



Machine Id  
**8980**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (20 LTR)**

**RECOMMENDATION**

Check for low coolant level. 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>GFL0118299</b>	GFL0093634	GFL0085265
Sample Date		Client Info		<b>16 May 2024</b>	28 Sep 2023	12 Jun 2023
Machine Age	kms	Client Info		<b>168116</b>	161424	160097
Oil Age	kms	Client Info		<b>161424</b>	0	0
Filter Age	kms	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>33</b>	69	49
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Nickel	ppm	ASTM D5185(m)	>2	<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>5</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

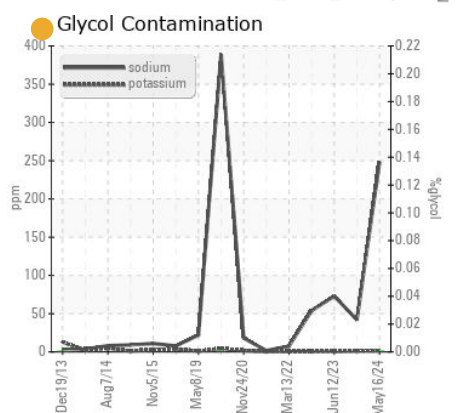
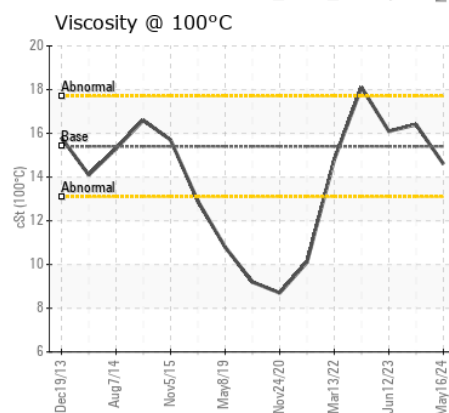
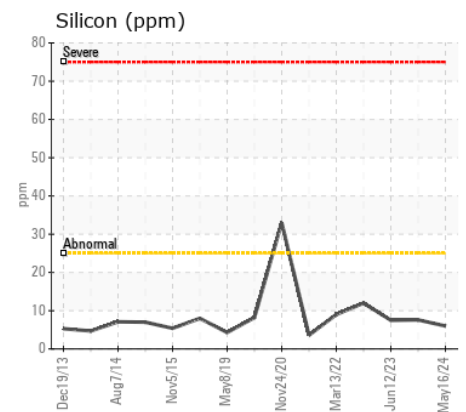
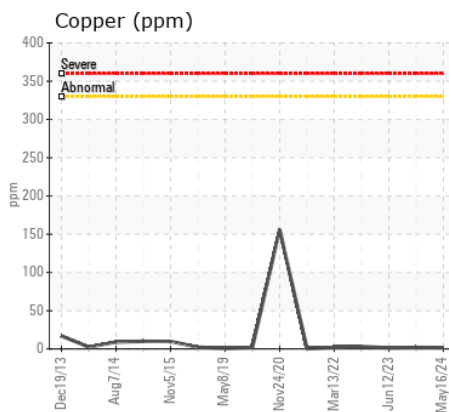
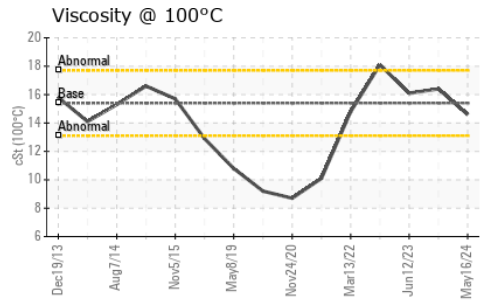
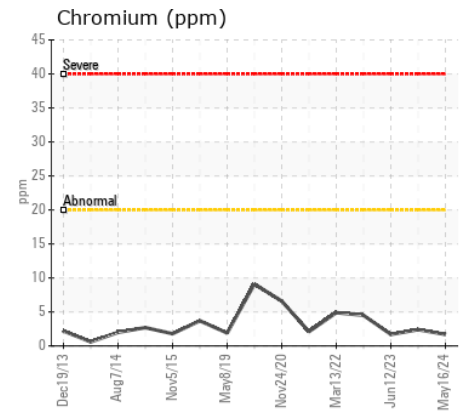
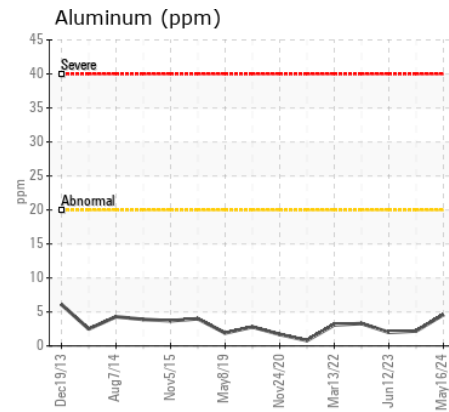
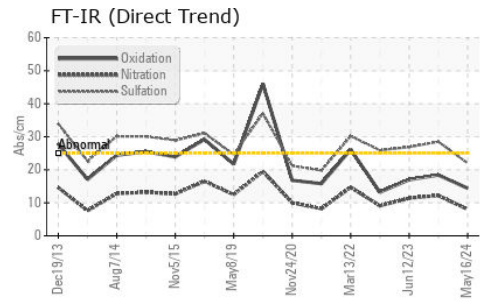
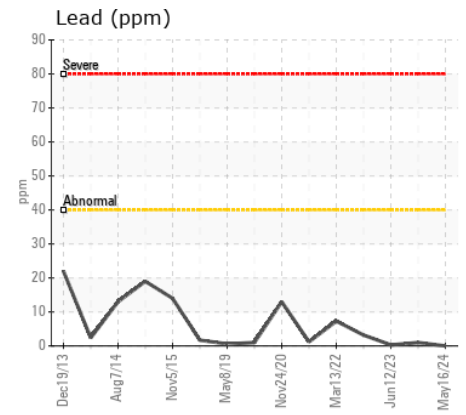
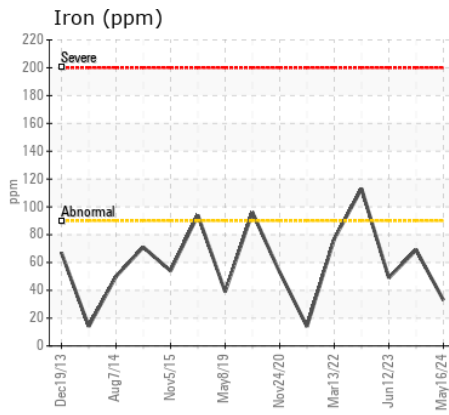
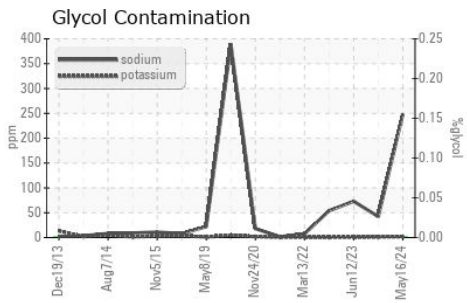
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	8	8
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	<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	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>6	<b>1.8</b>	3.9	3.9
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.0</b>	12.2	11.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.0</b>	28.5	26.9
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 (see recommendation).

Sodium	ppm	ASTM D5185(m)		<b>248</b>	42	73
Boron	ppm	ASTM D5185(m)	0	<b>1</b>	2	3
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>58</b>	64	63
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>934</b>	1028	992
Calcium	ppm	ASTM D5185(m)	1070	<b>1012</b>	1124	1121
Phosphorus	ppm	ASTM D5185(m)	1150	<b>970</b>	1004	1097
Zinc	ppm	ASTM D5185(m)	1270	<b>1150</b>	1264	1220
Sulfur	ppm	ASTM D5185(m)	2060	<b>2474</b>	2397	2542
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.4</b>	18.4	17.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>14.6</b>	16.4	16.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0118299  
**Lab Number** : 02636530  
**Unique Number** : 5785692  
**Test Package** : MOB 1 ( Additional Tests: Glycol )

**GFL Environmental - 225 - COT(D2)**  
 20 Brydon Drive  
 Etobicoke, ON  
 CA M9W 5R6  
 Contact: Rick Philip  
 rphilip@gflenv.com  
 T: (416)745-8080  
 F:

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.