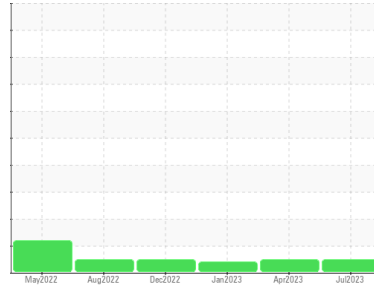




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**FREIGHTLINER BUS 12414 (S/N 4VZGCJAA9XCB71657)**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

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.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected 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>WC0831193</b>	WC0797809	WC0775877
Sample Date	Client Info	<b>18 Jul 2023</b>	11 Apr 2023	13 Jan 2023
Machine Age	days	<b>0</b>	0	0
Oil Age	days	<b>97</b>	88	140
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	ATTENTION

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>2</b>	2	4
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>1</b>	0	1
Lead	ppm ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>0</b>	<1	1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 1	<b>17</b>	11	26
Barium	ppm ASTM D5185m 1	<b>&lt;1</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>64</b>	59	65
Manganese	ppm ASTM D5185m 1	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>998</b>	859	918
Calcium	ppm ASTM D5185m 1070	<b>1206</b>	1019	1148
Phosphorus	ppm ASTM D5185m 1150	<b>1139</b>	999	1015
Zinc	ppm ASTM D5185m 1270	<b>1338</b>	1138	1194
Sulfur	ppm ASTM D5185m 2060	<b>4079</b>	3163	3785

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>2</b>	3	3
Sodium	ppm ASTM D5185m	<b>1</b>	0	1
Potassium	ppm ASTM D5185m >20	<b>0</b>	<1	0
Fuel	% ASTM D3524 >5	<b>1.0</b>	<1.0	1.0

## INFRA-RED

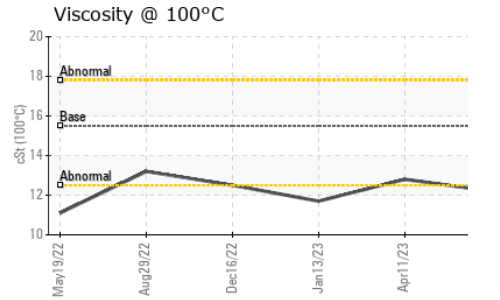
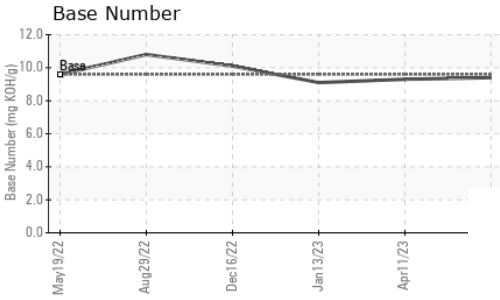
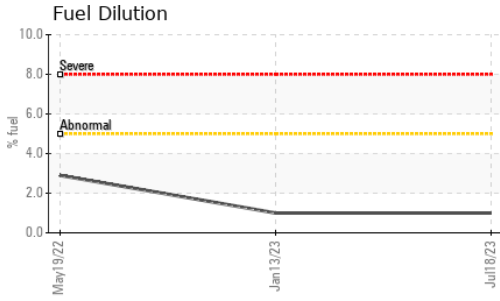
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>5.0</b>	4.5	5.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.3</b>	17.0	17.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>12.7</b>	12.6	12.6
Base Number (BN)	mg KOH/g ASTM D2896 9.6	<b>9.4</b>	9.3	9.1



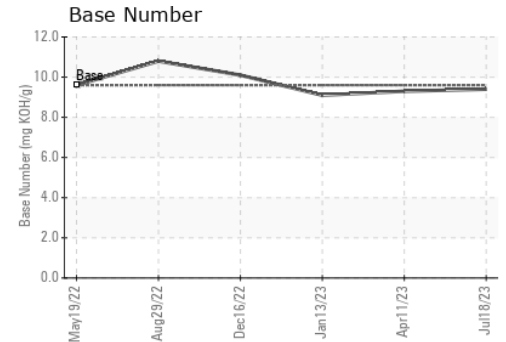
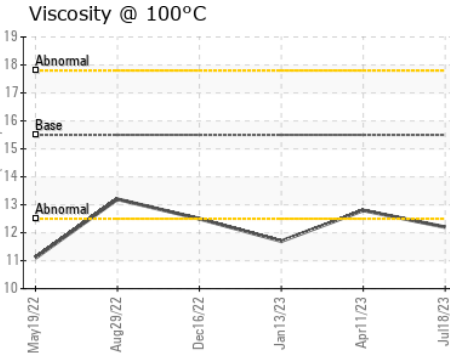
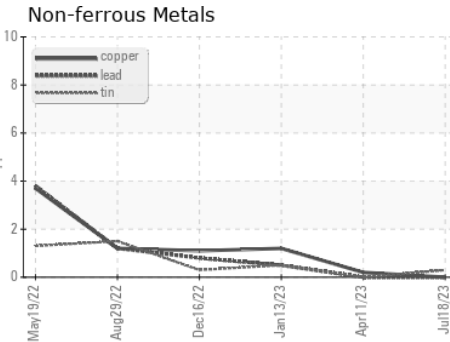
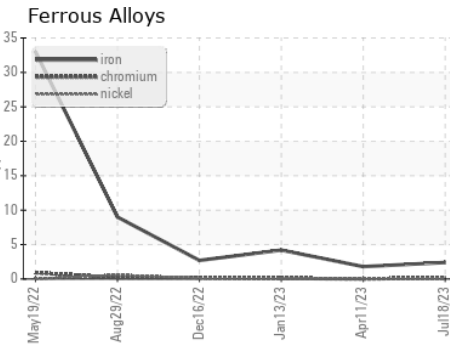
# OIL ANALYSIS REPORT



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	15.5	12.2	12.8 ▲ 11.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0831193 **Received** : 24 Jul 2023  
**Lab Number** : 05905246 **Diagnosed** : 26 Jul 2023  
**Unique Number** : 10566602 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**TRADER CONSTRUCTION CO.**  
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 US 28563  
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 F: (252)638-4871

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)