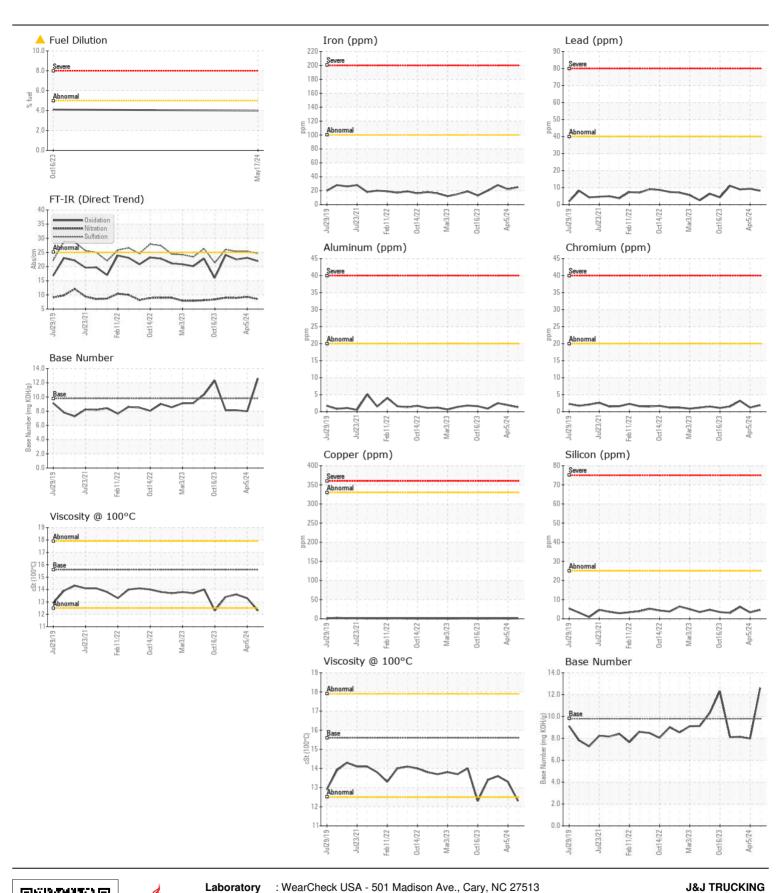
**WEAR** CONTAMINATION **FLUID CONDITION** 

**NORMAL MARGINAL NORMAL** 

Machine Id

75
Component
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		PCA0119753	PCA0111348	PCA011124
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.	Sample Date		Client Info		17 May 2024	05 Apr 2024	09 Feb 202
	Machine Age	mls	Client Info		634512	617118	597110
	Oil Age	mls	Client Info		20000	20000	20000
	Filter Age	mls	Client Info		10000	10000	10000
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				MARGINAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	25	22	28
	Chromium	ppm	ASTM D5185m	>20	2	1	3
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	<1	0	1
	Titanium	ppm	ASTM D5185m		<1	0	<1
	Silver	ppm	ASTM D5185m	>3	1	0	<1
	Aluminum	ppm	ASTM D5185m	>20	1	2	2
	Lead	ppm	ASTM D5185m	>40	8	9	9
	Copper	ppm	ASTM D5185m	>330	1	<1	1
	Tin	ppm	ASTM D5185m	>15	1	0	1
	Vanadium	ppm	ASTM D5185m		<1	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	3	6
CONTAININATION	Potassium	ppm	ASTM D5185m		3	4	3
Light fuel dilution occurring. No other contaminants were detected in the oil.	Fuel	%	ASTM D3524		<b>4.0</b>	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	1.6	1.3	1.5
	Nitration	Abs/cm	*ASTM D7624	>20	8.5	9.3	8.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	25.4	25.3
	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		2	6	6
	Boron	ppm	ASTM D5185m		7	0	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		1	0	0
	Molybdenum	ppm	ASTM D5185m		68	101	148
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		1007	910	1382
	Calcium	ppm	ASTM D5185m		1149	1018	1437
	Phosphorus	ppm	ASTM D5185m		1046	922	1357
	Zinc	ppm	ASTM D5185m		1306	1149	1724
	Sulfur	ppm	ASTM D5185m		3325	3217	4944
	Oxidation	Abs/.1mm	*ASTM D7414	>25	21.9	23.1	22.5
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	12.61	7.98	8.14
	Visc @ 100°C	cSt	ASTM D445	15.6	12.3	13.3	13.6





Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06191214

: PCA0119753 Unique Number: 11047966

Received **Tested** Diagnosed

: 24 May 2024 : 29 May 2024

: 29 May 2024 - Wes Davis

US 53919 Contact: JOHN HUTTER

Contact/Location: JOHN HUTTER - JJTBRA

johnh@jjtruckingbrandon.com T: (920)346-2880

N4661 OAK GROVE RD

Test Package : MOB 2 ( Additional Tests: FuelDilution, PercentFuel ) Certificate L2367 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: (920)346-8589

BRANDON, WI