



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id  
**HC2235**  
Component  
**Hydraulic System**  
Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## RECOMMENDATION

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>WC0936091</b>	WC0892899	WC0761811
Sample Date		Client Info		<b>04 May 2024</b>	07 Mar 2024	21 Aug 2023
Machine Age	hrs	Client Info		<b>1540</b>	1343	800
Oil Age	hrs	Client Info		<b>1000</b>	0	800
Filter Age	hrs	Client Info		<b>0</b>	0	800
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
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>	2	0
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>75	<b>0</b>	2	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</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

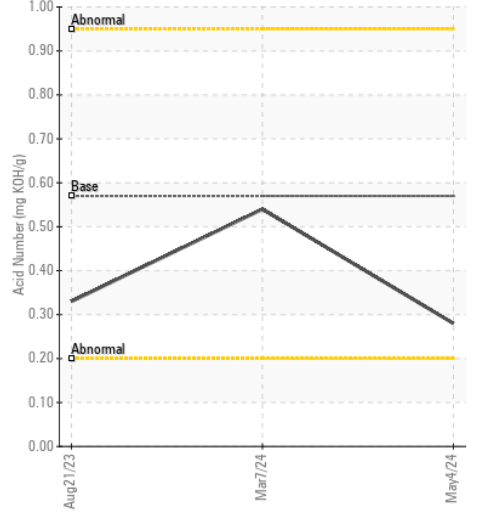
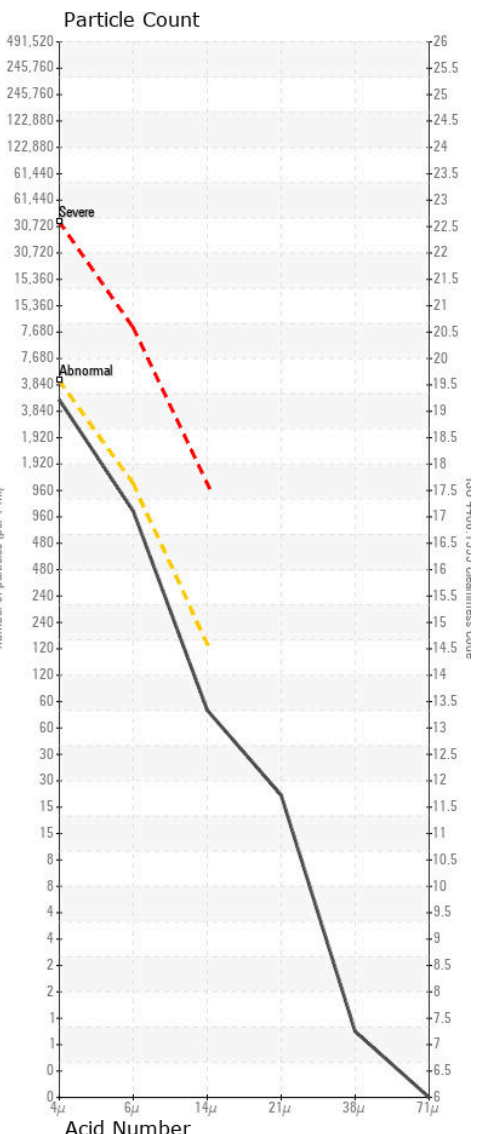
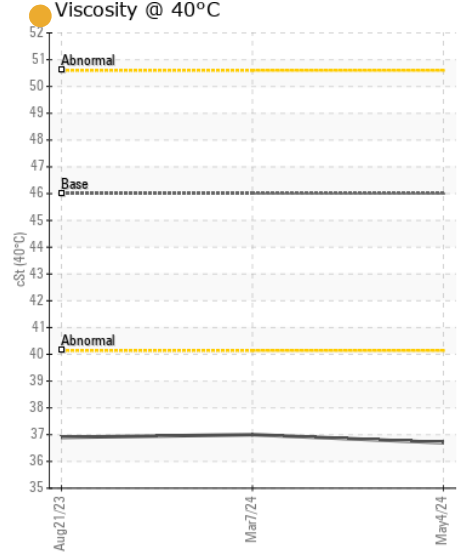
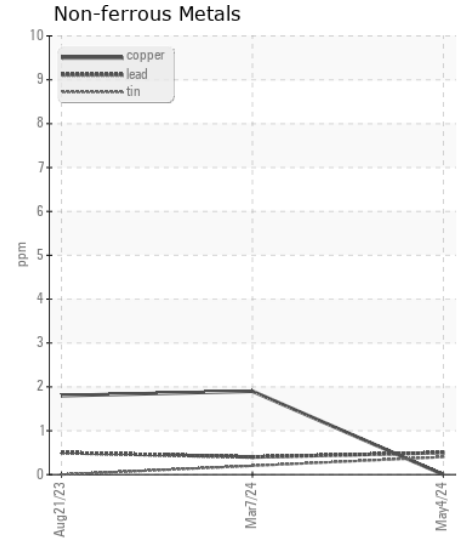
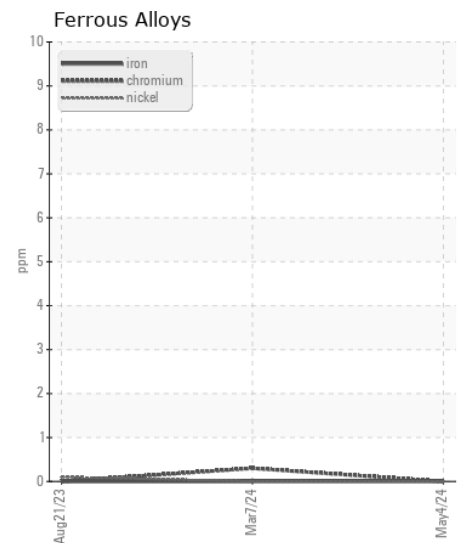
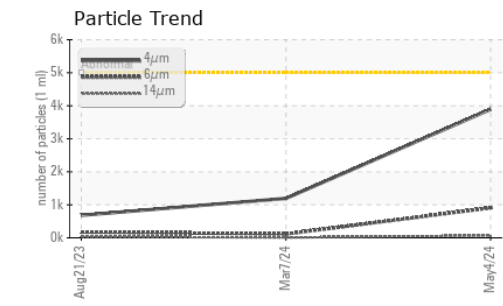
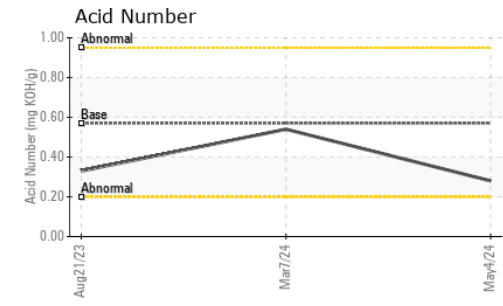
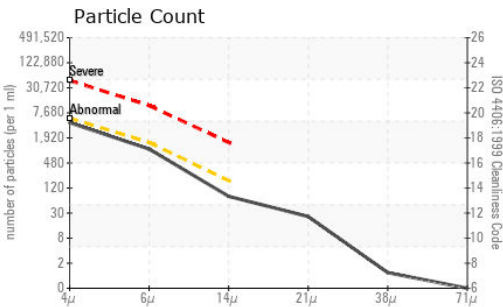
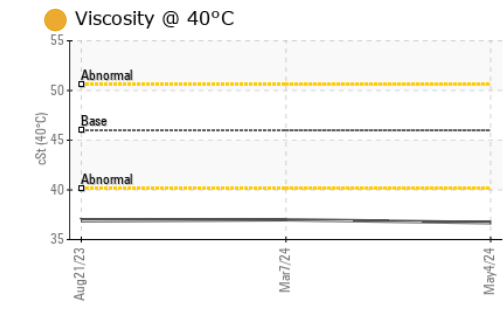
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>3892</b>	1194	682
Particles >6µm		ASTM D7647	>1300	<b>908</b>	114	174
Particles >14µm		ASTM D7647	>160	<b>67</b>	8	29
Particles >21µm		ASTM D7647	>40	<b>22</b>	3	12
Particles >38µm		ASTM D7647	>10	<b>1</b>	0	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/17/13</b>	17/14/10	17/15/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</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 oil viscosity is lower than normal. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	25	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	200	<b>43</b>	39	38
Phosphorus	ppm	ASTM D5185m	300	<b>285</b>	235	269
Zinc	ppm	ASTM D5185m	370	<b>339</b>	316	343
Sulfur	ppm	ASTM D5185m	2500	<b>1212</b>	911	985
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.28</b>	0.54	0.33
Visc @ 40°C	cSt	ASTM D445	46	<b>36.7</b>	37.0	36.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0936091 **Received** : 09 May 2024  
**Lab Number** : 06174582 **Tested** : 10 May 2024  
**Unique Number** : 11020635 **Diagnosed** : 13 May 2024 - Don Baldrige  
**Test Package** : CONST

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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)