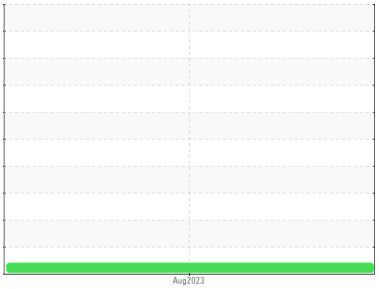
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
801071
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

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 BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0084353**	---	---
Sample Date		Client Info		**20 Aug 2023**	---	---
Machine Age	hrs	Client Info		**13930**	---	---
Oil Age	hrs	Client Info		**348**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**ABNORMAL**	---	---

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

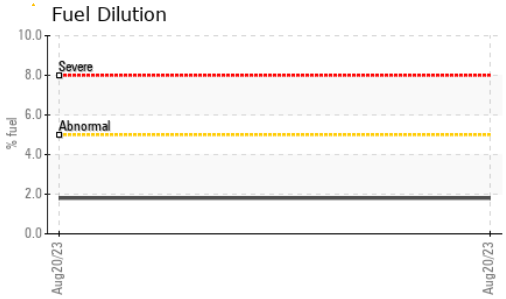
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>80	**10**	---	---
Chromium	ppm	ASTM D5185(m)	>5	**<1**	---	---
Nickel	ppm	ASTM D5185(m)	>2	**0**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)	>3	**<1**	---	---
Aluminum	ppm	ASTM D5185(m)	>30	**1**	---	---
Lead	ppm	ASTM D5185(m)	>30	**0**	---	---
Copper	ppm	ASTM D5185(m)	>150	**<1**	---	---
Tin	ppm	ASTM D5185(m)	>5	**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

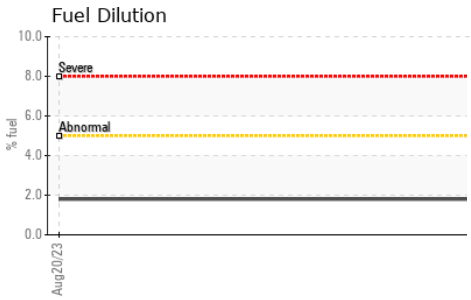
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**3**	---	---
Barium	ppm	ASTM D5185(m)	0	**0**	---	---
Molybdenum	ppm	ASTM D5185(m)	60	**58**	---	---
Manganese	ppm	ASTM D5185(m)	0	**<1**	---	---
Magnesium	ppm	ASTM D5185(m)	1010	**971**	---	---
Calcium	ppm	ASTM D5185(m)	1070	**1036**	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	**1058**	---	---
Zinc	ppm	ASTM D5185(m)	1270	**1166**	---	---
Sulfur	ppm	ASTM D5185(m)	2060	**2562**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

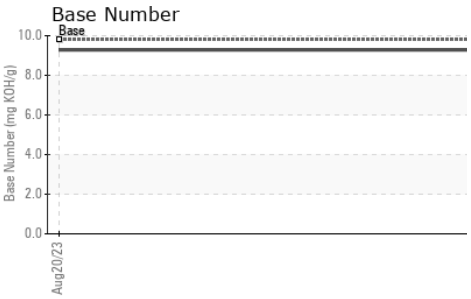
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**5**	---	---
Sodium	ppm	ASTM D5185(m)		**2**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**0**	---	---
Fuel	%	ASTM D7593*	>5	**1.8**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.2**	---	---
Nitration	Abs/cm	ASTM D7624*	>20	**6.2**	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.5**	---	---

OIL ANALYSIS REPORT





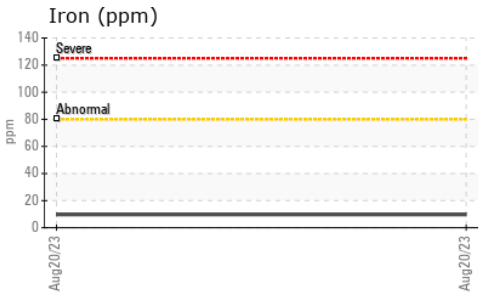


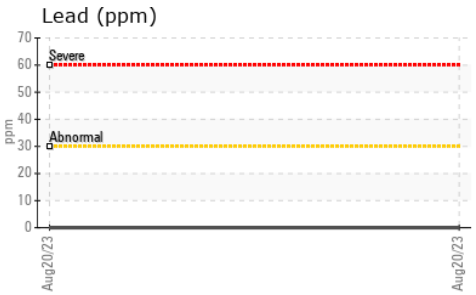
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**15.6**	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	**9.28**	---	---

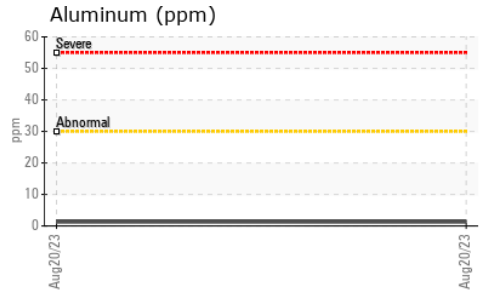
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

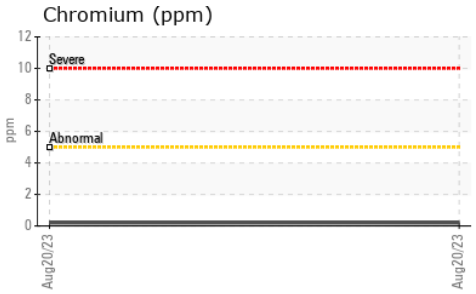
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ **11.4**	---	---

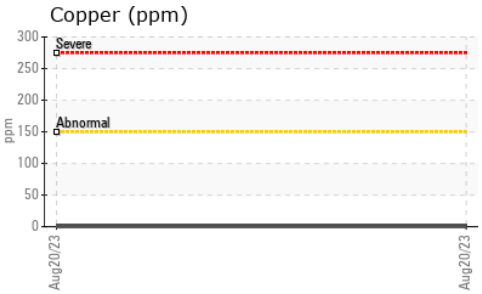
GRAPHS

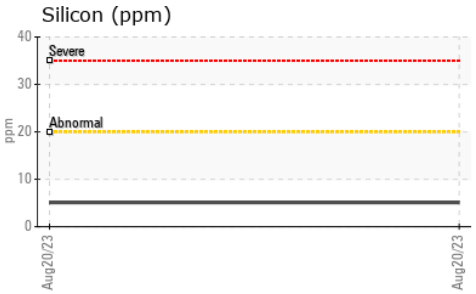


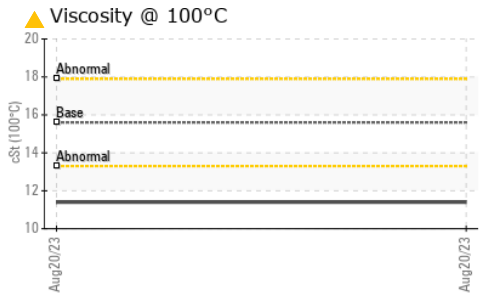


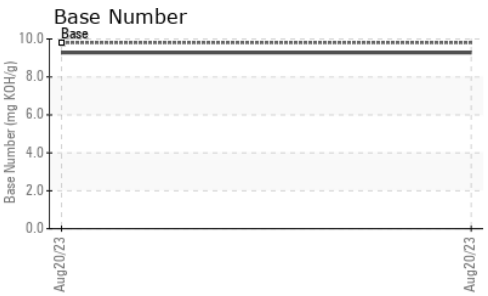












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 550 - Rocky View County**
Sample No. : GFL0084353 **Received** : 24 Aug 2023 220 Carmek Blvd
Lab Number : 02577935 **Diagnosed** : 28 Aug 2023 Rocky View County, AB
Unique Number : 5630995 **Diagnostician** : Kevin Marson CA T1X 1X1
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel) Contact: GFL Calgary

To discuss this sample report, contact Customer Service at 1-800-268-2131. calgarymaintenance@gflenv.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T:
Validity of results and interpretation are based on the sample and information as supplied. F: (403)369-6163