

Machine Id  
**KENWORTH 470681**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (22 QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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 suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PCA0100919</b>	PCA0094519	PCA0079765
Sample Date	Client Info		<b>08 Aug 2023</b>	27 Mar 2023	05 Nov 2022
Machine Age	mls	Client Info	<b>199624</b>	0	176467
Oil Age	mls	Client Info	<b>20000</b>	0	0
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>51</b>	7	23
Chromium	ppm	ASTM D5185m >20	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>25</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>2</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	<b>7</b>	53	6
Barium	ppm	ASTM D5185m 0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>73</b>	44	63
Manganese	ppm	ASTM D5185m 0	<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m 950	<b>978</b>	567	861
Calcium	ppm	ASTM D5185m 1050	<b>1325</b>	1710	1085
Phosphorus	ppm	ASTM D5185m 995	<b>1055</b>	982	931
Zinc	ppm	ASTM D5185m 1180	<b>1387</b>	1166	1167
Sulfur	ppm	ASTM D5185m 2600	<b>3808</b>	3594	3240

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	5	7
Sodium	ppm	ASTM D5185m	<b>6</b>	3	<1
Potassium	ppm	ASTM D5185m >20	<b>51</b>	6	3

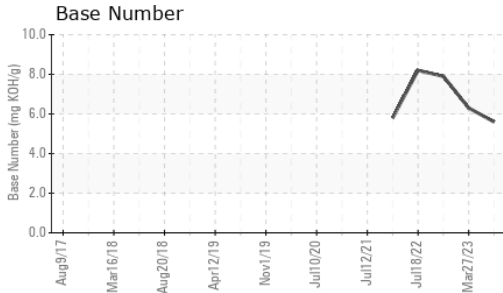
## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.2</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>13.7</b>	11.1	13.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>26.2</b>	20.1	24.2

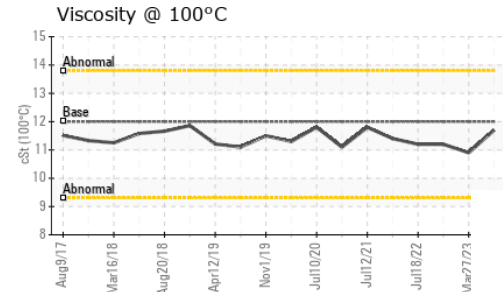
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.3</b>	19.0	22.2
Base Number (BN)	mg KOH/g	ASTM D2896	<b>5.6</b>	6.3	7.9

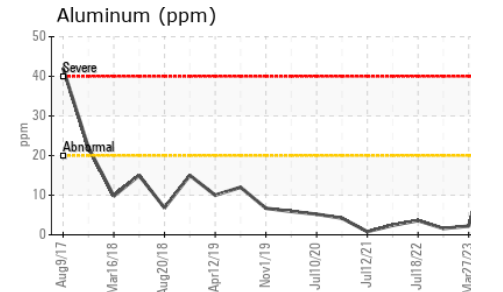
# OIL ANALYSIS REPORT



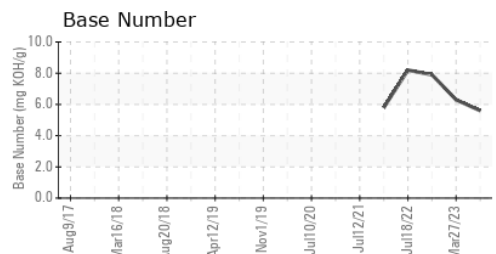
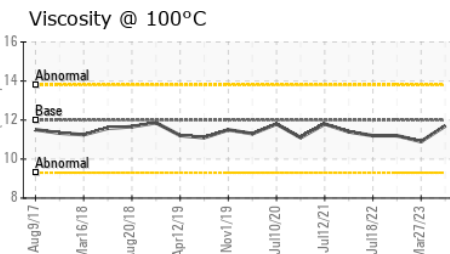
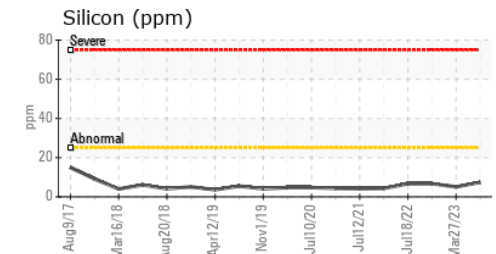
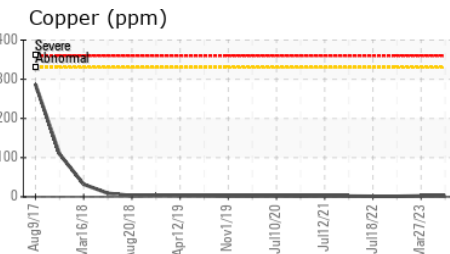
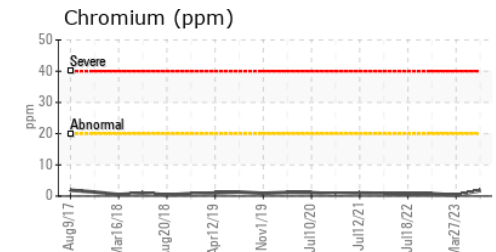
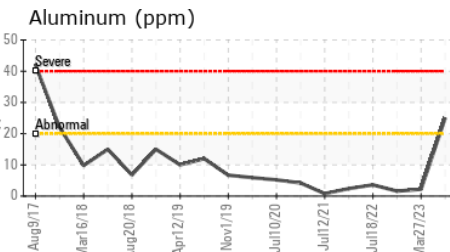
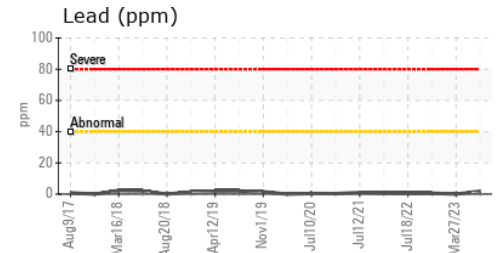
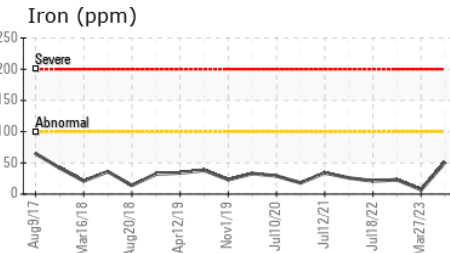
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	11.7	10.9	11.2



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0100919 **Received** : 14 Aug 2023  
**Lab Number** : 05922987 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10602934 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**MILLER TRUCK LEASING #114**  
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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)