



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Store 9 - Marietta

Machine Id
1109

Component
Diesel Engine

Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0045880	LEC0046470	LEC0045153
Sample Date		Client Info		09 Jan 2024	29 Dec 2023	22 Nov 2023
Machine Age	mls	Client Info		248848	14104	8245
Oil Age	mls	Client Info		5000	400	400
Filter Age	mls	Client Info		5000	400	400
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	23	24	13
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	8	3	5
Lead	ppm	ASTM D5185m	>40	7	5	7
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

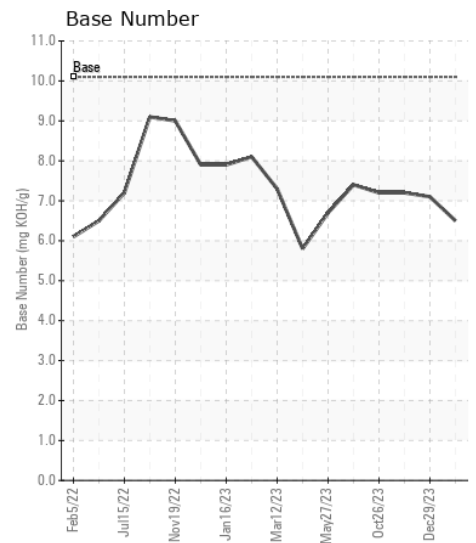
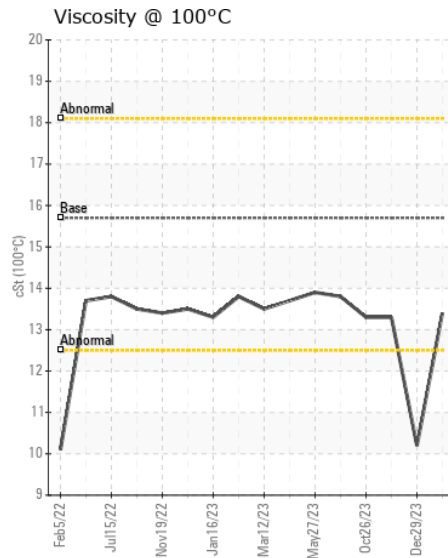
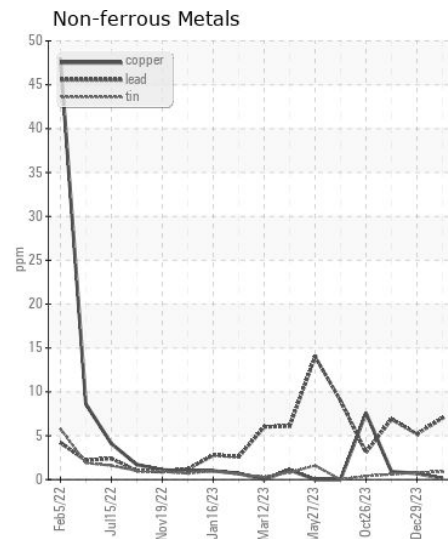
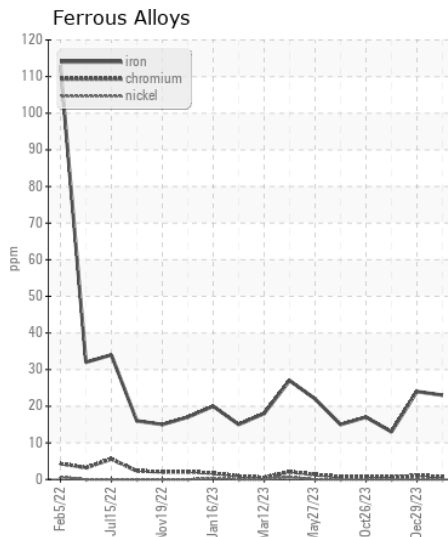
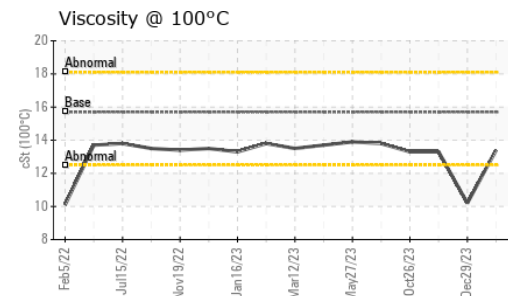
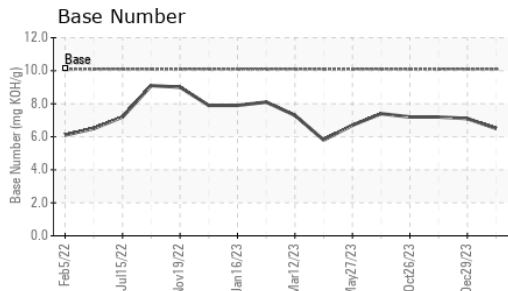
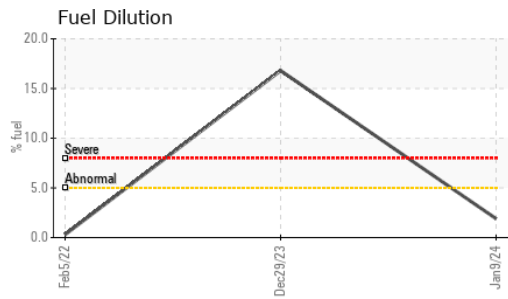
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	10	5	11
Potassium	ppm	ASTM D5185m	>20	3	10	3
Fuel	%	ASTM D3524	>5	1.9	16.8	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	11.6	12.3	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.6	27.4	25.7
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		<1	25	2
Boron	ppm	ASTM D5185m	316	142	196	184
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	134	115	130
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	24	688	566	694
Calcium	ppm	ASTM D5185m	2292	1541	1400	1628
Phosphorus	ppm	ASTM D5185m	1064	748	667	687
Zinc	ppm	ASTM D5185m	1160	876	752	917
Sulfur	ppm	ASTM D5185m	4996	2348	2158	2366
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.5	27.6	21.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.5	7.1	7.2
Visc @ 100°C	cSt	ASTM D445	15.7	13.4	10.2	13.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0045880 **Received** : 16 Jan 2024
Lab Number : 06060802 **Diagnosed** : 18 Jan 2024
Unique Number : 10832184 **Diagnostician** : Don Baldrige
Test Package : CONST (Additional Tests: PercentFuel, 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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