



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**HIAB 3222425**  
Component  
**Hydraulic System**  
Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0674627</b>	WC0497906	WC0354421
Sample Date		Client Info		<b>26 Jan 2023</b>	26 Jan 2022	08 May 2020
Machine Age	mls	Client Info		<b>63175</b>	51594	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>75	<b>1</b>	1	1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

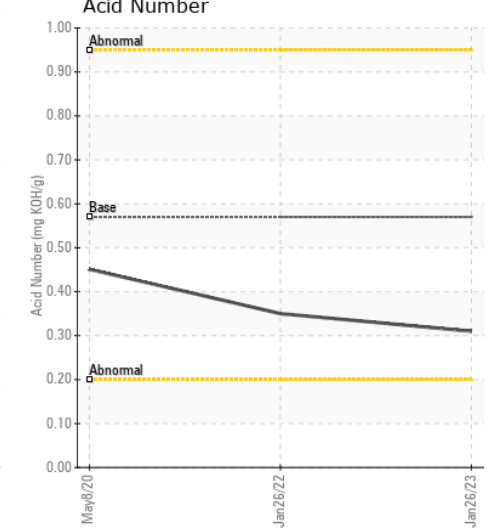
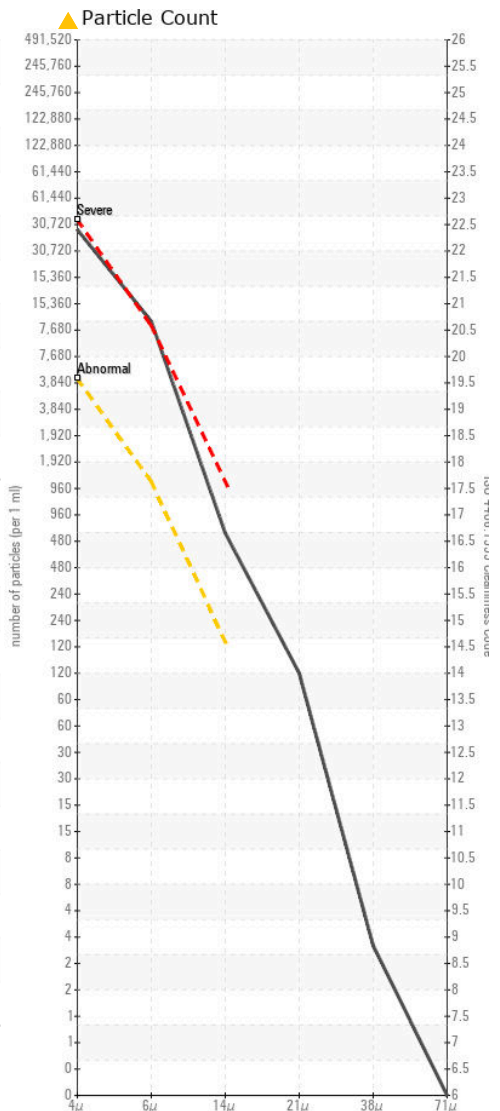
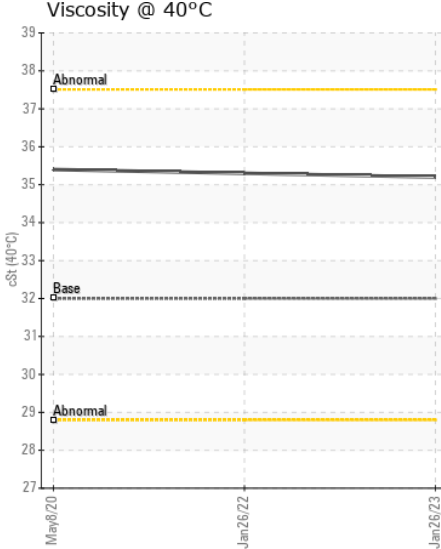
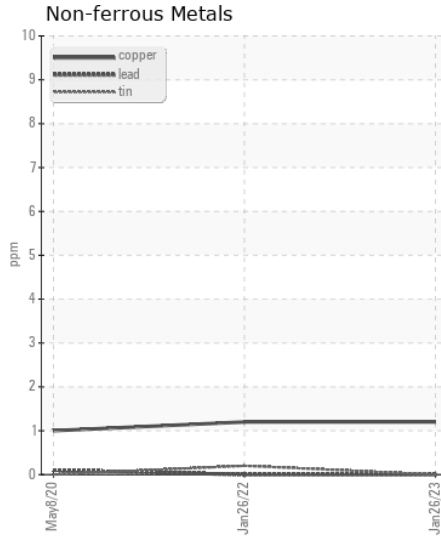
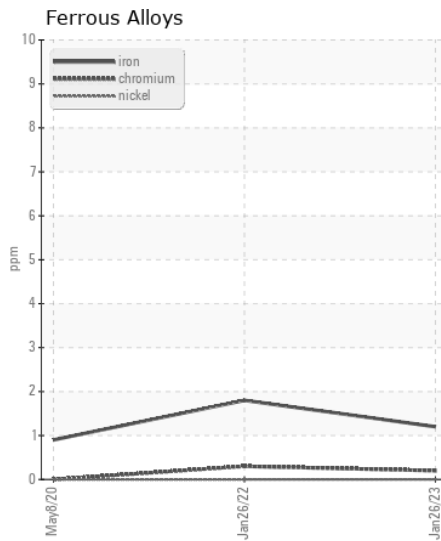
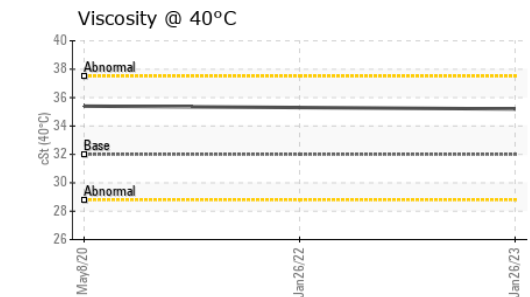
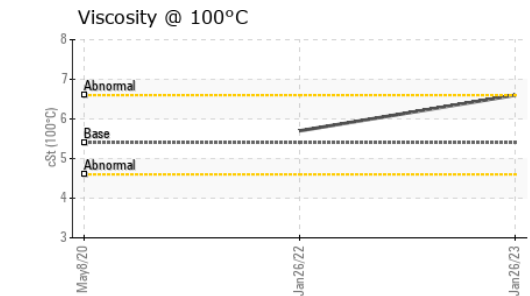
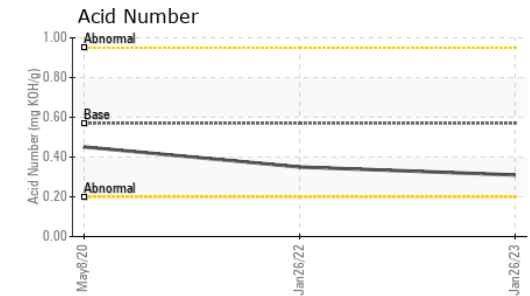
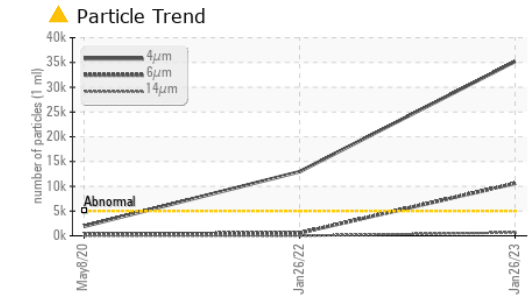
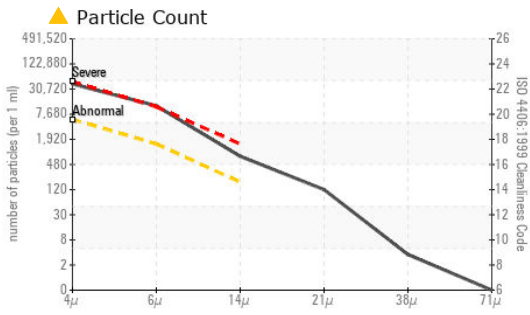
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 35201</b>	▲ 12948	1898
Particles >6µm		ASTM D7647	>1300	<b>▲ 10586</b>	563	324
Particles >14µm		ASTM D7647	>160	<b>▲ 663</b>	13	31
Particles >21µm		ASTM D7647	>40	<b>▲ 106</b>	3	9
Particles >38µm		ASTM D7647	>10	<b>3</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 22/21/17</b>	▲ 21/16/11	18/16/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>VLITE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	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>0</b>	0	<1
Boron	ppm	ASTM D5185m	5	<b>0</b>	<1	4
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	25	<b>1</b>	0	1
Calcium	ppm	ASTM D5185m	200	<b>54</b>	57	59
Phosphorus	ppm	ASTM D5185m	300	<b>332</b>	349	361
Zinc	ppm	ASTM D5185m	370	<b>438</b>	437	458
Sulfur	ppm	ASTM D5185m	2500	<b>4249</b>	3184	3424
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.31</b>	0.350	0.451
Visc @ 40°C	cSt	ASTM D445	32	<b>35.2</b>	35.3	35.4
Visc @ 100°C	cSt	ASTM D445	5.4	<b>6.6</b>	5.7	---
Viscosity Index (VI)	Scale	ASTM D2270	102	<b>145</b>	99	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0674627 **Received** : 17 Feb 2023  
**Lab Number** : 05771263 **Diagnosed** : 20 Feb 2023  
**Unique Number** : 10345880 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

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Certificate L2367  
 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)