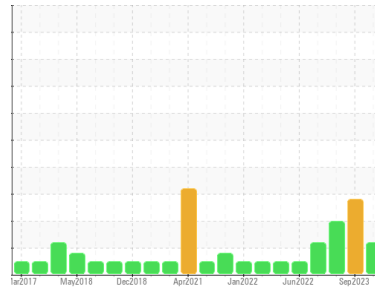




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**9973**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (--- GAL)**

## DIAGNOSIS

### 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.

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0093902</b>	GFL0090589	GFL0077949
Sample Date	Client Info	<b>19 Sep 2023</b>	08 Sep 2023	18 May 2023
Machine Age	hrs	<b>28029</b>	27944	27086
Oil Age	hrs	<b>429</b>	342	0
Oil Changed	Client Info	<b>Not Chngd</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	SEVERE	ATTENTION

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	0.0	0.0

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >110	<b>4</b>	13	24
Chromium	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >25	<b>1</b>	4	12
Lead	ppm	ASTM D5185(m) >45	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185(m) >85	<b>&lt;1</b>	3	1
Tin	ppm	ASTM D5185(m) >4	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 2	<b>3</b>	7	1
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 50	<b>53</b>	49	63
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 950	<b>863</b>	745	934
Calcium	ppm	ASTM D5185(m) 1050	<b>940</b>	843	1064
Phosphorus	ppm	ASTM D5185(m) 995	<b>903</b>	852	1044
Zinc	ppm	ASTM D5185(m) 1180	<b>1055</b>	932	1143
Sulfur	ppm	ASTM D5185(m) 2600	<b>2343</b>	2082	2570
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >30	<b>3</b>	7	6
Sodium	ppm	ASTM D5185(m)	<b>6</b>	28	▲ 174
Potassium	ppm	ASTM D5185(m) >20	<b>2</b>	8	18
Fuel	%	ASTM D7593* >5	▲ <b>6.7</b>	◆ 12.5	▲ 3.7

## INFRA-RED

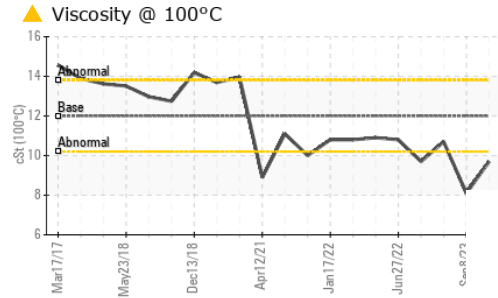
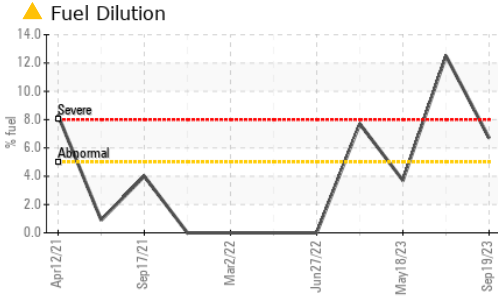
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0.1</b>	0.4	0.6
Nitration	Abs/cm	ASTM D7624* >20	<b>6.0</b>	8.6	8.9
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>19.8</b>	22.9	20.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>17.1</b>	24.0	16.4



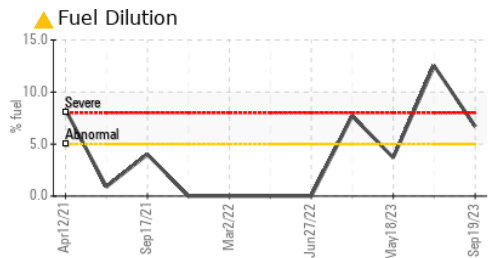
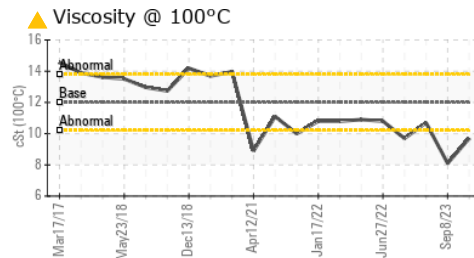
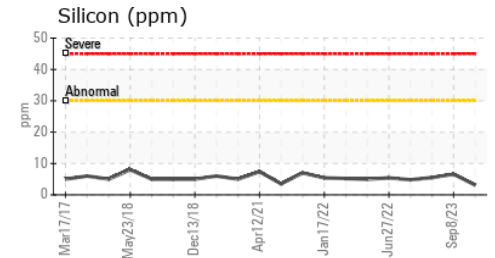
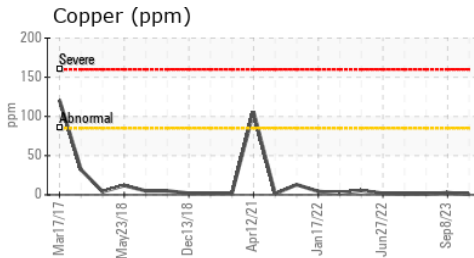
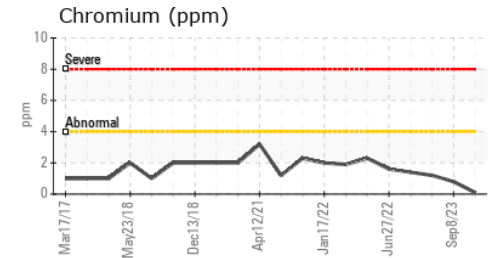
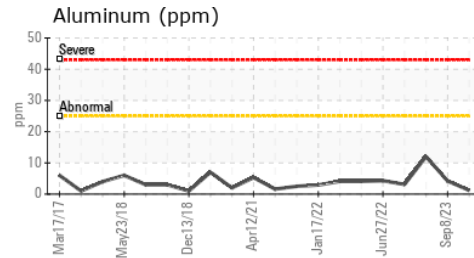
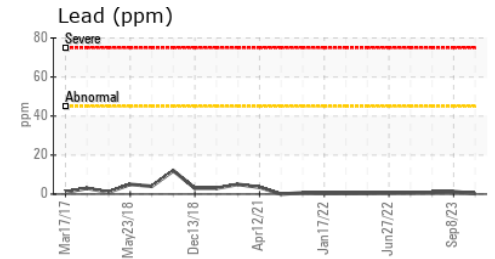
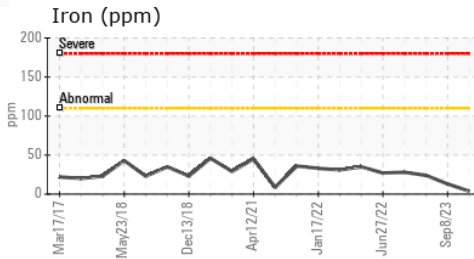
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	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 D7279(m)	12.00	▲ 9.7	◆ 8.1

## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW  
**Sample No.** : GFL0093902 **Received** : 25 Sep 2023  
**Lab Number** : 02584833 **Diagnosed** : 26 Sep 2023  
**Unique Number** : 5645898 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel, Visual )

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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