



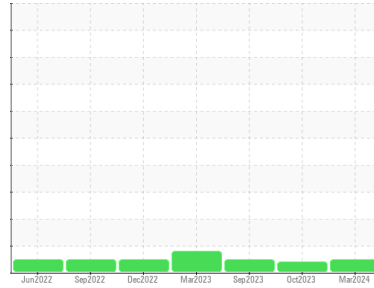
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
(C-FYWQ)
 Machine Id
[C-FYWQ] BEEHCRAFT DUKE B60 RL-1203-59
 Component
Left Piston Aircraft Engine
 Fluid
SHELL AEROSHELL W 80 (13 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			WC0844059	WC0844057	WC0766761
Sample Date	Client Info			08 Mar 2024	25 Oct 2023	18 Sep 2023
TSN	hrs Client Info			535	507	1262
TSO	hrs Client Info			535	507	121
Oil Age	hrs Client Info			28	50	21
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<1.0	0.6	<1.0
Water	WC Method	>0.1		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	33	12	29
Chromium	ppm	ASTM D5185(m)	>20	4	2	5
Nickel	ppm	ASTM D5185(m)	>15	3	<1	2
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	1	<1	2
Aluminum	ppm	ASTM D5185(m)	>25	17	5	13
Lead	ppm	ASTM D5185(m)	>20000	4952	3098	5519
Copper	ppm	ASTM D5185(m)	>25	6	4	9
Tin	ppm	ASTM D5185(m)	>30	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	<1

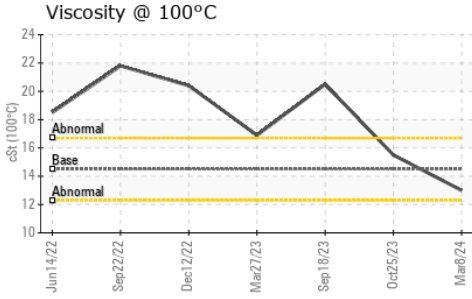
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		0	<1	<1
Barium	ppm	ASTM D5185(m)		3	2	<1
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		6	2	3
Calcium	ppm	ASTM D5185(m)		5	4	2
Phosphorus	ppm	ASTM D5185(m)		13	122	73
Zinc	ppm	ASTM D5185(m)		4	2	2
Sulfur	ppm	ASTM D5185(m)	3000	2090	2253	3178
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	8	6	5
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	1	0	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	---	0
Nitration	Abs/cm	ASTM D7624*	>20	4.3	---	4.9
Sulfation	Abs./1mm	ASTM D7415*	>30	16.4	---	16.3



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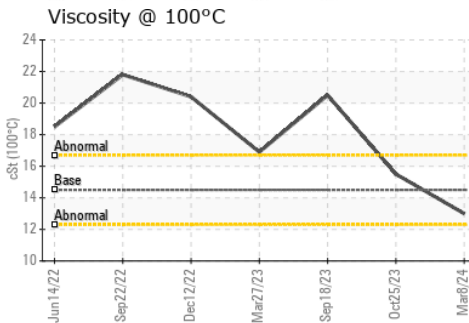
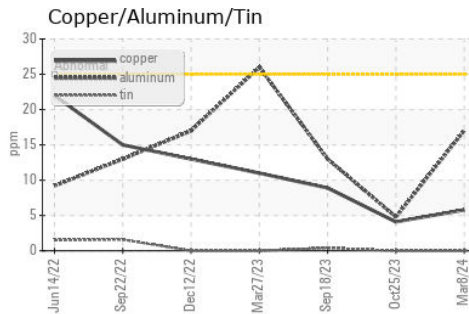
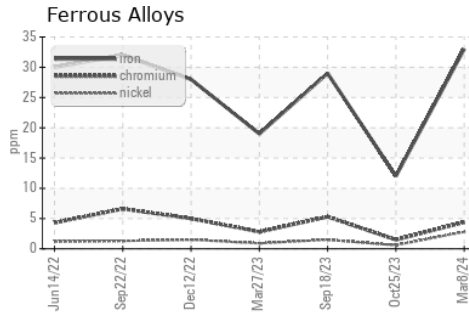


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	11.4	---	12.5

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	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
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	13.0	▲ 15.5	20.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0844059 **Received** : 12 Mar 2024
Lab Number : **02621417** **Tested** : 12 Mar 2024
Unique Number : 5746536 **Diagnosed** : 13 Mar 2024 - Kevin Marson
Test Package : AVI 1 (Additional Tests: FT-IR)

ITPS Canada
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 London, ON
 CA N5V 3Z9
 Contact: Shannon Hickey
 shannon.hickey@itpscanada.com

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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F: