



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**INTERNATIONAL 52872**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SAE 10W30 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0893712</b>	WC0857679	WC0857684
Sample Date		Client Info		<b>17 Apr 2024</b>	06 Dec 2023	29 Sep 2023
Machine Age	mls	Client Info		<b>325159</b>	276250	258542
Oil Age	mls	Client Info		<b>25229</b>	26134	44214
Filter Age	mls	Client Info		<b>25229</b>	26134	44214
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>18</b>	15	15
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	1	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

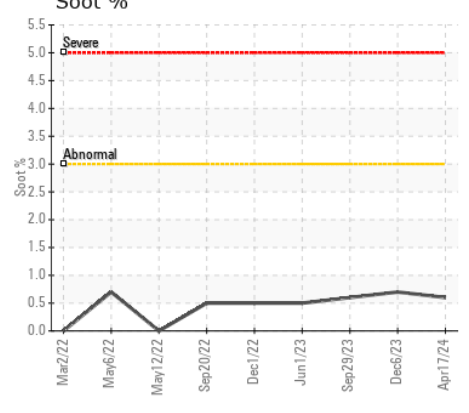
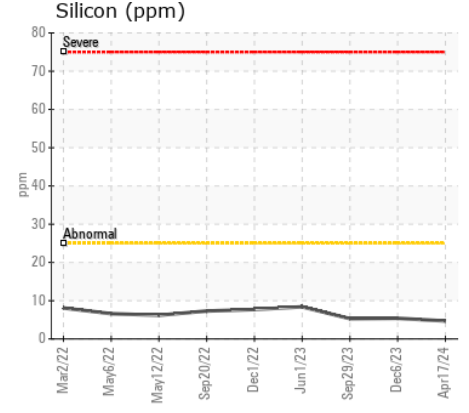
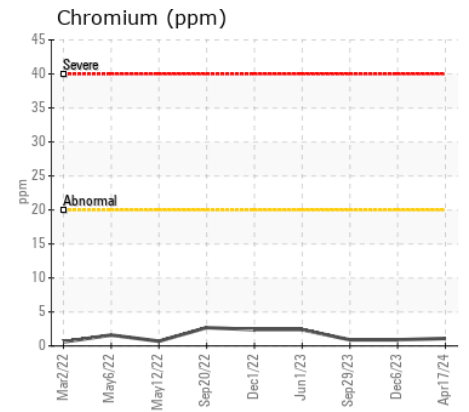
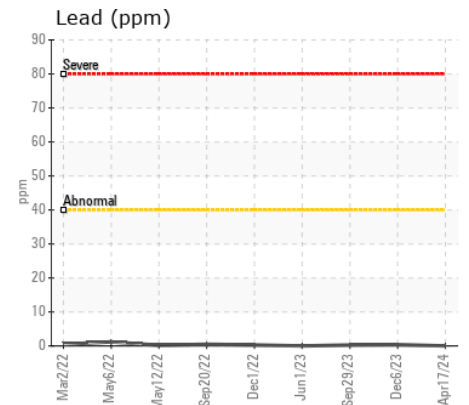
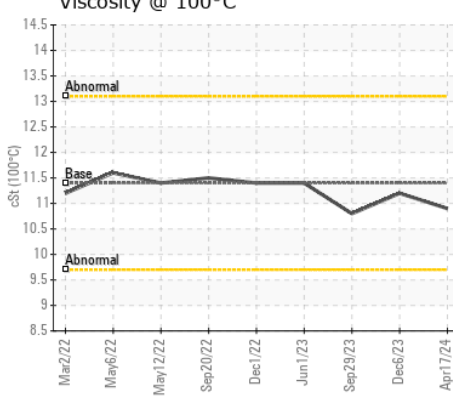
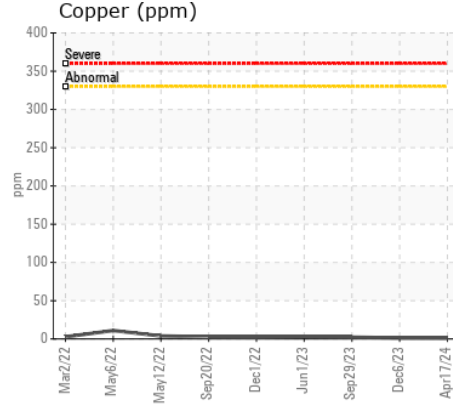
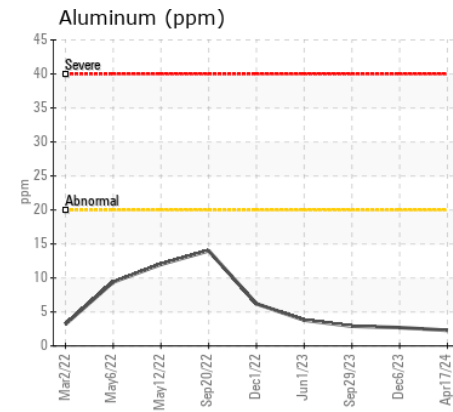
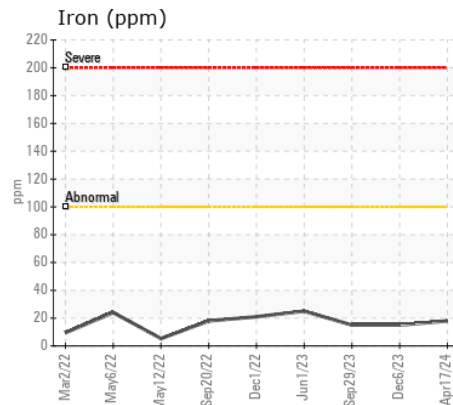
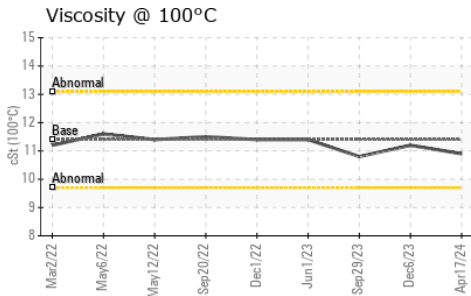
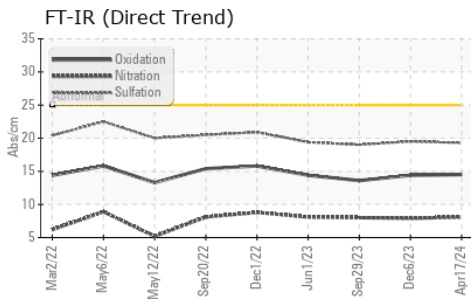
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	5	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Fuel		WC Method	>2.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.6</b>	0.7	0.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.1</b>	7.9	8.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.3</b>	19.5	19.0
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Boron	ppm	ASTM D5185(m)	1	<b>7</b>	4	12
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	1	<b>62</b>	62	66
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	10	<b>946</b>	992	904
Calcium	ppm	ASTM D5185(m)	2942	<b>1088</b>	1102	1087
Phosphorus	ppm	ASTM D5185(m)	1102	<b>974</b>	1012	956
Zinc	ppm	ASTM D5185(m)	1351	<b>1141</b>	1215	1128
Sulfur	ppm	ASTM D5185(m)	3903	<b>2421</b>	2597	2562
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.5</b>	14.4	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	<b>10.9</b>	11.2	10.8



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0893712 **Received** : 03 Jun 2024  
**Lab Number** : **02639372** **Tested** : 03 Jun 2024  
**Unique Number** : 5788534 **Diagnosed** : 03 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

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.

**MANITOU LIN TRANSPORT**  
 161 MAIN STREET  
 THUNDER BAY, ON  
 CA P7B 6S5  
 Contact: Ivan Brady  
 ibrady@manitoulintransport.com  
 T: (807)345-6501  
 F: (807)345-6731