

Machine Id  
**FREIGHTLINER 8405**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (44 QTS)**

**DIAGNOSIS**

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is no indication of any contamination in the oil.

**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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0088670</b>	PCA0051875	PCA0051794
Sample Date	Client Info			<b>08 Sep 2023</b>	21 Sep 2022	27 Apr 2022
Machine Age	mls Client Info			<b>572347</b>	775614	750134
Oil Age	mls Client Info			<b>572347</b>	25480	51249
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>34</b>	10	32
Chromium	ppm	ASTM D5185m	>6	<b>2</b>	1	2
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>50	<b>15</b>	6	26
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>4</b>	3	5
Tin	ppm	ASTM D5185m	>6	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	<1

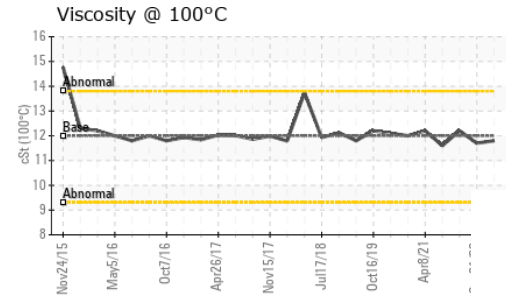
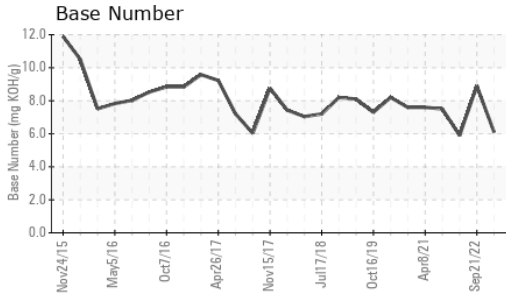
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>1</b>	0	3
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	50	<b>62</b>	59	64
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	950	<b>929</b>	927	902
Calcium	ppm	ASTM D5185m	1050	<b>1097</b>	1116	1088
Phosphorus	ppm	ASTM D5185m	995	<b>1064</b>	945	995
Zinc	ppm	ASTM D5185m	1180	<b>1198</b>	1251	1256
Sulfur	ppm	ASTM D5185m	2600	<b>2483</b>	3142	2416

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>4</b>	4	6
Sodium	ppm	ASTM D5185m		<b>60</b>	<1	4
Potassium	ppm	ASTM D5185m	>20	<b>39</b>	0	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.5	1.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.8</b>	9.3	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.5</b>	21.6	25.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.2</b>	18.3	22.7
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.1</b>	8.9	5.9

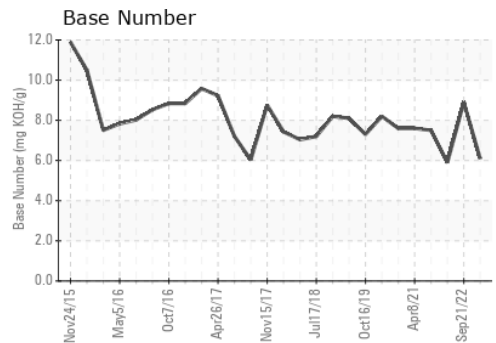
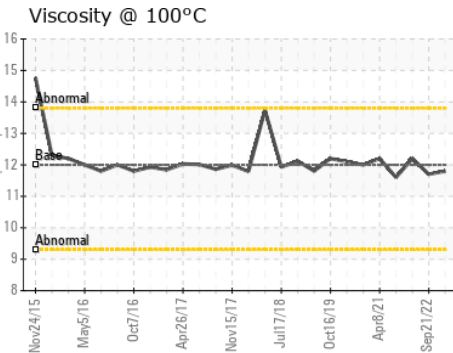
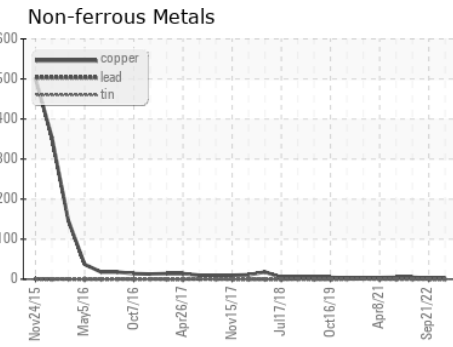
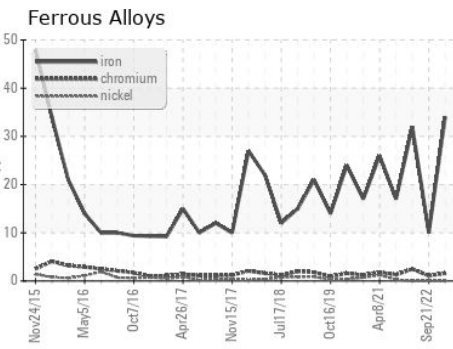
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.8	11.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0088670 **Received** : 31 Oct 2023  
**Lab Number** : 05994051 **Diagnosed** : 31 Oct 2023  
**Unique Number** : 10722411 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**MIDWEST MOTOR EXPRESS**  
 2169 MUSTANG DR  
 MOUNDS VIEW, MN  
 US 55112  
 Contact: FRANK DIETZ  
 frank.dietz@mmeinc.com  
 T: (763)225-6382  
 F: x:

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)