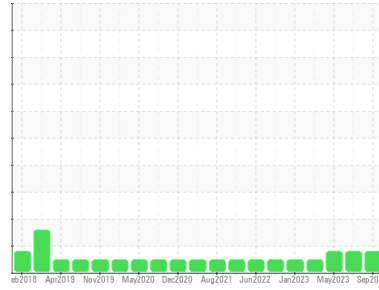


Machine Id  
**FREIGHTLINER 684390**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (40 QTS)**



## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The aluminum level is abnormal. All other 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0106240</b>	PCA0095931	PCA0097999
Sample Date	Client Info		<b>15 Sep 2023</b>	10 Jun 2023	18 May 2023
Machine Age	mls	Client Info	<b>446844</b>	0	424650
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	Not Chngd
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## 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>73</b>	83	79
Chromium	ppm	ASTM D5185m >20	<b>8</b>	8	8
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >30	<b>▲ 47</b>	▲ 66	▲ 59
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >30	<b>6</b>	9	8
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	2	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	<b>0</b>	5	3
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>69</b>	77	79
Manganese	ppm	ASTM D5185m 0	<b>1</b>	2	1
Magnesium	ppm	ASTM D5185m 950	<b>951</b>	1019	951
Calcium	ppm	ASTM D5185m 1050	<b>1085</b>	1189	1137
Phosphorus	ppm	ASTM D5185m 995	<b>1021</b>	1061	1004
Zinc	ppm	ASTM D5185m 1180	<b>1258</b>	1365	1241
Sulfur	ppm	ASTM D5185m 2600	<b>2995</b>	3288	2756

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>7</b>	9	10
Sodium	ppm	ASTM D5185m	<b>3</b>	5	5
Potassium	ppm	ASTM D5185m >20	<b>24</b>	22	23

## INFRA-RED

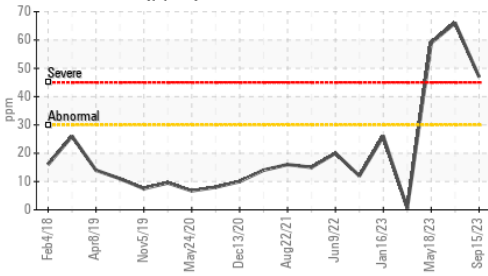
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.1</b>	2	1.9
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.9</b>	12.2	12.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.3</b>	26.4	26.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.1</b>	21.8	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	<b>7.1</b>	5.1	5.4

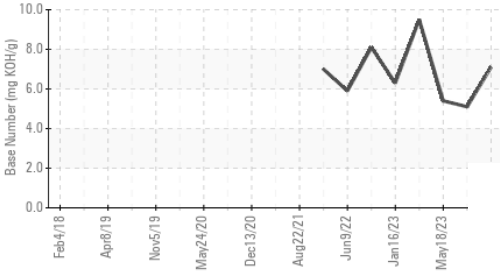
# OIL ANALYSIS REPORT

▲ Aluminum (ppm)



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

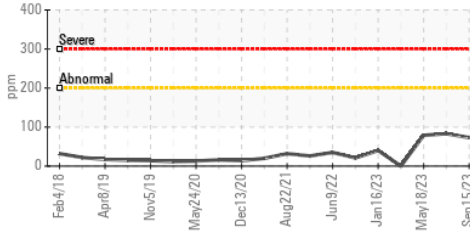
Base Number



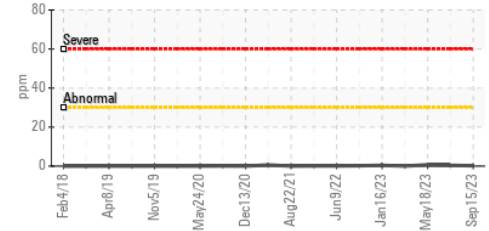
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	12.0	12.0

### GRAPHS

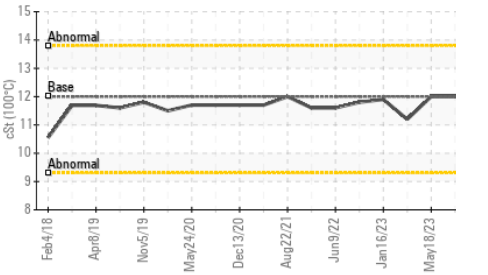
Iron (ppm)



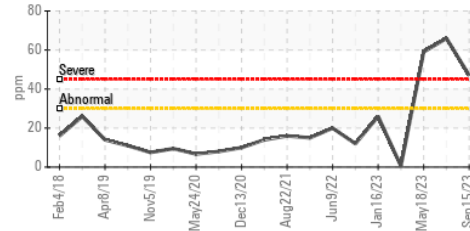
Lead (ppm)



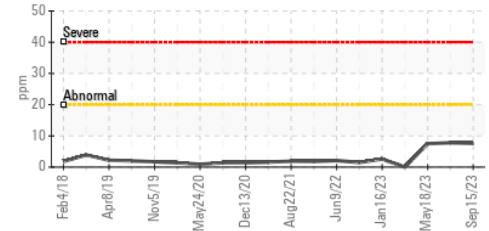
Viscosity @ 100°C



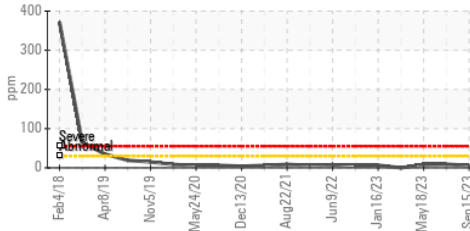
▲ Aluminum (ppm)



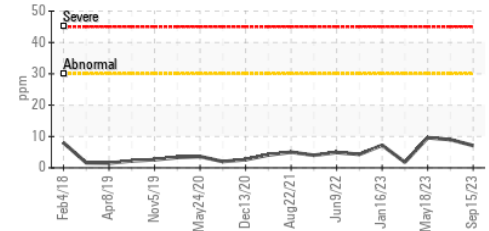
Chromium (ppm)



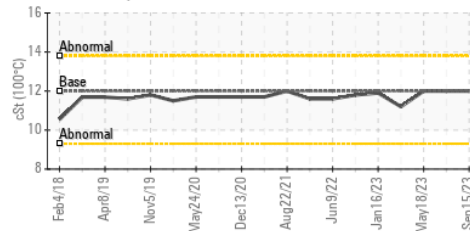
Copper (ppm)



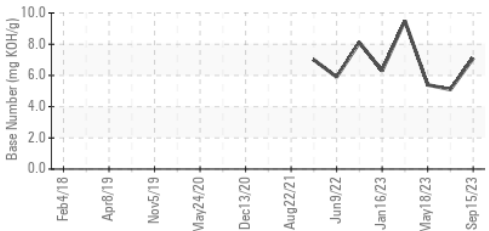
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0106240 **Received** : 20 Sep 2023  
**Lab Number** : 05956186 **Diagnosed** : 21 Sep 2023  
**Unique Number** : 10657399 **Diagnostician** : Angela Borella  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #119**  
 39 INDUSTRIAL AVE  
 HASBROUCK HEIGHTS, NJ  
 US 07604  
 Contact: MIKE LONGETTE  
 mlongette@millertransgroup.com

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)

T: (201)528-7053