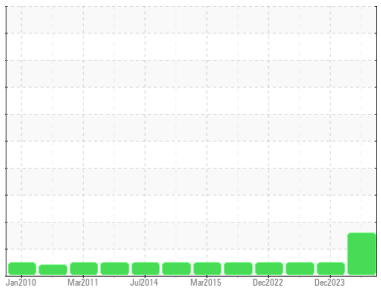
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
(CGHOY)
Machine Id
[CGHOY] AIRBUS AS350B3 AC4305
Component
1 Jet Turbine
Fluid
MOBIL JET OIL 254 (6 LTR)

DIAGNOSIS

Recommendation
Check seals and/or filters for points of contaminant entry. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

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

Contaminants
High silicon level indicates possible contamination with silicone-based oil or silicone-based fitting compound/grease. Advise investigate any possible cross-contamination with silicone-based oil, or any points that are sealed/greased with silicone-based compound/grease. The water content is negligible.

Oil Condition
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0477560**	WC0863953	WC0477566
Sample Date		Client Info		**07 Jun 2024**	07 Dec 2023	19 May 2023
TSN	hrs	Client Info		**8092**	7947	0
TSO	hrs	Client Info		**1133**	988	0
Oil Age	hrs	Client Info		**145**	52	290
Oil Changed		Client Info		**N/A**	Changed	Not Changd
Sample Status				**ABNORMAL**	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	**<1**	0	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>2	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>3	**0**	<1	0
Copper	ppm	ASTM D5185(m)	>3	**<1**	<1	0
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

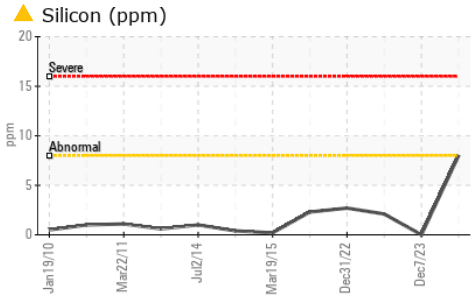
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Barium	ppm	ASTM D5185(m)	0	**0**	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**0**	0	0
Calcium	ppm	ASTM D5185(m)	0	**0**	0	0
Phosphorus	ppm	ASTM D5185(m)	3000	**2868**	2834	3003
Zinc	ppm	ASTM D5185(m)	0	**2**	1	2
Sulfur	ppm	ASTM D5185(m)	0	**8**	4	5
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>8	▲ **8**	0	2
Sodium	ppm	ASTM D5185(m)		**0**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1
Water	%	ASTM D6304*	>0.1	**0.069**	0.019	0.020
ppm Water	ppm	ASTM D6304*	>1000	**694**	196	206.8

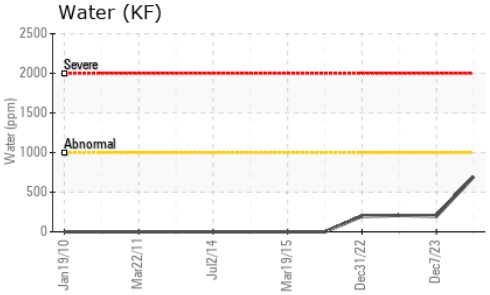
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.08	**0.14**	0.16	0.15

OIL ANALYSIS REPORT

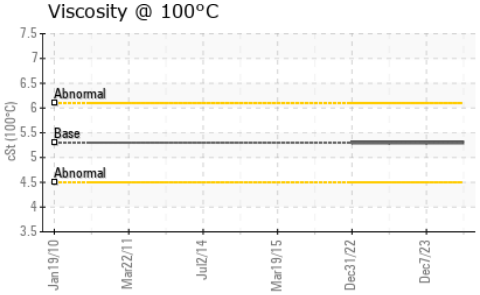
Silicon (ppm)



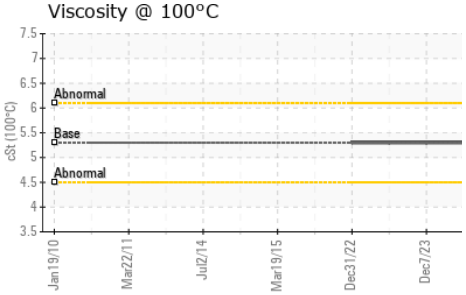
Water (KF)



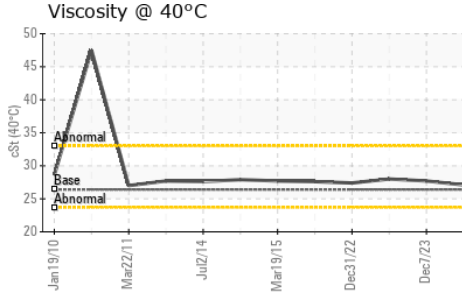
Viscosity @ 100°C



Viscosity @ 100°C



Viscosity @ 40°C



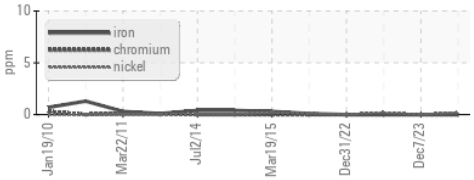
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	**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)	26.4	**27.1**	27.7	28.0
Visc @ 100°C	cSt	ASTM D7279(m)	5.3	**5.3**	5.3	5.3
Viscosity Index (VI)	Scale	ASTM D2270*	137	**131**	126	123

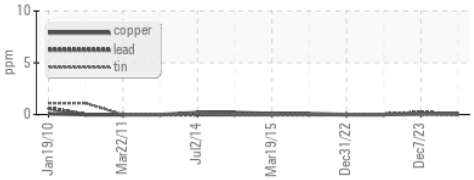
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

GRAPHS

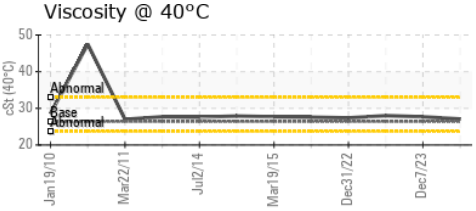
Ferrous Alloys



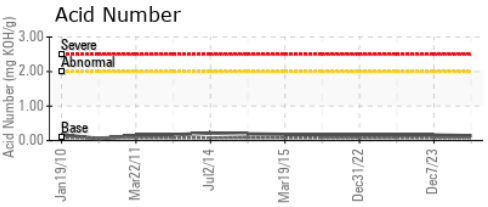
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0477560
Lab Number : 02643395
Unique Number : 5800934
Test Package : AVI 3

Received : 21 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Kevin Marson

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.

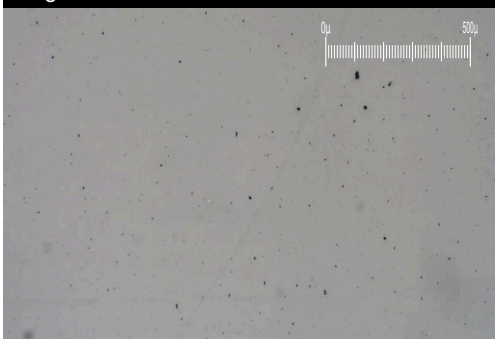
HYDRO ONE HELICOPTERS
LAKE SIMCOE REGIONAL AIRPORT, 224 LINE 7 N.
ORO STATION, ON
CA L0L 2E0
Contact: Ken Sanford
ken.sanford@hydroone.com
T: (705)487-1771
F: (705)487-5817

FERROGRAPHY REPORT

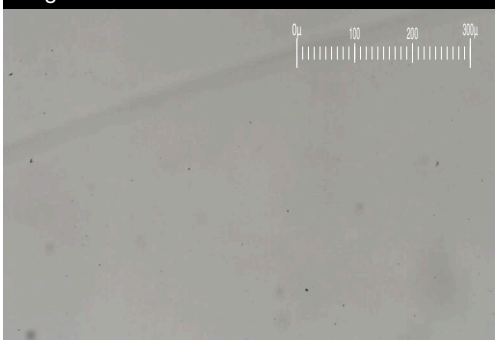
Area
(CGHOY)
Machine Id
[CGHOY] AIRBUS AS350B3 AC4305
Component
1 Jet Turbine
Fluid
MOBIL JET OIL 254 (6 LTR)

Magn: 200x Illum: BC

Magn: 50x Illum: RW



Magn: 100x Illum: RW

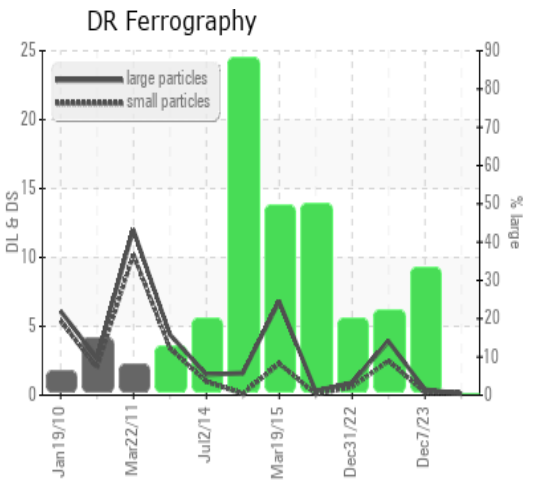


DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		**0.1**	0.4	3.9
Small Particles		DR-Ferr*		**0.2**	0.2	2.5
Total Particles		DR-Ferr*	>---	**0.3**	0.6	6.4
Large Particles Percentage	%	DR-Ferr*		**0**	33.3	21.9
Severity Index		DR-Ferr*		**0**	0	5

FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		**1**	2	1
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		**1**	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**	1	1
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		**1**	2	1

WEAR

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



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