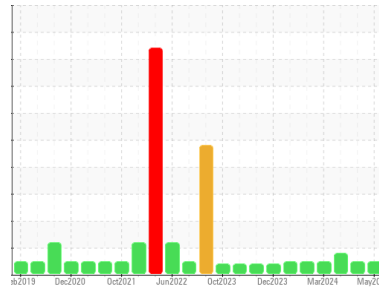




# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id  
**923040-260203**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0104980</b>	GFL0104834	GFL0104815
Sample Date	Client Info		<b>30 May 2024</b>	10 May 2024	09 Apr 2024
Machine Age	mls	Client Info	<b>0</b>	0	21203
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	MARGINAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	▲ 2.8
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>14</b>	48	42
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>4</b>	6	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m >330	<b>1</b>	2	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	1	0
Barium	ppm	ASTM D5185m 0	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	56	60
Manganese	ppm	ASTM D5185m 0	<b>0</b>	2	0
Magnesium	ppm	ASTM D5185m 1010	<b>897</b>	895	953
Calcium	ppm	ASTM D5185m 1070	<b>1111</b>	987	1128
Phosphorus	ppm	ASTM D5185m 1150	<b>1014</b>	988	1057
Zinc	ppm	ASTM D5185m 1270	<b>1258</b>	1193	1303
Sulfur	ppm	ASTM D5185m 2060	<b>3318</b>	3177	3451

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	9	7
Sodium	ppm	ASTM D5185m	<b>0</b>	8	8
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	<1

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	1.2	1.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.7</b>	10.8	11.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.3</b>	23.0	22.3

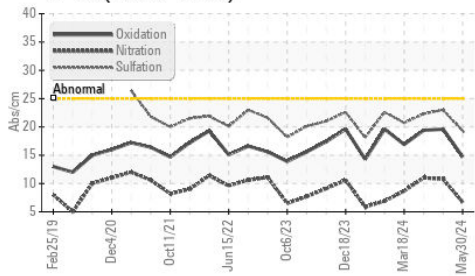
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	19.6	19.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.3</b>	7.2	7.5

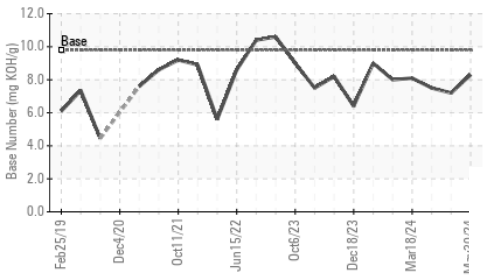


# OIL ANALYSIS REPORT

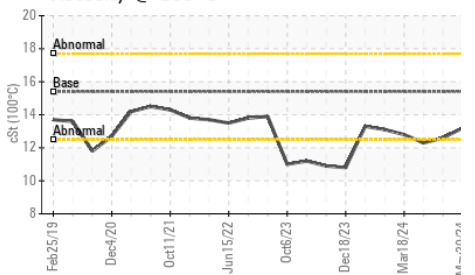
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

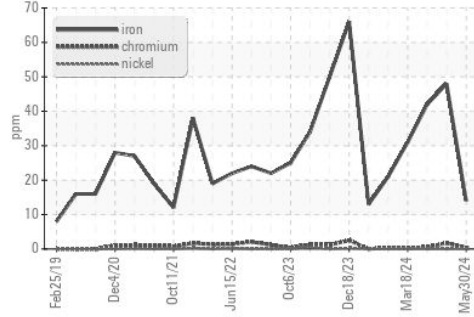


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

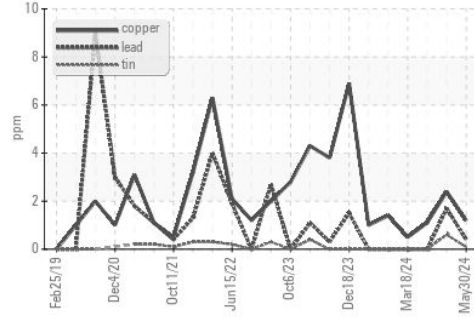
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.2</b>	12.6	12.3

## GRAPHS

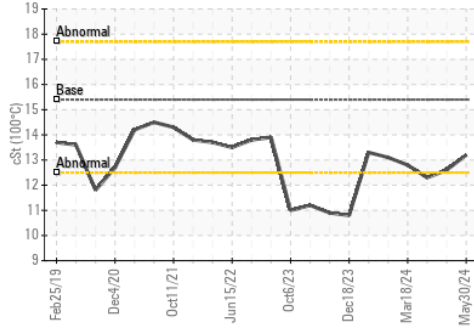
Ferrous Alloys



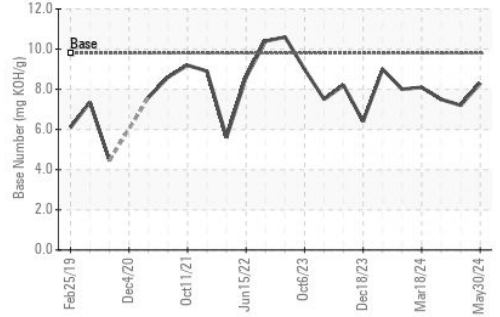
Non-ferrous Metals



Viscosity @ 100°C



Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104980      **Received** : 05 Jun 2024  
**Lab Number** : **06201052**      **Tested** : 06 Jun 2024  
**Unique Number** : 11063175      **Diagnosed** : 06 Jun 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 820 - Joplin Hauling**  
 3700 West 7th Street  
 Joplin, MO  
 US 64801  
 Contact: James Jarrett  
 jjarrett@gflenv.com  
 T: (417)310-2802  
 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)