



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**CAR UNLOADER (S/N 153)**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (30 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PTK0003385</b>	PTK0003397	PTK0004440
Sample Date		Client Info		<b>23 May 2024</b>	13 Feb 2024	22 Aug 2023
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>0</b>	0	0
Filter Age	mths	Client Info		<b>3</b>	3	3
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## 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	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>	2	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	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

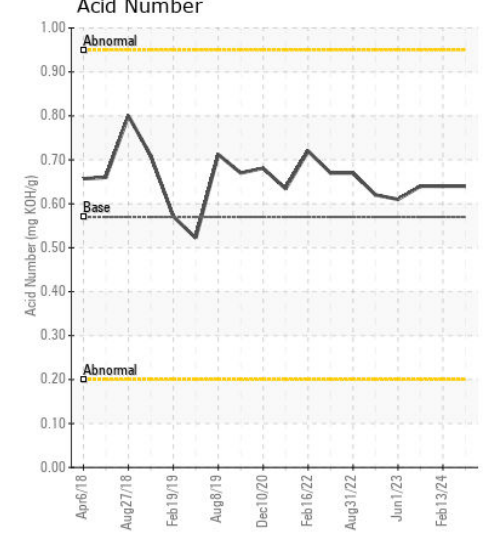
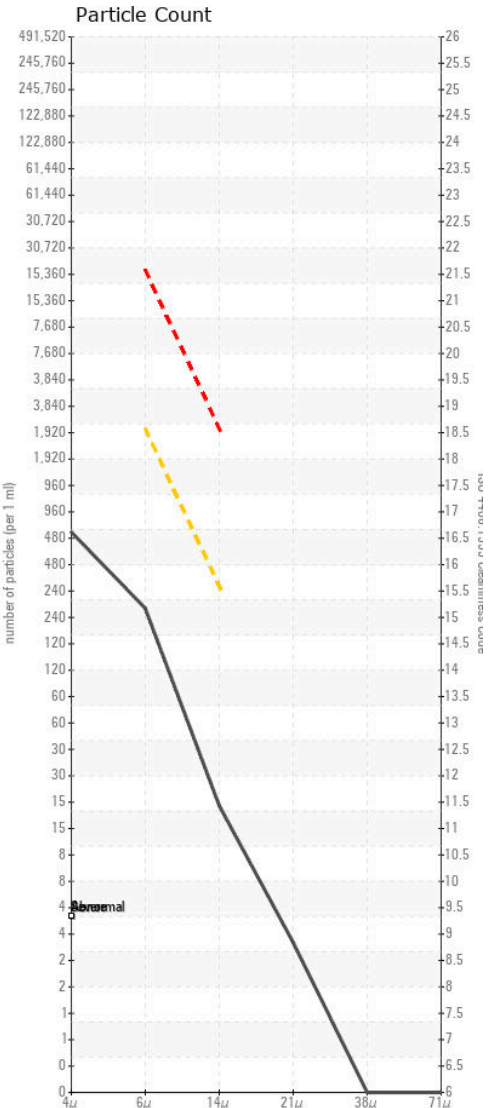
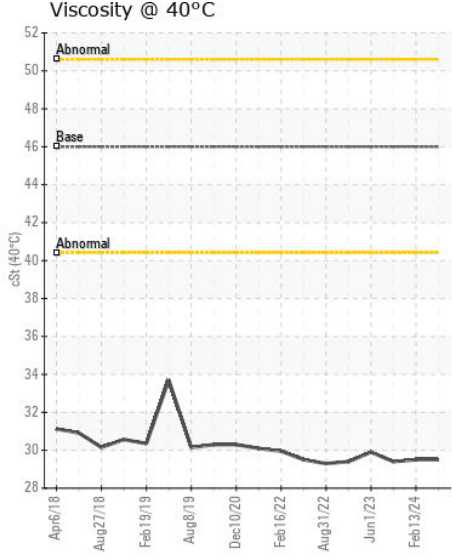
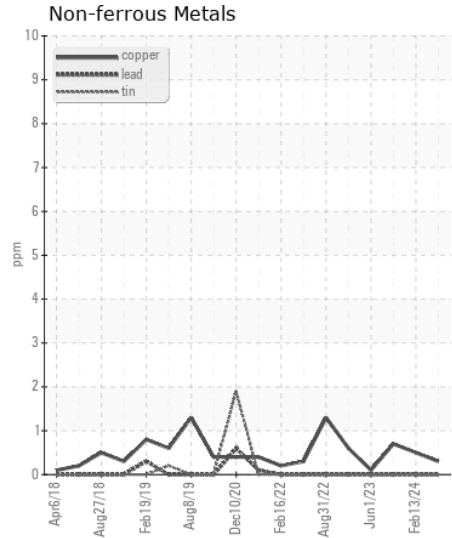
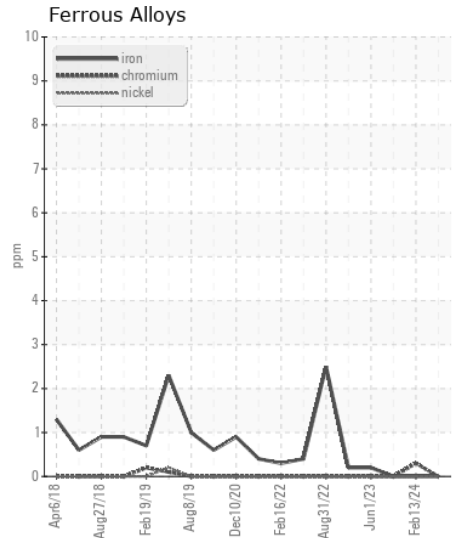
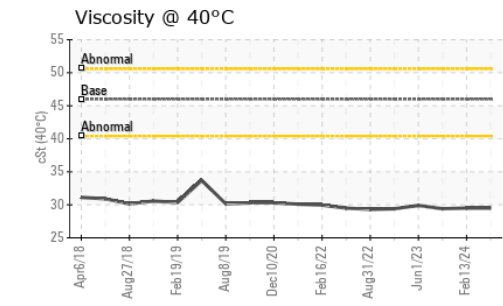
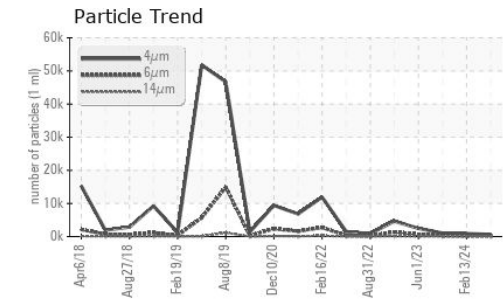
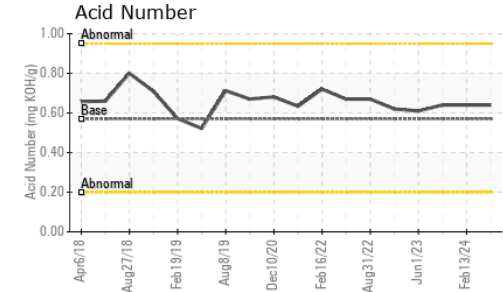
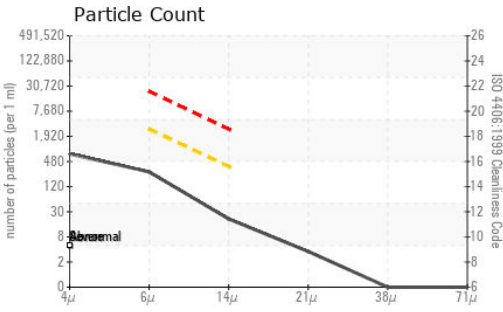
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>0</b>	2	1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>645</b>	890	1038
Particles >6µm		ASTM D7647	>2500	<b>238</b>	181	265
Particles >14µm		ASTM D7647	>320	<b>18</b>	12	29
Particles >21µm		ASTM D7647	>80	<b>3</b>	4	10
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>15/11</b>	15/11	15/12
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	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>1</b>	0	0
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m	5	<b>131</b>	133	149
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	25	<b>0</b>	1	1
Calcium	ppm	ASTM D5185m	200	<b>41</b>	44	45
Phosphorus	ppm	ASTM D5185m	300	<b>447</b>	417	435
Zinc	ppm	ASTM D5185m	370	<b>422</b>	413	449
Sulfur	ppm	ASTM D5185m	2500	<b>1404</b>	1257	1538
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.64</b>	0.64	0.64
Visc @ 40°C	cSt	ASTM D445	46	<b>29.5</b>	29.5	29.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PTK0003385  
**Lab Number** : 06197599  
**Unique Number** : 11059722  
**Test Package** : MOB 2  
**Received** : 03 Jun 2024  
**Tested** : 04 Jun 2024  
**Diagnosed** : 04 Jun 2024 - Don Baldrige

**MUTUAL MATERIALS**  
 7414 S 206TH ST  
 KENT, WA  
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 Contact: SUTTON CHRISTIANSON  
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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)