



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

Machine Id  
**422028-402313**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0109768</b>	GFL0103284	GFL0099941
Sample Date		Client Info		<b>30 Jan 2024</b>	04 Jan 2024	18 Nov 2023
Machine Age	hrs	Client Info		<b>26237</b>	26170	20008
Oil Age	hrs	Client Info		<b>600</b>	0	0
Filter Age	hrs	Client Info		<b>600</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>52</b>	12	31
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	<1	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	1	4
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>1</b>	2	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

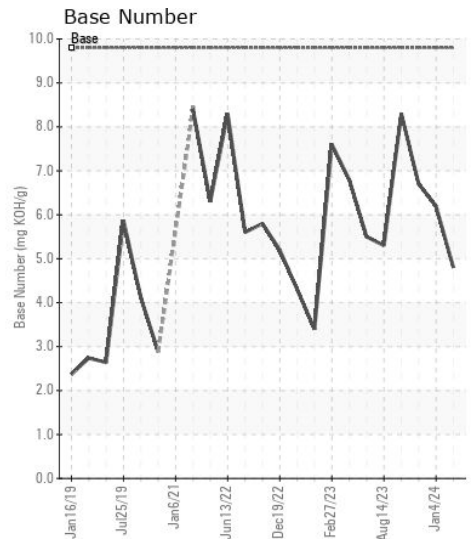
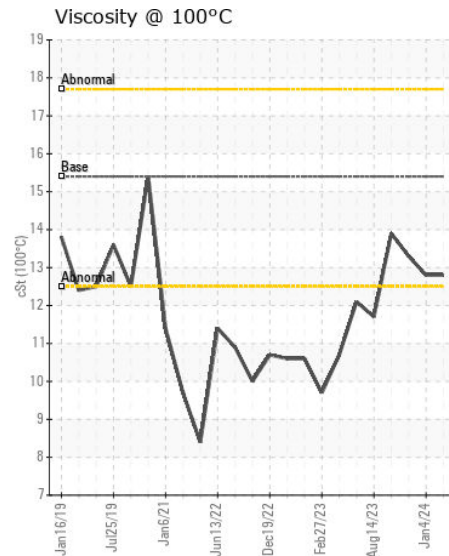
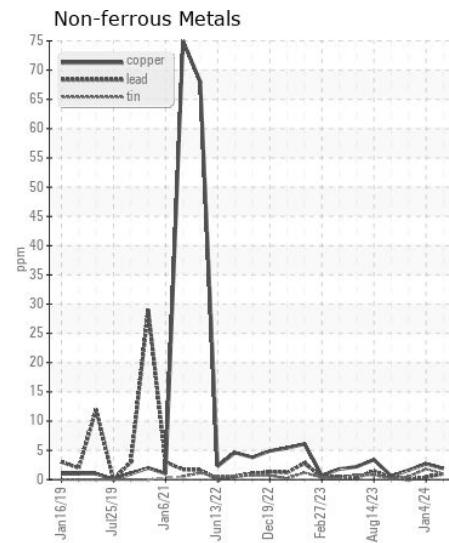
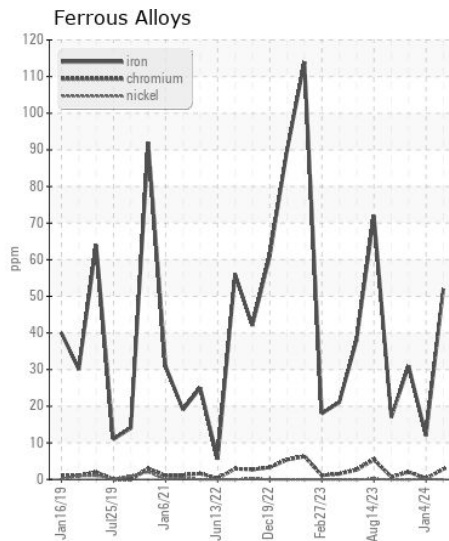
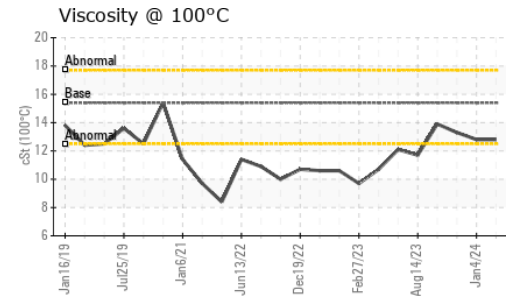
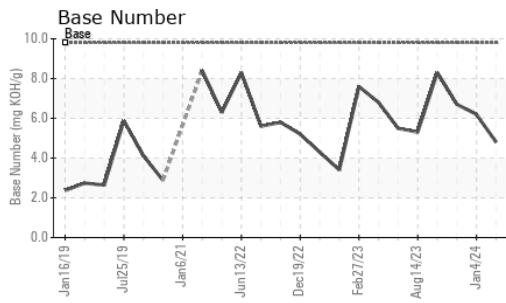
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>13</b>	7	9
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	2
Fuel		WC Method	>5	<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	>3	<b>2.2</b>	0.2	1.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>15.9</b>	9.3	12.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>30.9</b>	19.2	25.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>8</b>	2	6
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>57</b>	57	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>876</b>	895	946
Calcium	ppm	ASTM D5185m	1070	<b>953</b>	995	1010
Phosphorus	ppm	ASTM D5185m	1150	<b>928</b>	1043	983
Zinc	ppm	ASTM D5185m	1270	<b>1115</b>	1179	1242
Sulfur	ppm	ASTM D5185m	2060	<b>2487</b>	3011	2762
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>31.0</b>	16.2	23.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>4.8</b>	6.2	6.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.8</b>	12.8	13.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109768 **Received** : 01 Feb 2024  
**Lab Number** : 06077481 **Diagnosed** : 04 Feb 2024  
**Unique Number** : 10859572 **Diagnostician** : Don Baldridge  
**Test Package** : FLEET

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Robert Hart  
 rhart@gflenv.com  
 T: (580)461-1509  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)