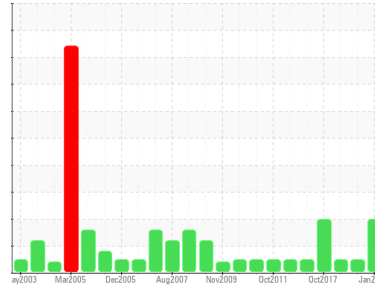


# PROBLEM SUMMARY

Sample Rating Trend



ISO



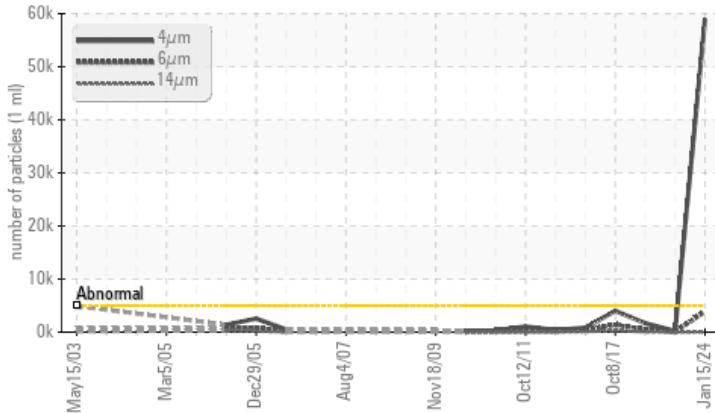
Machine Id  
**MACHINE 26 (S/N 77109)**

Component  
**Hydraulic System**

Fluid  
**ESSO NUTO H ISO 46 (450 GAL)**

## COMPONENT CONDITION SUMMARY

Particle Trend



## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	NORMAL	NORMAL
Particles >4µm	ASTM D7647	>5000	59005	198	1696
Particles >6µm	ASTM D7647	>1300	3909	61	515
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/19/11	15/13/11	18/16/13

Customer Id: PLAROM  
Sample No.: RP0038663  
Lab Number: 06061099  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

## HISTORICAL DIAGNOSIS

**18 Jan 2021 Diag: Jonathan Hester**

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



**09 Sep 2018 Diag: Don Baldrige**

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



**08 Oct 2017 Diag: Don Baldrige**

ISO



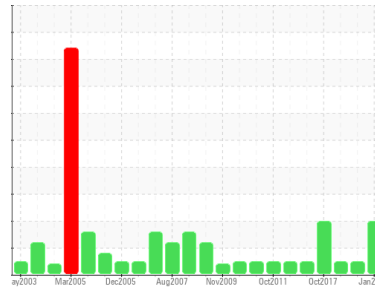
No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**MACHINE 26 (S/N 77109)**  
 Component  
**Hydraulic System**  
 Fluid  
**ESSO NUTO H ISO 46 (450 GAL)**

## DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RP0038663</b>	RP0007495	RP99304
Sample Date	Client Info		<b>15 Jan 2024</b>	18 Jan 2021	09 Sep 2018
Machine Age	yrs	Client Info	<b>0</b>	0	0
Oil Age	yrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>4</b>	3	3
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185m >20	<b>4</b>	5	4
Tin	ppm	ASTM D5185m >20	<b>1</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 5	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m 50	<b>45</b>	31	41
Phosphorus	ppm	ASTM D5185m 330	<b>351</b>	343	336
Zinc	ppm	ASTM D5185m 410	<b>409</b>	331	390

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	7	1
Water	%	ASTM D6304 >0.05	<b>0.010</b>	0.017	0.018
ppm Water	ppm	ASTM D6304 >500	<b>103</b>	172.7	180

## FLUID CLEANLINESS

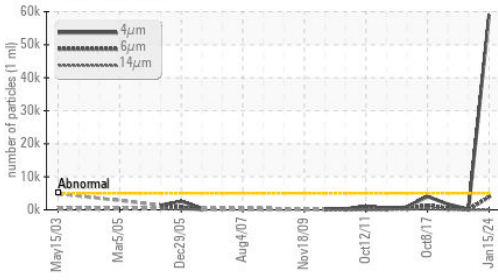
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>59005</b>	198	1696
Particles >6µm	ASTM D7647	>1300	<b>3909</b>	61	515
Particles >14µm	ASTM D7647	>160	<b>18</b>	12	46
Particles >21µm	ASTM D7647	>40	<b>3</b>	5	15
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>23/19/11</b>	15/13/11	18/16/13

## FLUID DEGRADATION

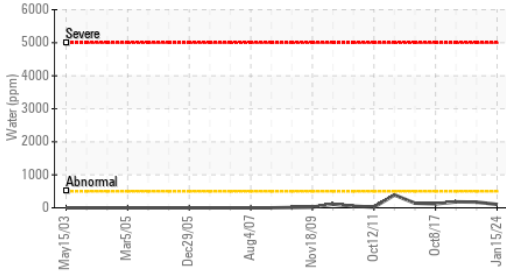
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.45	<b>0.49</b>	0.365	0.452

# OIL ANALYSIS REPORT

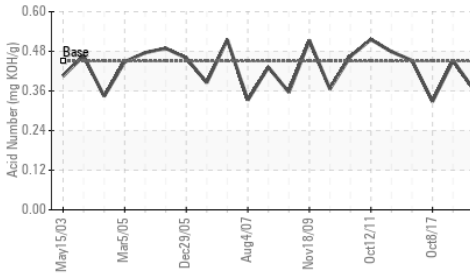
## Particle Trend



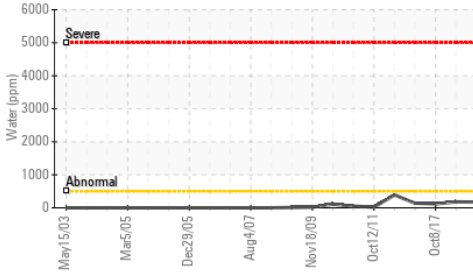
## Water (KF)



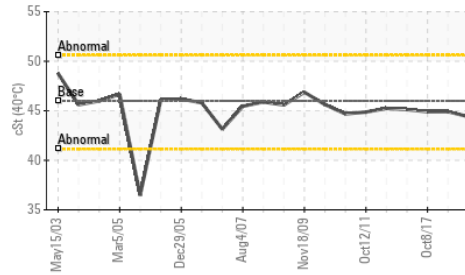
## Acid Number



## Water (KF)



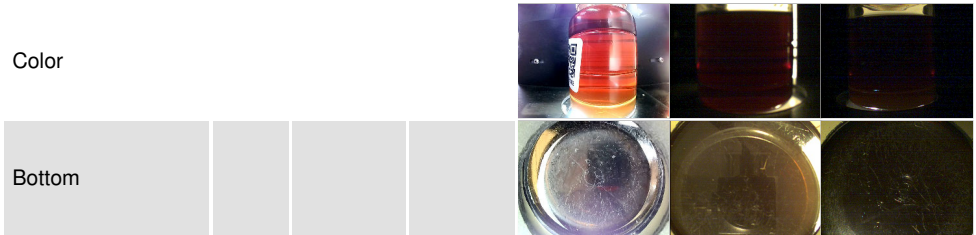
## Viscosity @ 40°C



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

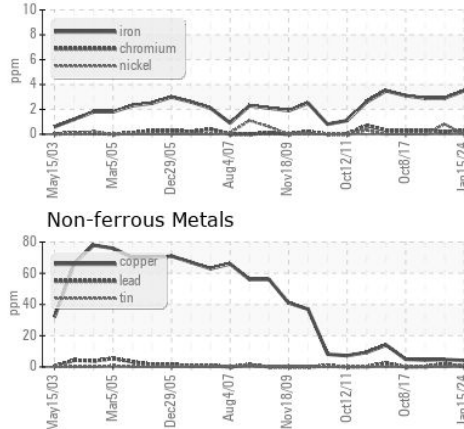
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	43.6	44.4	44.91

SAMPLE IMAGES	method	limit/base	current	history1	history2
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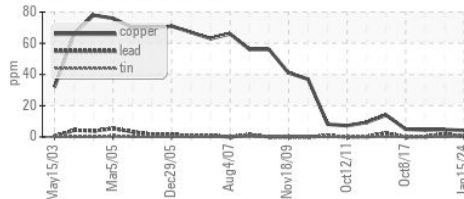


## GRAPHS

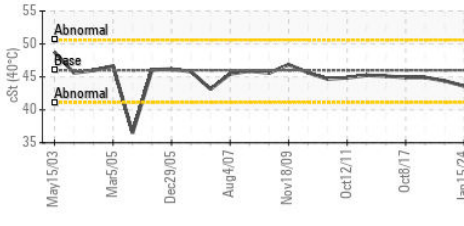
### Ferrous Alloys



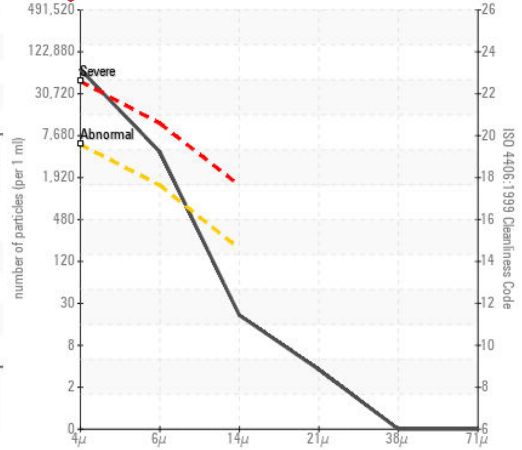
### Non-ferrous Metals



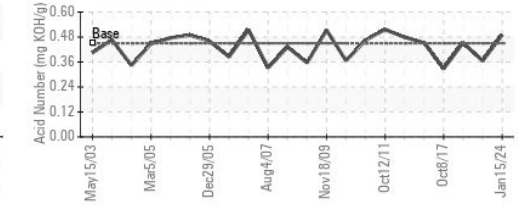
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0038663 **Recieved** : 16 Jan 2024  
**Lab Number** : 06061099 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832481 **Diagnostician** : Wes Davis  
**Test Package** : IND 2

**YANFENG - ROMULUS**  
 9800 INKSTER RD  
 ROMULUS, MI  
 US 48174  
 Contact: AARON BLIESNER  
 aaron.bliesner@yanfeng.com  
 T:

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)

F: (734)946-0237