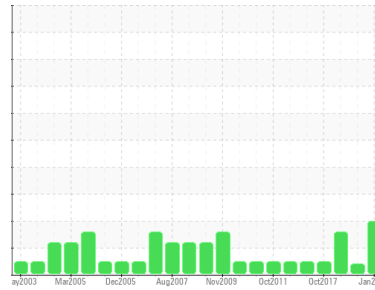


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
MACHINE 37 (S/N 76116)

Component
Hydraulic System

Fluid
ESSO NUTO H ISO 46 (175 GAL)

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 particulates 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		RP0038672	RP194110	RP99294
Sample Date	Client Info		15 Jan 2024	18 Jan 2021	09 Sep 2018
Machine Age	yrs	Client Info	0	0	0
Oil Age	yrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	6	4	4
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >20	0	1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	0	<1	<1
Lead	ppm	ASTM D5185m >20	0	2	0
Copper	ppm	ASTM D5185m >20	3	2	3
Tin	ppm	ASTM D5185m >20	0	0	<1
Antimony	ppm	ASTM D5185m	---	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	<1	<1
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 5	0	<1	0
Calcium	ppm	ASTM D5185m 50	0	10	15
Phosphorus	ppm	ASTM D5185m 330	258	325	300
Zinc	ppm	ASTM D5185m 410	131	218	236

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	1	<1
Sodium	ppm	ASTM D5185m	0	<1	<1
Potassium	ppm	ASTM D5185m >20	<1	4	1
Water	%	ASTM D6304 >0.05	0.007	0.004	0.024
ppm Water	ppm	ASTM D6304 >500	72	47.9	240

FLUID CLEANLINESS

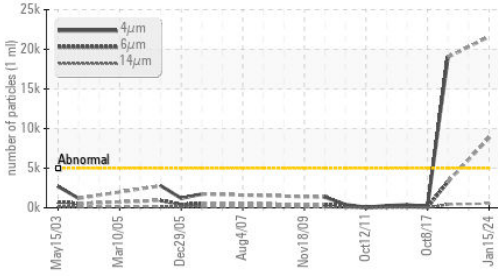
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 21599	---	▲ 19020
Particles >6µm	ASTM D7647	>1300	▲ 8828	---	▲ 3295
Particles >14µm	ASTM D7647	>160	▲ 538	---	▲ 413
Particles >21µm	ASTM D7647	>40	▲ 128	---	▲ 149
Particles >38µm	ASTM D7647	>10	4	---	10
Particles >71µm	ASTM D7647	>3	1	---	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 22/20/16	---	▲ 21/19/16

FLUID DEGRADATION

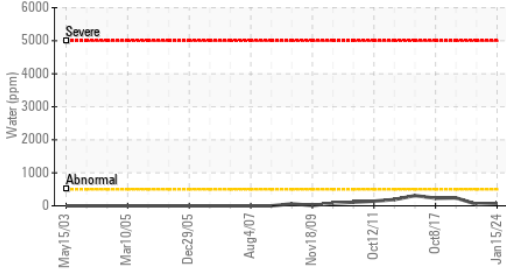
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.45	0.32	0.441	0.456

OIL ANALYSIS REPORT

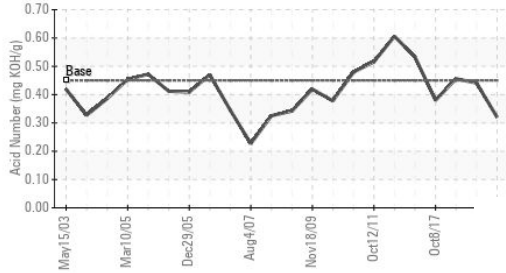
▲ Particle Trend



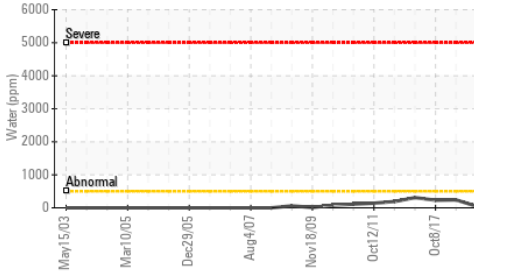
Water (KF)



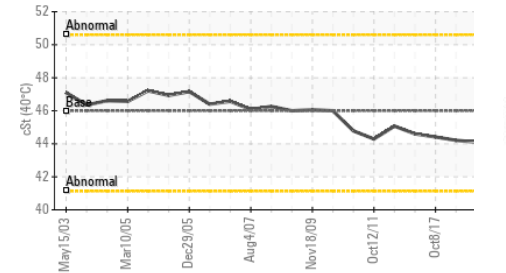
Acid Number



Water (KF)



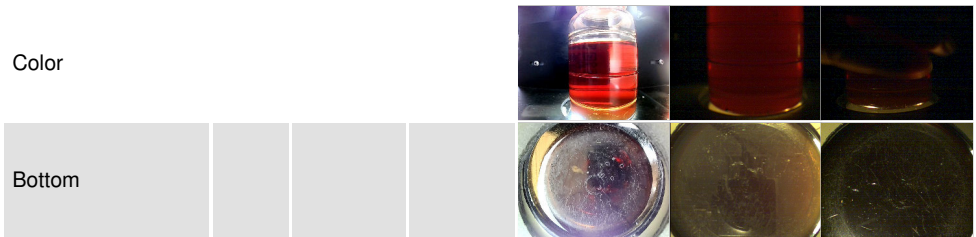
Viscosity @ 40°C



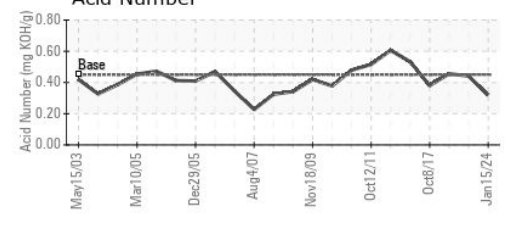
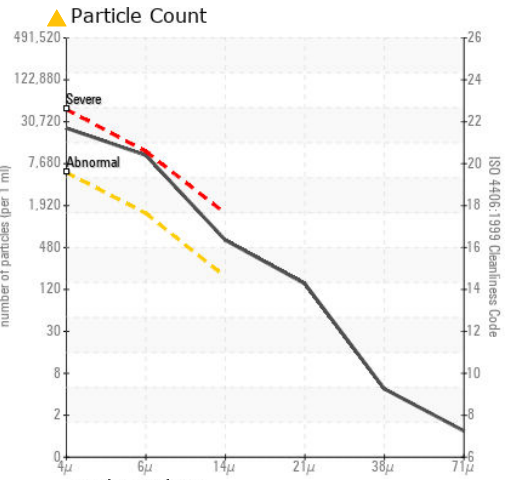
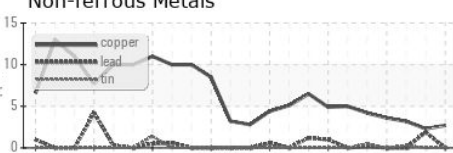
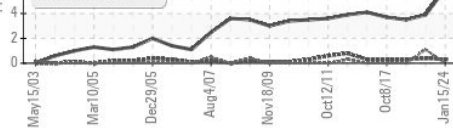
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	49.0	44.1	44.21

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038672 **Received** : 16 Jan 2024
Lab Number : 06061074 **Diagnosed** : 17 Jan 2024
Unique Number : 10832456 **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

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)