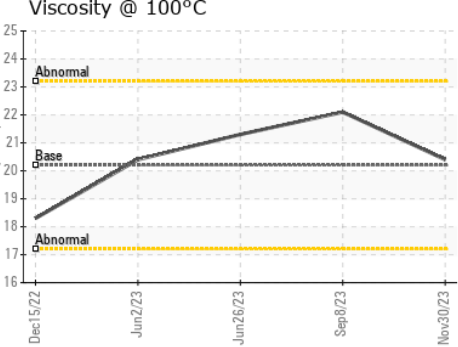
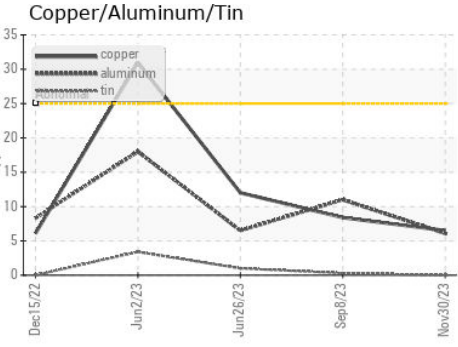
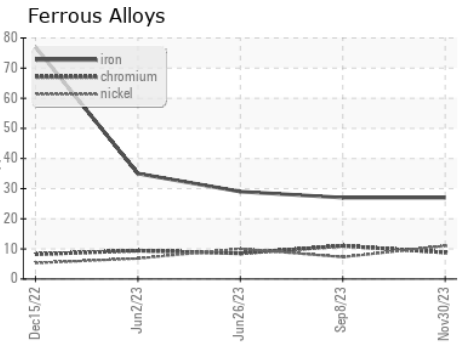
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	LIGHT	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>.2%</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	20.2	<b>20.4</b>	22.1	21.3

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0323400 **Received** : 07 Dec 2023  
**Lab Number** : **02601528** **Diagnosed** : 08 Dec 2023  
**Unique Number** : 5694613 **Diagnostician** : Kevin Marson  
**Test Package** : AVI 1 ( Additional Tests: KF )

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