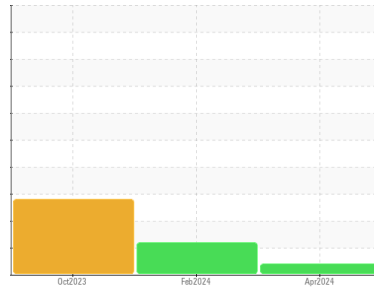




OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Area

Preparation-Prep NAR 650

Machine Id

[Preparation-Prep NAR 650] 360008005 - NAR 650 TRANCHEUSE CUTTER

Component

Hydraulic System

Fluid

SHELL TELLUS S2 MX 46 (--- LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. 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	TLC0001770	TLC0001365	TLC0001327
Sample Date	Client Info	11 Apr 2024	01 Feb 2024	19 Oct 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	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	9	8	9
Chromium	ppm	ASTM D5185m >20	0	<1	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	0	0	0
Lead	ppm	ASTM D5185m >20	0	0	0
Copper	ppm	ASTM D5185m >20	1	1	1
Tin	ppm	ASTM D5185m >20	0	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	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m 0	0	0	<1
Magnesium	ppm	ASTM D5185m 70	49	54	51
Calcium	ppm	ASTM D5185m 10	12	15	13
Phosphorus	ppm	ASTM D5185m 300	228	255	238
Zinc	ppm	ASTM D5185m 325	274	320	298
Sulfur	ppm	ASTM D5185m 665	684	692	637

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	3	2	<1
Potassium	ppm	ASTM D5185m >20	6	0	0
Water	%	ASTM D6304 >0.05	NEG	NEG	NEG

FLUID CLEANLINESS

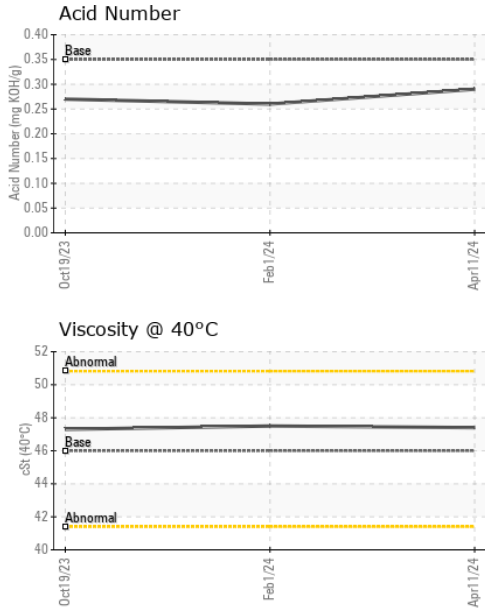
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	---	▲ 288521	▲ 15578
Particles >6µm	ASTM D7647 >1300	---	▲ 54517	▲ 8486
Particles >14µm	ASTM D7647 >160	---	16	▲ 1444
Particles >21µm	ASTM D7647 >40	---	5	▲ 486
Particles >38µm	ASTM D7647 >10	---	0	▲ 75
Particles >71µm	ASTM D7647 >3	---	0	▲ 8
Oil Cleanliness	ISO 4406 (c) >19/17/14	---	▲ 25/23/11	▲ 21/20/18

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.35	0.29	0.26	0.27



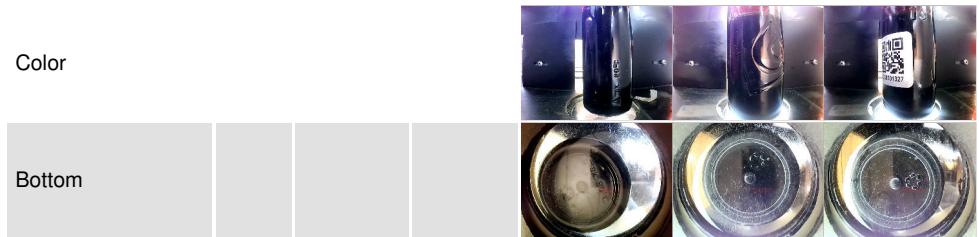
OIL ANALYSIS REPORT



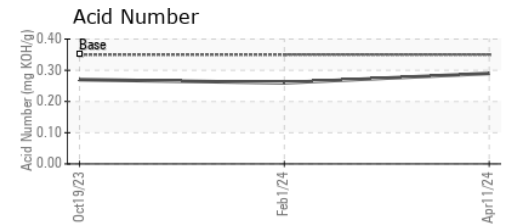
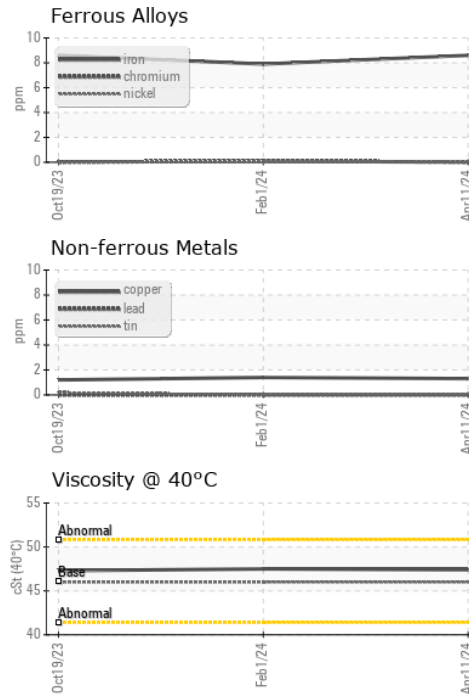
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	46.0	47.4	47.5

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. : TLC0001770 **Received** : 17 Apr 2024
Lab Number : 06151941 **Tested** : 19 Apr 2024
Unique Number : 10982019 **Diagnosed** : 19 Apr 2024 - Don Baldrige
Test Package : PLANT

MICHELIN US 10
 16 BIBB WAY
 ANDERSON, SC
 US 29626

Contact: TERRICK PRESLEY
 terrick.presley@michelin.com
 T: (803)761-8053

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)