



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**INTERNATIONAL 51979**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 10W30 (--- LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0934977</b>	WC0892081	---
Sample Date		Client Info		<b>25 Jun 2024</b>	12 Mar 2024	---
Machine Age	kms	Client Info		<b>94391</b>	58577	---
Oil Age	kms	Client Info		<b>25831</b>	0	---
Filter Age	kms	Client Info		<b>25831</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	<b>19</b>	53	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	---
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>28</b>	12	---
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	4	---
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	20	---
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	2	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## CONTAMINATION

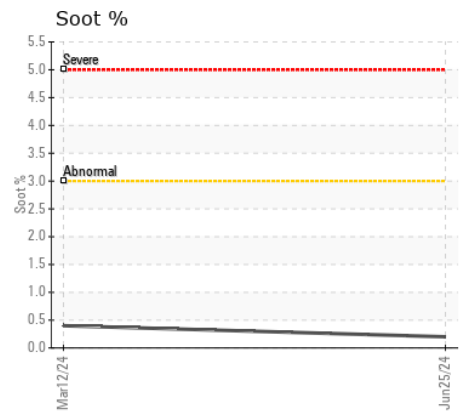
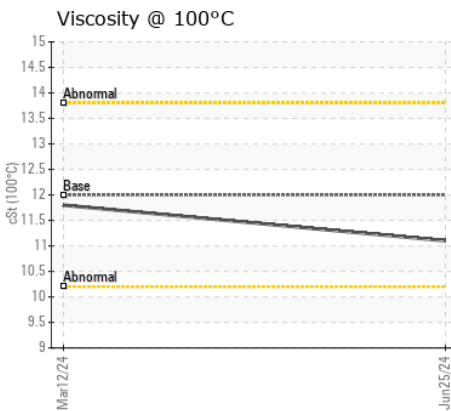
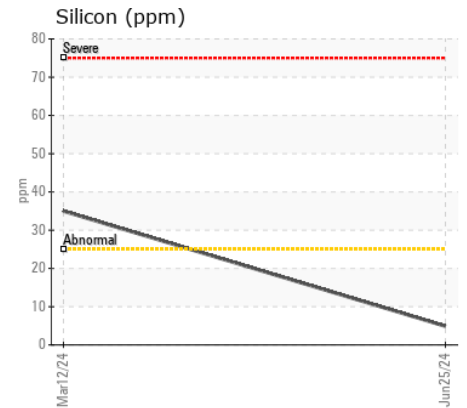
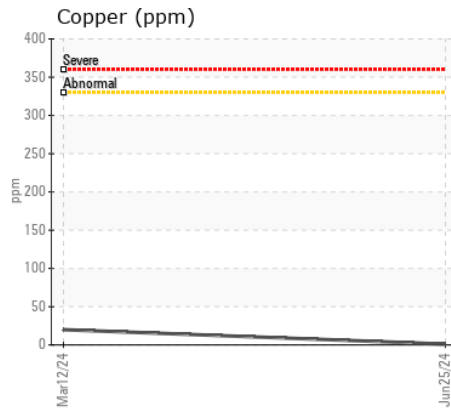
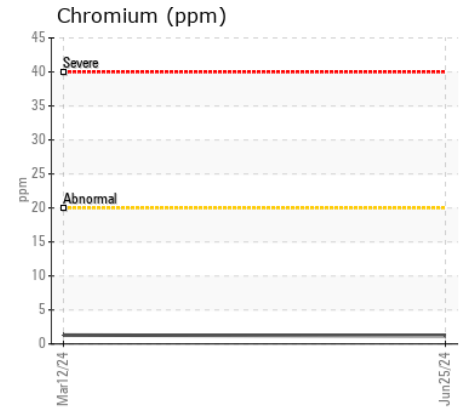
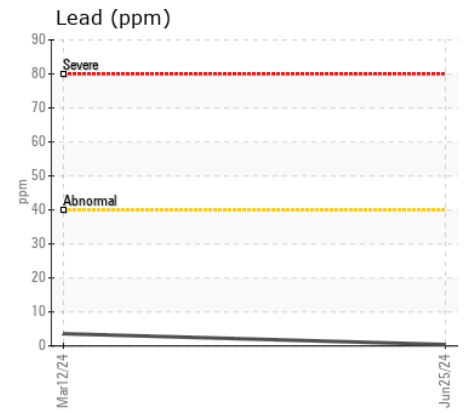
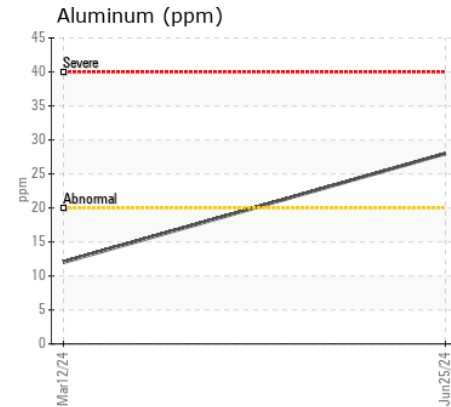
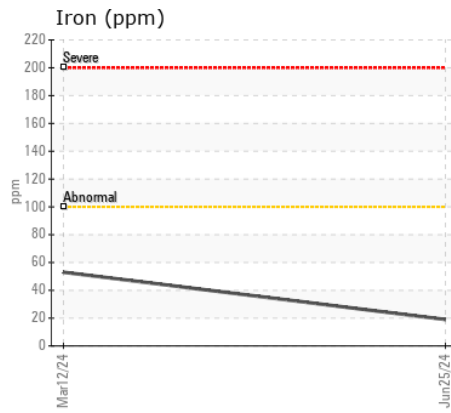
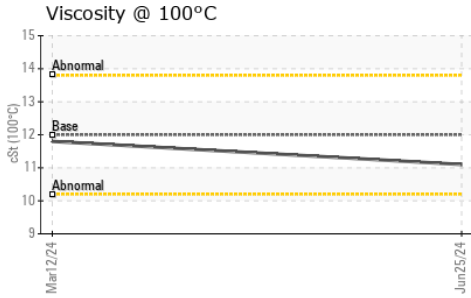
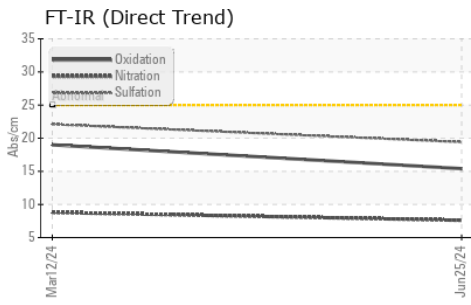
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	35	---
Potassium	ppm	ASTM D5185(m)	>20	<b>62</b>	36	---
Fuel		WC Method	>2.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	ASTM D7844*	>3	<b>0.2</b>	0.4	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.6</b>	8.8	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.4</b>	22.1	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	---

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	4	---
Boron	ppm	ASTM D5185(m)	2	<b>3</b>	43	---
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	5	---
Molybdenum	ppm	ASTM D5185(m)	50	<b>59</b>	66	---
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	4	---
Magnesium	ppm	ASTM D5185(m)	950	<b>944</b>	501	---
Calcium	ppm	ASTM D5185(m)	1050	<b>1043</b>	1738	---
Phosphorus	ppm	ASTM D5185(m)	995	<b>953</b>	985	---
Zinc	ppm	ASTM D5185(m)	1180	<b>1175</b>	1190	---
Sulfur	ppm	ASTM D5185(m)	2600	<b>2349</b>	2392	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.4</b>	19.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>11.1</b>	11.8	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0934977 **Received** : 05 Jul 2024  
**Lab Number** : 02645798 **Tested** : 05 Jul 2024  
**Unique Number** : 5803337 **Diagnosed** : 05 Jul 2024 - Wes Davis  
**Test Package** : MOB 1

**MANITOU LIN TRANSPORT**  
 75 MUMFORD ROAD  
 LIVELY, ON  
 CA P3Y 1L1  
 Contact: Todd Smith  
 tosmith@manitoulintransport.com  
 T: (705)562-3302  
 F: x:

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.