



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**MAIN UNIT (S/N M1155)**  
 Component  
**Hydraulic System**  
 Fluid  
**LUBE PLUS AW 46 (--- 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		PH0003787	---	---
Sample Date		Client Info		10 Jun 2024	---	---
Machine Age	hrs	Client Info		3279	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	4	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	2	---	---
Lead	ppm	ASTM D5185m	>10	0	---	---
Copper	ppm	ASTM D5185m	>75	<1	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal.

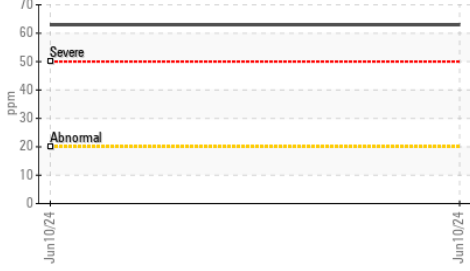
Silicon	ppm	ASTM D5185m	>20	▲ 63	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>10000	● 10016	---	---
Particles >6µm		ASTM D7647	>2500	● 3345	---	---
Particles >14µm		ASTM D7647	>320	151	---	---
Particles >21µm		ASTM D7647	>80	18	---	---
Particles >38µm		ASTM D7647	>20	1	---	---
Particles >71µm		ASTM D7647	>4	0	---	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● 21/19/14	---	---
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	>0.1	NEG	---	---

## FLUID CONDITION

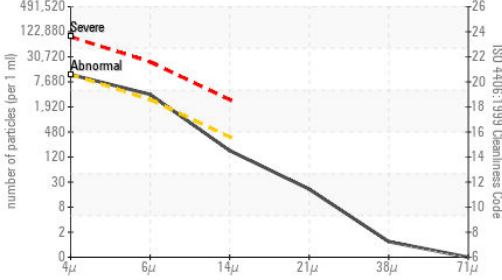
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m		<1	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		2	---	---
Calcium	ppm	ASTM D5185m		4	---	---
Phosphorus	ppm	ASTM D5185m		203	---	---
Zinc	ppm	ASTM D5185m		273	---	---
Sulfur	ppm	ASTM D5185m		544	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.27	---	---
Visc @ 40°C	cSt	ASTM D445		42.4	---	---

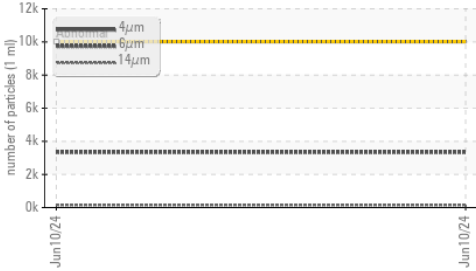
**▲ Silicon (ppm)**



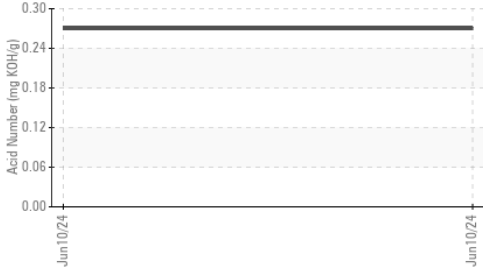
**● Particle Count**



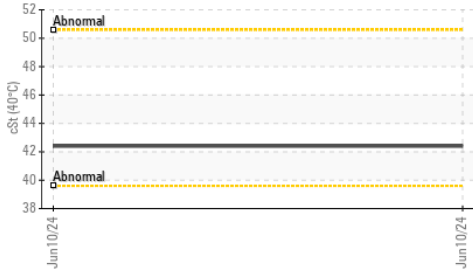
**● Particle Trend**



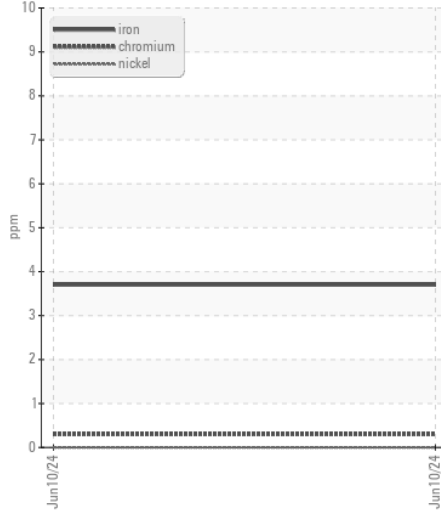
**Acid Number**



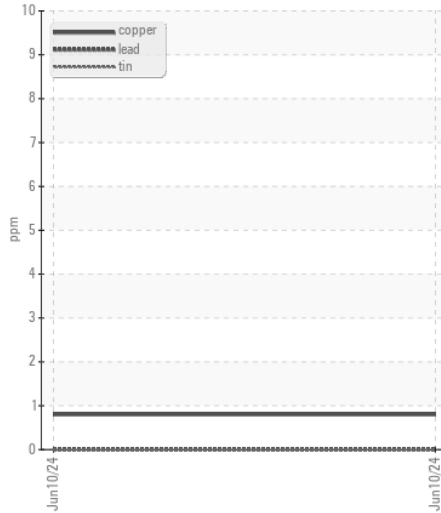
**Viscosity @ 40°C**



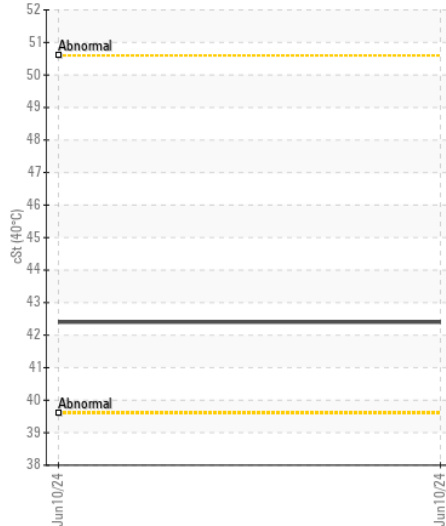
**Ferrous Alloys**



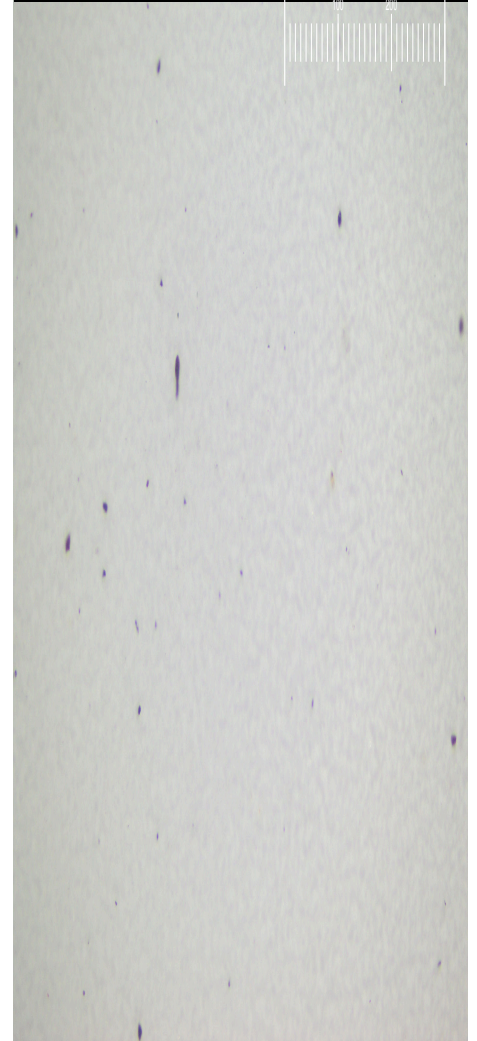
**Non-ferrous Metals**



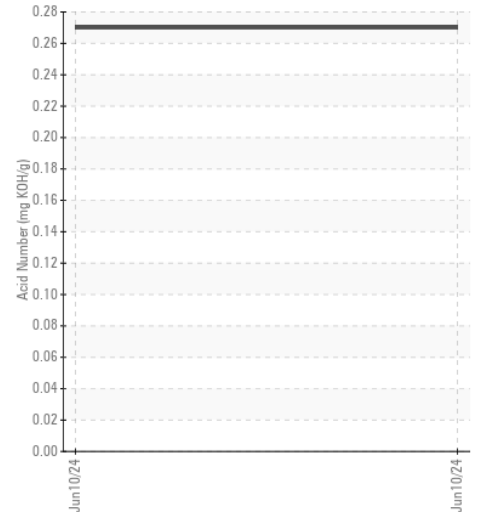
**Viscosity @ 40°C**



**Particle Filter (Magn; 200 x)**



**Acid Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PH0003787 **Received** : 19 Jun 2024  
**Lab Number** : 06214655 **Tested** : 24 Jun 2024  
**Unique Number** : 11087519 **Diagnosed** : 24 Jun 2024 - Doug Bogart  
**Test Package** : PLANT ( Additional Tests: PrtFilter )

**WILLBANKS METALS**  
 1155 NE 28TH ST  
 FORT WORTH, TX  
 US 76106  
 Contact: Service Manager

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)

T:  
F: