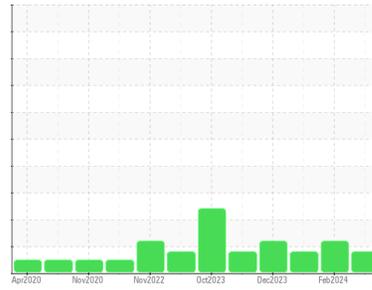




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
920092-260371

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 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. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0114149	GFL0108081	GFL0108149
Sample Date	Client Info	08 Mar 2024	13 Feb 2024	18 Jan 2024
Machine Age	hrs	23785	23641	23477
Oil Age	hrs	144	14809	0
Oil Changed	Client Info	Not Chngd	Changed	Not Chngd
Sample Status		MARGINAL	ABNORMAL	MARGINAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	5	3	2
Chromium	ppm ASTM D5185m >20	<1	<1	0
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	<1	1	<1
Lead	ppm ASTM D5185m >40	<1	0	0
Copper	ppm ASTM D5185m >330	<1	0	<1
Tin	ppm ASTM D5185m >15	<1	<1	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	0	<1	<1
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	55	49	51
Manganese	ppm ASTM D5185m 0	0	<1	0
Magnesium	ppm ASTM D5185m 1010	876	786	883
Calcium	ppm ASTM D5185m 1070	1042	875	971
Phosphorus	ppm ASTM D5185m 1150	996	877	923
Zinc	ppm ASTM D5185m 1270	1157	1085	1085
Sulfur	ppm ASTM D5185m 2060	3391	2556	2734

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	4	2	3
Sodium	ppm ASTM D5185m	5	2	13
Potassium	ppm ASTM D5185m >20	14	1	1
Fuel	% ASTM D3524 >5	▲ 3.4	▲ 7.2	▲ 3.8

INFRA-RED

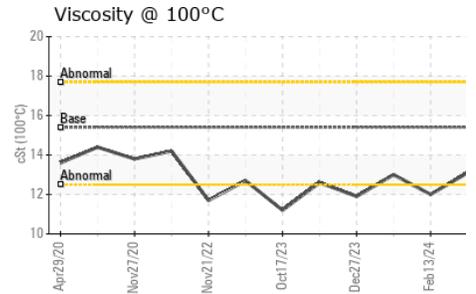
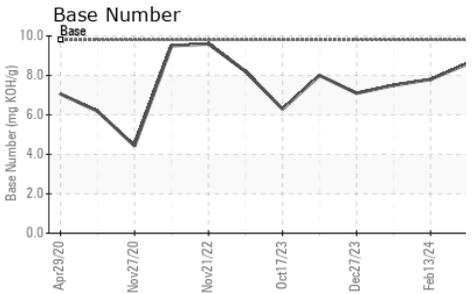
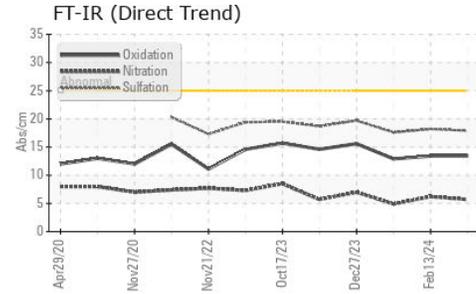
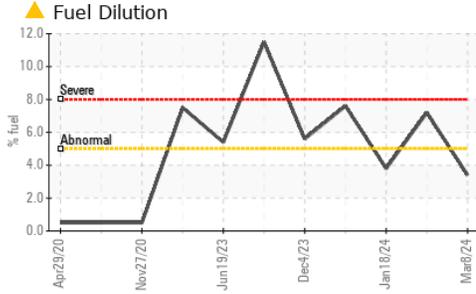
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.2	0.3	0.1
Nitration	Abs/cm *ASTM D7624 >20	5.7	6.2	4.9
Sulfation	Abs/.1mm *ASTM D7415 >30	17.9	18.2	17.6

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	13.4	13.4	12.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.6	7.8	7.5



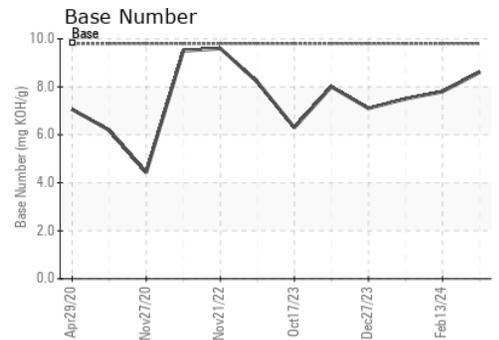
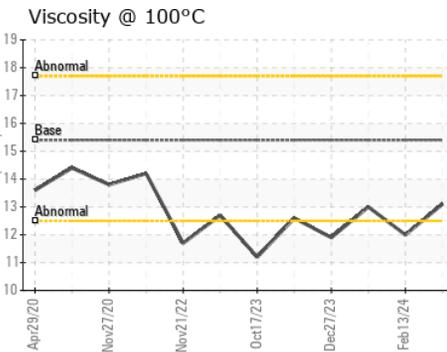
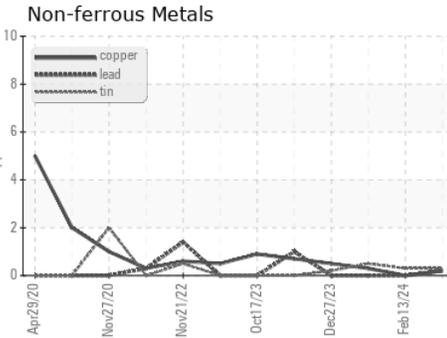
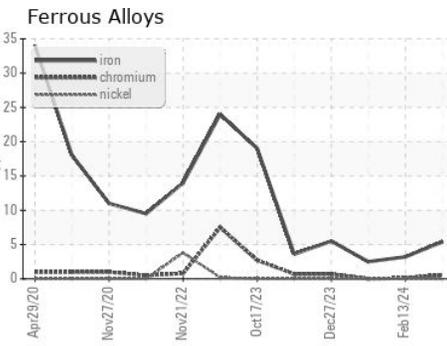
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	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 D445	15.4	13.1	▲ 12.0	13.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0114149
Lab Number : 06150928
Unique Number : 10981006
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 16 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 19 Apr 2024 - Wes Davis

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: SARA PATRICK
 spatrack@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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