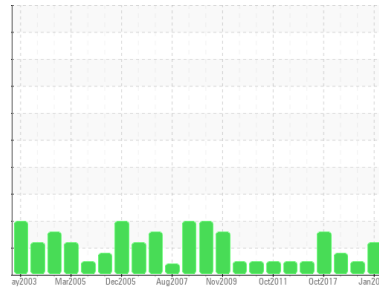


# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**MACHINE 8 (S/N 35766H)**

Component  
**Hydraulic System**

Fluid  
**ESSO NUTO H ISO 46 (--- LTR)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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>RP0038678</b>	RP0007365	RP73126
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>ABNORMAL</b>	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>1</b>	3	2
Chromium	ppm	ASTM D5185m	>20	<b>0</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>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>4</b>	4	5
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</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>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	5	<b>0</b>	1	0
Calcium	ppm	ASTM D5185m	50	<b>31</b>	10	22
Phosphorus	ppm	ASTM D5185m	330	<b>335</b>	379	344
Zinc	ppm	ASTM D5185m	410	<b>402</b>	368	345

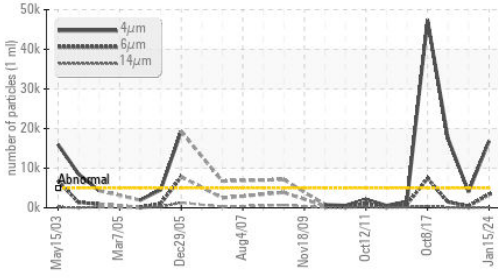
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Water	%	ASTM D6304	>0.05	<b>0.007</b>	0.013	0.018
ppm Water	ppm	ASTM D6304	>500	<b>77</b>	138.5	180

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>▲ 16864</b>	4041	<b>▲ 17509</b>
Particles >6µm		ASTM D7647	>1300	<b>▲ 3343</b>	405	<b>▲ 1477</b>
Particles >14µm		ASTM D7647	>160	<b>131</b>	32	103
Particles >21µm		ASTM D7647	>40	<b>33</b>	9	35
Particles >38µm		ASTM D7647	>10	<b>2</b>	0	3
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/19/14</b>	19/16/12	<b>▲ 21/18/14</b>

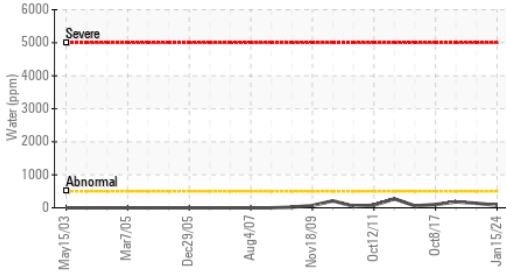
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.45	<b>0.47</b>	0.352	0.415

# OIL ANALYSIS REPORT

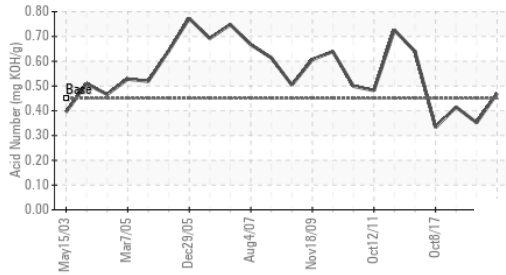
## ▲ Particle Trend



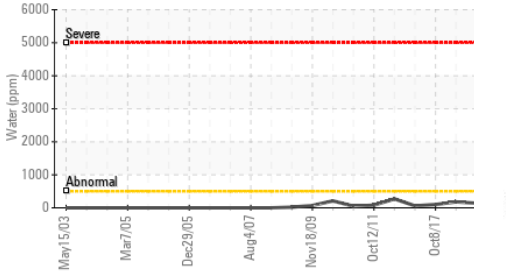
## Water (KF)



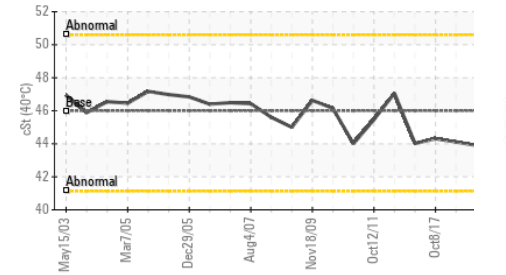
## Acid Number



## Water (KF)



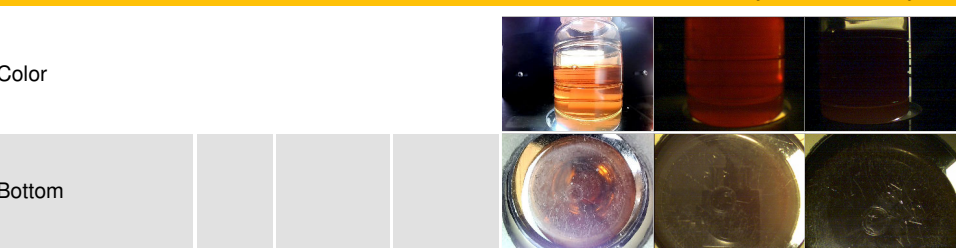
## Viscosity @ 40°C



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

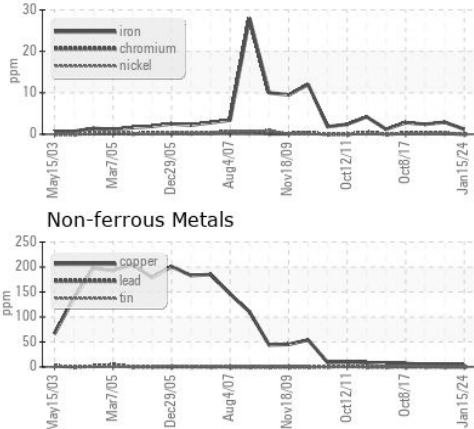
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	<b>46.8</b>	43.9

## SAMPLE IMAGES

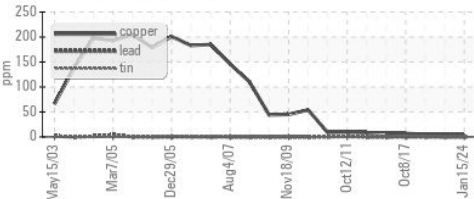


## GRAPHS

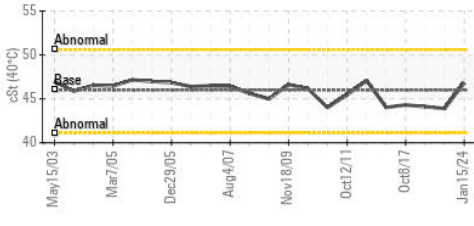
### Ferrous Alloys



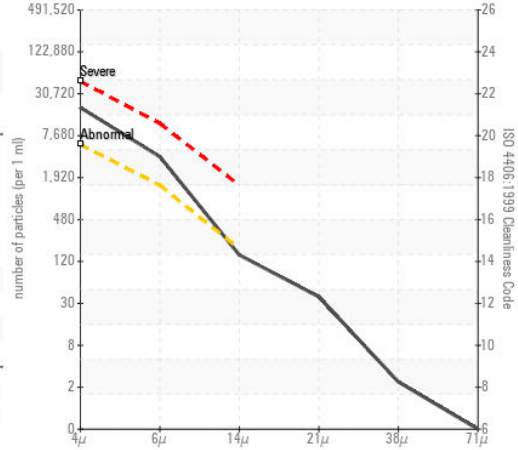
### Non-ferrous Metals



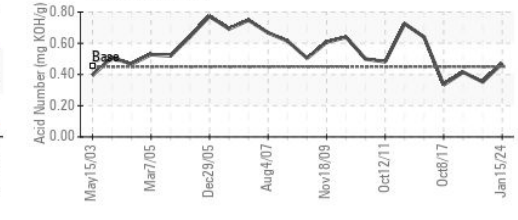
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0038678 **Received** : 16 Jan 2024  
**Lab Number** : 06061071 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832453 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**YANFENG - ROMULUS**  
 9800 INKSTER RD  
 ROMULUS, MI  
 US 48174  
 Contact: AARON BLIESNER  
 aaron.bliesner@yanfeng.com  
 T:  
 F: (734)946-0237

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)