



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Area  
**(C-GWOC)**  
Machine Id  
**MURPHY 7703287**  
Component  
**Piston Aircraft Engine**  
Fluid  
**SHELL AEROSPORT PLUS 4 (--- LTR)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0944743</b>	---	---
Sample Date		Client Info		<b>01 Jun 2024</b>	---	---
TSN	hrs	Client Info		<b>85</b>	---	---
TSO	hrs	Client Info		<b>85</b>	---	---
Oil Age	hrs	Client Info		<b>25</b>	---	---
Filter Age	hrs	Client Info		<b>25</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>260	<b>21</b>	---	---
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>8	<b>2</b>	---	---
Titanium	ppm	ASTM D5185(m)	>4	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	---	---
Lead	ppm	ASTM D5185(m)	>20000	<b>9</b>	---	---
Copper	ppm	ASTM D5185(m)	>45	<b>14</b>	---	---
Tin	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

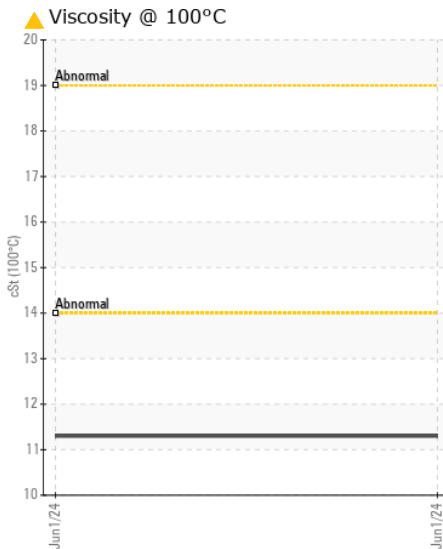
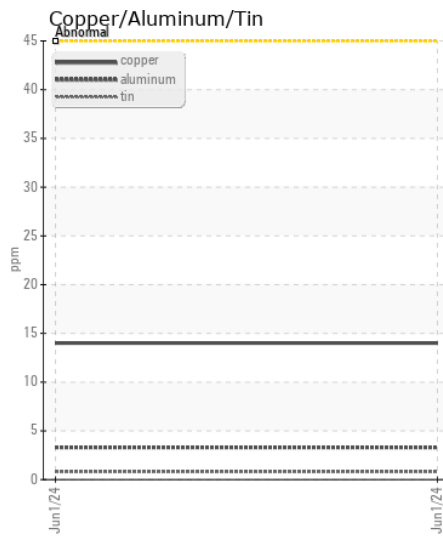
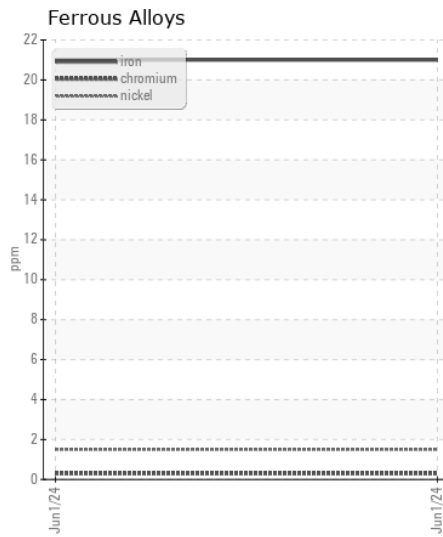
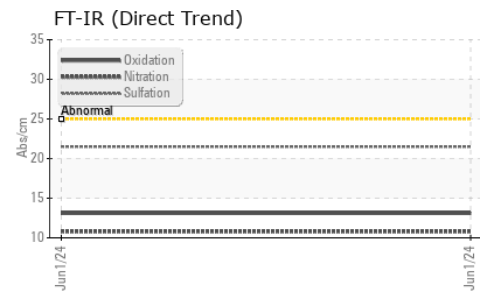
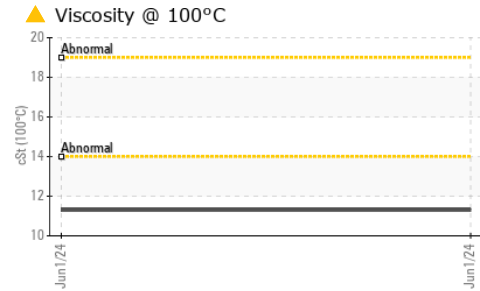
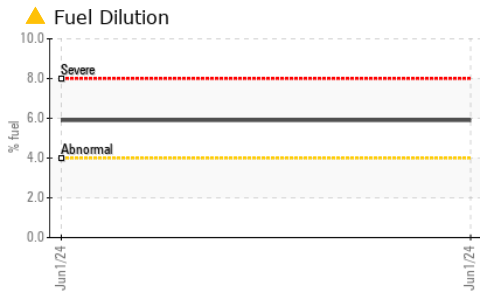
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>35	<b>8</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	---	---
Fuel	%	ASTM D7593*	>4.0	<b>▲ 5.9</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	ASTM D7844*		<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.8</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.5</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	---	---

## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	---	---
Boron	ppm	ASTM D5185(m)		<b>61</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>2</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>16</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>2523</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>1461</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1775</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>4173</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.1</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		<b>▲ 68.3</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		<b>▲ 11.3</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		<b>159</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0944743  
**Lab Number** : 02642578  
**Unique Number** : 5800117  
**Test Package** : AVI 1 ( Additional Tests: FT-IR, FuelDilution, KV40, PercentFuel, VI )

**Received** : 18 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Kevin Marson

**Tim Kuntz**  
 520 Louise Ave North  
 Listowel, ON  
 CA N4W 3V4  
 Contact: Tim Kuntz  
 tkuntz99@gmail.com  
 T: (226)930-0365  
 F:

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.