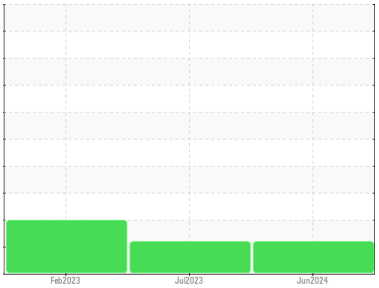
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

Area
Rear Load
Machine Id
REL133322
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

Sample Rating Trend



ISO

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

Wear
All component wear rates are normal.

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

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		**PCA0122596**	PCA0090701	PCA0083085
Sample Date		Client Info		**06 Jun 2024**	03 Jul 2023	20 Feb 2023
Machine Age	hrs	Client Info		**27063**	27063	24524
Oil Age	hrs	Client Info		**27063**	26560	24524
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**10**	12	19
Chromium	ppm	ASTM D5185m	>10	**3**	4	6
Nickel	ppm	ASTM D5185m	>4	**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>5	**<1**	<1	1
Lead	ppm	ASTM D5185m	>4	**0**	0	<1
Copper	ppm	ASTM D5185m	>15	**3**	4	6
Tin	ppm	ASTM D5185m	>4	**0**	0	1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	2	4
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	2	3
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**8**	11	14
Calcium	ppm	ASTM D5185m		**114**	119	153
Phosphorus	ppm	ASTM D5185m		**351**	352	345
Zinc	ppm	ASTM D5185m		**462**	427	421
Sulfur	ppm	ASTM D5185m		**1176**	1188	1028

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	2	4
Sodium	ppm	ASTM D5185m		**5**	7	9
Potassium	ppm	ASTM D5185m	>20	**<1**	1	2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **14771**	---	▲ 37613
Particles >6µm		ASTM D7647	>1300	● **2312**	---	▲ 7255
Particles >14µm		ASTM D7647	>160	**77**	---	▲ 395
Particles >21µm		ASTM D7647	>40	**9**	---	▲ 55
Particles >38µm		ASTM D7647	>10	**0**	---	2
Particles >71µm		ASTM D7647	>3	**0**	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/18/13**	---	▲ 22/20/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.25**	0.30	0.36

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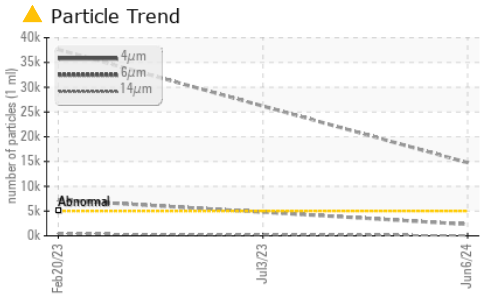
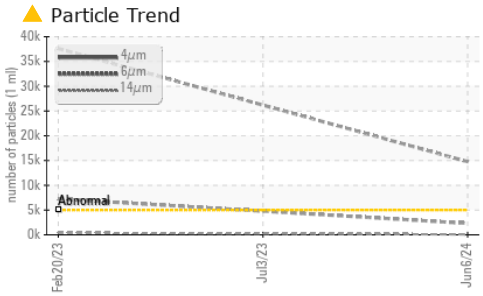
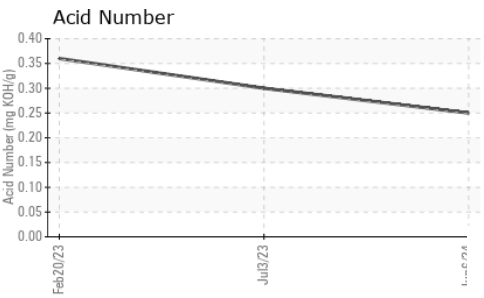
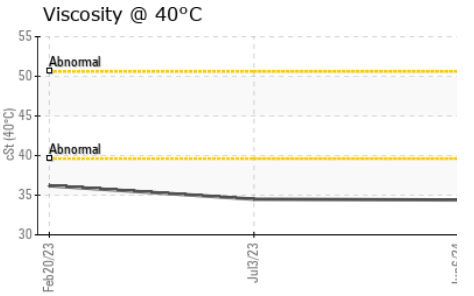
OIL ANALYSIS REPORT







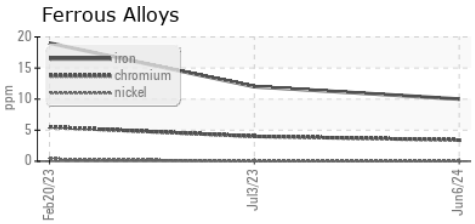


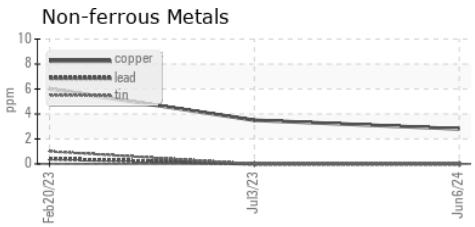
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	▲ MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

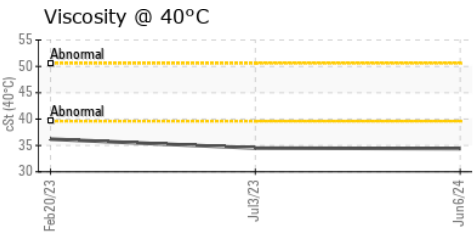
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**34.4**	34.5	36.2

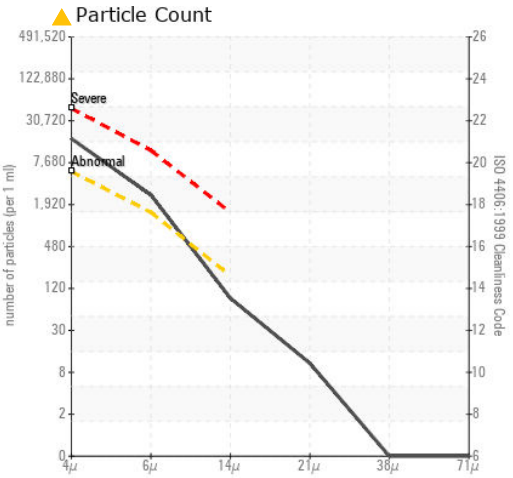
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

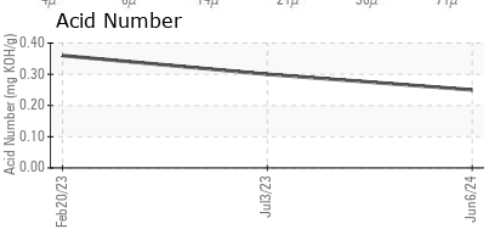
GRAPHS











Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0122596
Lab Number : 06210063
Unique Number : 11082927
Test Package : MOB 2

Received : 14 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 2024 - Wes Davis

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)

UMM - Shop 401 - Norton
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US 02766
Contact: P Cohen
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T:
F:

Report Id: WINNORMA [WUSCAR] 06210063 (Generated: 06/17/2024 13:36:20) Rev: 1

Submitted By: P Cohen