



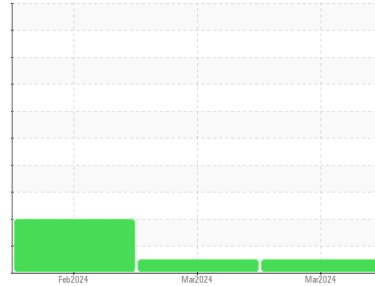
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**{UNASSIGNED}**  
 Machine Id  
**814032**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 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>GFL0097858</b>	GFL0103579	GFL0097802
Sample Date	Client Info		<b>21 Mar 2024</b>	06 Mar 2024	12 Feb 2024
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>520</b>	496	612
Oil Changed	Client Info		<b>N/A</b>	N/A	Changed
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.4
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 >120	<b>10</b>	7	29
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	1
Nickel	ppm	ASTM D5185m >5	<b>1</b>	<1	5
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	<1	4
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>53</b>	37	226
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	3
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>16</b>	21	309
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>58</b>	62	119
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	4
Magnesium	ppm	ASTM D5185m	<b>937</b>	993	683
Calcium	ppm	ASTM D5185m	<b>1053</b>	1120	1379
Phosphorus	ppm	ASTM D5185m	<b>894</b>	1069	740
Zinc	ppm	ASTM D5185m	<b>1153</b>	1260	829
Sulfur	ppm	ASTM D5185m	<b>3287</b>	3771	2779

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	12	▲ 69
Sodium	ppm	ASTM D5185m	<b>2</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	7

## INFRA-RED

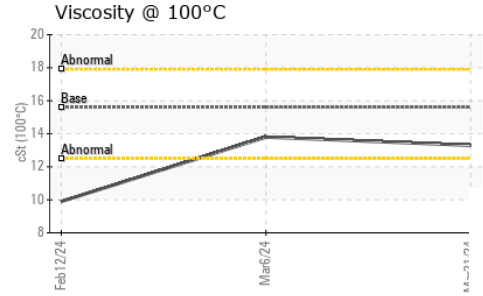
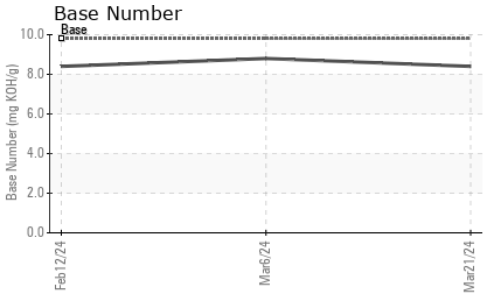
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.1</b>	5.3	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.3</b>	18.5	24.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.4</b>	14.6	21.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	8.8	8.4



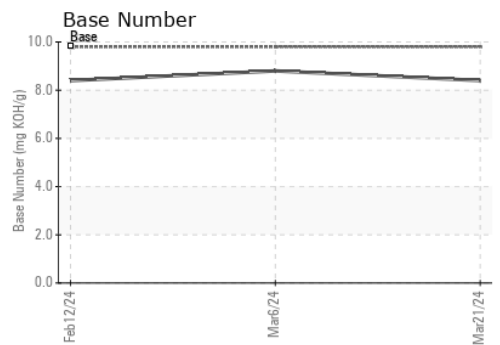
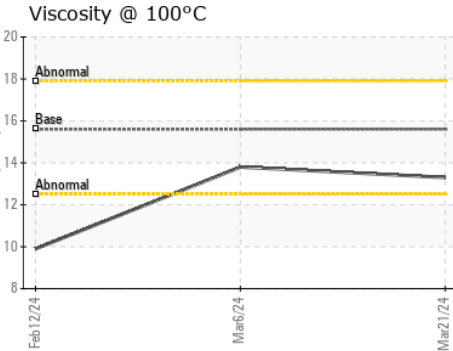
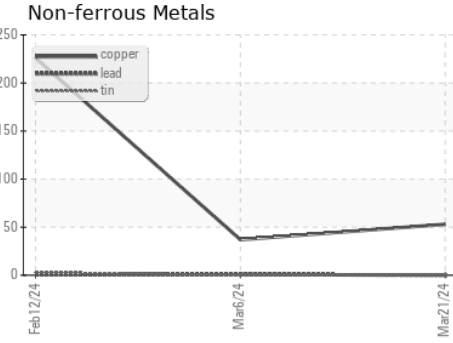
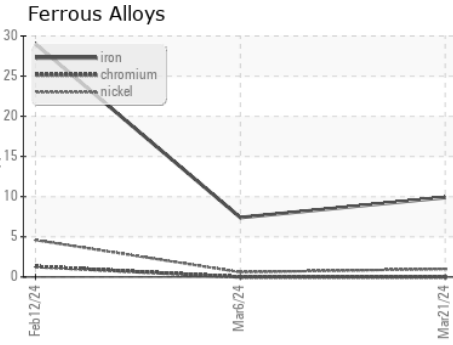
# OIL ANALYSIS REPORT



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	15.6	13.3	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0097858 **Received** : 28 Mar 2024  
**Lab Number** : 06132673 **Tested** : 30 Mar 2024  
**Unique Number** : 10952138 **Diagnosed** : 30 Mar 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 958 - Tri County HC Morton**  
 1090 W. Jefferson St.  
 Morton, IL  
 US 61550  
 Contact: Bryan Link  
 blink@gflenv.com

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)