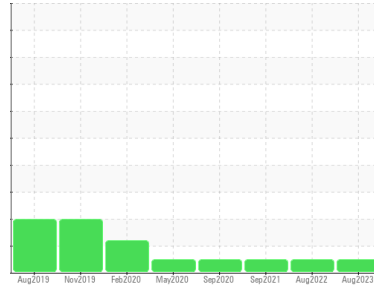


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**406337**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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>PCA0097328</b>	PCA0071686	PCA0041987	
Sample Date	Client Info	<b>06 Aug 2023</b>	11 Aug 2022	25 Sep 2021	
Machine Age	mls	Client Info	<b>252190</b>	188166	132589
Oil Age	mls	Client Info	<b>64024</b>	55577	52064
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 >5	<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 >100	<b>70</b>	53	37
Chromium	ppm ASTM D5185m >20	<b>4</b>	5	5
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	1	<1
Titanium	ppm ASTM D5185m	<b>55</b>	1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	1	<1
Aluminum	ppm ASTM D5185m >20	<b>37</b>	36	33
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>12</b>	16	44
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	2	2
Antimony	ppm ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	2	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	<b>8</b>	2	4
Barium	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Molybdenum	ppm ASTM D5185m 50	<b>31</b>	58	65
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	2	1
Magnesium	ppm ASTM D5185m 950	<b>631</b>	920	980
Calcium	ppm ASTM D5185m 1050	<b>1539</b>	1101	1205
Phosphorus	ppm ASTM D5185m 995	<b>948</b>	892	961
Zinc	ppm ASTM D5185m 1180	<b>1265</b>	1172	1309
Sulfur	ppm ASTM D5185m 2600	<b>3476</b>	2683	2348

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>8</b>	8	6
Sodium	ppm ASTM D5185m	<b>4</b>	5	4
Potassium	ppm ASTM D5185m >20	<b>32</b>	37	55

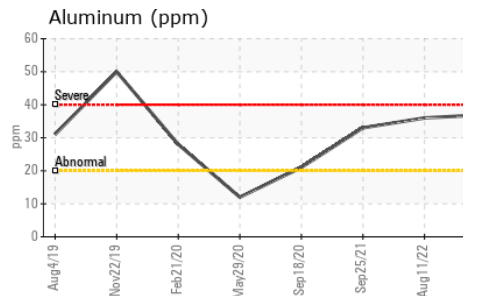
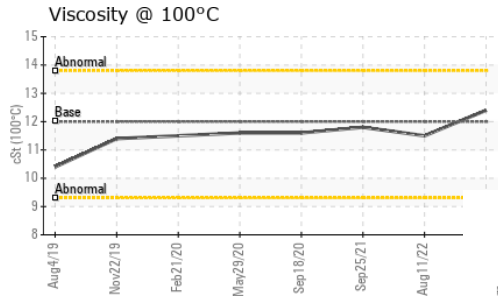
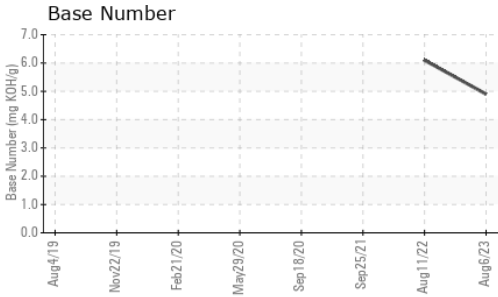
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>2.1</b>	1.8	1.2
Nitration	Abs/cm *ASTM D7624 >20	<b>12.8</b>	12.5	10
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>29.9</b>	27.1	22.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>22.3</b>	19.7	17
Base Number (BN)	mg KOH/g ASTM D2896	<b>4.9</b>	6.1	---

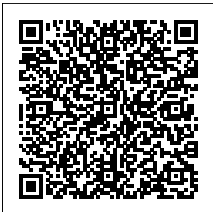
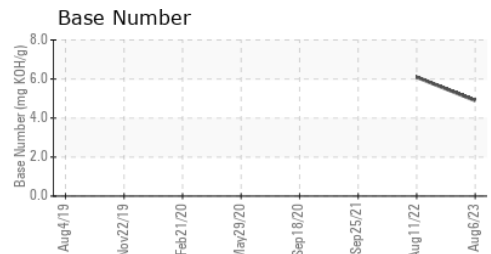
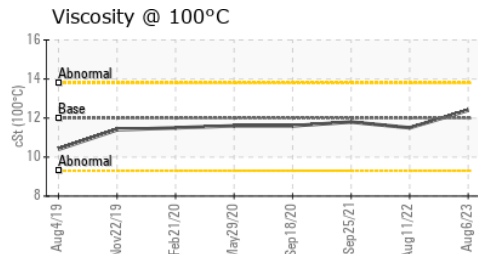
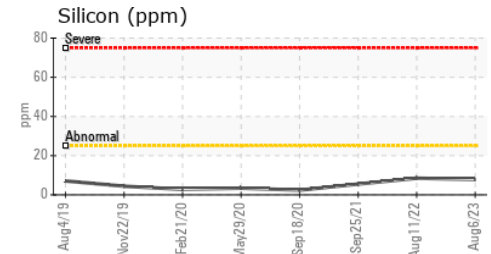
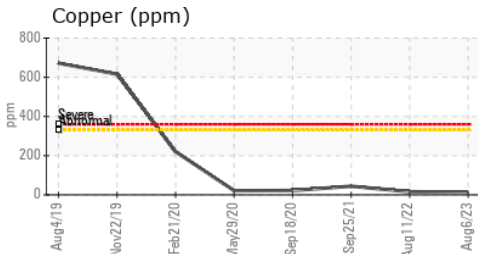
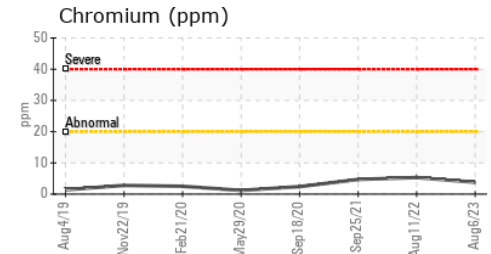
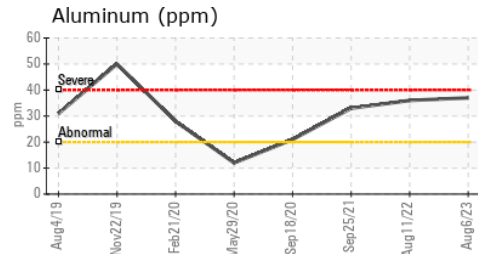
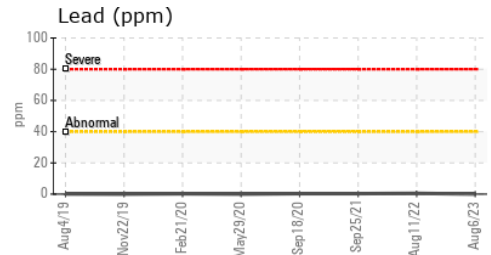
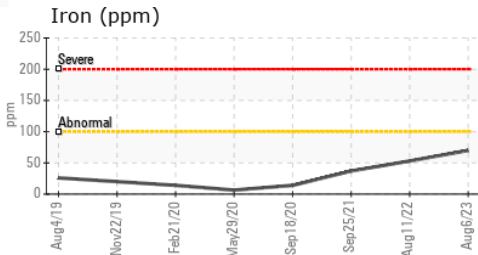
# OIL ANALYSIS REPORT



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	12.00	<b>12.4</b>	11.5	11.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097328 **Received** : 20 Oct 2023  
**Lab Number** : 05984522 **Diagnosed** : 23 Oct 2023  
**Unique Number** : 10701817 **Diagnostician** : Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #123**  
 66 KELLER AVENUE  
 LANCASTER, PA  
 US 17601  
 Contact: RON ROBERTS  
 roberts@millertransgroup.com  
 T: (717)945-6205  
 F: (717)945-5818

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)