



Machine Id  
**512009**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SAE 10W30 (--- GAL)**

### RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter 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>GFL0108178</b>	GFL0090883	GFL0079643
Sample Date		Client Info		<b>13 Feb 2024</b>	26 Sep 2023	11 May 2023
Machine Age	kms	Client Info		<b>263864</b>	206384	150984
Oil Age	kms	Client Info		<b>57480</b>	0	0
Filter Age	kms	Client Info		<b>57480</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>30</b>	29	29
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>2</b>	1	5
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	3	4
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	2	3
Copper	ppm	ASTM D5185(m)	>330	<b>12</b>	18	66
Tin	ppm	ASTM D5185(m)	>15	<b>2</b>	1	2
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

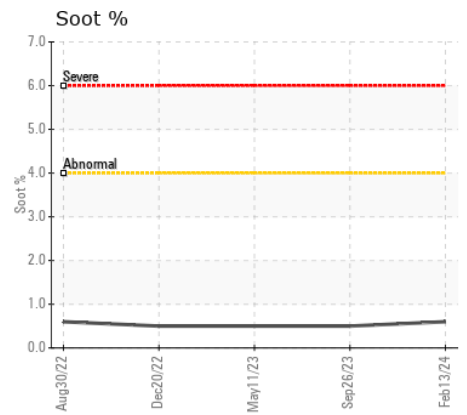
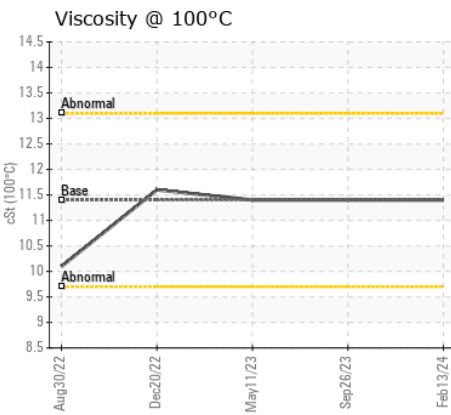
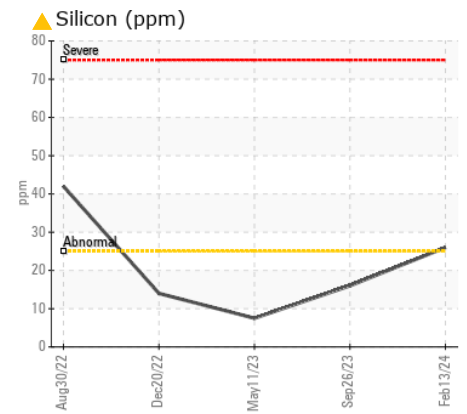
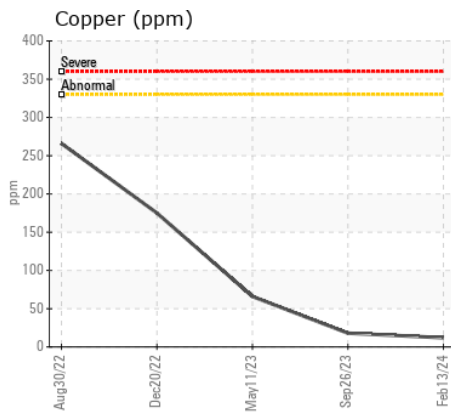
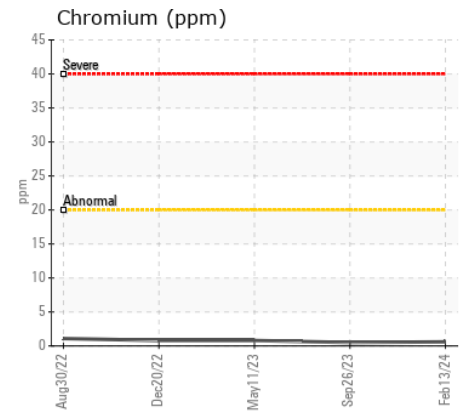
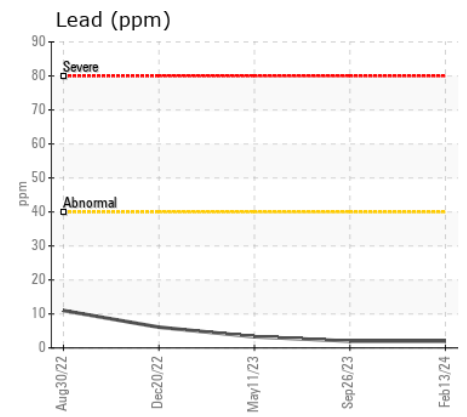
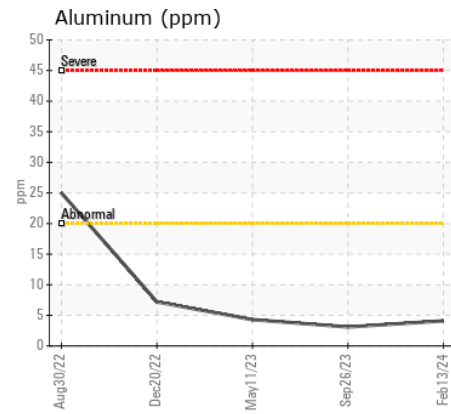
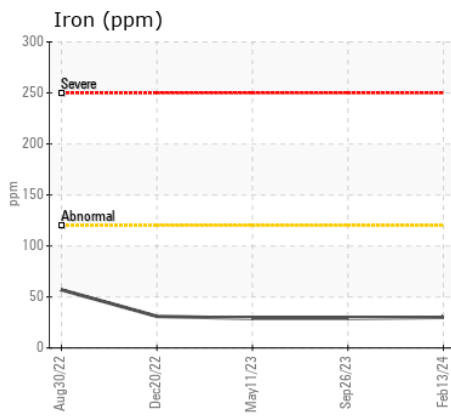
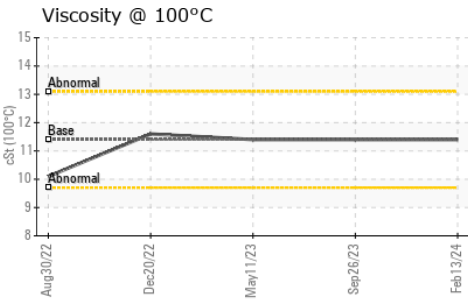
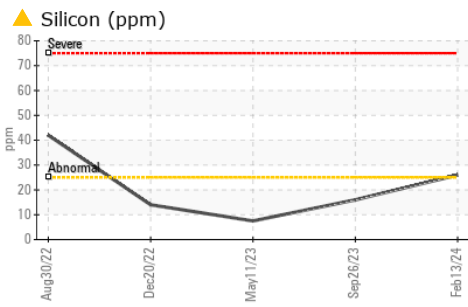
There is a moderate concentration of dirt present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>▲ 26</b>	16	8
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	4	7
Fuel		WC Method	>3.0	<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*	>4	<b>0.6</b>	0.5	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.8</b>	10.5	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>24.4</b>	22.9	23.2
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	4	2
Boron	ppm	ASTM D5185(m)	1	<b>2</b>	4	3
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	1	<b>66</b>	66	64
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185(m)	10	<b>1022</b>	942	946
Calcium	ppm	ASTM D5185(m)	2942	<b>1180</b>	1158	1289
Phosphorus	ppm	ASTM D5185(m)	1102	<b>988</b>	887	965
Zinc	ppm	ASTM D5185(m)	1351	<b>1241</b>	1178	1239
Sulfur	ppm	ASTM D5185(m)	3903	<b>2459</b>	2155	2196
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.6</b>	18.8	19.2
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	<b>11.4</b>	11.4	11.4



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0108178 **Received** : 15 Feb 2024  
**Lab Number** : 02615895 **Tested** : 15 Feb 2024  
**Unique Number** : 5733005 **Diagnosed** : 15 Feb 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Visual )

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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.