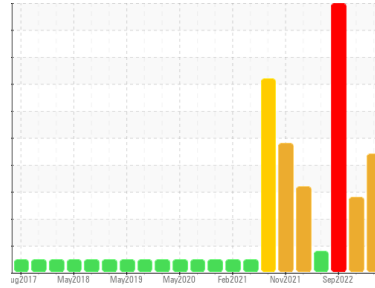




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
97
Machine Id
[97] A97 Fan 901
Component
Center Gearbox
Fluid
GEAR LIFE 150 (5 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor. (Customer Sample Comment: Gearbox has failed and getting replaced today. Was able to get a better represented sample today than the last sample.)

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of water present in the oil. Free water present.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		HPL0001764	HPL0001852	HPL0001167
Sample Date	Client Info		09 Mar 2023	03 Mar 2023	01 Sep 2022
Machine Age	hrs	Client Info	720	720	0
Oil Age	hrs	Client Info	720	720	1440
Oil Changed	Client Info		Not Changed	Not Changd	Changed
Sample Status			ABNORMAL	ABNORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	26	117	583
Chromium	ppm	ASTM D5185m >10	<1	<1	4
Nickel	ppm	ASTM D5185m >10	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	<1	0	<1
Aluminum	ppm	ASTM D5185m >25	1	2	10
Lead	ppm	ASTM D5185m >50	<1	<1	5
Copper	ppm	ASTM D5185m >200	<1	0	2
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<1	<1	3
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	<1	<1
Manganese	ppm	ASTM D5185m	2	2	6
Magnesium	ppm	ASTM D5185m	11	5	17
Calcium	ppm	ASTM D5185m	10	27	56
Phosphorus	ppm	ASTM D5185m	137	174	182
Zinc	ppm	ASTM D5185m	43	16	2
Sulfur	ppm	ASTM D5185m	22440	23096	19677

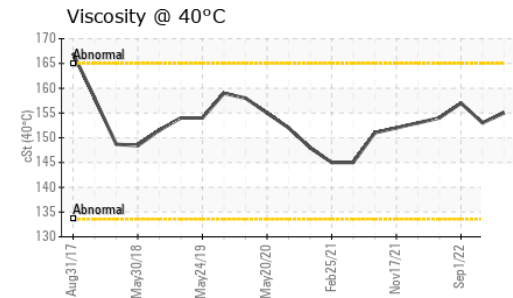
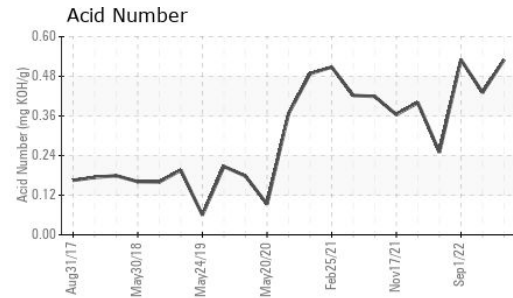
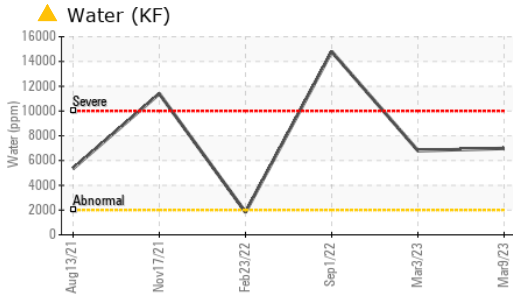
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	2	5	26
Sodium	ppm	ASTM D5185m	<1	<1	2
Potassium	ppm	ASTM D5185m >20	1	2	4
Water	%	ASTM D6304 >0.2	0.698	0.680	1.48
ppm Water	ppm	ASTM D6304 >2000	6980	6800	14800

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.53	0.431	0.53

OIL ANALYSIS REPORT



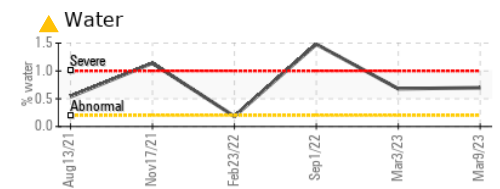
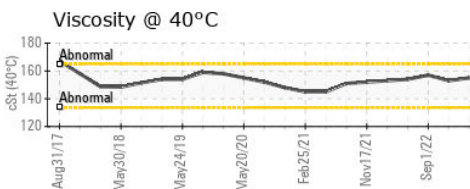
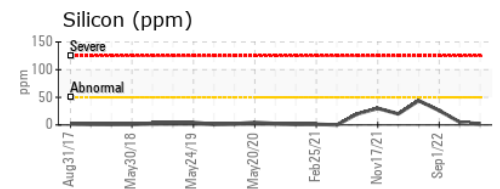
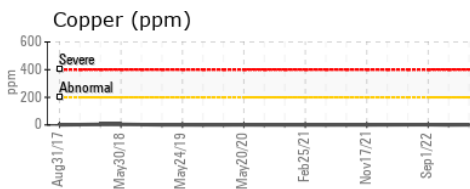
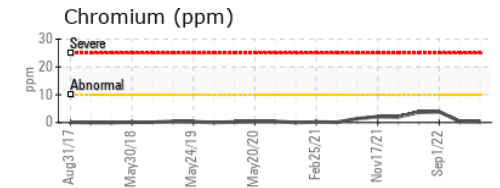
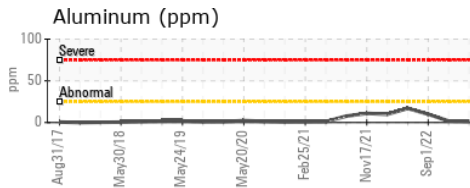
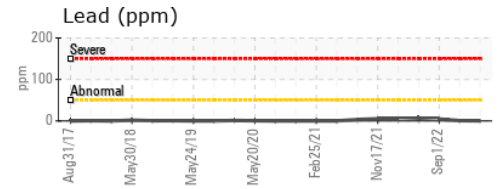
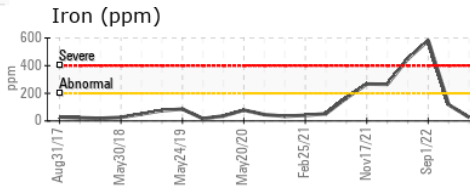
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	▲ HAZY	▲ HAZY	▲ MILKY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	0.2%
Free Water	scalar	*Visual		▲ 1.0	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	155	153	157

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0001764 **Recieved** : 14 Mar 2023
Lab Number : 05791726 **Diagnosed** : 16 Mar 2023
Unique Number : 10376397 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KF)

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 F: x:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)