OIL ANALYSIS REPORT
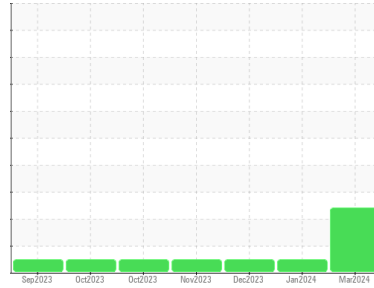
Sample Rating Trend

GLYCOL

Machine Id
1016
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

⚠️ **Recommendation**

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

⚠️ **Contamination**

Sodium and/or potassium levels are high. Test for glycol is negative.

⚠️ **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0893973**	WC0894034	WC0868131
Sample Date		Client Info		**05 Mar 2024**	29 Jan 2024	26 Dec 2023
Machine Age	mls	Client Info		**0**	0	0
Oil Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**12**	10	8
Chromium	ppm	ASTM D5185m	>20	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>4	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	1	<1
Lead	ppm	ASTM D5185m	>40	**<1**	<1	0
Copper	ppm	ASTM D5185m	>330	**2**	1	1
Tin	ppm	ASTM D5185m	>15	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	**2**	1	<1
Barium	ppm	ASTM D5185m	10	**2**	0	0
Molybdenum	ppm	ASTM D5185m	100	**64**	62	60
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m	450	**967**	974	1051
Calcium	ppm	ASTM D5185m	3000	**1172**	1063	1142
Phosphorus	ppm	ASTM D5185m	1150	**1110**	1079	1078
Zinc	ppm	ASTM D5185m	1350	**1286**	1259	1366
Sulfur	ppm	ASTM D5185m	4250	**3396**	3053	3204

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**6**	5	4
Sodium	ppm	ASTM D5185m	>158	⚠️ **51**	<1	<1
Potassium	ppm	ASTM D5185m	>20	⚠️ **49**	1	1
Glycol	%	*ASTM D2982		**NEG**	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.5**	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**9.1**	8.0	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.9**	19.6	19.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.0**	16.3	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**8.1**	8.0	8.6

OIL ANALYSIS REPORT

Glycol Contamination

Viscosity @ 100°C

Glycol Contamination
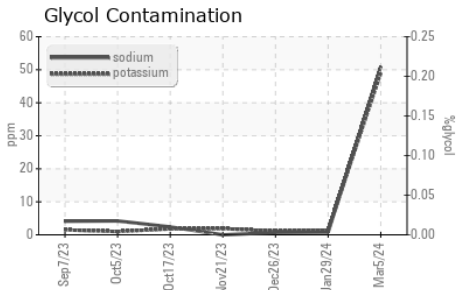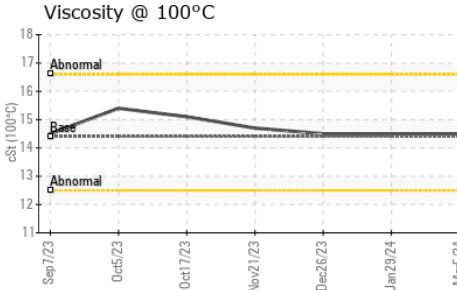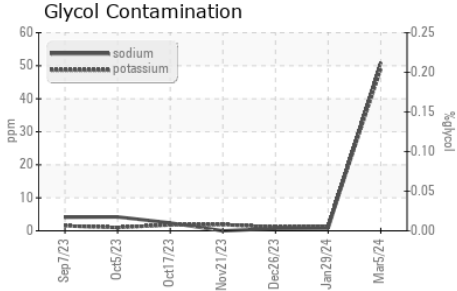
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	**14.5**	14.5	14.5

GRAPHS

Iron (ppm)

Lead (ppm)

Aluminum (ppm)

Chromium (ppm)

Copper (ppm)

Silicon (ppm)

Viscosity @ 100°C

Base Number
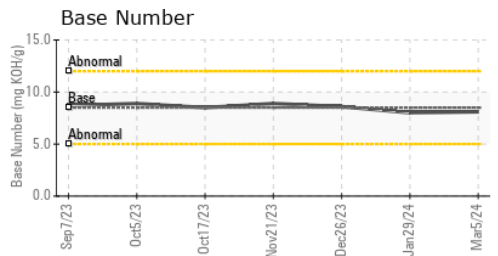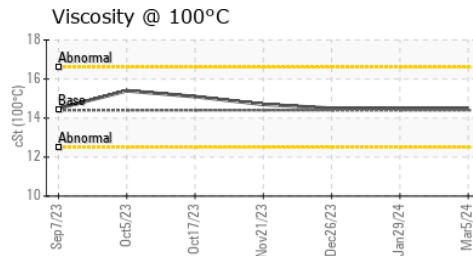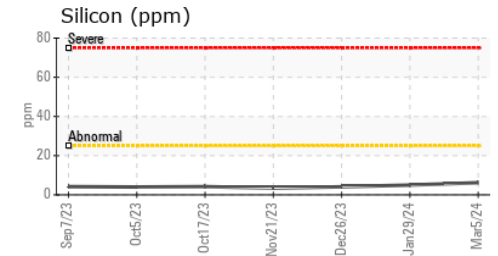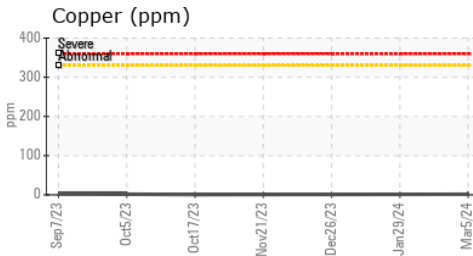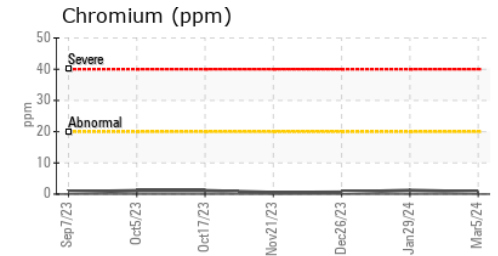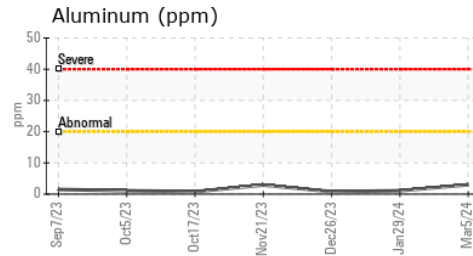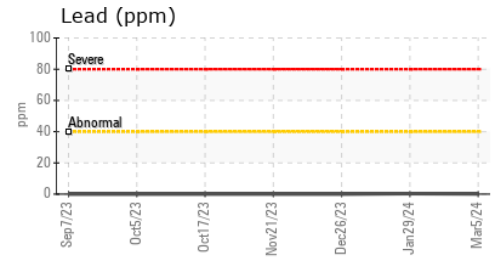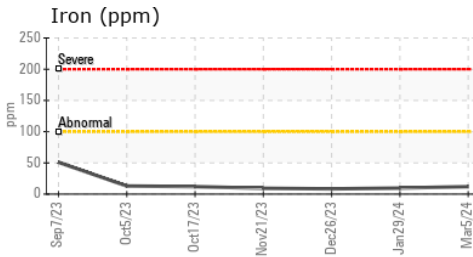
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0893973   **Received** : 21 Mar 2024

Lab Number : 06124577   **Tested** : 26 Mar 2024

Unique Number : 10938728   **Diagnosed** : 26 Mar 2024 - Jonathan Hester

Test Package : MOB 1 (Additional Tests: Glycol, TBN)

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)

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ANAB ACCREDITED TESTING LABORATORY