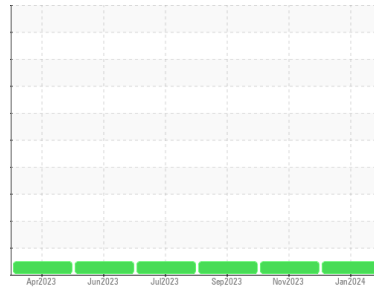




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area

**(C-GKNV)**

Machine Id

**[C-GKNV] BEECHCRAFT B200 KING AIR PCE-93233**

Component

**Left Jet Turbine**

Fluid

**EASTMAN TURBO OIL 2380 (14 LTR)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

#### Contaminants

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

#### Oil Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0889937</b>	WC0836432	WC0779690
Sample Date	Client Info		<b>15 Jan 2024</b>	14 Nov 2023	18 Sep 2023
TSN	hrs	Client Info	<b>9892</b>	9663	9477
TSO	hrs	Client Info	<b>1190</b>	961	775
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed		Client Info	<b>N/A</b>	Not Changd	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>8	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Lead	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>2	<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>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Phosphorus	ppm	ASTM D5185(m)	2500	<b>2491</b>	2611	2683
Zinc	ppm	ASTM D5185(m)	0	<b>1</b>	1	1
Sulfur	ppm	ASTM D5185(m)	0	<b>29</b>	30	42
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

### CONTAMINANTS

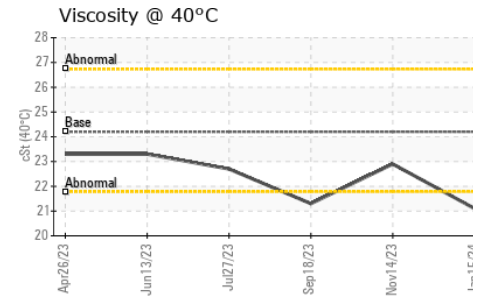
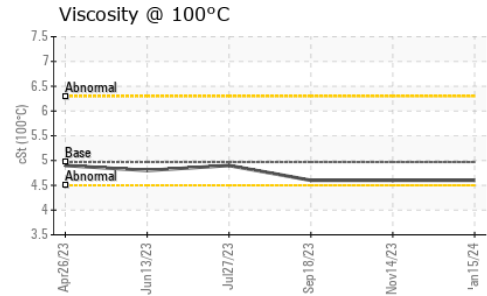
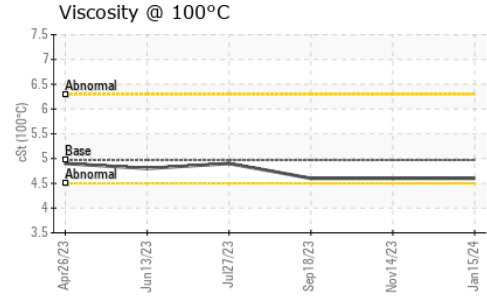
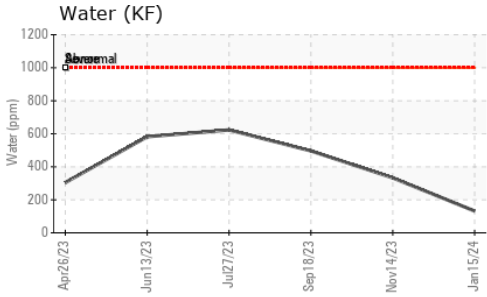
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>8	<b>0</b>	0	<1
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304*	>.1001	<b>0.013</b>	0.033	0.049
ppm Water	ppm	ASTM D6304*	>1001	<b>132</b>	333	496.3

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.43	<b>0.35</b>	0.31	0.35



# OIL ANALYSIS REPORT

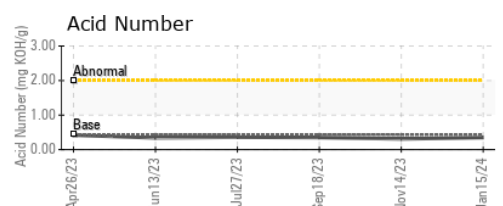
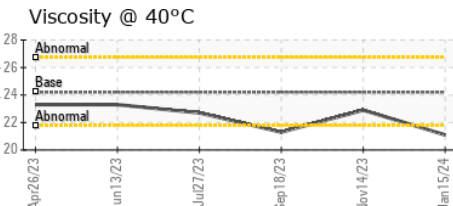
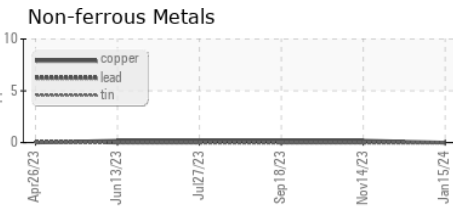
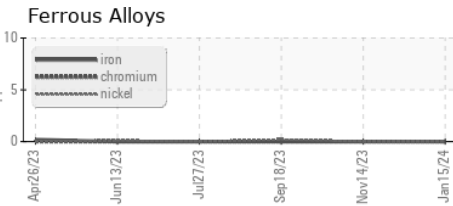


VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	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*	>.1001	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	<b>21.1</b>	22.9	21.3
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	<b>4.6</b>	4.6	4.6
Viscosity Index (VI)	Scale	ASTM D2270*	134	<b>137</b>	117	135

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0889937 **Received** : 08 Apr 2024  
**Lab Number** : **02627305** **Tested** : 11 Apr 2024  
**Unique Number** : 5760437 **Diagnosed** : 11 Apr 2024 - Kevin Marson  
**Test Package** : AVI 3

**Keewatin Air LP**  
 50 Morberg Way  
 Winnipeg, MB  
 CA R3H 0A4  
 Contact: Heather Karavas  
 hkaravas@keewatinair.ca  
 T: (204)888-0100  
 F: (204)888-5791

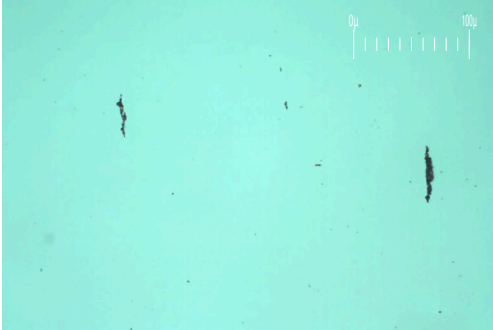
To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.



# FERROGRAPHY REPORT

Area  
**(C-GKNV)**  
 Machine Id  
**[C-GKNV] BEECHCRAFT B200 KING AIR PCE-93233**  
 Component  
**Left Jet Turbine**  
 Fluid  
**EASTMAN TURBO OIL 2380 (14 LTR)**

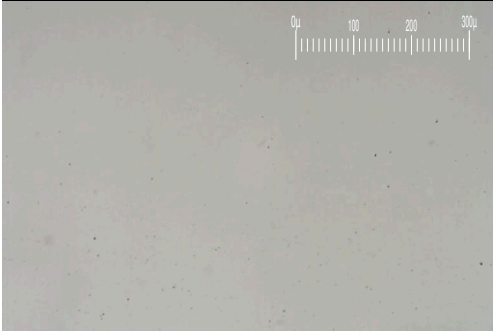
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

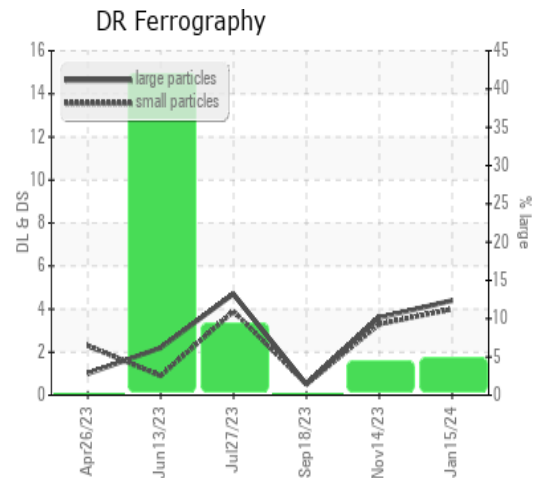


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		4.4	3.6	0.5
Small Particles		DR-Ferr*		4.0	3.3	0.5
Total Particles		DR-Ferr*	>---	8.4	6.9	1
Large Particles Percentage	%	DR-Ferr*		4.8	4.3	0
Severity Index		DR-Ferr*		2	1	0

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		1	1	1
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1		1
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*				
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1	1	1

### WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.



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