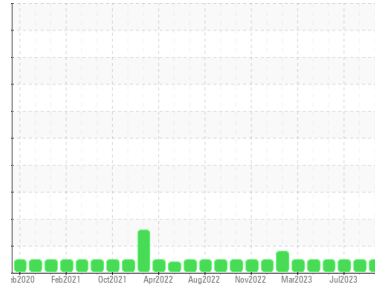




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(C-GLFC)**  
Machine Id  
**[C-GLFC] DIAMOND DA-20 650249**  
Component  
**Center Piston Aircraft Engine**  
Fluid  
**SHELL AEROSHELL OIL W 100 PLUS (6 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0849565</b>	WC0828153	WC0828143
Sample Date	Client Info		<b>21 Sep 2023</b>	24 Aug 2023	13 Jul 2023
TSN	hrs	Client Info	<b>2187</b>	2139	2090
TSO	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>48</b>	49	52
Oil Changed		Client Info	<b>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>12</b>	19	15
Chromium	ppm	ASTM D5185(m)	>20	<b>3</b>	6	4
Nickel	ppm	ASTM D5185(m)	>15	<b>1</b>	2	2
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>4</b>	6	6
Lead	ppm	ASTM D5185(m)	>20000	<b>5430</b>	6674	6196
Copper	ppm	ASTM D5185(m)	>25	<b>2</b>	3	3
Tin	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
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>0</b>	<1	<1

## ADDITIVES

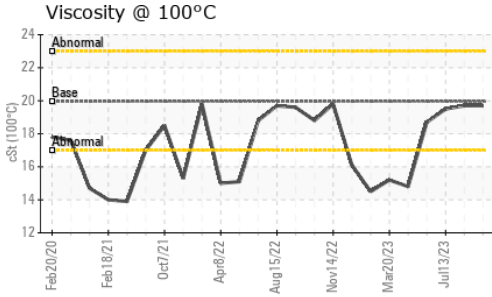
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>1</b>	3	2
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185(m)	0	<b>2</b>	1	2
Phosphorus	ppm	ASTM D5185(m)		<b>1244</b>	1290	1249
Zinc	ppm	ASTM D5185(m)	0	<b>6</b>	8	8
Sulfur	ppm	ASTM D5185(m)	2600	<b>2706</b>	2696	2639
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>6</b>	7	7
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1



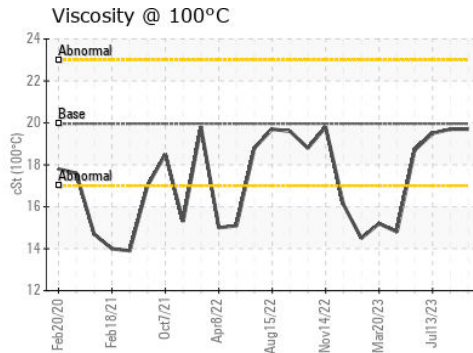
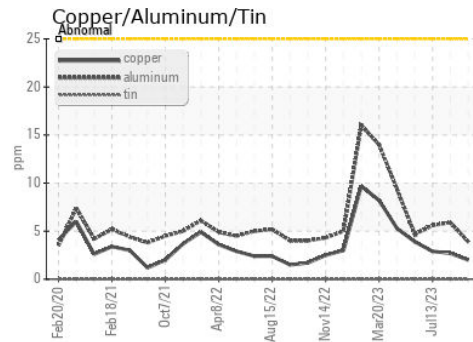
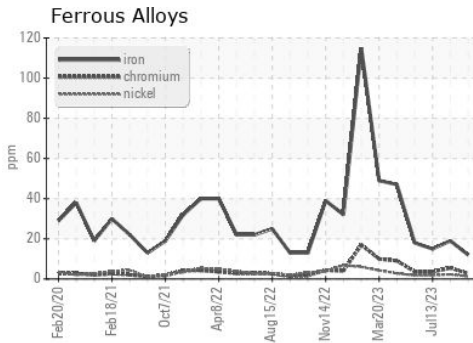
# OIL ANALYSIS REPORT



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>	VLITE	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>NEG</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)	19.96	<b>19.7</b>	19.7	19.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0849565 **Received** : 06 Oct 2023  
**Lab Number** : **02587576** **Diagnosed** : 06 Oct 2023  
**Unique Number** : 5656642 **Diagnostician** : Kevin Marson  
**Test Package** : AVI 1

**W.C.S. AVIATION LTD.**  
 2600 AIRPORT ROAD UNIT 108  
 WINDSOR, ON  
 CA N8V 1A1  
 Contact: James V  
 james@wcsaviation.com  
 T: (519)972-7271  
 F: (519)972-8355

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.