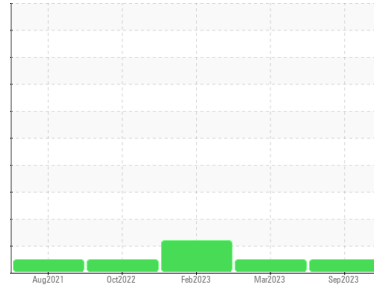




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**819010**

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>GFL0084344</b>	GFL0044542	GFL0044534
Sample Date	Client Info		<b>02 Sep 2023</b>	16 Mar 2023	28 Feb 2023
Machine Age	kms	Client Info	<b>126802</b>	10000	38142
Oil Age	kms	Client Info	<b>0</b>	0	0
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	>5	<b>&lt;1.0</b>	<1.0	▲ 2.4
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	<b>30</b>	5	43
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	2	8
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	<1	7
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	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)	0	<b>2</b>	2	95
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185(m)	60	<b>56</b>	57	23
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185(m)	1010	<b>900</b>	927	353
Calcium	ppm	ASTM D5185(m)	1070	<b>990</b>	1033	797
Phosphorus	ppm	ASTM D5185(m)	1150	<b>970</b>	1046	928
Zinc	ppm	ASTM D5185(m)	1270	<b>1148</b>	1111	571
Sulfur	ppm	ASTM D5185(m)	2060	<b>2176</b>	2549	2092
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

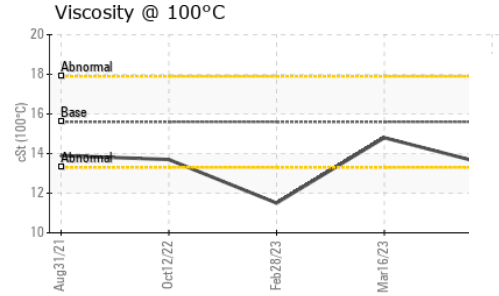
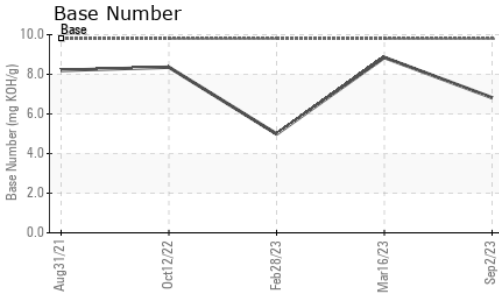
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>8</b>	4	22
Sodium	ppm	ASTM D5185(m)		<b>8</b>	2	10
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	3

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>1.3</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.7</b>	5.8	6.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.1</b>	21.0	34.5



# OIL ANALYSIS REPORT

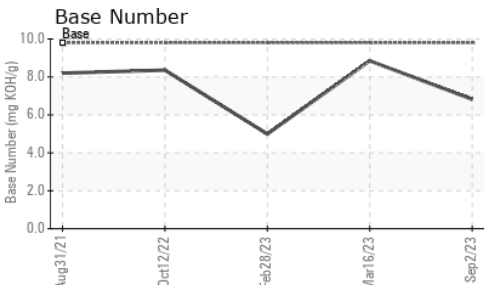
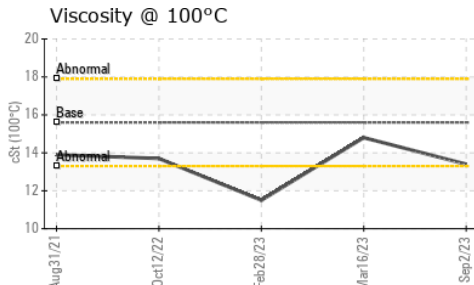
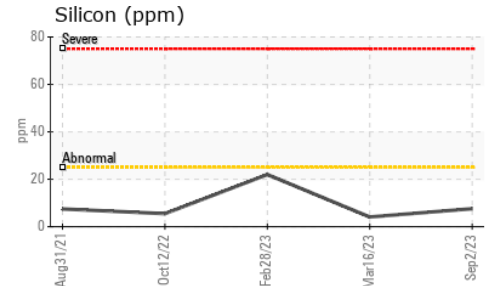
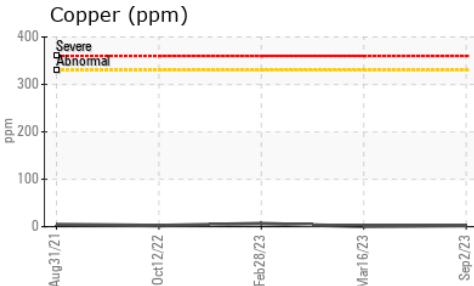
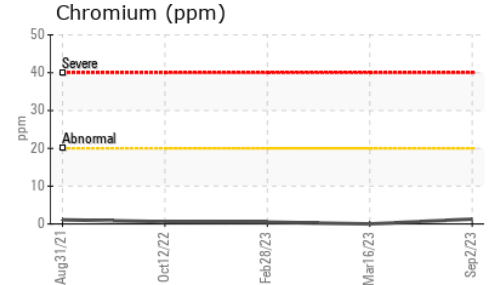
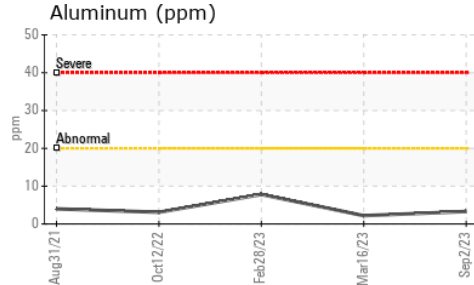
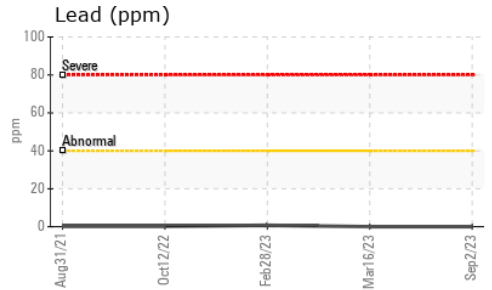
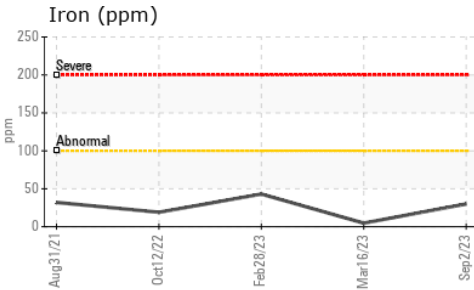


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.8</b>	14.3	34.6
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>6.82</b>	8.85	4.99

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>13.4</b>	14.8	▲ 11.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County  
**Sample No.** : GFL0084344 **Received** : 12 Sep 2023 220 Carmek Blvd  
**Lab Number** : 02581708 **Diagnosed** : 14 Sep 2023 Rocky View County, AB  
**Unique Number** : 5642773 **Diagnostician** : Wes Davis CA T1X 1X1  
**Test Package** : MOB 2 Contact: GFL Calgary calgarymaintenance@gflenv.com

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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