



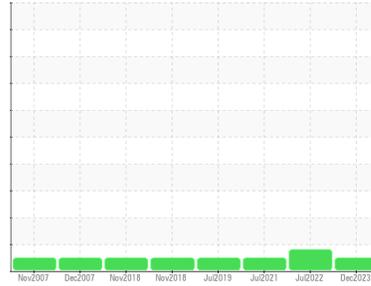
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
(CGHOY) C-GHOY
 Machine Id
[CGHOY] AIRBUS AS350B3 M4849
 Component
Rotor Gearbox
 Fluid
ANDEROL ROYCO 586M (6 GAL)



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		WC0863954	WC0685998	WC0593043
Sample Date	Client Info		07 Dec 2023	07 Jul 2022	12 Jul 2021
TSN	hrs	Client Info	0	7796	2994
TSO	hrs	Client Info	2366	1175	1179
Oil Age	hrs	Client Info	616	572	589
Oil Changed		Client Info	Changed	N/A	Changed
Sample Status			NORMAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>30	2	2	8
Chromium	ppm	ASTM D5185(m)	>4	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>8	0	<1	<1
Lead	ppm	ASTM D5185(m)	>10	<1	<1	0
Copper	ppm	ASTM D5185(m)	>8	<1	0	<1
Tin	ppm	ASTM D5185(m)	>4	0	▲ 8	1
Antimony	ppm	ASTM D5185(m)	>5	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		<1	4	26

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	0	0	<1	6
Calcium	ppm	ASTM D5185(m)	0	0	0	<1
Phosphorus	ppm	ASTM D5185(m)	75	<1	5	4
Zinc	ppm	ASTM D5185(m)	0	3	<1	3
Sulfur	ppm	ASTM D5185(m)	12000	10782	14217	13515
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

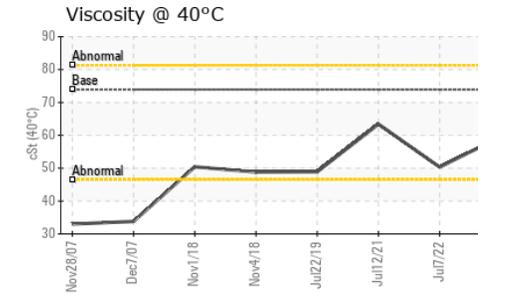
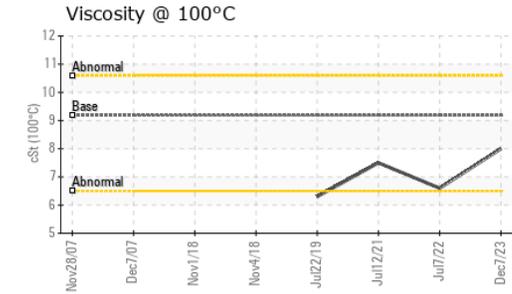
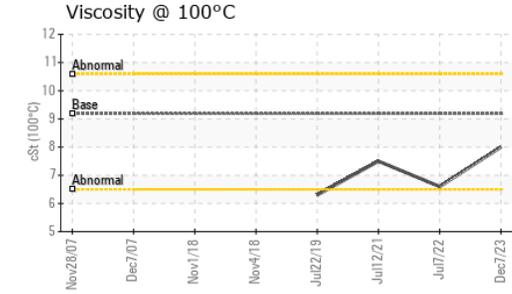
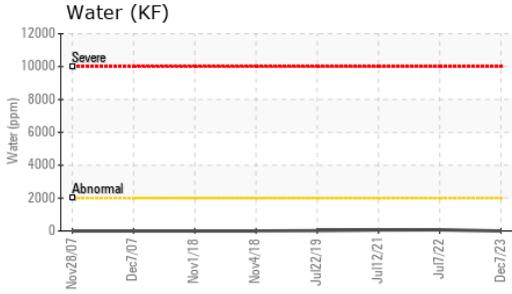
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>10	<1	1	1
Sodium	ppm	ASTM D5185(m)		0	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	0	0	1
Water	%	ASTM D6304*	>0.2	0.00	0.006	0.005
ppm Water	ppm	ASTM D6304*	>2000	0	68.7	58.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.06	0.09	0.07	0.14



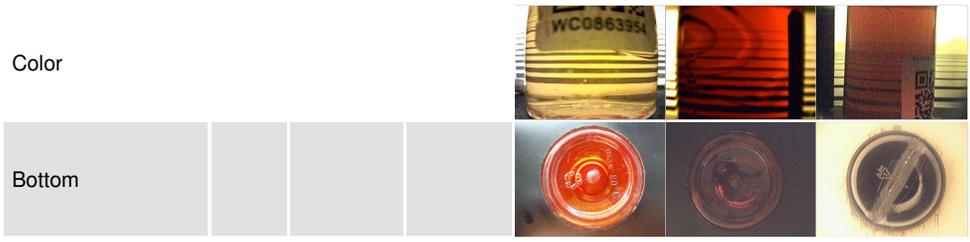
OIL ANALYSIS REPORT



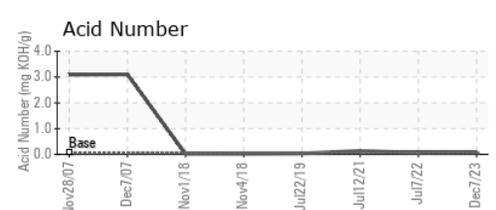
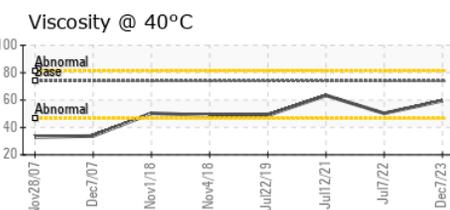
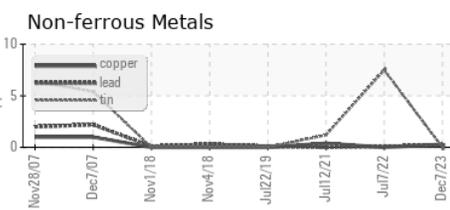
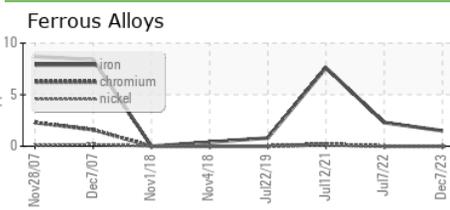
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	73.9	59.6	50.3
Visc @ 100°C	cSt	ASTM D7279(m)	9.18	8	6.6
Viscosity Index (VI)	Scale	ASTM D2270*	111	99	75

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0863954
Lab Number : 02602391
Unique Number : 5695476
Test Package : AVI 3

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

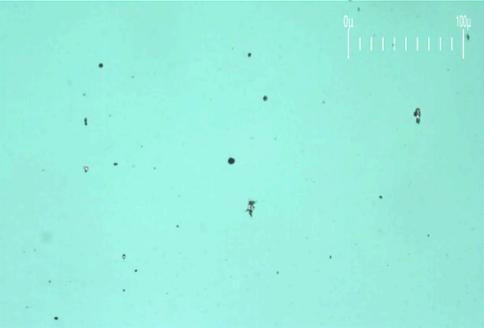
Received : 11 Dec 2023
 Diagnosed : 14 Dec 2023
 Diagnostician : Kevin Marson
 To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.



FERROGRAPHY REPORT

Area
(CGHOY) C-GHOY
 Machine Id
[CGHOY] AIRBUS AS350B3 M4849
 Component
Rotor Gearbox
 Fluid
ANDEROL ROYCO 586M (6 GAL)

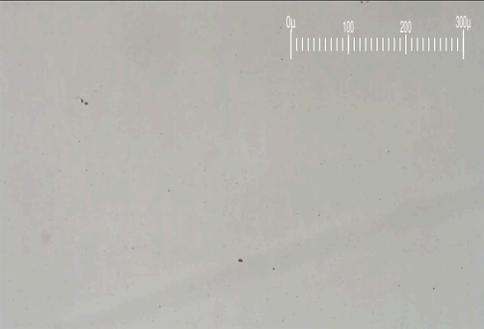
Magn: 200x Illum: BC



Magn: 50x Illum: RW



Magn: 100x Illum: RW



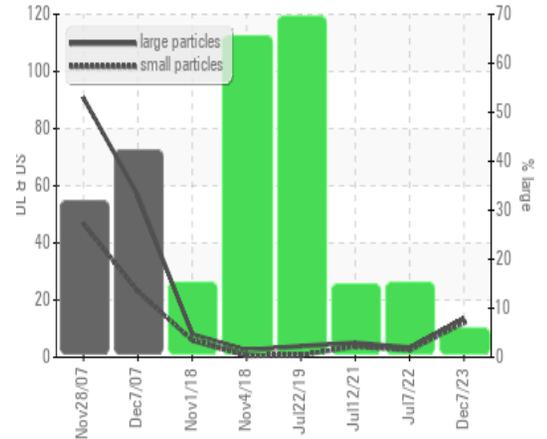
DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		13.6	3.4	5.0
Small Particles		DR-Ferr*		12.1	2.5	3.7
Total Particles		DR-Ferr*	>---	25.7	5.9	8.7
Large Particles Percentage	%	DR-Ferr*		5.8	15.3	14.9
Severity Index		DR-Ferr*		20	3	6.5

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

DR Ferrography



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