



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 54385
Component
Diesel Engine
Fluid
CHEVRON 15W40 (50 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0948677	WC0882878	WC0842576
Sample Date		Client Info		25 Jun 2024	17 Jan 2024	25 Aug 2023
Machine Age	mls	Client Info		579606	537663	505336
Oil Age	mls	Client Info		41943	32327	40076
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	61	43	51
Chromium	ppm	ASTM D5185m	>5	2	2	3
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	22	19	22
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	6	4	4
Tin	ppm	ASTM D5185m	>5	0	<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.

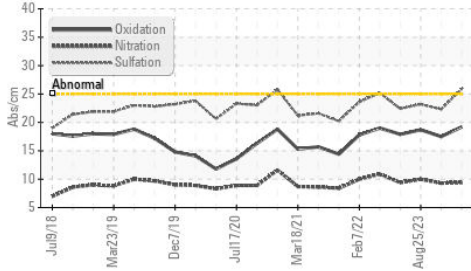
Silicon	ppm	ASTM D5185m	>20	8	6	6
Potassium	ppm	ASTM D5185m	>20	5	1	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.2	0.9	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.3	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.9	22.3	23.2
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	>50	2	1	2
Boron	ppm	ASTM D5185m		34	4	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		74	65	73
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		584	1025	992
Calcium	ppm	ASTM D5185m		1423	1133	1165
Phosphorus	ppm	ASTM D5185m		1015	995	1038
Zinc	ppm	ASTM D5185m		1281	1268	1328
Sulfur	ppm	ASTM D5185m		3380	2926	3373
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	17.5	18.7
Base Number (BN)	mg KOH/g	ASTM D2896		5.3	7.5	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.6	13.8

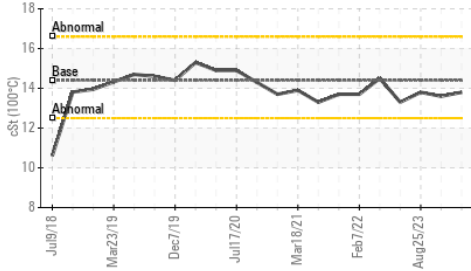
FT-IR (Direct Trend)



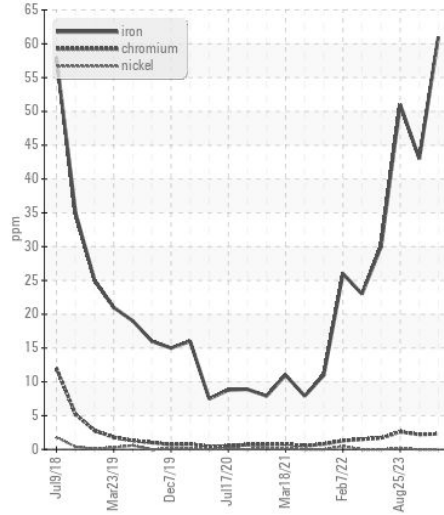
Base Number



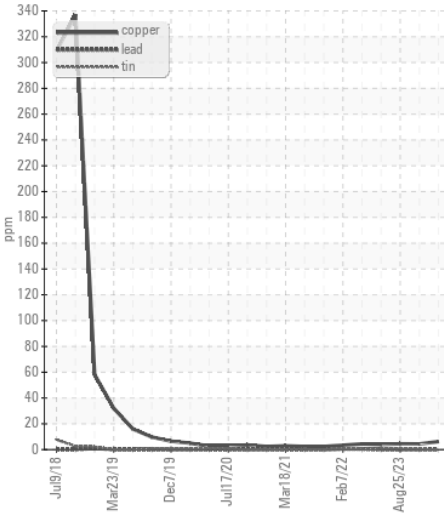
Viscosity @ 100°C



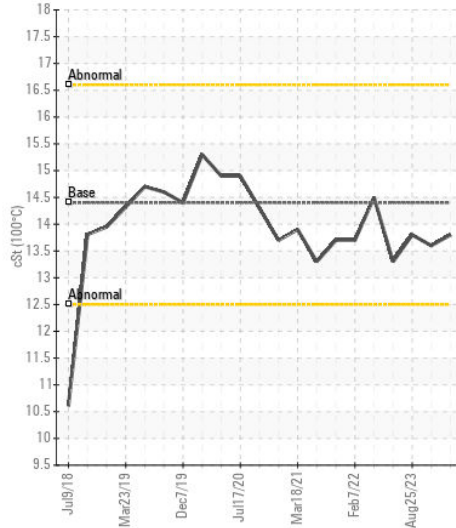
Ferrous Alloys



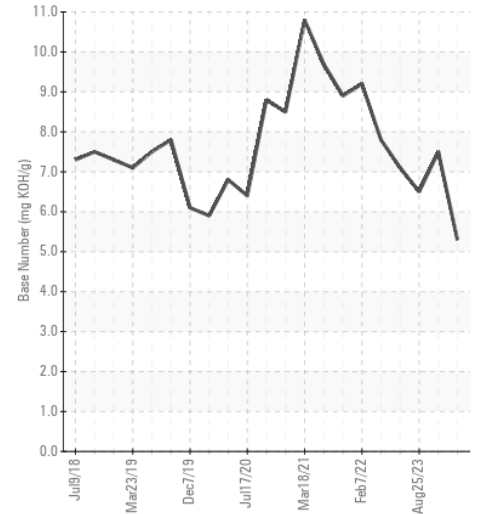
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0948677
Lab Number : 06229609
Unique Number : 11113102
Test Package : FLEET

Received : 05 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 2024 - Wes Davis

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 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
 US 27105
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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)