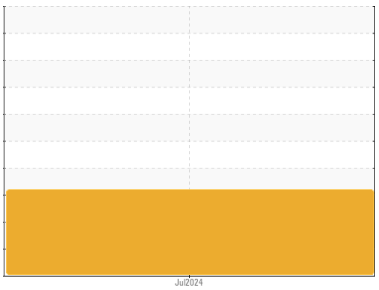
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
218010
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check the fuel injection system. 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 high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0112448**	---	---
Sample Date		Client Info		**04 Jul 2024**	---	---
Machine Age	hrs	Client Info		**0**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**SEVERE**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	---	---
Glycol		WC Method		**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**17**	---	---
Chromium	ppm	ASTM D5185(m)	>20	**1**	---	---
Nickel	ppm	ASTM D5185(m)	>4	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**<1**	---	---
Silver	ppm	ASTM D5185(m)	>3	**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>20	**3**	---	---
Lead	ppm	ASTM D5185(m)	>40	**<1**	---	---
Copper	ppm	ASTM D5185(m)	>330	**4**	---	---
Tin	ppm	ASTM D5185(m)	>15	**<1**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

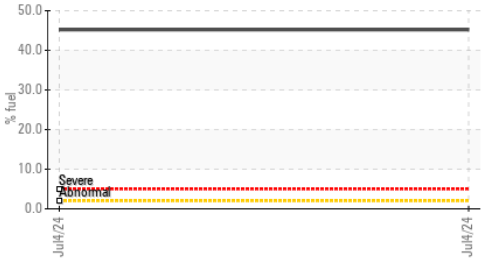
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	**4**	---	---
Barium	ppm	ASTM D5185(m)	1	**<1**	---	---
Molybdenum	ppm	ASTM D5185(m)	60	**32**	---	---
Manganese	ppm	ASTM D5185(m)	1	**<1**	---	---
Magnesium	ppm	ASTM D5185(m)	1010	**548**	---	---
Calcium	ppm	ASTM D5185(m)	1070	**621**	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	**586**	---	---
Zinc	ppm	ASTM D5185(m)	1270	**655**	---	---
Sulfur	ppm	ASTM D5185(m)	2060	**1365**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**18**	---	---
Sodium	ppm	ASTM D5185(m)		**4**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**1**	---	---
Fuel	%	ASTM D7593*	>2.0	▲ **45.2**	---	---

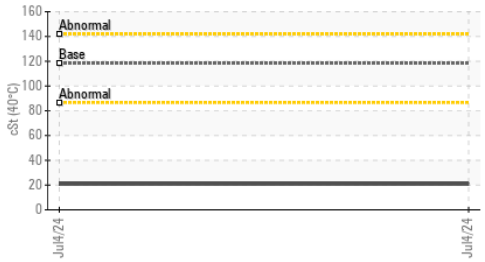
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**6.4**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**17.8**	---	---

OIL ANALYSIS REPORT

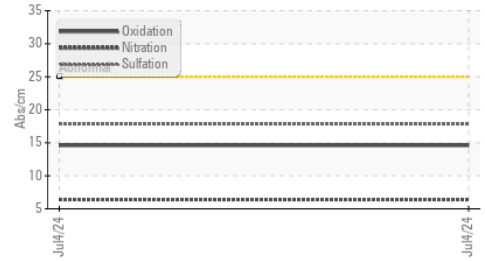
Fuel Dilution



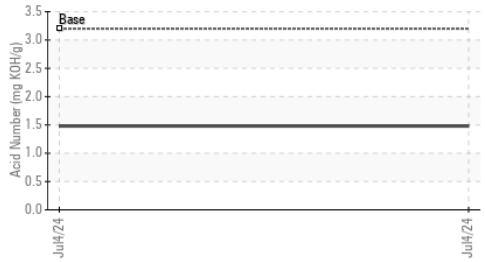
Viscosity @ 40°C



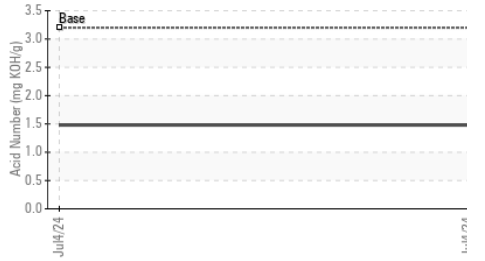
FT-IR (Direct Trend)



Acid Number



Acid Number



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**14.6**	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	3.2	**1.48**	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	**5.34**	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	---	---
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	**LIGHT**	---	---
Appearance	scalar	Visual*	NORML	**NORML**	---	---
Odor	scalar	Visual*	NORML	**NORML**	---	---
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

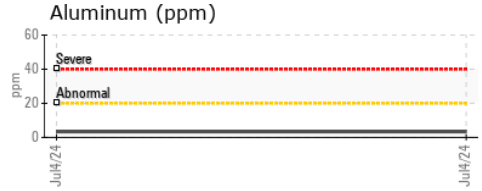
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	▲ **20.8**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ **4.8**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	**160**	---	---

GRAPHS

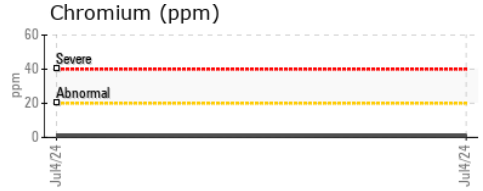
Iron (ppm)

Lead (ppm)

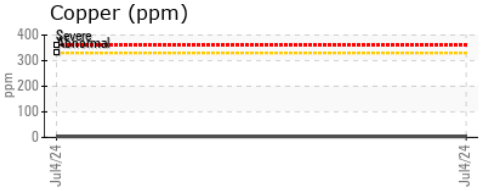
Aluminum (ppm)



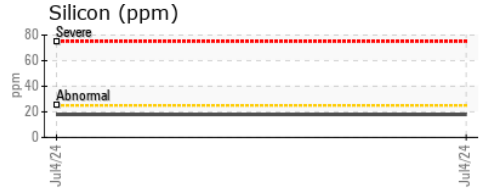
Chromium (ppm)



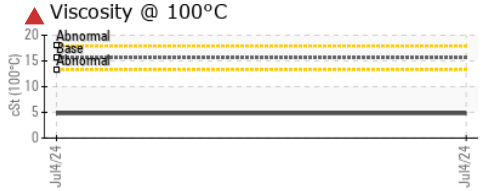
Copper (ppm)



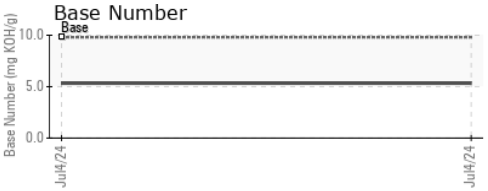
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0112448
Lab Number : 02645725
Unique Number : 5803264
Test Package : MOB 2 (Additional Tests: FuelDilution, KV40, PercentFuel, TAN Auto, TAN Man, VI, Visual)

Received : 05 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 2024 - Wes Davis

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.

GFL Environmental - 550 - Rocky View County
220 Carmek Blvd
Rocky View County, AB
CA T1X 1X1
Contact: GFL Calgary
calgarymaintenance@gflenv.com
T:
F: (403)369-6163

Report Id: GFL550 [WCAMIS] 02645725 (Generated: 07/08/2024 10:31:52) Rev: 1

Contact/Location: GFL Calgary - GFL550