



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**3350917**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0698898</b>	WC0443845	---
Sample Date		Client Info		<b>17 Nov 2022</b>	18 Mar 2020	---
Machine Age	yrs	Client Info		<b>0</b>	0	---
Oil Age	yrs	Client Info		<b>0</b>	0	---
Filter Age	yrs	Client Info		<b>0</b>	1	---
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>6</b>	5	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>75	<b>3</b>	3	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

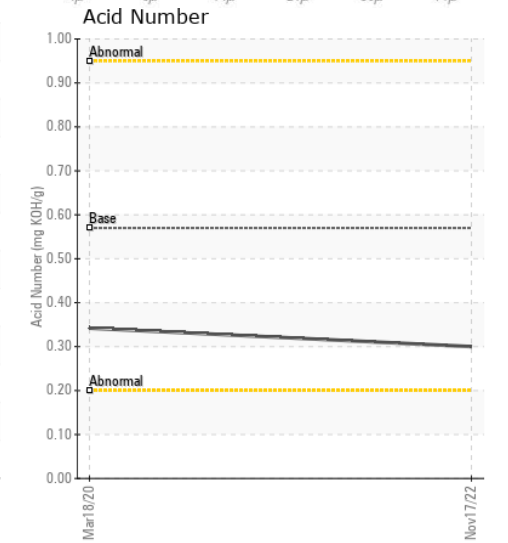
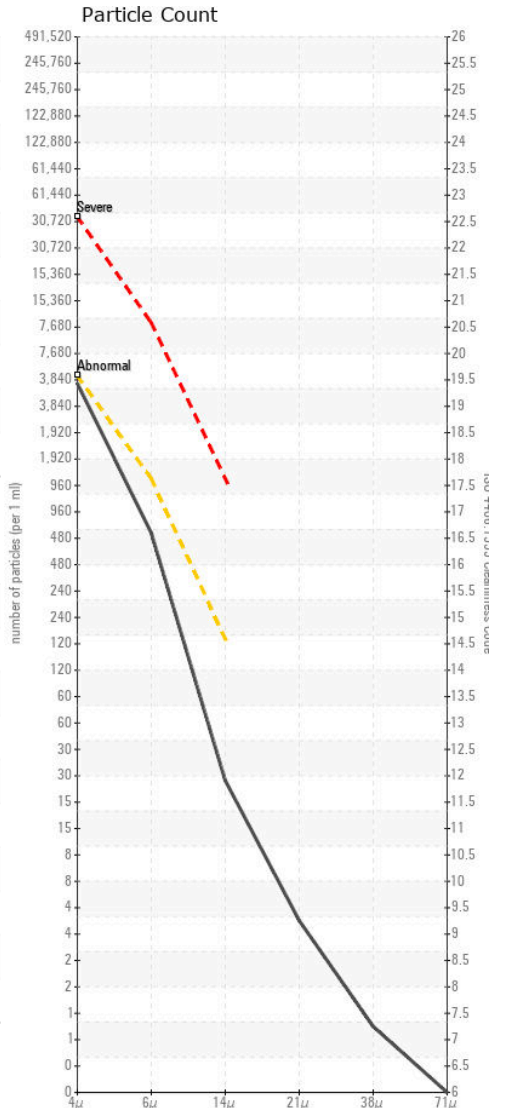
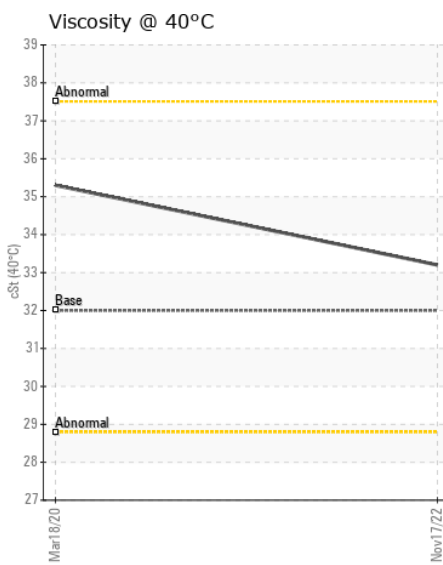
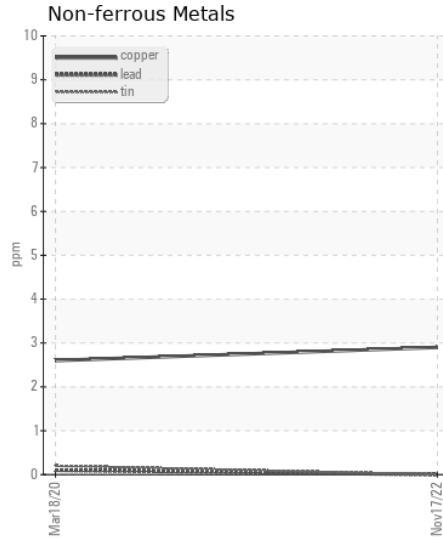
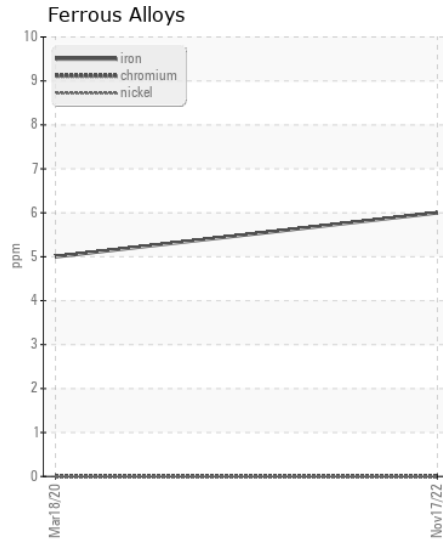
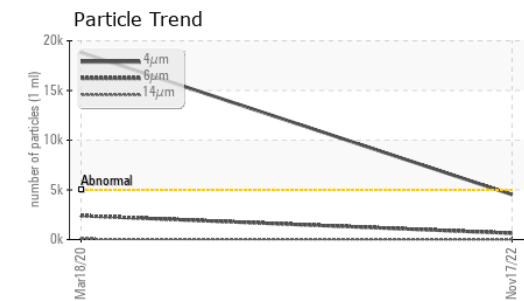
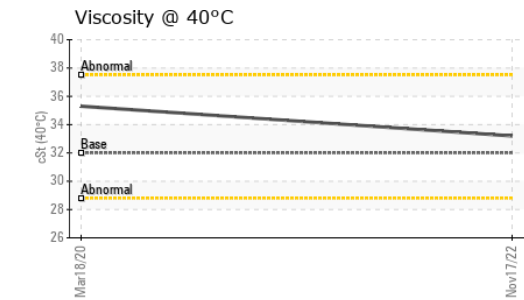
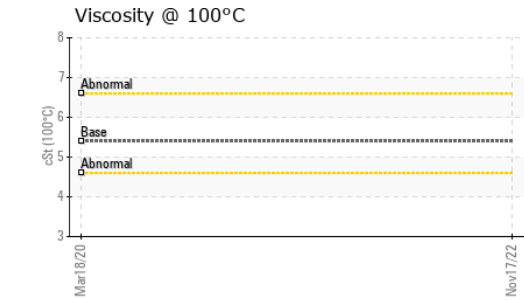
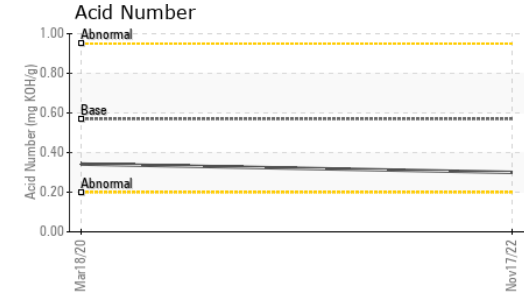
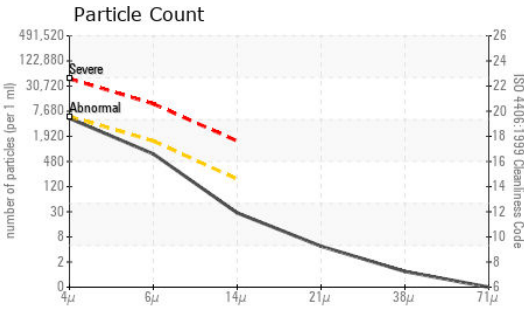
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>4522</b>	▲ 18826	---
Particles >6µm		ASTM D7647	>1300	<b>638</b>	▲ 2400	---
Particles >14µm		ASTM D7647	>160	<b>25</b>	60	---
Particles >21µm		ASTM D7647	>40	<b>4</b>	12	---
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/16/12</b>	▲ 21/18/13	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>VLITE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	---

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Boron	ppm	ASTM D5185m	5	<b>0</b>	6	---
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	1	---
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m	25	<b>4</b>	4	---
Calcium	ppm	ASTM D5185m	200	<b>78</b>	82	---
Phosphorus	ppm	ASTM D5185m	300	<b>349</b>	364	---
Zinc	ppm	ASTM D5185m	370	<b>454</b>	456	---
Sulfur	ppm	ASTM D5185m	2500	<b>4443</b>	3357	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.30</b>	0.342	---
Visc @ 40°C	cSt	ASTM D445	32	<b>33.2</b>	35.3	---
Visc @ 100°C	cSt	ASTM D445	5.4	<b>6.6</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270	102	<b>158</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0698898 **Received** : 17 Feb 2023  
**Lab Number** : 05771267 **Diagnosed** : 20 Feb 2023  
**Unique Number** : 10345884 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

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)

**HIAB USA - MIDWEST**  
 2827 COMMERCE ST  
 FRANKLIN PARK, IL  
 US 60131  
 Contact: KEITH BECKER  
 keith.becker@hiabusa.com  
 T: (847)915-9560  
 F: (847)288-0192