



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 51305
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0929297	WC0841844	WC0841852
Sample Date		Client Info		19 Jun 2024	06 Feb 2024	02 Aug 2023
Machine Age	mls	Client Info		658514	606630	553174
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	54	48	20
Chromium	ppm	ASTM D5185m	>20	6	4	2
Nickel	ppm	ASTM D5185m	>2	2	2	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	13	18	3
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>30	8	11	11
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

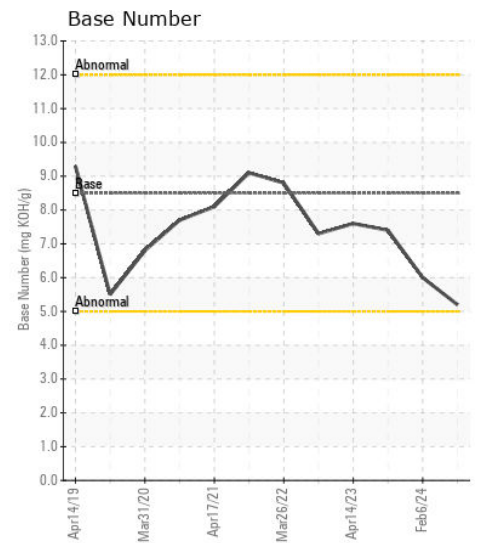
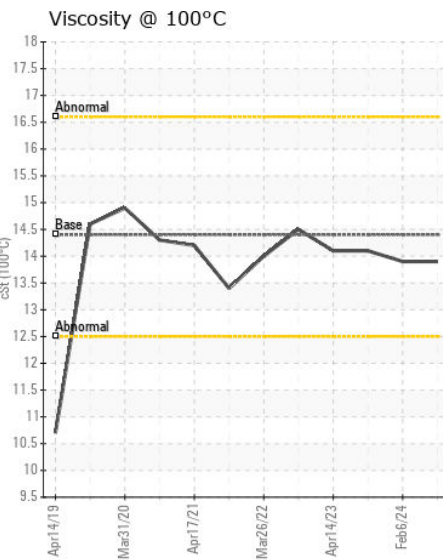
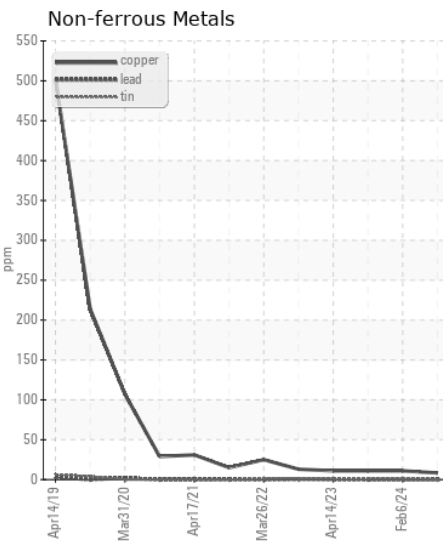
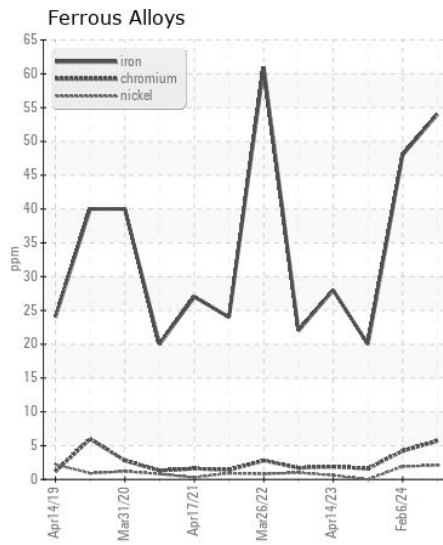
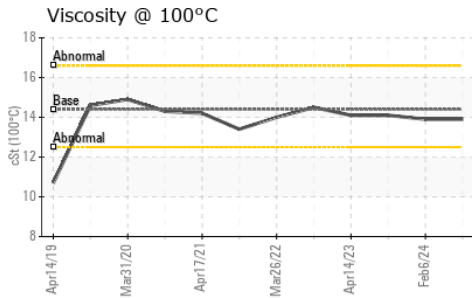
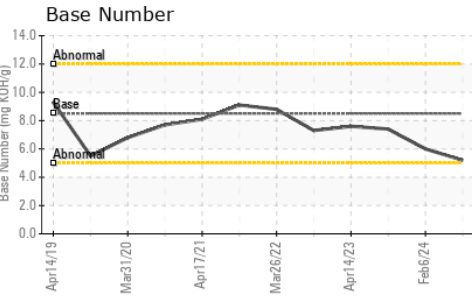
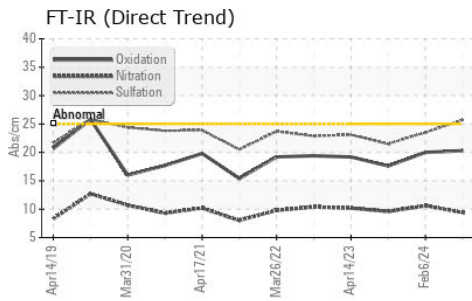
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	9	8	6
Potassium	ppm	ASTM D5185m	>20	10	<1	2
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	>3	1	1	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.4	10.6	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.7	23.5	21.5
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	6	3	0
Boron	ppm	ASTM D5185m	250	30	6	0
Barium	ppm	ASTM D5185m	10	<1	0	2
Molybdenum	ppm	ASTM D5185m	100	85	67	66
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	498	951	975
Calcium	ppm	ASTM D5185m	3000	1435	1093	1162
Phosphorus	ppm	ASTM D5185m	1150	1027	957	999
Zinc	ppm	ASTM D5185m	1350	1319	1188	1263
Sulfur	ppm	ASTM D5185m	4250	3113	2531	2913
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	20.0	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.2	6.0	7.4
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	13.9	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0929297
Lab Number : 06229518
Unique Number : 11113011
Test Package : FLEET

Received : 05 Jul 2024
Tested : 09 Jul 2024
Diagnosed : 09 Jul 2024 - Don Baldrige

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
 US 27105

Contact: Audrey Hopkins
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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)

F: x: