OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 13082
Component
Diesel Engine
Fluid
MOBIL 15W40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

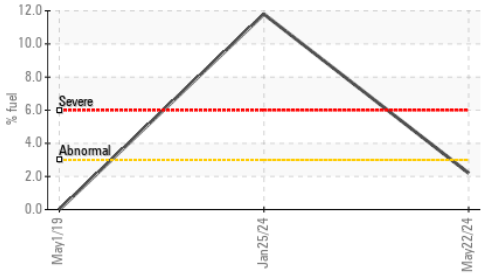
Light fuel dilution occurring.

FLUID CONDITION

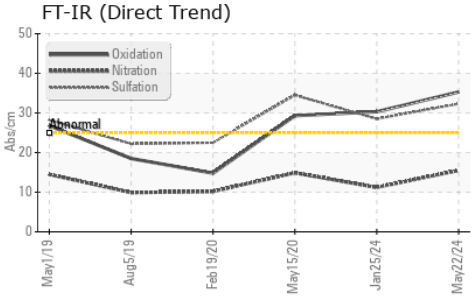
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936746	WC0882324	WC0409987
Sample Date		Client Info		22 May 2024	25 Jan 2024	15 May 2020
Machine Age	mls	Client Info		0	147642	48652
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				MARGINAL	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>130	42	16	52
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	9	4	7
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>125	2	1	3
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	10	8	6
Potassium	ppm	ASTM D5185m	>20	8	2	11
Fuel	%	ASTM D3524	>3.0	▲ 2.2	▲ 11.8	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.5	0.2	0.9
Nitration	Abs/cm	*ASTM D7624	>20	15.5	11.2	14.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	32.3	28.5	34.5
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
Sodium	ppm	ASTM D5185m	>118	4	0	3
Boron	ppm	ASTM D5185m		166	256	10
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		167	108	7
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		908	662	56
Calcium	ppm	ASTM D5185m		2191	1219	2585
Phosphorus	ppm	ASTM D5185m		941	643	880
Zinc	ppm	ASTM D5185m		1201	848	1081
Sulfur	ppm	ASTM D5185m		3605	2145	2957
Oxidation	Abs/.1mm	*ASTM D7414	>25	35.3	30.3	29.3
Base Number (BN)	mg KOH/g	ASTM D2896		6.7	7.3	6.2
Visc @ 100°C	cSt	ASTM D445		14.7	▲ 10.5	13.9

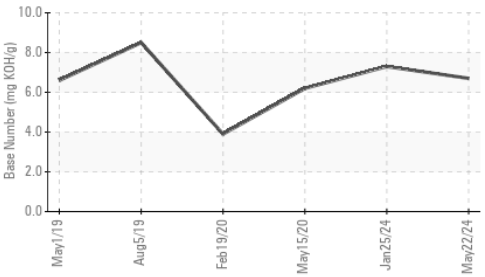
Fuel Dilution



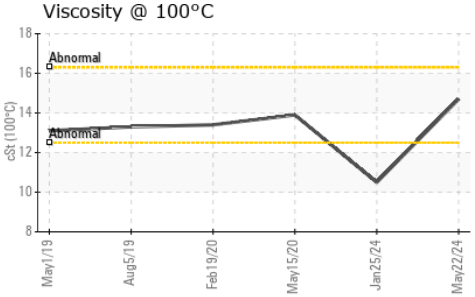
FT-IR (Direct Trend)



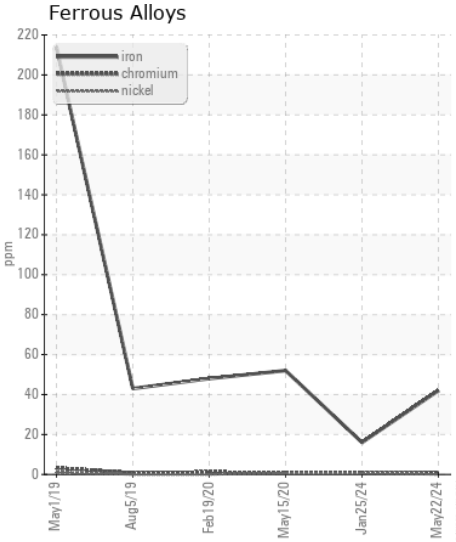
Base Number



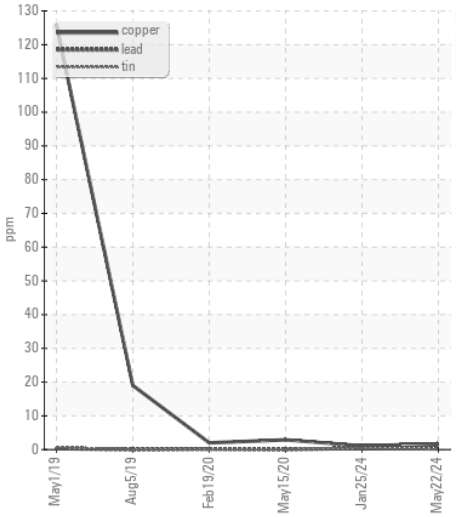
Viscosity @ 100°C



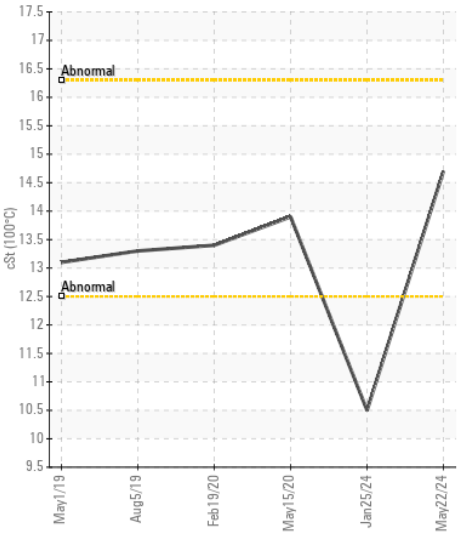
Ferrous Alloys



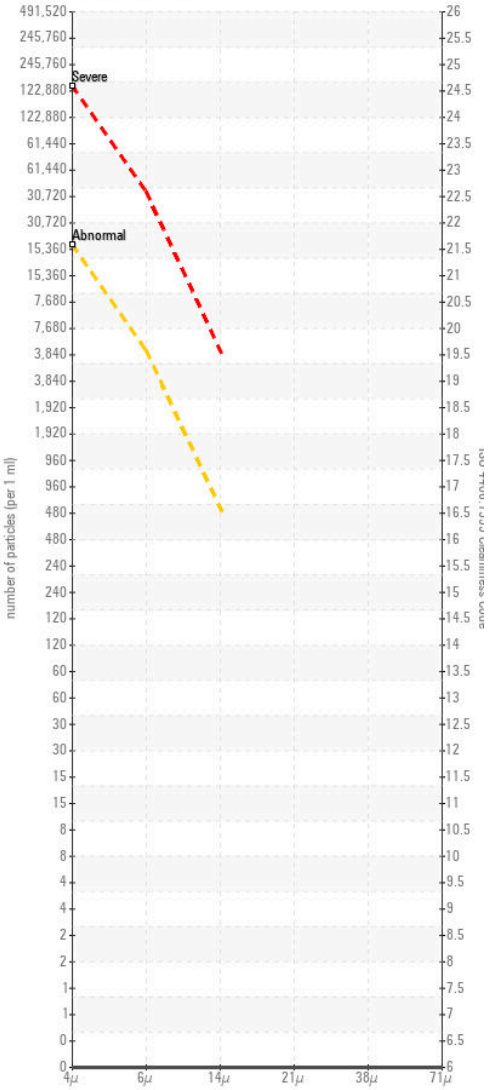
Non-ferrous Metals



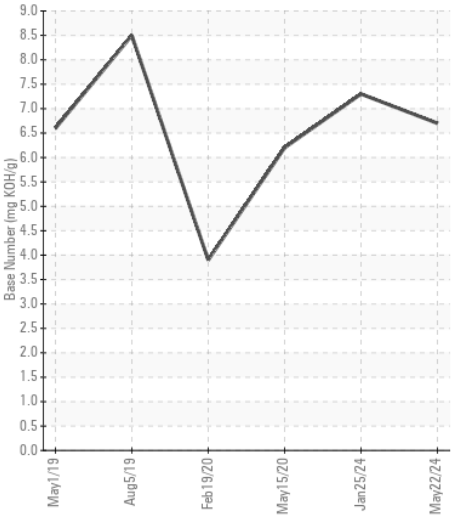
Viscosity @ 100°C



Particle Count



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: WC0936746	**Received**	: 28 May 2024
Lab Number	: 06193273	**Tested**	: 31 May 2024
Unique Number	: 11050025	**Diagnosed**	: 31 May 2024 - Jonathan Hester
Test Package	: FLEET (Additional Tests: PercentFuel, 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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