



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Machine Id  
**HRB BAILER HRB**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 32 (500 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PTK0004874</b>	PTK0004650	PTKM2280709
Sample Date		Client Info		<b>06 Dec 2023</b>	21 Jul 2023	14 Dec 2022
Machine Age	hrs	Client Info		<b>2918</b>	58589	58588
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Changed
Filter Changed		Client Info		<b>N/A</b>	Not Changd	N/A
Sample Status				<b>ATTENTION</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>2</b>	4	4
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
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>	1	0
Copper	ppm	ASTM D5185m	>75	<b>32</b>	31	21
Tin	ppm	ASTM D5185m	>10	<b>0</b>	1	<1
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

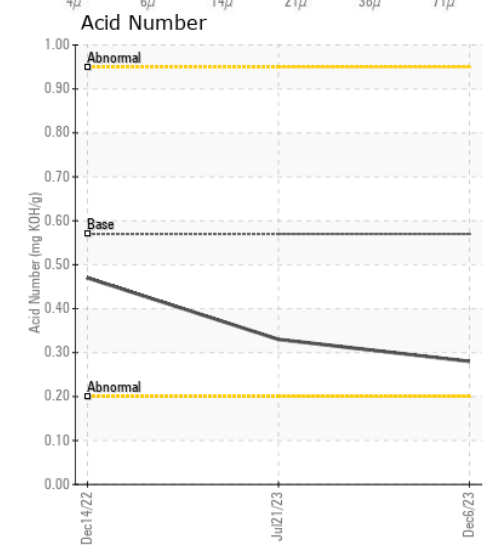
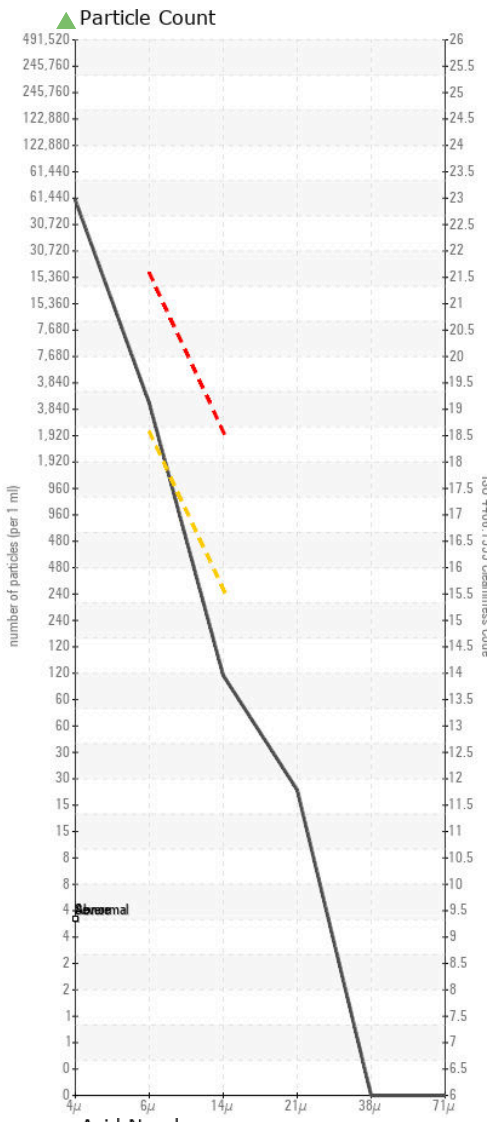
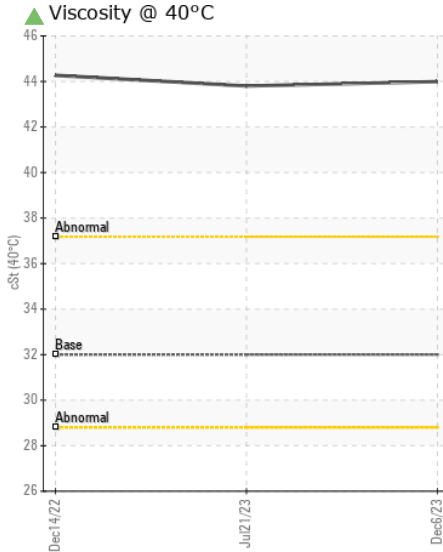
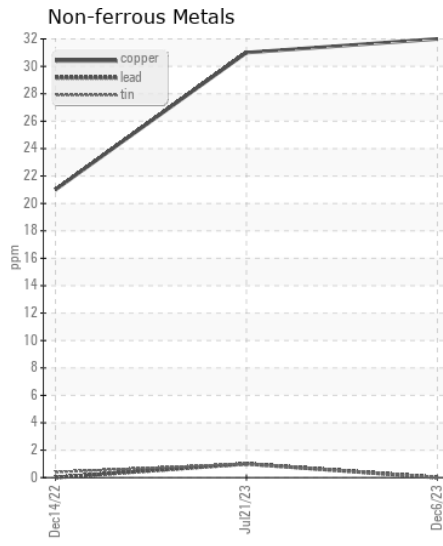
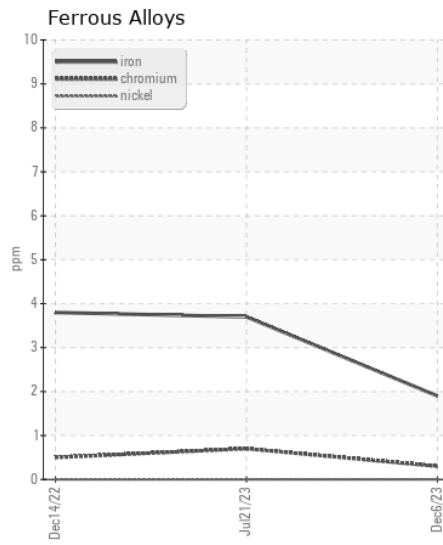
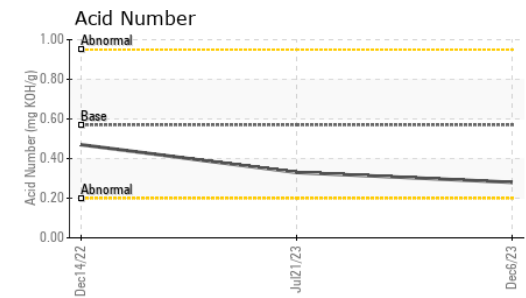
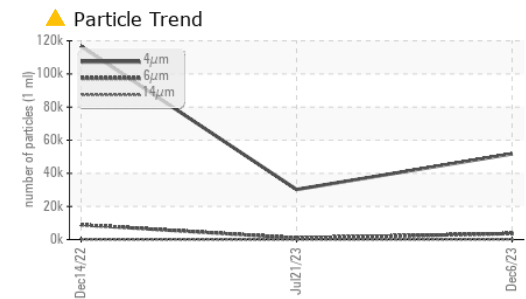
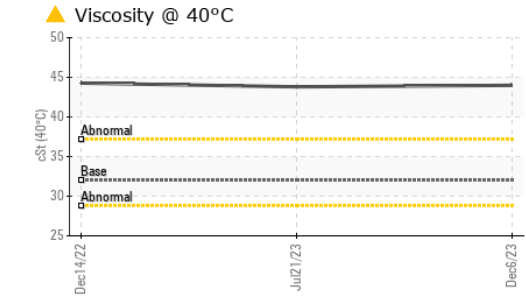
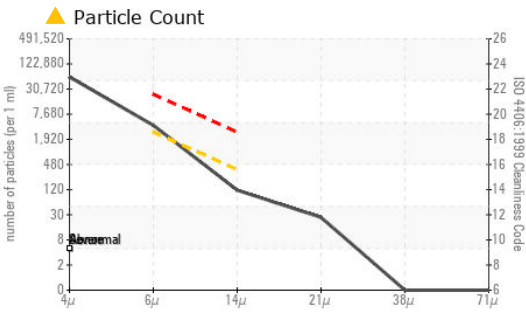
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>51772</b>	30235	116643
Particles >6µm		ASTM D7647	>2500	<b>▲ 3632</b>	957	▲ 8890
Particles >14µm		ASTM D7647	>320	<b>103</b>	24	18
Particles >21µm		ASTM D7647	>80	<b>23</b>	5	4
Particles >38µm		ASTM D7647	>20	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/15	<b>▲ 23/19/14</b>	22/17/12	▲ 24/20/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	▲ HAZY
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	▲ 0.2%

## FLUID CONDITION

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>4</b>	0	<1
Boron	ppm	ASTM D5185m	5	<b>1</b>	3	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	2	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	25	<b>0</b>	16	14
Calcium	ppm	ASTM D5185m	200	<b>115</b>	152	144
Phosphorus	ppm	ASTM D5185m	300	<b>330</b>	372	381
Zinc	ppm	ASTM D5185m	370	<b>425</b>	470	457
Sulfur	ppm	ASTM D5185m	2500	<b>690</b>	1063	1095
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.28</b>	0.33	0.47
Visc @ 40°C	cSt	ASTM D445	32	<b>▲ 43.99</b>	43.8	▲ 44.27



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PTK0004874 **Received** : 29 Dec 2023  
**Lab Number** : 06048305 **Diagnosed** : 04 Jan 2024  
**Unique Number** : 10808913 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

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)

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