



Machine Id  
**413137**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (36 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0094423</b>	GFL0063926	GFL0094391
Sample Date		Client Info		<b>17 Apr 2024</b>	08 Feb 2024	09 Nov 2023
Machine Age	hrs	Client Info		<b>2213</b>	1632	0
Oil Age	hrs	Client Info		<b>2213</b>	0	0
Filter Age	hrs	Client Info		<b>2213</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>20</b>	29	9
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>5	<b>2</b>	▲ 7	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>4</b>	7	4
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	1	2
Copper	ppm	ASTM D5185(m)	>330	<b>16</b>	47	91
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

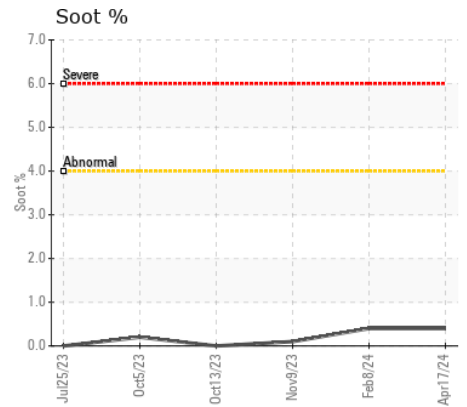
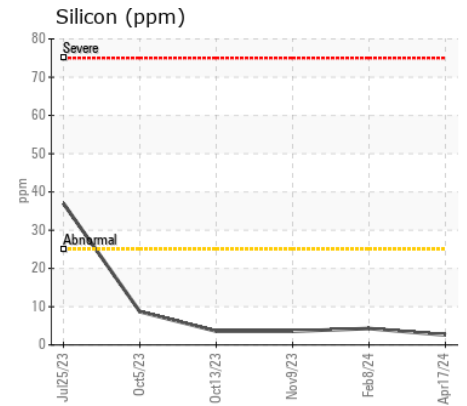
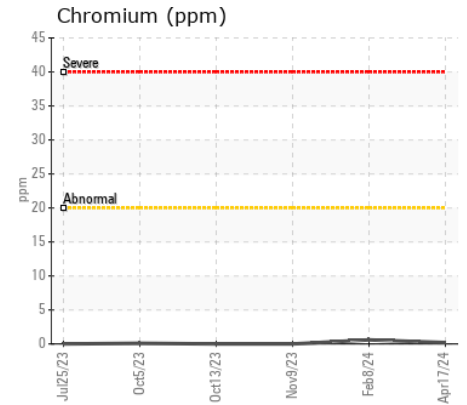
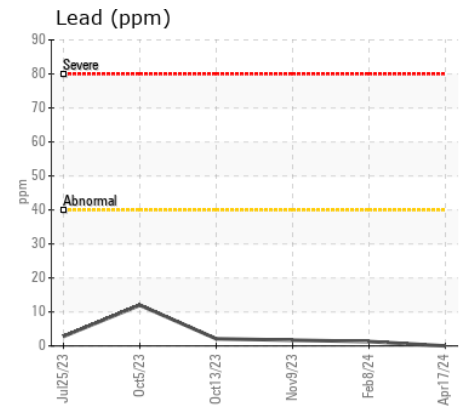
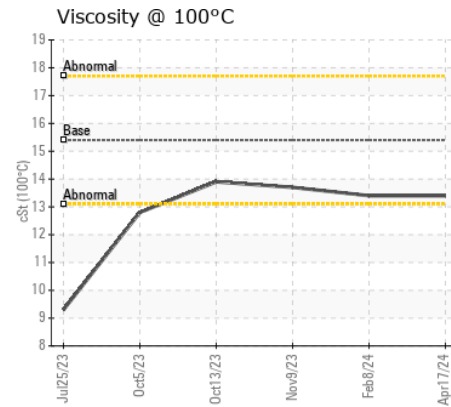
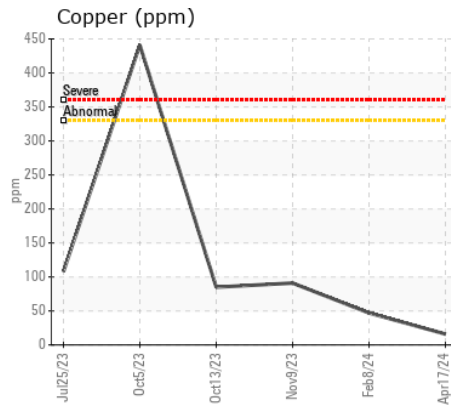
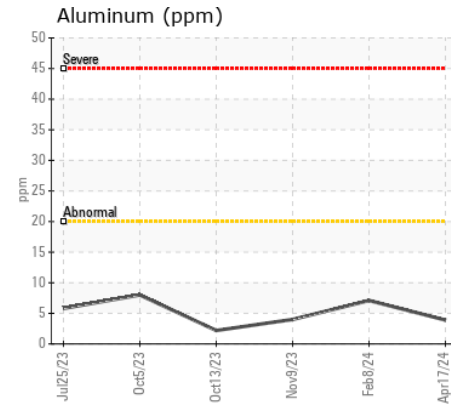
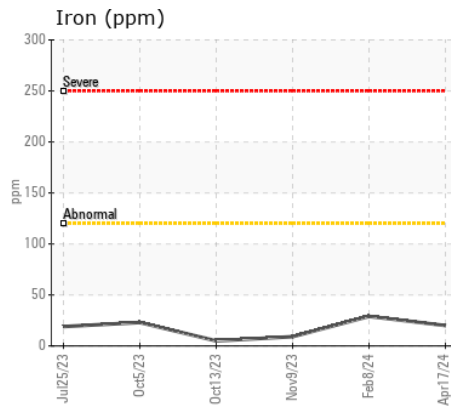
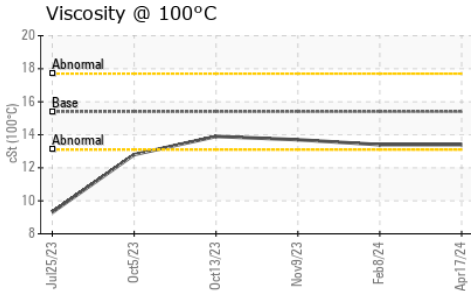
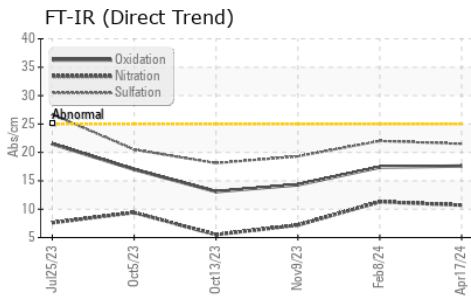
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>10</b>	19	8
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>0.4</b>	0.4	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.7</b>	11.3	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.5</b>	22.0	19.3
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)	0	<b>6</b>	4	9
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>62</b>	62	61
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>960</b>	943	934
Calcium	ppm	ASTM D5185(m)	1070	<b>1116</b>	1128	1090
Phosphorus	ppm	ASTM D5185(m)	1150	<b>955</b>	946	982
Zinc	ppm	ASTM D5185(m)	1270	<b>1181</b>	1194	1145
Sulfur	ppm	ASTM D5185(m)	2060	<b>2327</b>	2478	2444
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.6</b>	17.4	14.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.4</b>	13.4	13.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0094423  
**Lab Number** : 02629856  
**Unique Number** : 5762988  
**Test Package** : MOB 1

**Received** : 18 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**GFL Environmental - 222 - Sandhill**  
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD  
 ORANGEVILLE, ON  
 CA L9W 3X5  
 Contact: GLENN COOK  
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 T: (519)940-4167  
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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.