



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



Machine Id  
**426064-402205**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0109263</b>	GFL0048350	GFL0093549
Sample Date		Client Info		<b>07 Feb 2024</b>	29 Nov 2023	19 Nov 2023
Machine Age	hrs	Client Info		<b>33287</b>	33247	33244
Oil Age	hrs	Client Info		<b>40</b>	400	71
Filter Age	hrs	Client Info		<b>40</b>	400	71
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	None
Sample Status				<b>ABNORMAL</b>	SEVERE	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>6</b>	3	5
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>45</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	4	4
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
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**

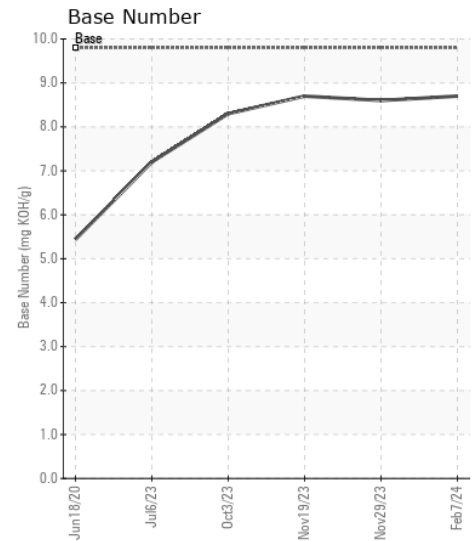
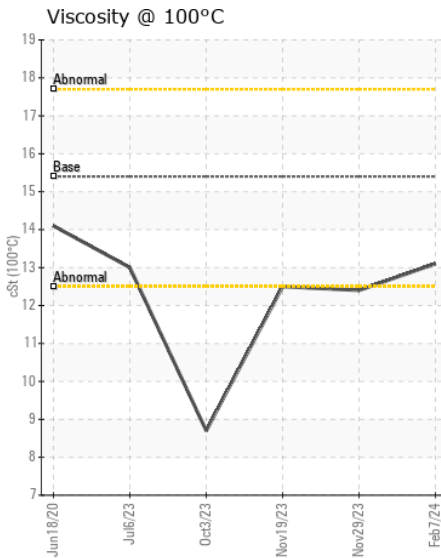
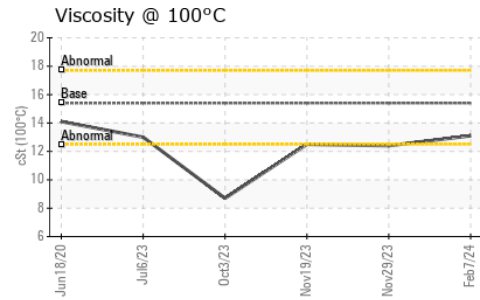
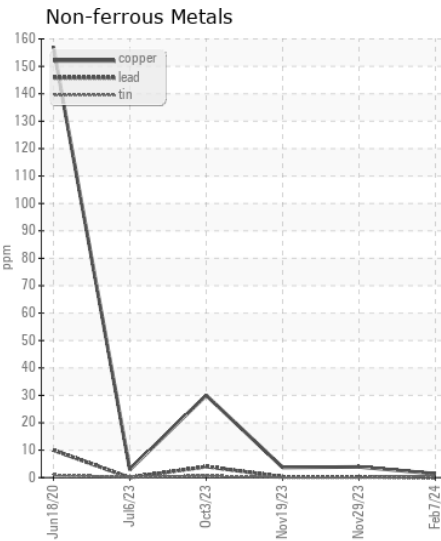
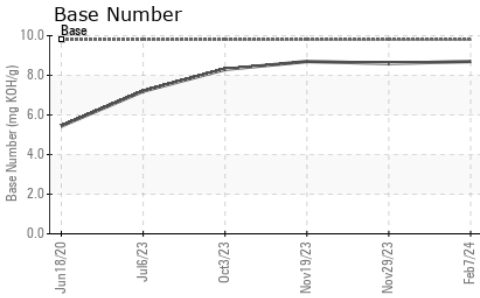
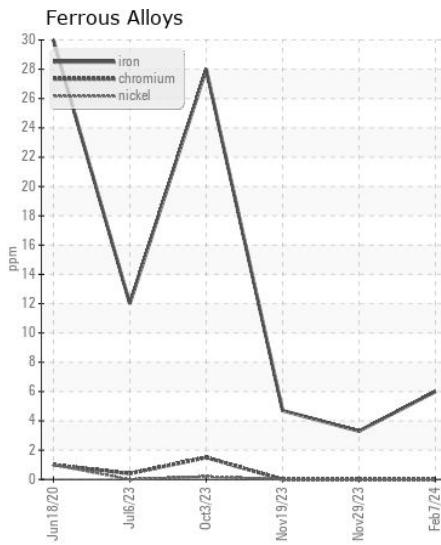
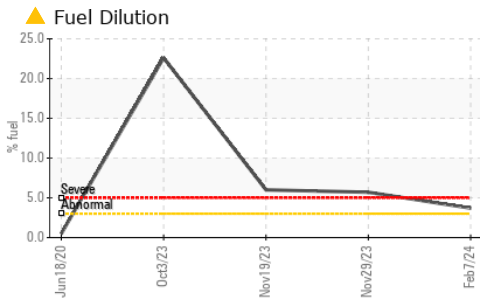
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	2
Fuel	%	ASTM D3524	>3.0	<b>3.7</b>	5.7	6.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.2</b>	4.6	4.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.1</b>	17.2	17.6
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>1</b>	0	0
Boron	ppm	ASTM D5185m	0	<b>77</b>	<1	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>28</b>	57	57
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	1010	<b>671</b>	818	842
Calcium	ppm	ASTM D5185m	1070	<b>1349</b>	978	953
Phosphorus	ppm	ASTM D5185m	1150	<b>1008</b>	914	947
Zinc	ppm	ASTM D5185m	1270	<b>1195</b>	1064	1085
Sulfur	ppm	ASTM D5185m	2060	<b>3471</b>	2876	2731
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.1</b>	12.2	12.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.7</b>	8.6	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.1</b>	12.4	12.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : GFL0109263

**Lab Number** : 06084270

**Unique Number** : 10871715

**Test Package** : FLEET ( Additional Tests: PercentFuel )

**Received** : 08 Feb 2024

**Tested** : 09 Feb 2024

**Diagnosed** : 09 Feb 2024 - Wes Davis

**GFL Environmental - 891 - Oklahoma City Hauling**

1001 South Rockwell

Oklahoma City, OK

US 73128

Contact: Andy Smith

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F:

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)