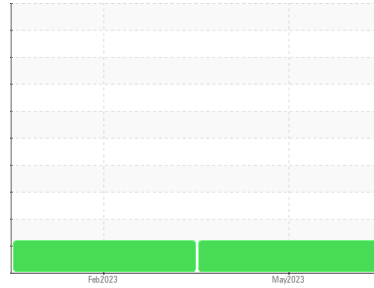




# PROBLEM SUMMARY

## Sample Rating Trend



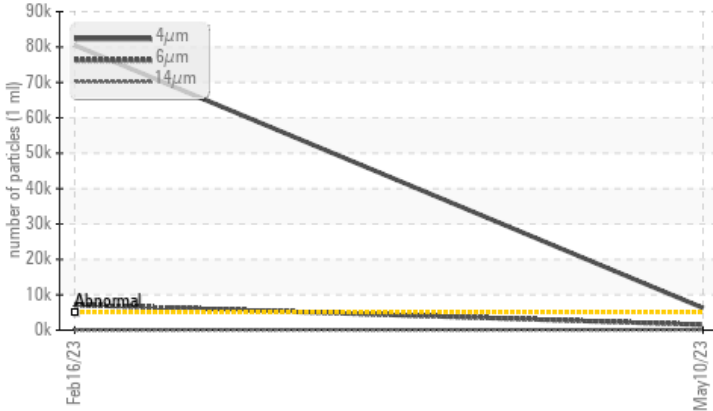
ISO



Machine Id  
**AVURE M1 HPU2**  
 Component  
**Hydraulic System**  
 Fluid  
**STARFIRE AW 32 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	---
Particles >4µm	ASTM D7647	>5000	▲ 6264	▲ 80515	---
Particles >6µm	ASTM D7647	>1300	▲ 1525	▲ 7136	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/18/14	▲ 24/20/13	---

Customer Id: UNIDELOH  
 Sample No.: WC0743763  
 Lab Number: 05854373  
 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](mailto:wesd@wearcheck.ca)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## HISTORICAL DIAGNOSIS

**16 Feb 2023 Diag: Angela Borella**

ISO



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

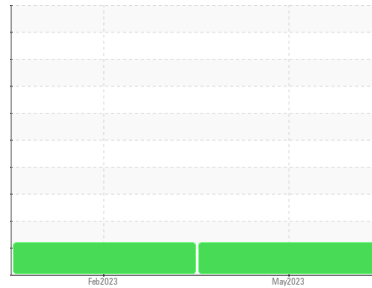
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**AVURE M1 HPU2**  
 Component  
**Hydraulic System**  
 Fluid  
**STARFIRE AW 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid 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		<b>WC0743763</b>	WC0743766	---
Sample Date	Client Info		<b>10 May 2023</b>	16 Feb 2023	---
Machine Age	mths	Client Info	<b>36</b>	0	---
Oil Age	mths	Client Info	<b>3</b>	0	---
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	---
Sample Status			<b>ATTENTION</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>10</b>	8	---
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m >20	<b>7</b>	9	---
Tin	ppm	ASTM D5185m >20	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>4</b>	3	---
Calcium	ppm	ASTM D5185m	<b>52</b>	11	---
Phosphorus	ppm	ASTM D5185m	<b>332</b>	273	---
Zinc	ppm	ASTM D5185m	<b>291</b>	284	---
Sulfur	ppm	ASTM D5185m	<b>1554</b>	1038	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>2</b>	2	---
Sodium	ppm	ASTM D5185m	<b>5</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---

## FLUID CLEANLINESS

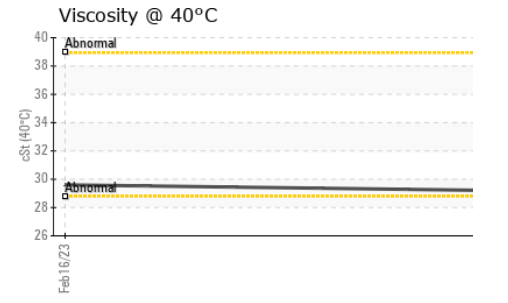
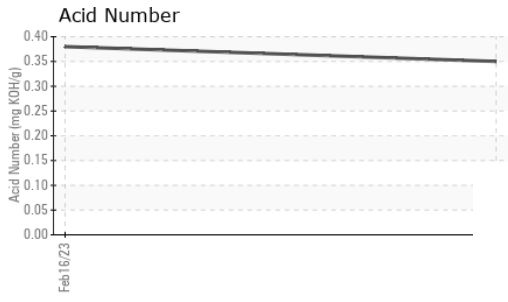
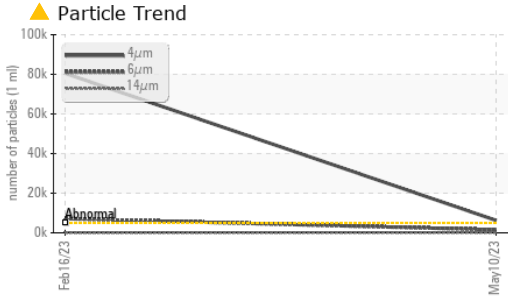
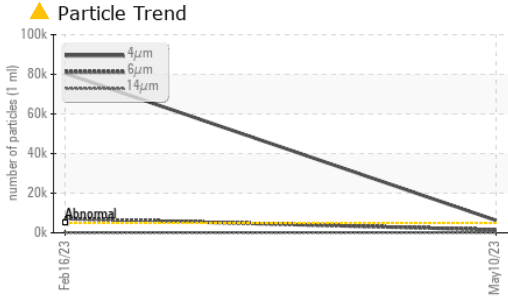
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 6264</b>	▲ 80515	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 1525</b>	▲ 7136	---
Particles >14µm	ASTM D7647	>160	<b>95</b>	52	---
Particles >21µm	ASTM D7647	>40	<b>18</b>	12	---
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 20/18/14</b>	▲ 24/20/13	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.35</b>	0.38	---



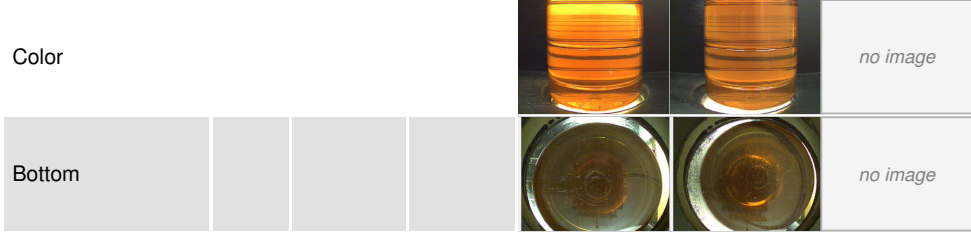
# OIL ANALYSIS REPORT



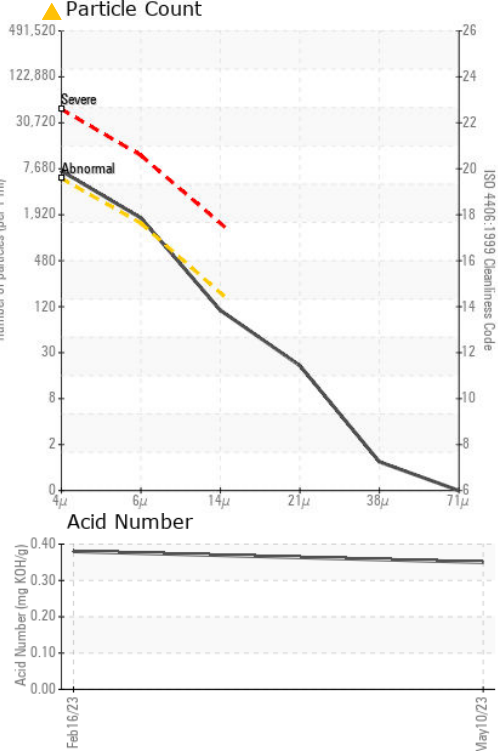
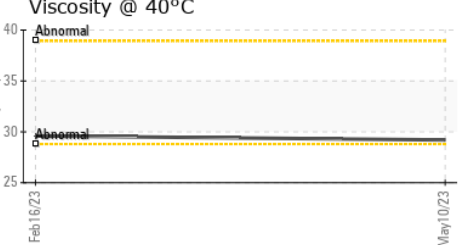
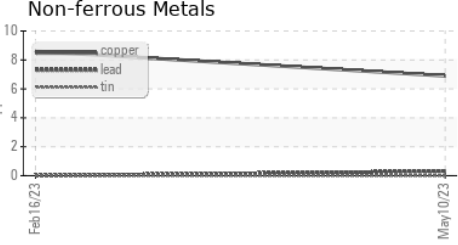
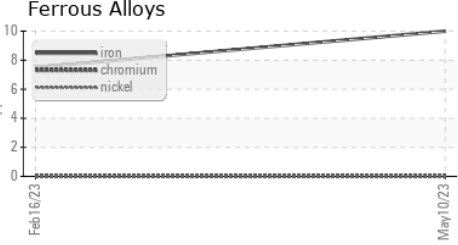
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	29.2	29.6	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0743763 **Received** : 23 May 2023  
**Lab Number** : 05854373 **Diagnosed** : 24 May 2023  
**Unique Number** : 10483728 **Diagnostician** : Wes Davis  
**Test Package** : IND 2

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 DELPHOS, OH  
 US 45833  
 Contact: K BRONSON  
 kbronson@universalpure.com  
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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)