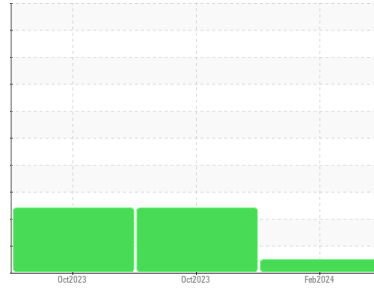




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
720074

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

Metal levels are typical for a new component breaking in.

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		GFL0104949	GFL0088208	GFL0088188
Sample Date	Client Info		14 Feb 2024	26 Oct 2023	11 Oct 2023
Machine Age	mls	Client Info	11355	242842	242663
Oil Age	mls	Client Info	0	0	0
Oil Changed	Client Info		N/A	Changed	Not Chngd
Sample Status			NORMAL	SEVERE	SEVERE

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	30	25	20
Chromium	ppm	ASTM D5185m >20	3	3	4
Nickel	ppm	ASTM D5185m >4	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	5	10	9
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	1	2	3
Tin	ppm	ASTM D5185m >15	0	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	58	61	51
Manganese	ppm	ASTM D5185m 0	<1	0	1
Magnesium	ppm	ASTM D5185m 1010	899	978	817
Calcium	ppm	ASTM D5185m 1070	985	1072	853
Phosphorus	ppm	ASTM D5185m 1150	982	1038	755
Zinc	ppm	ASTM D5185m 1270	1129	1350	1033
Sulfur	ppm	ASTM D5185m 2060	2734	3197	2367

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	4	4
Sodium	ppm	ASTM D5185m	23	57	62
Potassium	ppm	ASTM D5185m >20	5	20	23
Fuel	%	ASTM D3524 >5	1.7	9.0	8.1

INFRA-RED

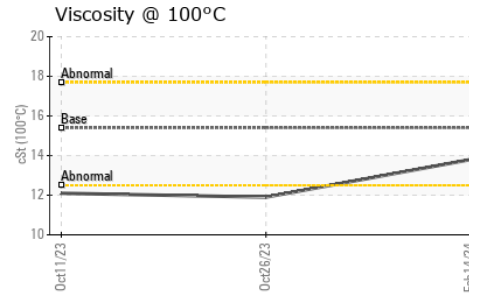
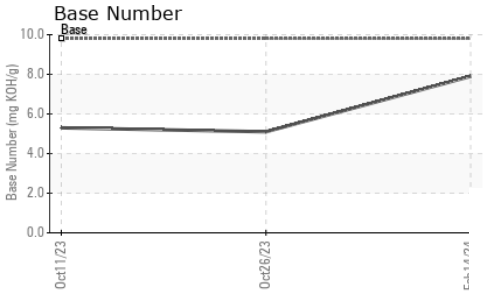
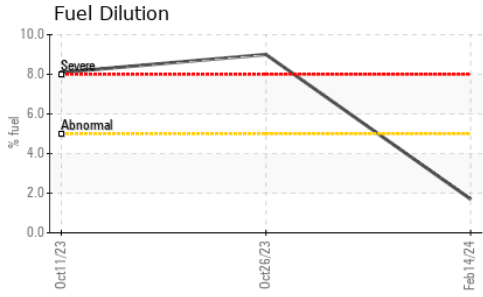
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.6	0.6	0.5
Nitration	Abs/cm	*ASTM D7624 >20	9.0	11.4	10.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.8	23.7	22.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.6	24.5	23.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.9	5.1	5.3



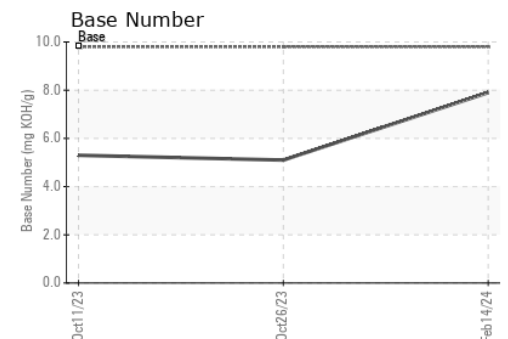
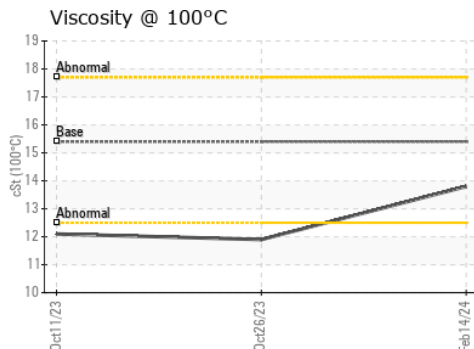
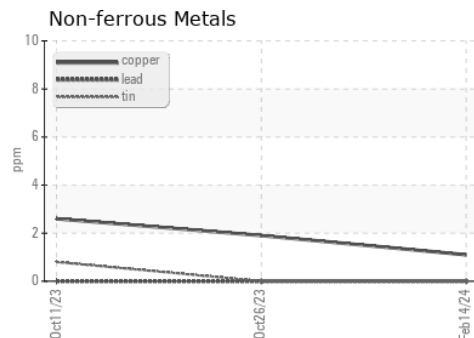
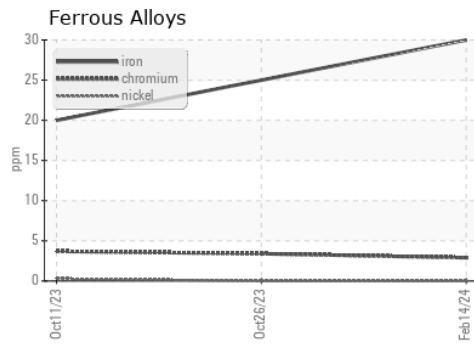
OIL ANALYSIS REPORT



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	13.8	▲ 11.9 ▲ 12.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0104949 **Received** : 26 Feb 2024
Lab Number : 06099814 **Tested** : 28 Feb 2024
Unique Number : 10898044 **Diagnosed** : 28 Feb 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 820 - Joplin Hauling
 3700 West 7th Street
 Joplin, MO
 US 64801
 Contact: James Jarrett
 jjarrett@gflenv.com
 T: (417)310-2802
 F:

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)