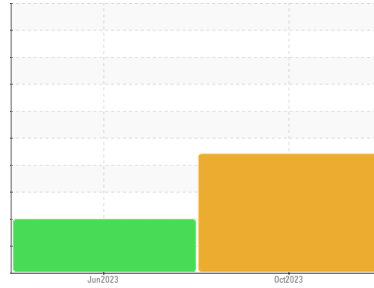


PROBLEM SUMMARY

Sample Rating Trend



ISO



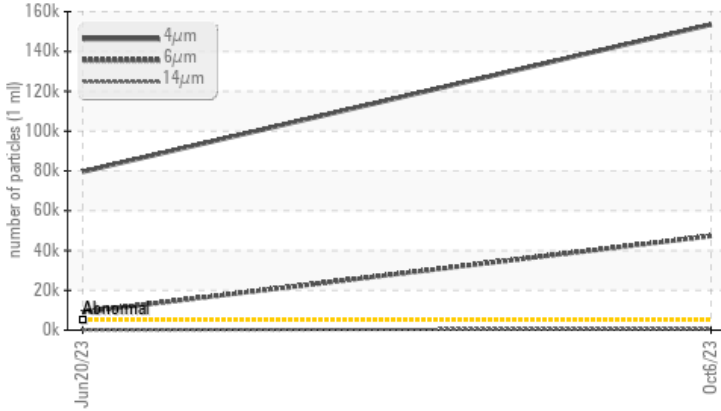
Machine Id
LARGE

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (900 GAL)

COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	---
Particles >4µm	ASTM D7647	>5000	🔴 153516	🔴 79551	---
Particles >6µm	ASTM D7647	>1300	🔴 47270	🟡 9078	---
Particles >14µm	ASTM D7647	>160	🟡 600	95	---
Particles >21µm	ASTM D7647	>40	🟡 124	19	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	🔴 24/23/16	🔴 23/20/14	---

Customer Id: FAMPUN
Sample No.: ST43266
Lab Number: 05978924
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

ISO



20 Jun 2023 Diag: Wes Davis

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

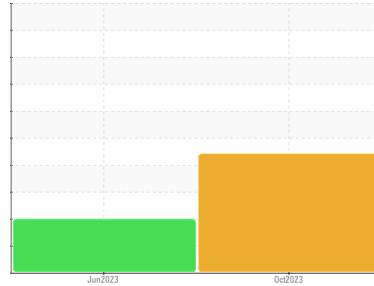




Machine Id
LARGE

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (900 GAL)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible.

Fluid 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		ST43266	ST44763	---
Sample Date	Client Info		06 Oct 2023	20 Jun 2023	---
Machine Age	yrs	Client Info	0	0	---
Oil Age	yrs	Client Info	1	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			SEVERE	SEVERE	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	3	3	---
Chromium	ppm	ASTM D5185m >20	0	<1	---
Nickel	ppm	ASTM D5185m >20	0	<1	---
Titanium	ppm	ASTM D5185m	<1	<1	---
Silver	ppm	ASTM D5185m	0	<1	---
Aluminum	ppm	ASTM D5185m >20	<1	0	---
Lead	ppm	ASTM D5185m >20	0	2	---
Copper	ppm	ASTM D5185m >20	5	6	---
Tin	ppm	ASTM D5185m >20	<1	<1	---
Vanadium	ppm	ASTM D5185m	0	<1	---
Cadmium	ppm	ASTM D5185m	0	<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	3	1	---
Barium	ppm	ASTM D5185m 5	0	0	---
Molybdenum	ppm	ASTM D5185m 5	<1	2	---
Manganese	ppm	ASTM D5185m	<1	<1	---
Magnesium	ppm	ASTM D5185m 25	2	2	---
Calcium	ppm	ASTM D5185m 200	119	120	---
Phosphorus	ppm	ASTM D5185m 300	360	389	---
Zinc	ppm	ASTM D5185m 370	445	466	---
Sulfur	ppm	ASTM D5185m 2500	1515	1407	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	5	1	---
Sodium	ppm	ASTM D5185m	2	1	---
Potassium	ppm	ASTM D5185m >20	0	2	---
Water	%	ASTM D6304 >0.05	0.002	0.002	---
ppm Water	ppm	ASTM D6304 >500	16.9	21.3	---

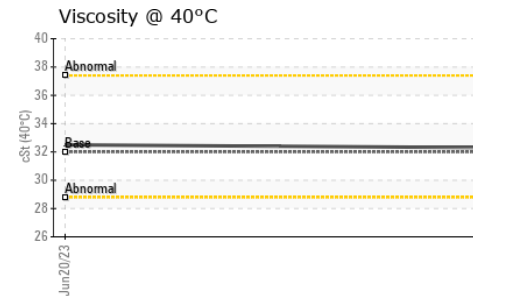
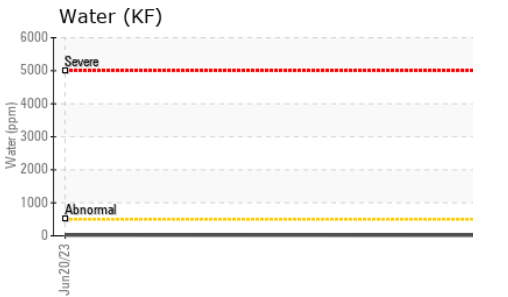
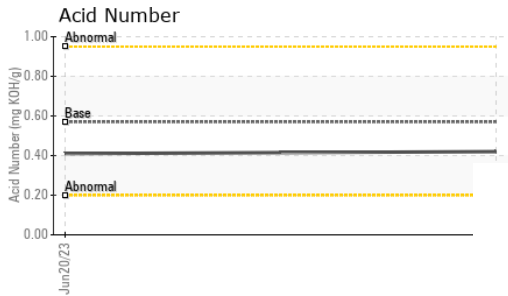
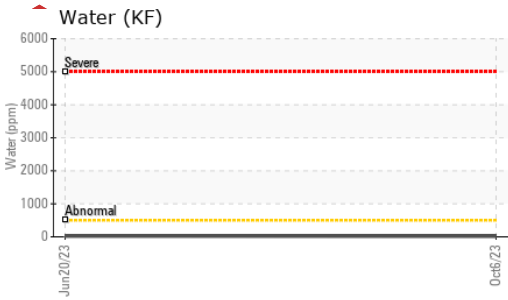
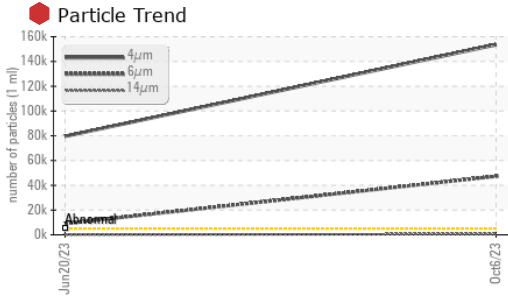
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	153516	79551	---
Particles >6µm	ASTM D7647	>1300	47270	9078	---
Particles >14µm	ASTM D7647	>160	600	95	---
Particles >21µm	ASTM D7647	>40	124	19	---
Particles >38µm	ASTM D7647	>10	2	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	24/23/16	23/20/14	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	0.42	0.41	---

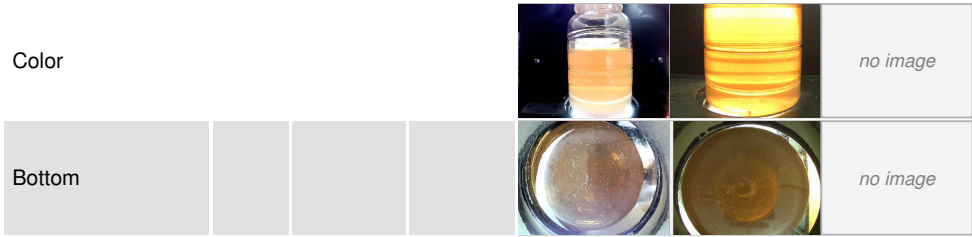
OIL ANALYSIS REPORT



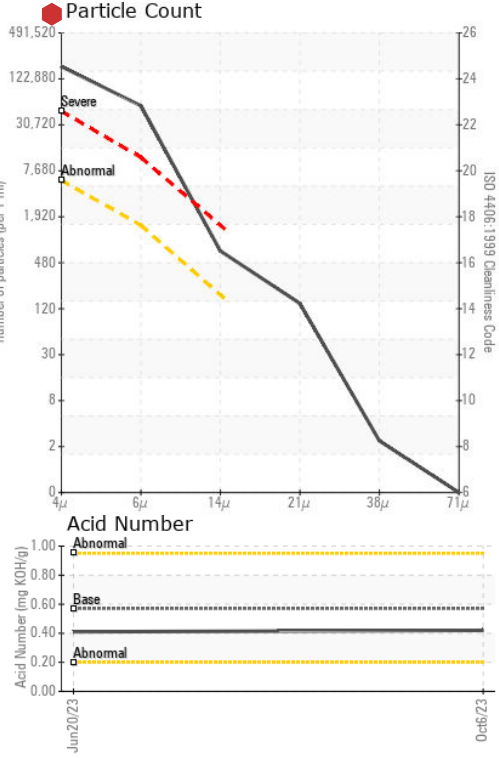
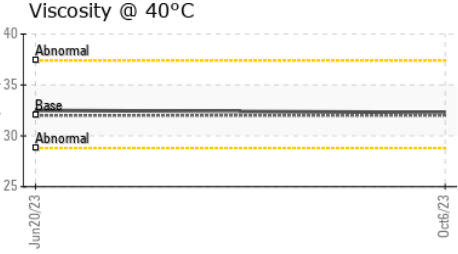
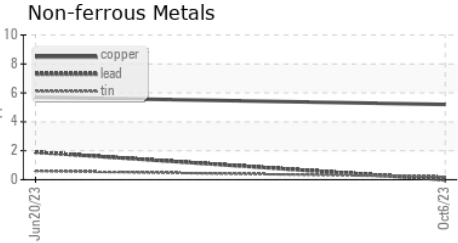
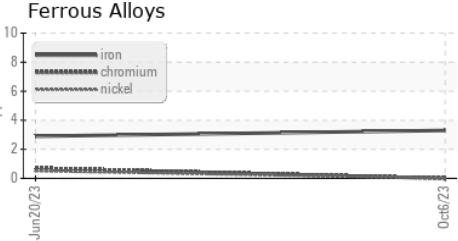
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 32	32.3	32.5	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ST43266 **Received** : 13 Oct 2023
Lab Number : 05978924 **Diagnosed** : 16 Oct 2023
Unique Number : 10696219 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

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 F:

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)