



WEAR	<b>SEVERE</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**731043**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- LTR)**

**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>GFL0110248</b>	GFL0085860	GFL0071063
Sample Date		Client Info		<b>21 Feb 2024</b>	10 Aug 2023	11 Feb 2023
Machine Age	hrs	Client Info		<b>6512</b>	5383	4382
Oil Age	hrs	Client Info		<b>600</b>	1200	1200
Filter Age	hrs	Client Info		<b>600</b>	1200	1200
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	NORMAL	NORMAL

**WEAR**

Chromium ppm levels are severe. Ring wear is indicated. A cylinder ring may be cracked or broken.

Iron	ppm	ASTM D5185(m)	>50	<b>29</b>	10	13
Chromium	ppm	ASTM D5185(m)	>4	<b>17</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>9	<b>4</b>	2	2
Lead	ppm	ASTM D5185(m)	>30	<b>12</b>	2	2
Copper	ppm	ASTM D5185(m)	>35	<b>2</b>	2	3
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

There is no indication of any contamination in the oil.

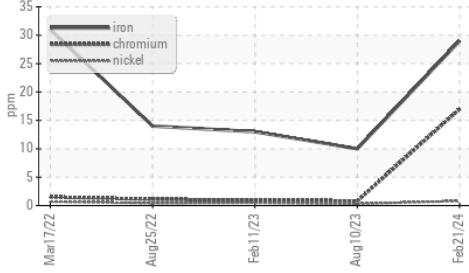
Silicon	ppm	ASTM D5185(m)	>+100	<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>---</b>	---	---
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>12.4</b>	11.3	12.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>27.0</b>	24.1	26.2
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

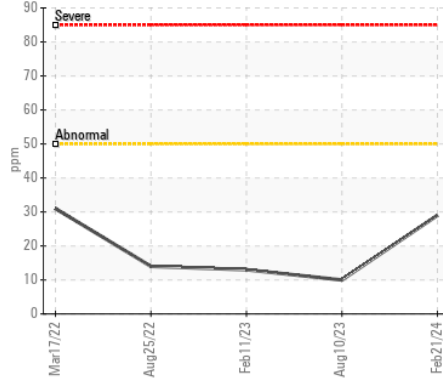
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<b>10</b>	8	10
Boron	ppm	ASTM D5185(m)	50	<b>5</b>	7	6
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>58</b>	53	53
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	<b>614</b>	582	574
Calcium	ppm	ASTM D5185(m)	1510	<b>1641</b>	1526	1705
Phosphorus	ppm	ASTM D5185(m)	780	<b>738</b>	713	747
Zinc	ppm	ASTM D5185(m)	870	<b>951</b>	915	942
Sulfur	ppm	ASTM D5185(m)	2040	<b>2185</b>	2025	2062
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.1</b>	18.2	20.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	<b>13.8</b>	13.6	14.1

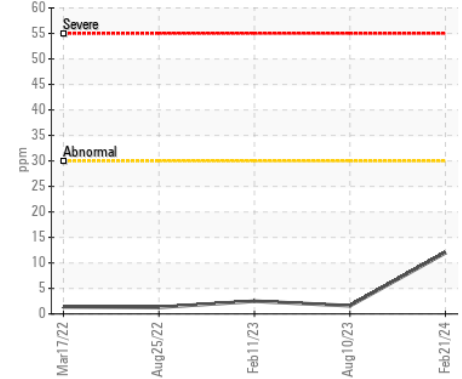
**Ferrous Alloys**



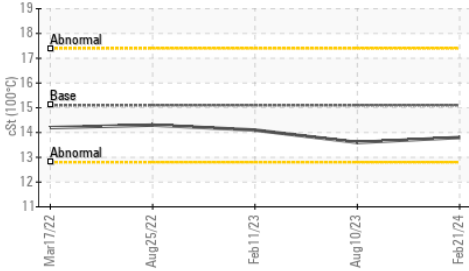
**Iron (ppm)**



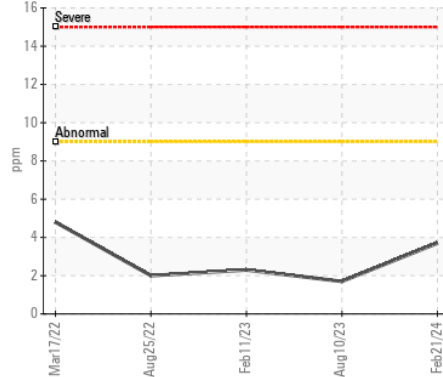
**Lead (ppm)**



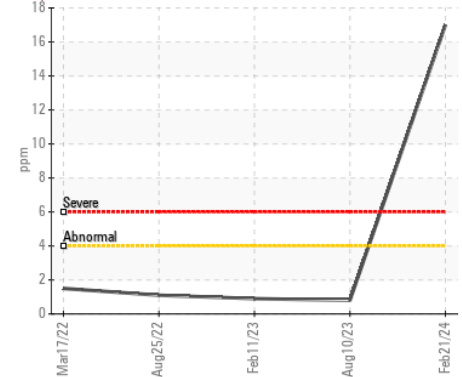
**Viscosity @ 100°C**



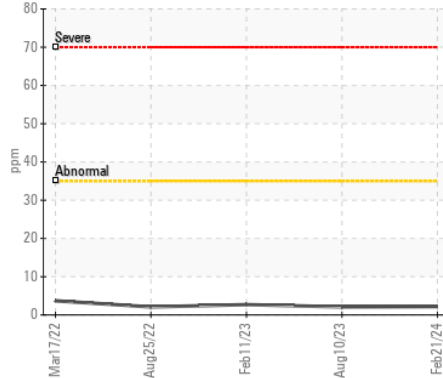
**Aluminum (ppm)**



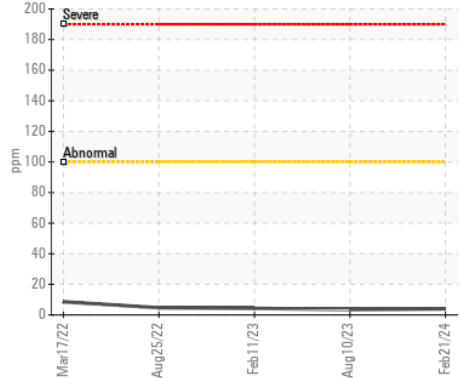
**Chromium (ppm)**



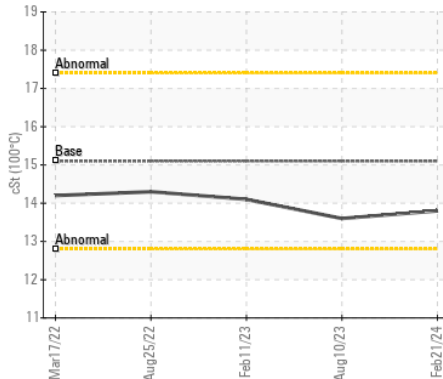
**Copper (ppm)**



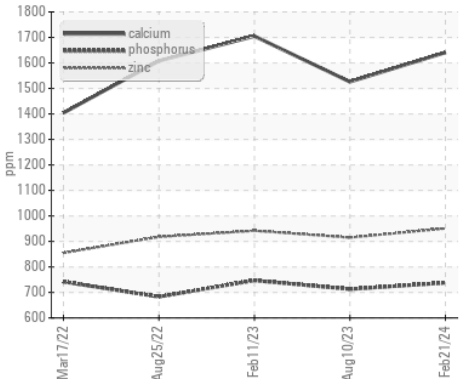
**Silicon (ppm)**



**Viscosity @ 100°C**



**Additives**



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0110248  
**Lab Number** : 02617599  
**Unique Number** : 5734709  
**Test Package** : MOB 1

**Received** : 23 Feb 2024  
**Tested** : 23 Feb 2024  
**Diagnosed** : 23 Feb 2024 - Kevin Marson

**GFL Environmental - 209 - Hamilton**

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Stoney Creek, ON  
CA L8E 3X7

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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.