



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**AUTOCAR 27245**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0014018</b>	KL0012075	KL0012052
Sample Date		Client Info		<b>31 Jan 2024</b>	10 Nov 2023	25 Jul 2023
Machine Age	mls	Client Info		<b>99285</b>	99285	95111
Oil Age	mls	Client Info		<b>45377</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>6</b>	17	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	4	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	0
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

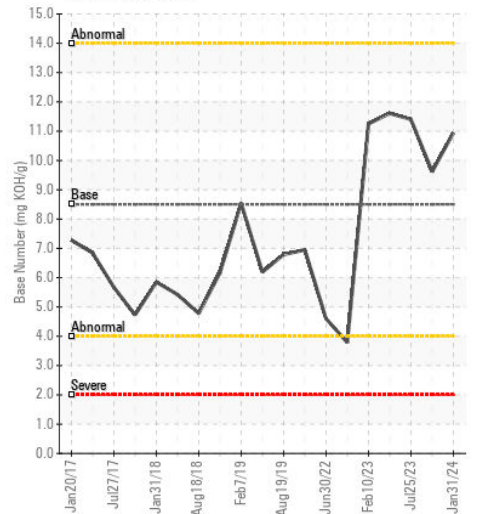
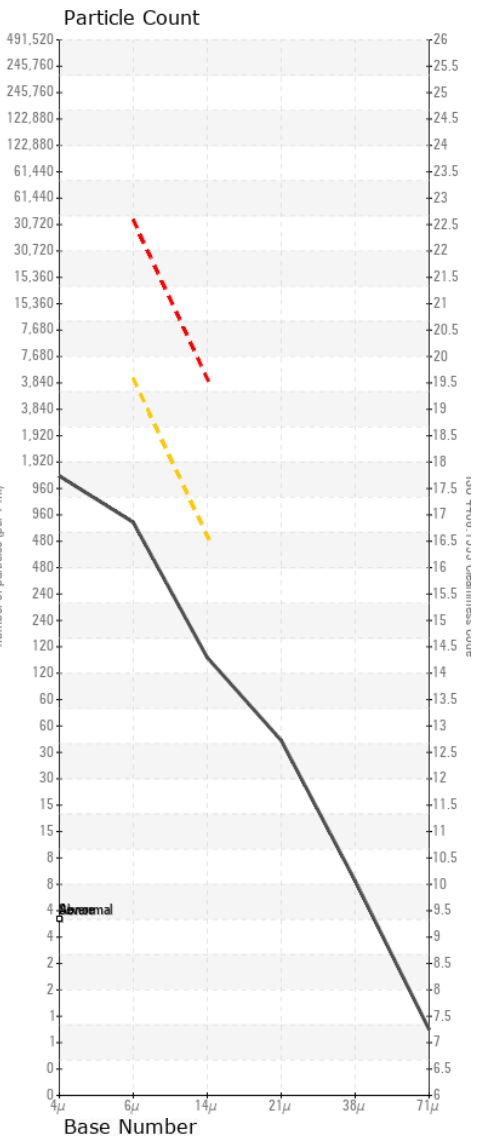
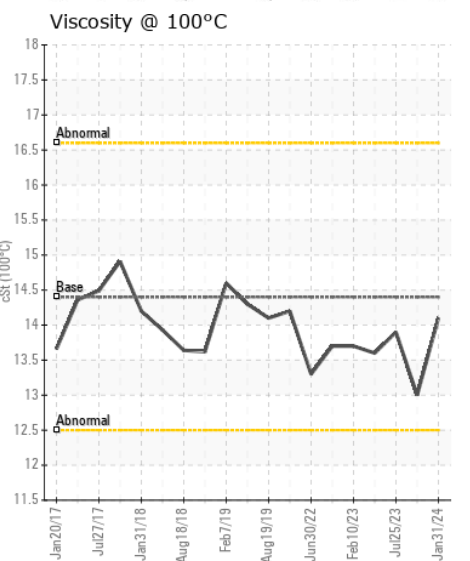
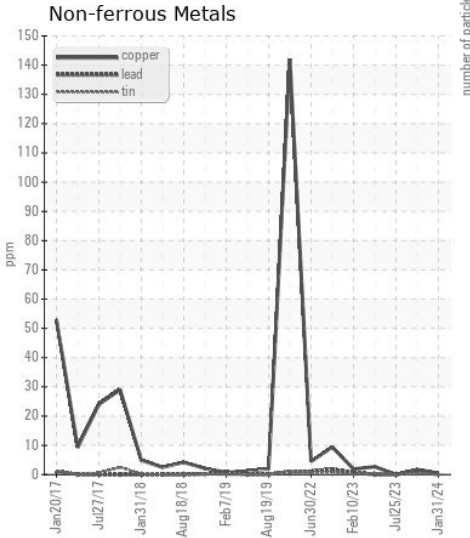
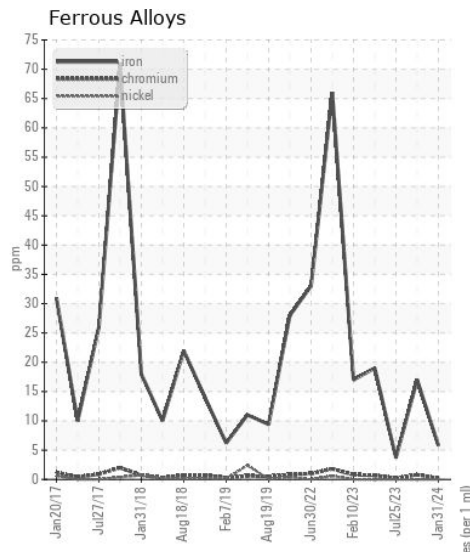
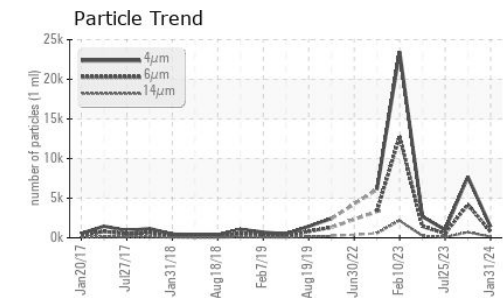
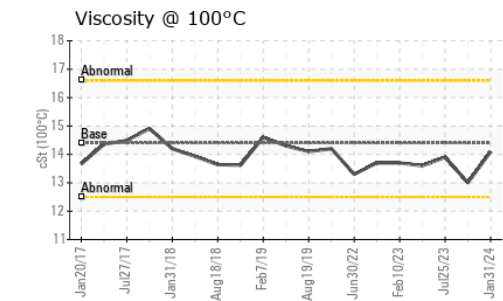
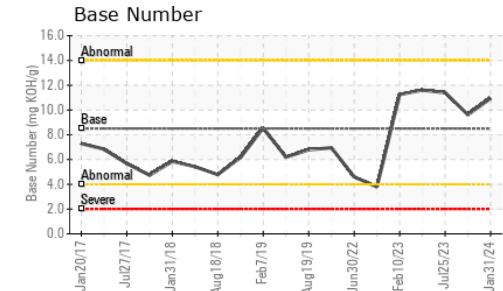
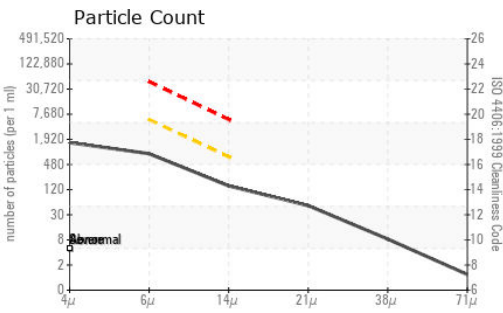
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	6	3
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	▲ 47	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	0.0	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.9</b>	10.5	6.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	24.2	18.2
Particles >4µm		ASTM D7647		<b>1401</b>	7699	992
Particles >6µm		ASTM D7647	>5000	<b>763</b>	4194	540
Particles >14µm		ASTM D7647	>640	<b>130</b>	▲ 714	92
Particles >21µm		ASTM D7647	>160	<b>44</b>	▲ 240	31
Particles >38µm		ASTM D7647	>40	<b>7</b>	37	5
Particles >71µm		ASTM D7647	>10	<b>1</b>	4	0
Oil Cleanliness		ISO 4406 (c)	>19/16	<b>17/14</b>	▲ 19/17	16/14
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>158	<b>&lt;1</b>	30	2
Boron	ppm	ASTM D5185m	250	<b>91</b>	29	100
Barium	ppm	ASTM D5185m	10	<b>11</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>58</b>	65	69
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>950</b>	857	857
Calcium	ppm	ASTM D5185m	3000	<b>903</b>	1264	1356
Phosphorus	ppm	ASTM D5185m	1150	<b>968</b>	1085	1097
Zinc	ppm	ASTM D5185m	1350	<b>1120</b>	1319	1315
Sulfur	ppm	ASTM D5185m	4250	<b>3418</b>	3555	4384
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.0</b>	24.0	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>10.94</b>	9.62	11.40
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.1</b>	13.0	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0014018 **Received** : 14 Feb 2024  
**Lab Number** : 06089627 **Tested** : 16 Feb 2024  
**Unique Number** : 10877072 **Diagnosed** : 16 Feb 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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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)