



Machine Id  
**831046**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0112419</b>	GFL0091588	GFL0070729
Sample Date		Client Info		<b>22 Feb 2024</b>	30 Oct 2023	01 Mar 2023
Machine Age	hrs	Client Info		<b>3312</b>	2700	1658
Oil Age	hrs	Client Info		<b>0</b>	0	585
Filter Age	hrs	Client Info		<b>0</b>	0	585
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)	>120	<b>14</b>	18	19
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	3	1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	4
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

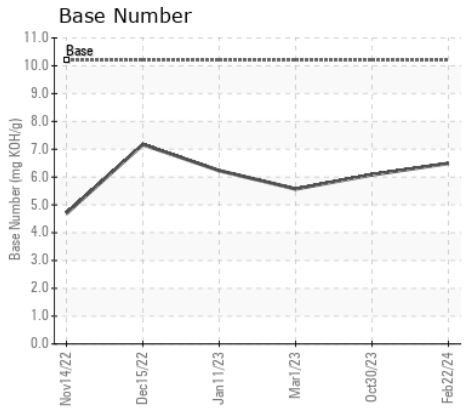
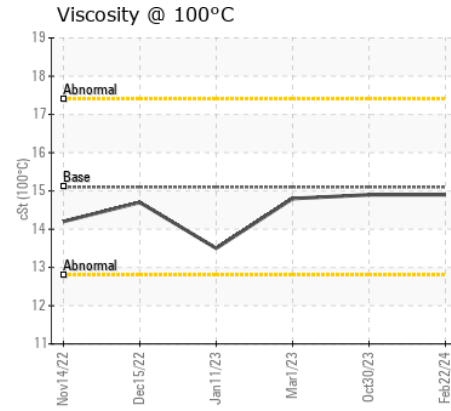
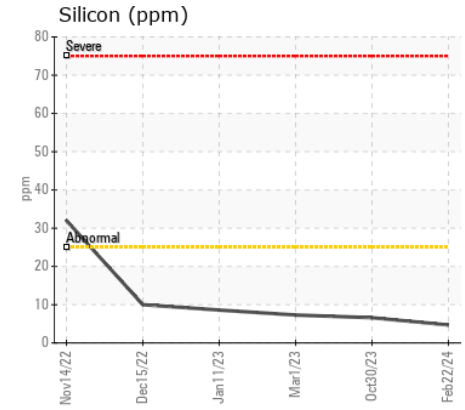
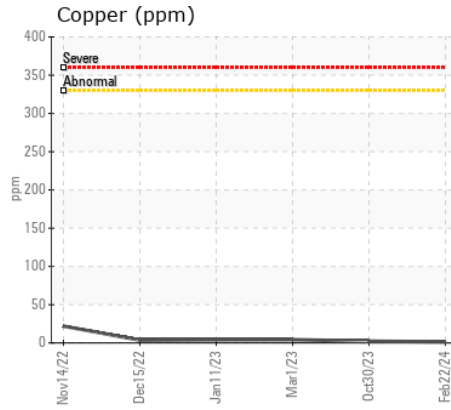
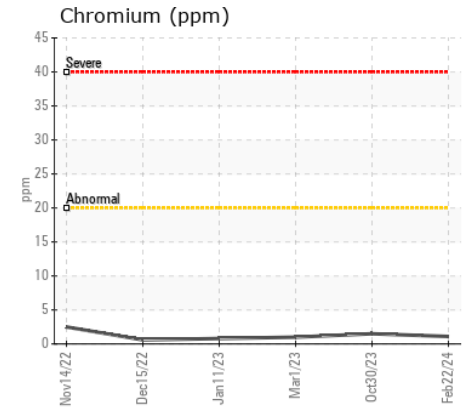
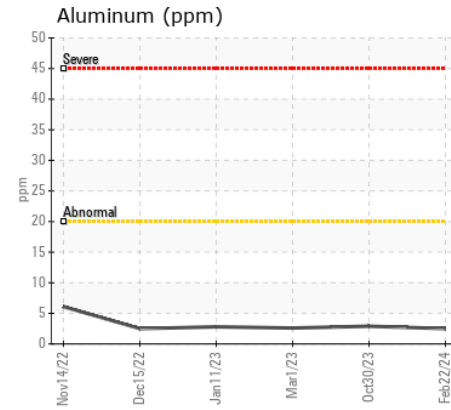
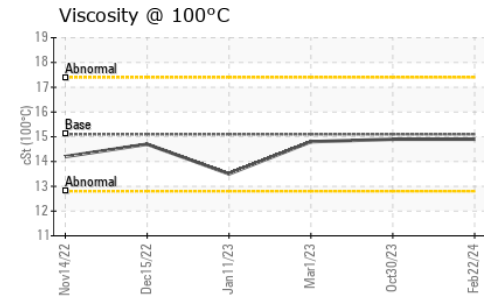
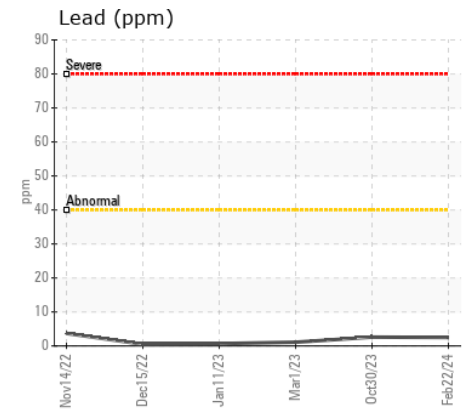
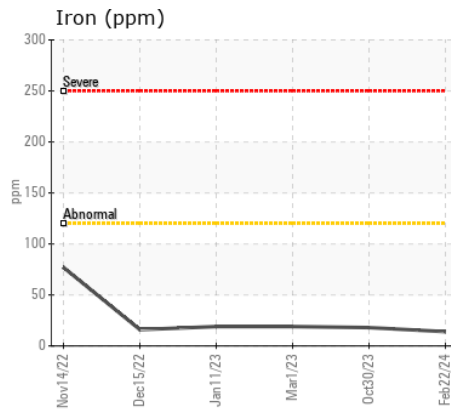
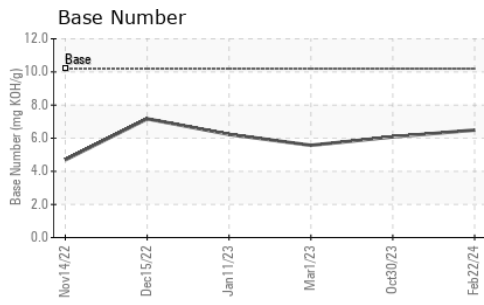
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	7	7
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	3	1
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</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.7</b>	12.4	7.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>25.4</b>	27.0	19.6
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>9</b>	9	8
Boron	ppm	ASTM D5185(m)	50	<b>6</b>	7	9
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>55</b>	59	54
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	2
Magnesium	ppm	ASTM D5185(m)	560	<b>573</b>	615	562
Calcium	ppm	ASTM D5185(m)	1510	<b>1689</b>	1746	1667
Phosphorus	ppm	ASTM D5185(m)	780	<b>694</b>	746	719
Zinc	ppm	ASTM D5185(m)	870	<b>925</b>	993	912
Sulfur	ppm	ASTM D5185(m)	2040	<b>2045</b>	2015	2034
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.6</b>	22.2	12.7
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	<b>6.49</b>	6.08	5.57
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	<b>14.9</b>	14.9	14.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0112419  
**Lab Number** : 02618612  
**Unique Number** : 5735722  
**Test Package** : MOB 2  
**Received** : 28 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Wes Davis

**GFL Environmental - 550 - Rocky View County**  
 220 Carmek Blvd  
 Rocky View County, AB  
 CA T1X 1X1  
 Contact: GFL Calgary  
 calgarymaintenance@gflenv.com  
 T:  
 F: (403)369-6163

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.