WEAR CONTAMINATION FLUID CONDITION

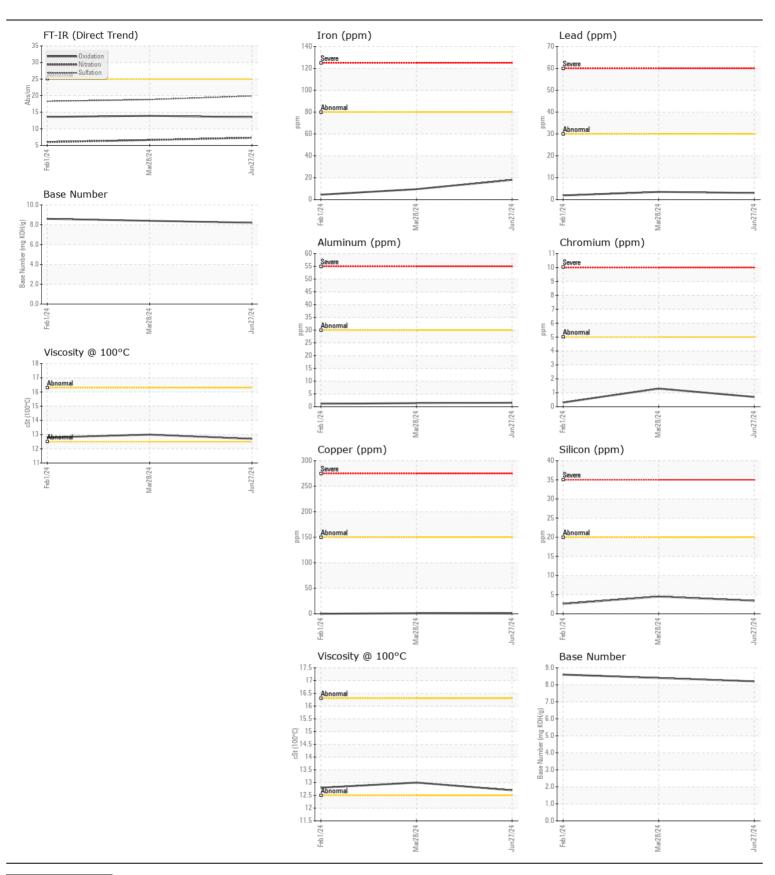
NORMAL NORMAL NORMAL

Machine Id

## FREIGHTLINER 2131

Component
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0949247	WC0917325	WC089381
	Sample Date		Client Info		27 Jun 2024	28 Mar 2024	01 Feb 202
	Machine Age	mls	Client Info		323150	312916	303532
	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	Iron	nnm	ASTM D5185m	<b>√</b> 8∩	18	10	4
WEAR	Chromium	ppm	ASTM D5185m		<1	10	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	1	0
	Titanium	ppm	ASTM D5185m	72	0	<1	0
	Silver	ppm	ASTM D5185m	~3	0	<1	0
	Aluminum	ppm	ASTM D5185m		2	1	1
	Lead	ppm	ASTM D5185m		3	4	2
	Copper	ppm	ASTM D5185m		<1	1	0
	Tin	ppm	ASTM D5185m		<1	2	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	Silicon	ppm	ASTM D5185m		3	4	3
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		2	2	0
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		1.4	0.5	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	7.3	6.6	6.0
	Sulfation	Abs/.1mm	*ASTM D7415		19.9	18.8	18.3
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	Scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>118	1	0	<1
	Boron	ppm	ASTM D5185m		4	4	2
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		57	58	57
	Manganese	ppm	ASTM D5185m		0	1	<1
	Magnesium	ppm	ASTM D5185m		879	850	929
	Calcium	ppm	ASTM D5185m		1076	1068	997
	Phosphorus	ppm	ASTM D5185m		941	1029	1034
	Zinc	ppm	ASTM D5185m		1163	1152	1199
	Sulfur	ppm	ASTM D5185m		2770	3343	2916
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	13.9	13.6
	Base Number (BN)	mg KOH/g	ASTM D2896		8.2	8.4	8.6
	Visc @ 100°C	cSt	ASTM D445		12.7	13.0	12.8







Certificate L2367

Laboratory

Sample No.

Lab Number : 06241396 Unique Number : 11130230

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0949247 Received **Tested** 

: 19 Jul 2024 Diagnosed Test Package : MOB 1 ( Additional Tests: TBN )

: 20 Jul 2024 : 20 Jul 2024 - Wes Davis

**CONCRETE SERVICE CO - FAY BLOCK** 161 BUILDERS BLVD FAYETTEVILLE, NC

US 28301 Contact: BRYAN VANNIMAN

bryanvanniman@fayblock.com T: (800)326-9198

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)