



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
AUTOCAR 27240
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014017	KL0012030	KL0012049
Sample Date		Client Info		01 Feb 2024	14 Nov 2023	26 Jul 2023
Machine Age	mls	Client Info		103350	100350	97292
Oil Age	mls	Client Info		60034	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	19	10	6
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	1
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	3	1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

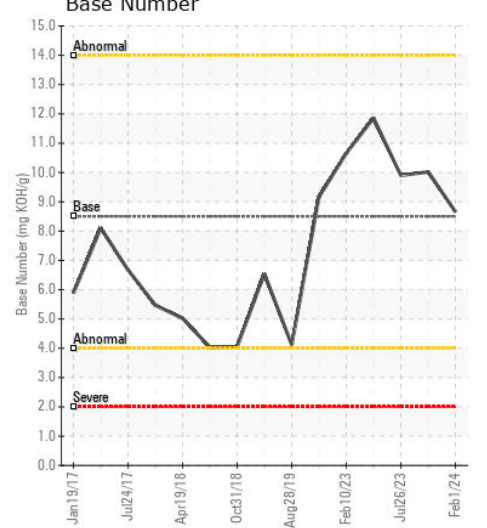
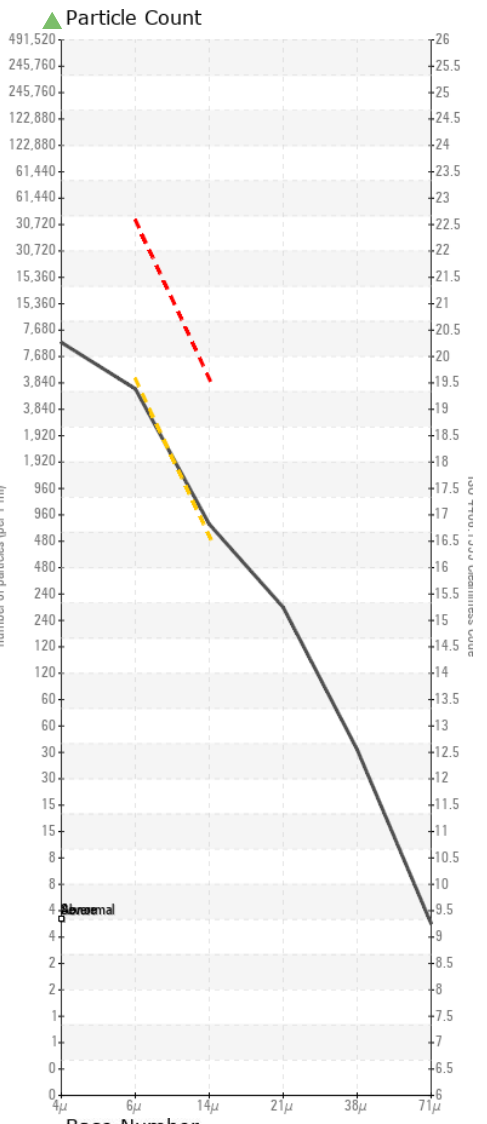
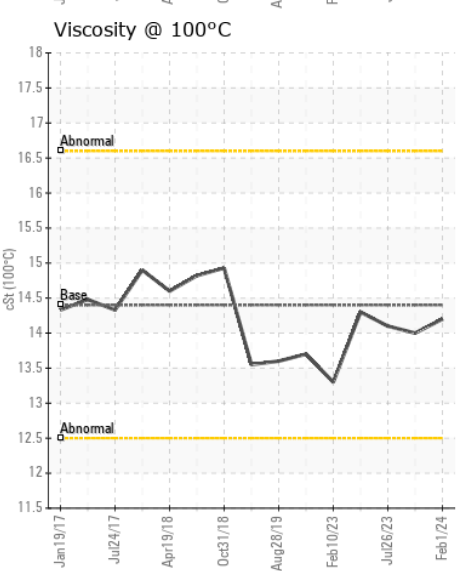
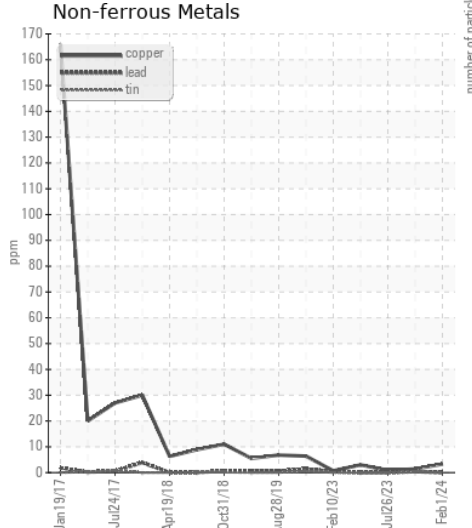
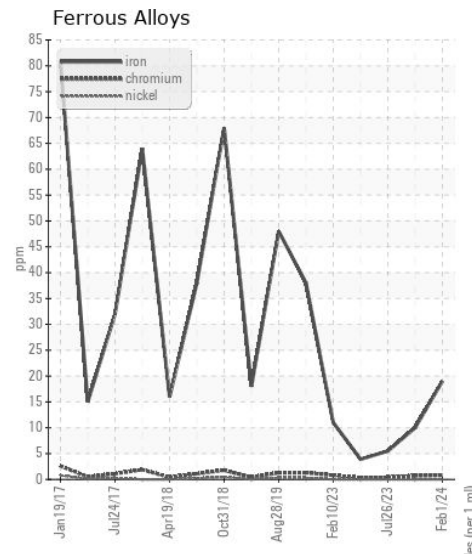
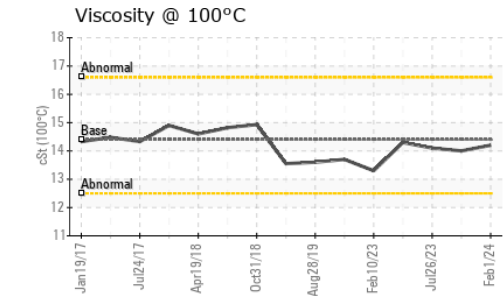
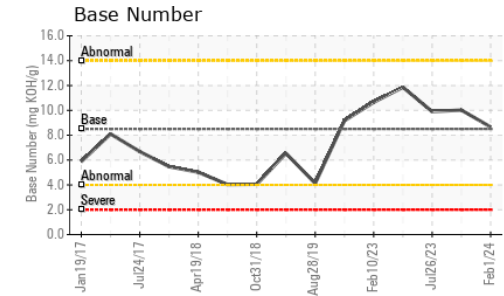
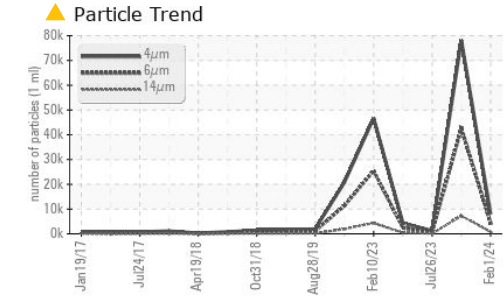
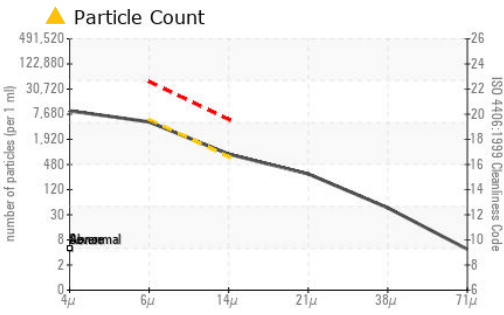
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	8	7	5
Potassium	ppm	ASTM D5185m	>20	2	4	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.4	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.5	9.0	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.4	22.0	19.2
Particles >4µm		ASTM D7647		8038	78140	1253
Particles >6µm		ASTM D7647	>5000	4379	▲ 42568	682
Particles >14µm		ASTM D7647	>640	▲ 745	▲ 7244	116
Particles >21µm		ASTM D7647	>160	▲ 251	▲ 2440	39
Particles >38µm		ASTM D7647	>40	39	▲ 377	6
Particles >71µm		ASTM D7647	>10	4	▲ 38	1
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ 19/17	▲ 23/20	17/14
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

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	5	4	2
Boron	ppm	ASTM D5185m	250	36	39	83
Barium	ppm	ASTM D5185m	10	11	0	0
Molybdenum	ppm	ASTM D5185m	100	51	57	57
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	826	1036	1002
Calcium	ppm	ASTM D5185m	3000	951	879	900
Phosphorus	ppm	ASTM D5185m	1150	913	1057	1007
Zinc	ppm	ASTM D5185m	1350	1073	1269	1180
Sulfur	ppm	ASTM D5185m	4250	3618	4033	5016
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.3	20.3	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.66	10.02	9.90
Visc @ 100°C	cSt	ASTM D445	14.4	14.2	14.0	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0014017 **Received** : 14 Feb 2024
Lab Number : 06089643 **Tested** : 16 Feb 2024
Unique Number : 10877088 **Diagnosed** : 16 Feb 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: PrtCount)

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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