



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



Machine Id  
**426051-402441**  
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>GFL0048373</b>	GFL0093594	GFL0093603
Sample Date		Client Info		<b>11 Jan 2024</b>	15 Dec 2023	01 Dec 2023
Machine Age	hrs	Client Info		<b>21549</b>	21421	21380
Oil Age	hrs	Client Info		<b>128</b>	595	554
Filter Age	hrs	Client Info		<b>128</b>	595	554
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>2</b>	14	21
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>18</b>	5	3
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	5	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	3	3
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

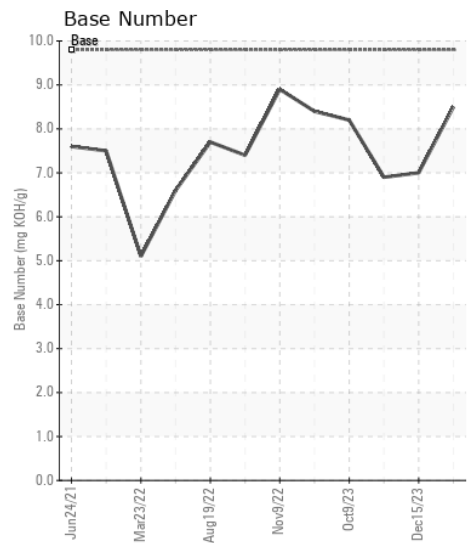
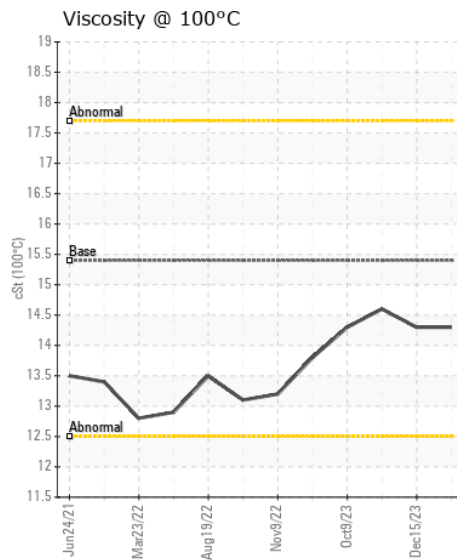
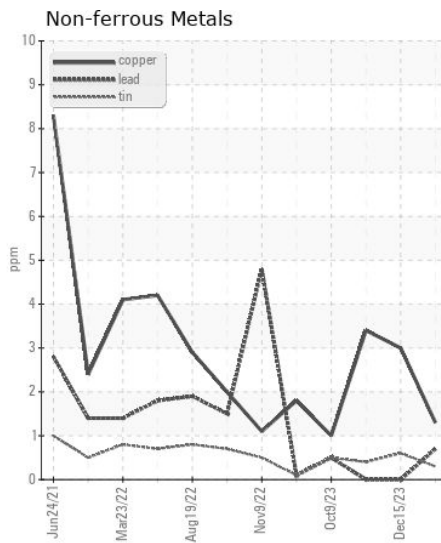
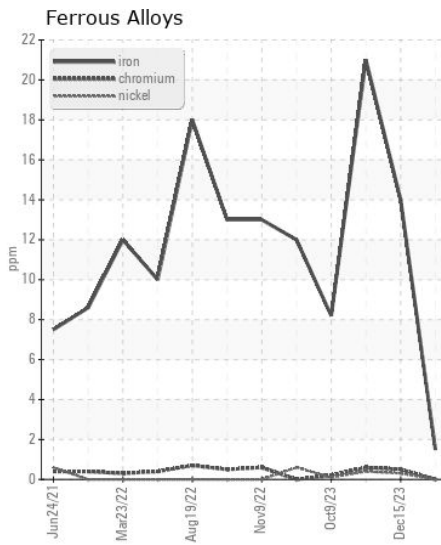
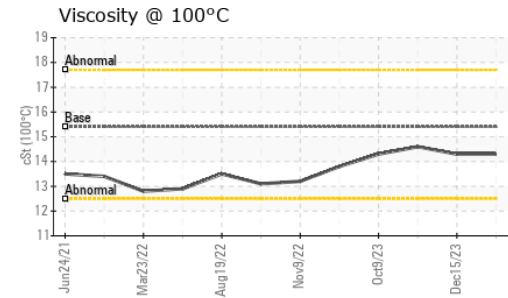
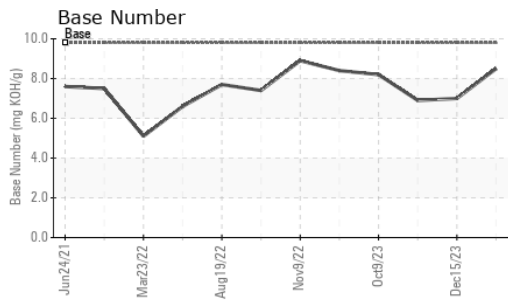
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	9	10
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	4	4
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>	0.9	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.3</b>	8.6	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.3</b>	20.6	20.9
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 suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	5	2
Boron	ppm	ASTM D5185m	0	<b>14</b>	7	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	60	<b>45</b>	52	51
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>868</b>	898	623
Calcium	ppm	ASTM D5185m	1070	<b>1160</b>	1023	1412
Phosphorus	ppm	ASTM D5185m	1150	<b>1050</b>	954	935
Zinc	ppm	ASTM D5185m	1270	<b>1277</b>	1227	1177
Sulfur	ppm	ASTM D5185m	2060	<b>3346</b>	2799	4131
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.1</b>	15.7	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	7.0	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	14.3	14.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0048373 **Received** : 12 Jan 2024  
**Lab Number** : 06059036 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830418 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 891 - Oklahoma City Hauling**  
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 Oklahoma City, OK  
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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)