



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area  
**[817928]**  
 Machine Id  
**188054**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CU0021205</b>	---	---
Sample Date		Client Info		<b>18 Sep 2023</b>	---	---
Machine Age	hrs	Client Info		<b>33196</b>	---	---
Oil Age	hrs	Client Info		<b>1768</b>	---	---
Filter Age	hrs	Client Info		<b>1768</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>7</b>	---	---
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	---	---
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	---	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---

## CONTAMINATION

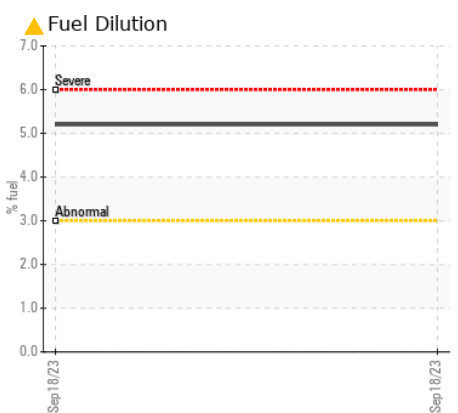
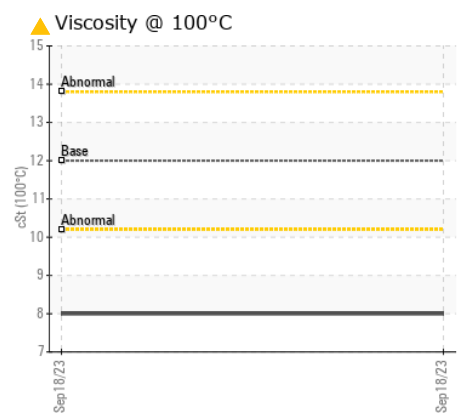
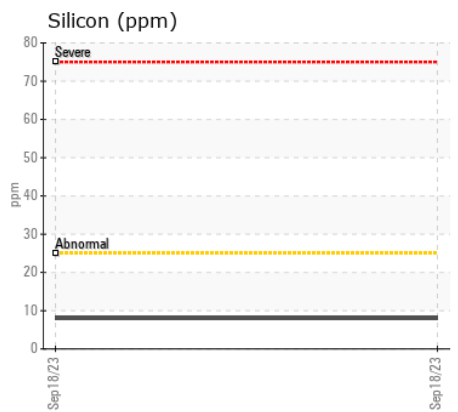
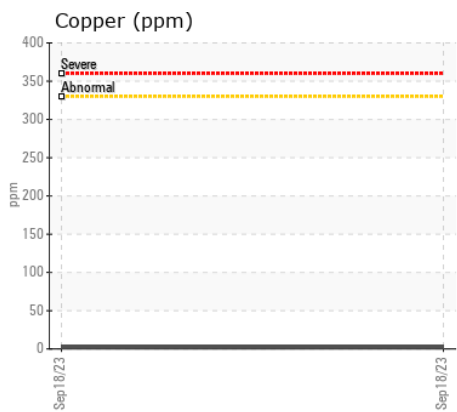
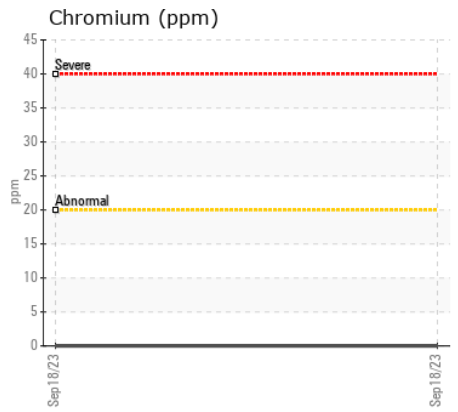
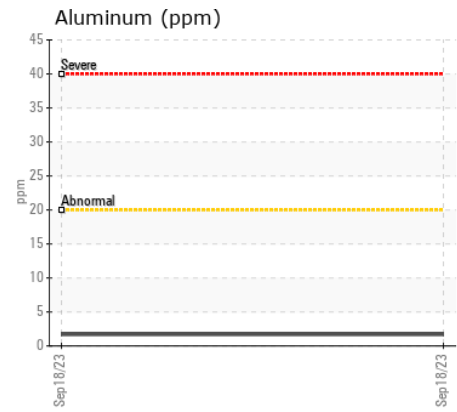
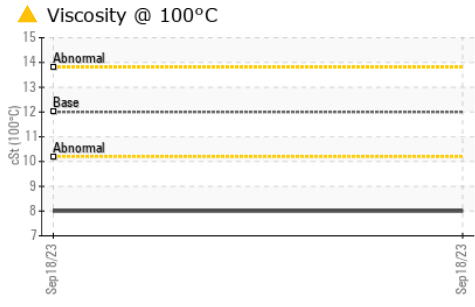
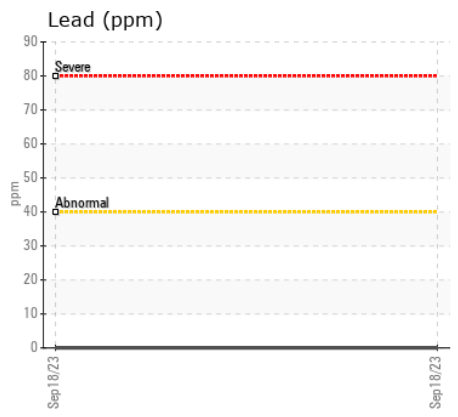
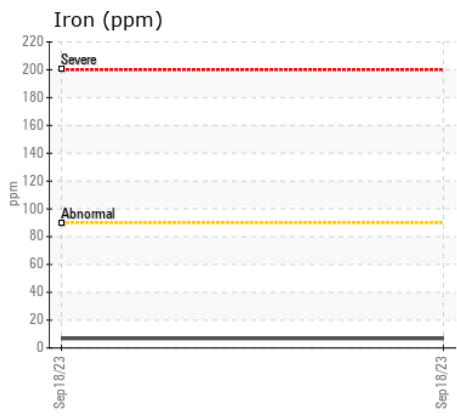
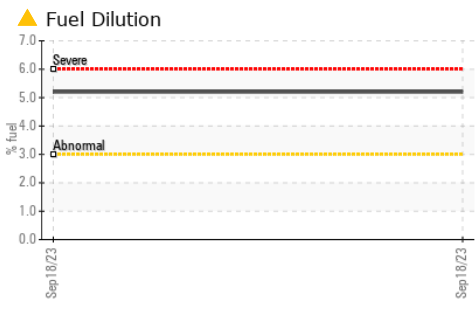
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>8</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	---	---
Fuel	%	ASTM D7593*	>3.0	<b>▲ 5.2</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	ASTM D7844*	>6	<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.8</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.5</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---

## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>23</b>	---	---
Boron	ppm	ASTM D5185(m)	2	<b>39</b>	---	---
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	50	<b>44</b>	---	---
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)	950	<b>263</b>	---	---
Calcium	ppm	ASTM D5185(m)	1050	<b>994</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	995	<b>589</b>	---	---
Zinc	ppm	ASTM D5185(m)	1180	<b>675</b>	---	---
Sulfur	ppm	ASTM D5185(m)	2600	<b>2083</b>	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.6</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>▲ 8</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : CU0021205 **Received** : 26 Oct 2023  
**Lab Number** : 02592032 **Tested** : 27 Oct 2023  
**Unique Number** : 5669111 **Diagnosed** : 27 Oct 2023 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**CITY OF TORONTO**  
 120 DISCO ROAD  
 TORONTO, ON  
 CA M9W 1M4  
 Contact: DAVE C

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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