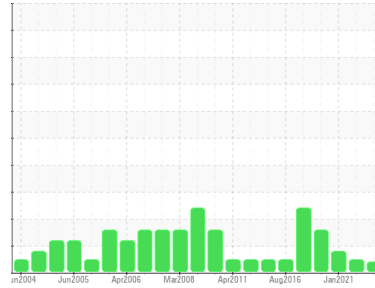


OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id
MACHINE 32 (S/N 78604)

Component
Hydraulic System

Fluid
ESSO NUTO H ISO 46 (200 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris 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		RP0034663	RP194105	RP194113
Sample Date	Client Info		15 Jan 2024	18 Jan 2021	18 Jan 2021
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	NORMAL	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	19	12	5
Chromium	ppm	ASTM D5185m >20	0	<1	1
Nickel	ppm	ASTM D5185m >20	0	1	<1
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	1
Copper	ppm	ASTM D5185m >20	8	5	8
Tin	ppm	ASTM D5185m >20	0	0	0
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	<1	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 5	0	0	<1
Calcium	ppm	ASTM D5185m 50	0	12	25
Phosphorus	ppm	ASTM D5185m 330	293	330	323
Zinc	ppm	ASTM D5185m 410	139	221	266

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	3	6
Sodium	ppm	ASTM D5185m	5	<1	2
Potassium	ppm	ASTM D5185m >20	10	4	6
Water	%	ASTM D6304 >0.05	0.005	0.009	0.007
ppm Water	ppm	ASTM D6304 >500	56	92.0	76.8

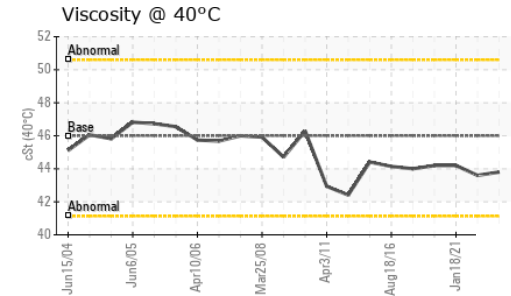
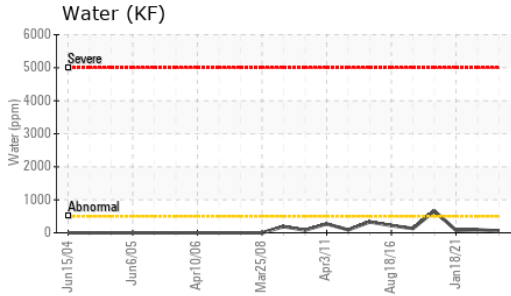
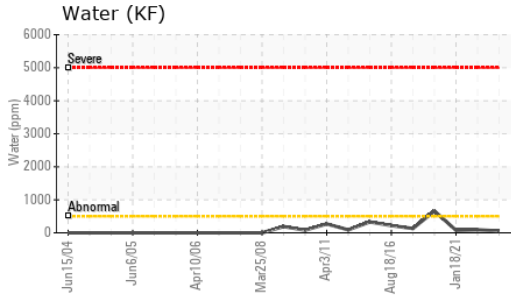
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	2300	▲ 9376
Particles >6µm	ASTM D7647	>1300	---	632	▲ 1329
Particles >14µm	ASTM D7647	>160	---	48	89
Particles >21µm	ASTM D7647	>40	---	11	20
Particles >38µm	ASTM D7647	>10	---	0	1
Particles >71µm	ASTM D7647	>3	---	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	18/16/13	▲ 20/18/14

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.45	0.36	0.409	0.490

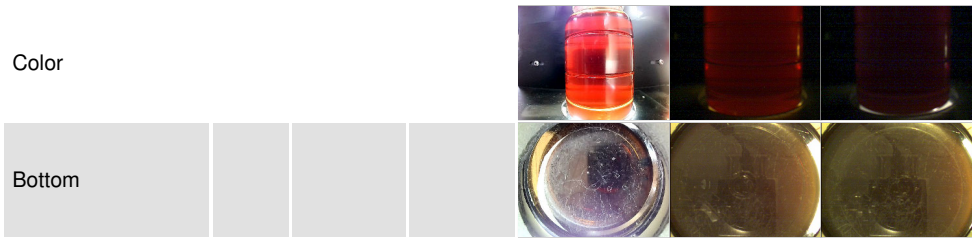
OIL ANALYSIS REPORT



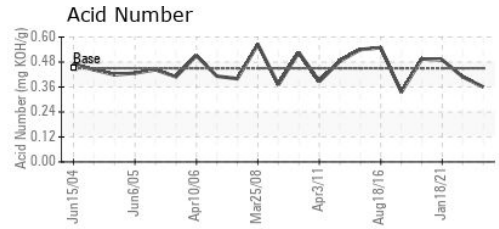
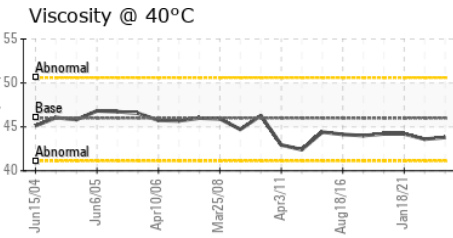
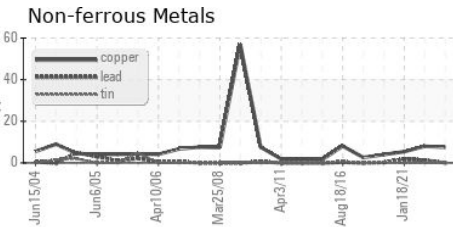
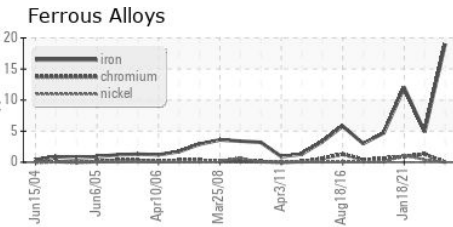
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	43.8	43.6	44.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0034663 **Recieved** : 16 Jan 2024
Lab Number : **06061080** **Diagnosed** : 17 Jan 2024
Unique Number : 10832462 **Diagnostician** : Don Baldrige
Test Package : IND 2

YANFENG - ROMULUS
 9800 INKSTER RD
 ROMULUS, MI
 US 48174
 Contact: AARON BLIESNER
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 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)