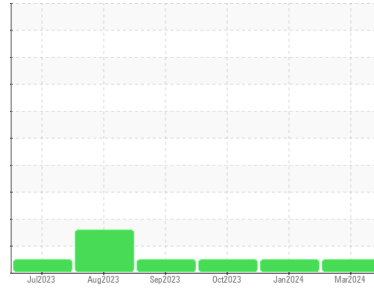




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(C-GSUR)
 Machine Id
[C-GSUR] DEHAVILLAND DASH8-102 PCE-120217
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (21 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		WC0815302	WC0815313	WC0815312
Sample Date	Client Info		10 Mar 2024	15 Jan 2024	17 Oct 2023
TSN	hrs Client Info		29511	29418	29324
TSO	hrs Client Info		7319	7226	7132
Oil Age	hrs Client Info		7319	7226	7132
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

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

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	0	<1	0	<1
Barium	ppm ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm ASTM D5185(m)	0	0	0	0
Manganese	ppm ASTM D5185(m)		0	0	0
Magnesium	ppm ASTM D5185(m)	0	<1	<1	0
Calcium	ppm ASTM D5185(m)	0	0	0	0
Phosphorus	ppm ASTM D5185(m)	2500	2587	2543	2615
Zinc	ppm ASTM D5185(m)	0	<1	<1	<1
Sulfur	ppm ASTM D5185(m)	0	0	0	1
Lithium	ppm ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

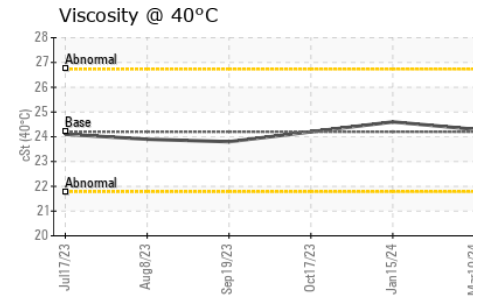
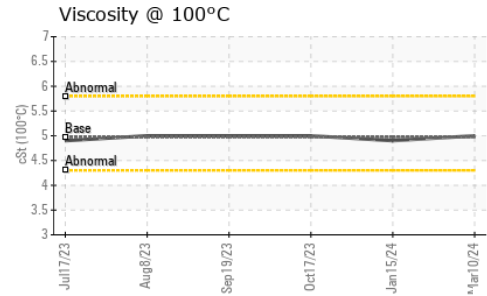
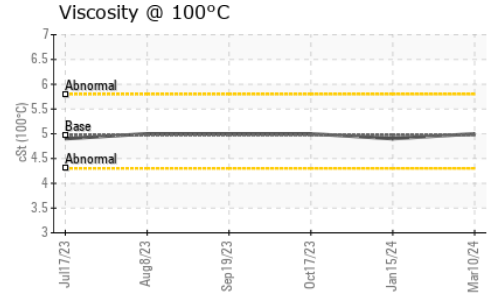
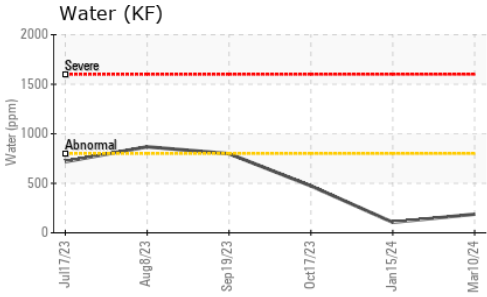
	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>8	<1	<1	<1
Sodium	ppm ASTM D5185(m)		0	0	<1
Potassium	ppm ASTM D5185(m)	>20	<1	1	<1
Water	% ASTM D6304*	>0.08	0.018	0.010	0.047
ppm Water	ppm ASTM D6304*	>800	188	106	473.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.43	0.23	0.16	0.25



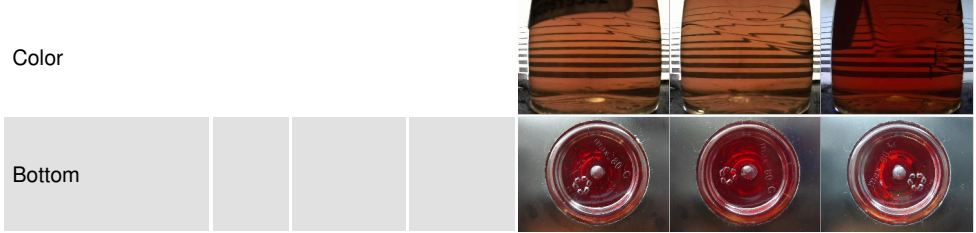
OIL ANALYSIS REPORT



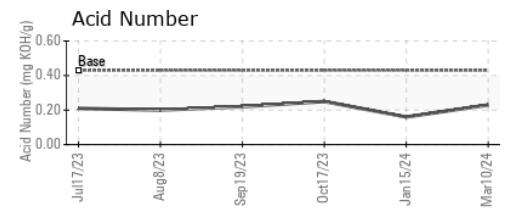
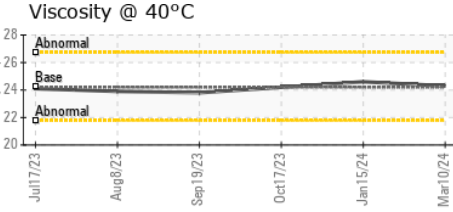
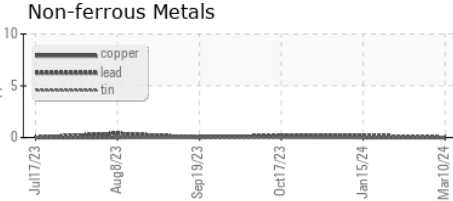
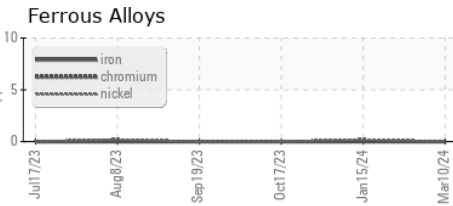
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.08	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	24.2	24.3	24.6	24.2
Visc @ 100°C	cSt	ASTM D7279(m)	4.97	5.0	4.9	5
Viscosity Index (VI)	Scale	ASTM D2270*	134	135	124	136

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0815302 **Received** : 13 Mar 2024
Lab Number : **02621756** **Tested** : 13 Mar 2024
Unique Number : 5746875 **Diagnosed** : 15 Mar 2024 - Kevin Marson
Test Package : AVI 3

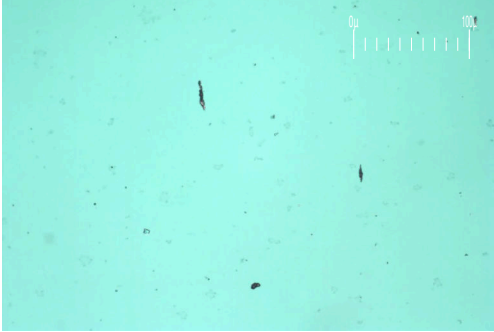
TRANSPORT CANADA
 1945 CHAMPLAIN STREET
 DIEPPE, NB
 CA E1A 7P5
 Contact: Marc Justin Leblanc
 marcjustin.leblanc@tc.gc.ca
 T: (506)851-6945
 F: (506)851-2996

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.

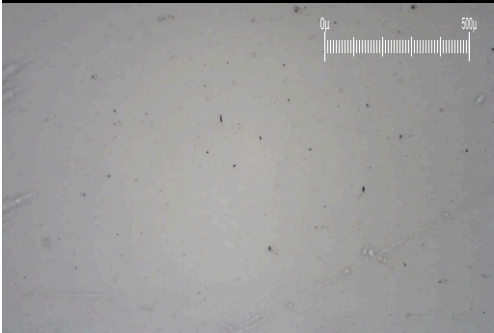
FERROGRAPHY REPORT

Area
(C-GSUR)
 Machine Id
[C-GSUR] DEHAVILLAND DASH8-102 PCE-120217
 Component
Right Jet Turbine
 Fluid
EASTMAN TURBO OIL 2380 (21 LTR)

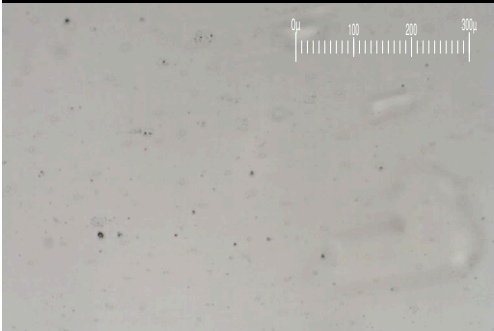
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW

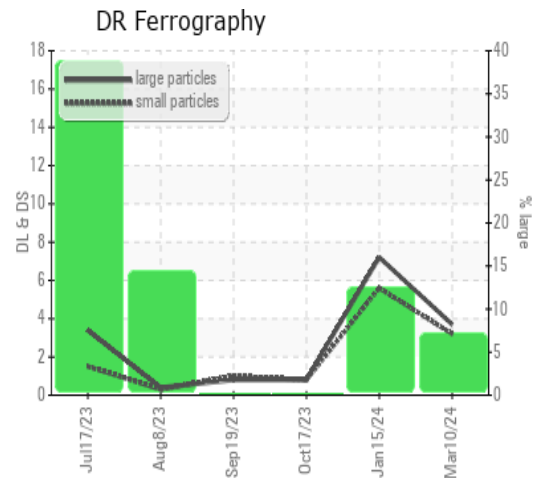


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		3.7	7.2	0.8
Small Particles		DR-Ferr*		3.2	5.6	0.8
Total Particles		DR-Ferr*	>---	6.9	12.8	1.6
Large Particles Percentage	%	DR-Ferr*		7.2	12.5	0
Severity Index		DR-Ferr*		2	12	0

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*				1
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 ferroggraphy results are normal indicating no abnormal wear in the system.



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