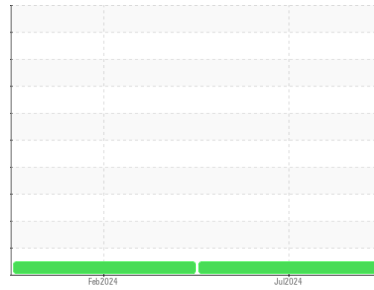




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**STACKER 1**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

#### Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PTK0004660</b>	PTK0004665	---
Sample Date	Client Info			<b>10 Jul 2024</b>	18 Feb 2024	---
Machine Age	hrs	Client Info		<b>0</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>Filtered</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>20	<b>2</b>	<1	---
Tin	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

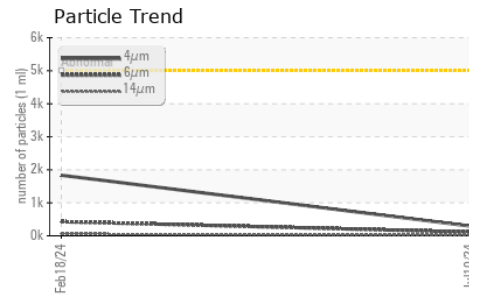
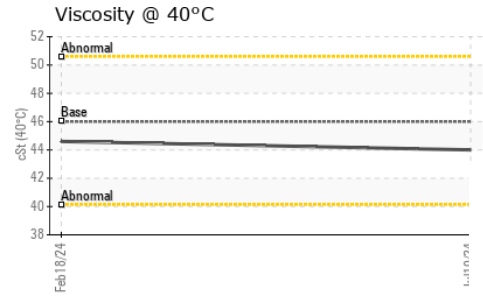
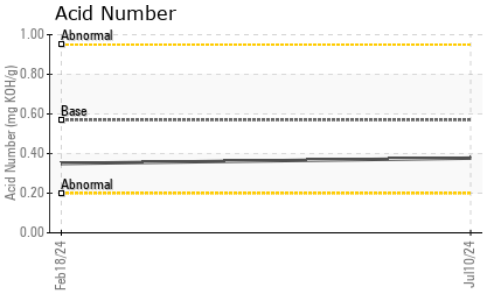
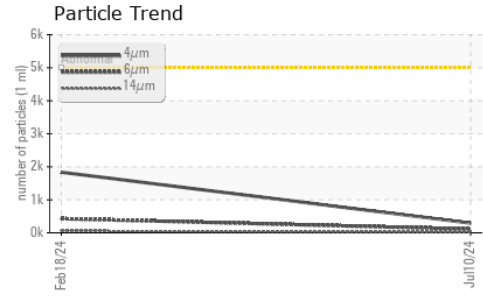
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	1	---
Manganese	ppm	ASTM D5185m		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	25	<b>2</b>	2	---
Calcium	ppm	ASTM D5185m	200	<b>30</b>	46	---
Phosphorus	ppm	ASTM D5185m	300	<b>308</b>	352	---
Zinc	ppm	ASTM D5185m	370	<b>354</b>	435	---
Sulfur	ppm	ASTM D5185m	2500	<b>4719</b>	2365	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>1</b>	<1	---
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>294</b>	1835	---
Particles >6µm		ASTM D7647	>1300	<b>113</b>	428	---
Particles >14µm		ASTM D7647	>160	<b>23</b>	57	---
Particles >21µm		ASTM D7647	>40	<b>7</b>	24	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	1	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>15/14/12</b>	18/16/13	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.377</b>	0.35	---

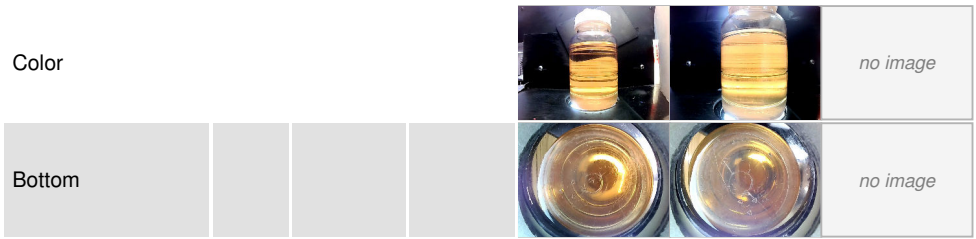
# OIL ANALYSIS REPORT



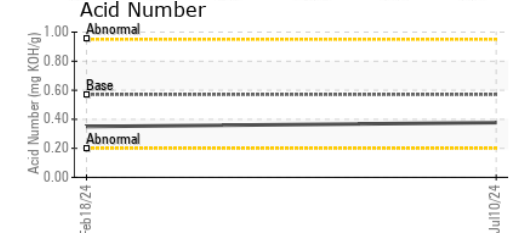
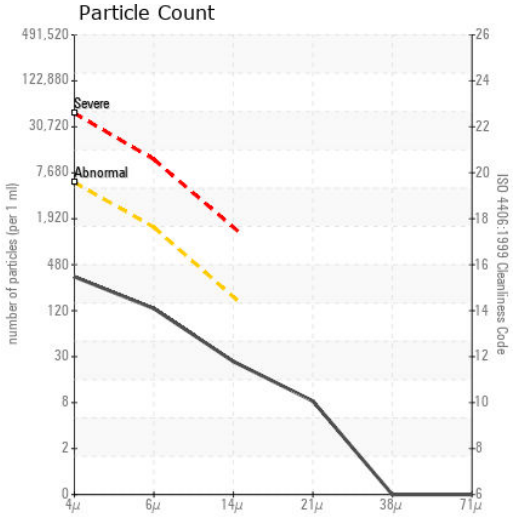
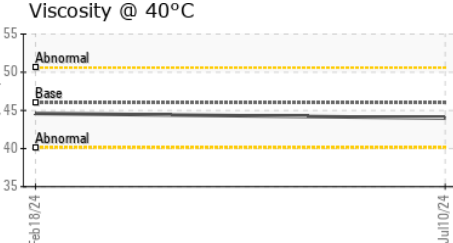
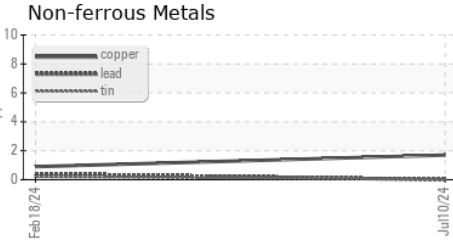
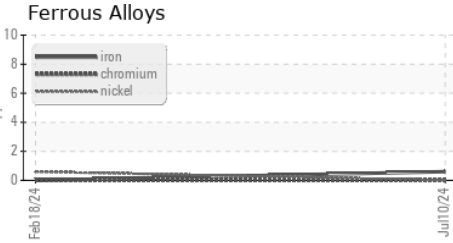
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	<b>44.0</b>	44.6	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PTK0004660      **Received** : 17 Jul 2024  
**Lab Number** : **06239119**      **Tested** : 18 Jul 2024  
**Unique Number** : 11127953      **Diagnosed** : 19 Jul 2024 - Don Baldrige  
**Test Package** : MOB 2

**PACKAGING CORPORATION OF AMERICA**  
 4300 OLSON MEMORIAL HWY  
 GOLDEN VALLEY, MN  
 US 55422  
 Contact: BOB SPECHTENHAUSER  
 bospechtenhauser@packagingcorp.com

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)