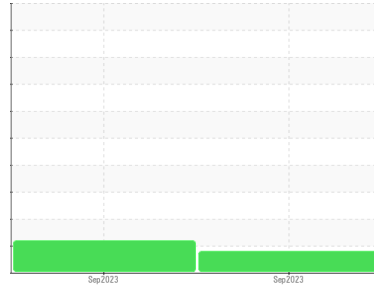




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
2220

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0093899	GFL0090596	---
Sample Date	Client Info	19 Sep 2023	08 Sep 2023	---
Machine Age	hrs	Client Info	25502	25430
Oil Age	hrs	Client Info	90	0
Oil Changed	Client Info	N/A	Changed	---
Sample Status		MARGINAL	ABNORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >110	6	17	---
Chromium	ppm	ASTM D5185(m) >4	0	<1	---
Nickel	ppm	ASTM D5185(m) >2	0	0	---
Titanium	ppm	ASTM D5185(m)	0	0	---
Silver	ppm	ASTM D5185(m) >2	<1	0	---
Aluminum	ppm	ASTM D5185(m) >25	1	3	---
Lead	ppm	ASTM D5185(m) >45	<1	2	---
Copper	ppm	ASTM D5185(m) >85	3	8	---
Tin	ppm	ASTM D5185(m) >4	<1	<1	---
Antimony	ppm	ASTM D5185(m)	0	0	---
Vanadium	ppm	ASTM D5185(m)	0	0	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	0	0	---

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 2	3	2	---
Barium	ppm	ASTM D5185(m) 0	0	0	---
Molybdenum	ppm	ASTM D5185(m) 50	58	58	---
Manganese	ppm	ASTM D5185(m) 0	0	<1	---
Magnesium	ppm	ASTM D5185(m) 950	948	950	---
Calcium	ppm	ASTM D5185(m) 1050	1032	1035	---
Phosphorus	ppm	ASTM D5185(m) 995	980	1044	---
Zinc	ppm	ASTM D5185(m) 1180	1155	1171	---
Sulfur	ppm	ASTM D5185(m) 2600	2489	2380	---
Lithium	ppm	ASTM D5185(m)	<1	<1	---

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >30	3	4	---
Sodium	ppm	ASTM D5185(m)	2	2	---
Potassium	ppm	ASTM D5185(m) >20	2	4	---
Fuel	%	ASTM D7593* >5	▲ 3.9	▲ 5.8	---

INFRA-RED

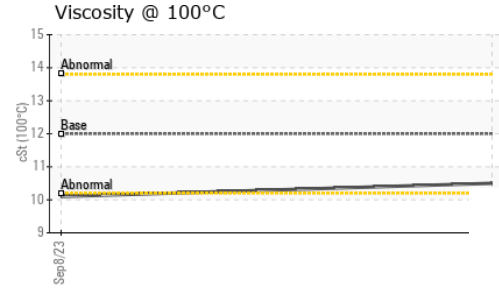
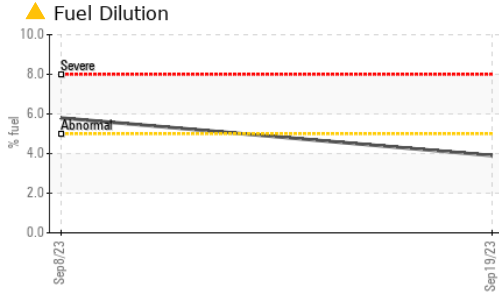
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	0	0.1	---
Nitration	Abs/cm	ASTM D7624* >20	6.4	9.2	---
Sulfation	Abs/.1mm	ASTM D7415* >30	19.9	23.3	---

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	16.7	22.1	---



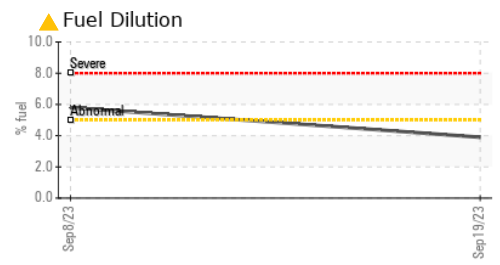
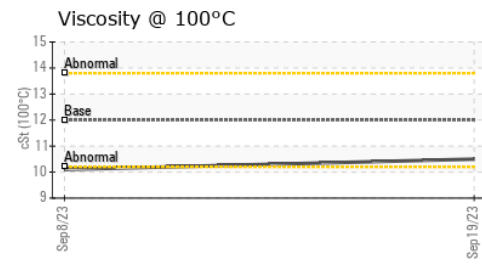
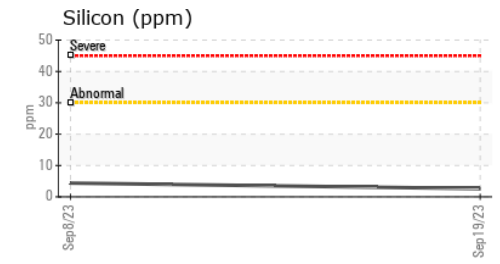
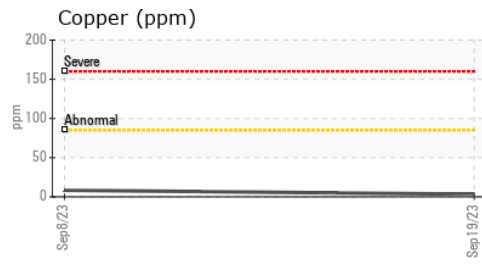
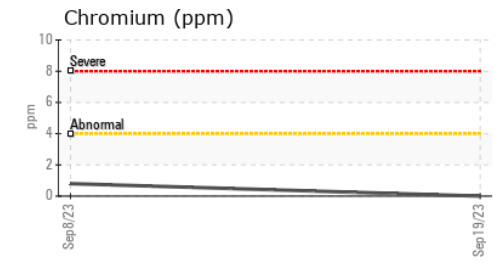
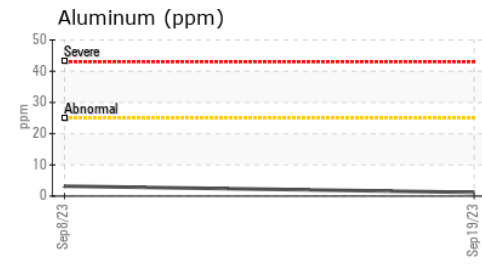
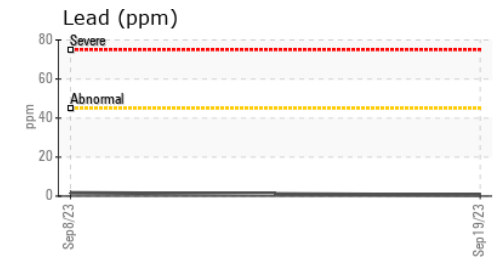
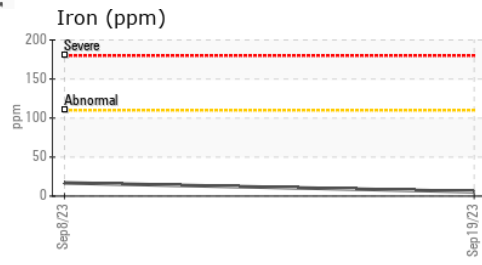
OIL ANALYSIS REPORT



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	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	10.5	▲ 10.1

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0093899 **Received** : 25 Sep 2023
Lab Number : 02584831 **Diagnosed** : 26 Sep 2023
Unique Number : 5645896 **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.

8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Antonio De Rosa
 aderosa@gflenv.com
 T: (780)509-2640
 F: (780)444-8851