



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
426080-402321

Component
Diesel Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0104848	GFL0088223	GFL0088093
Sample Date		Client Info		24 Jan 2024	12 Dec 2023	15 Nov 2023
Machine Age	hrs	Client Info		18798	18493	18493
Oil Age	hrs	Client Info		18493	16282	16282
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	10	8	62
Chromium	ppm	ASTM D5185m	>20	0	<1	3
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	2	▲ 30
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	2	2	8
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

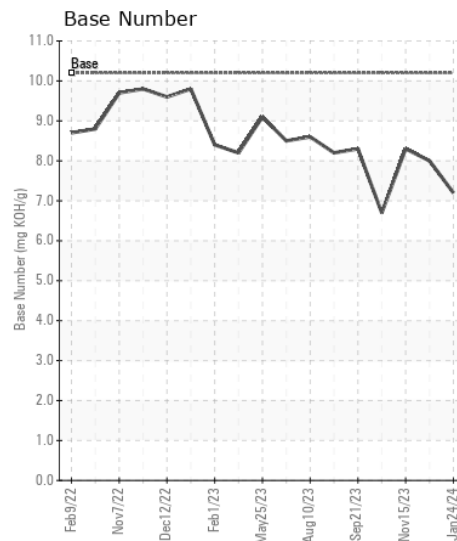
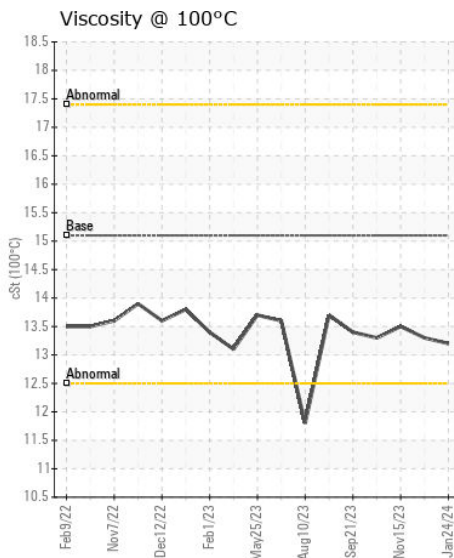
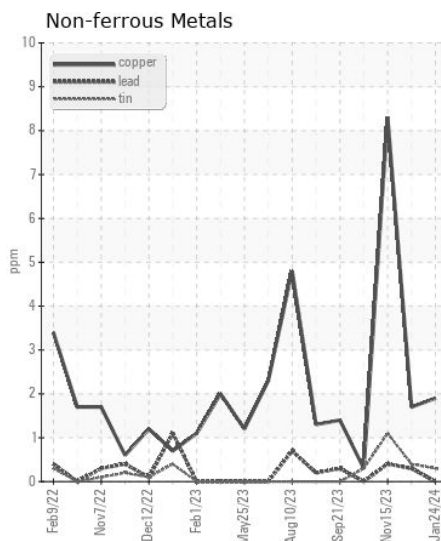
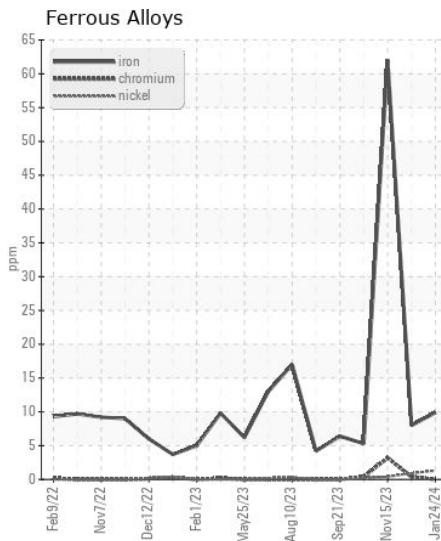
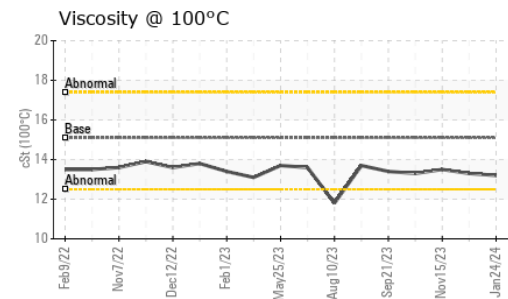
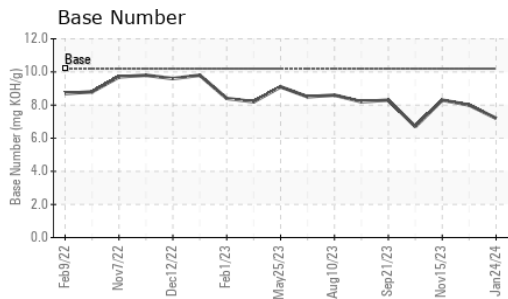
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	9
Potassium	ppm	ASTM D5185m	>20	<1	3	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.5	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.4	6.9	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.2	18.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		2	5	0
Boron	ppm	ASTM D5185m	50	<1	0	3
Barium	ppm	ASTM D5185m	5	0	12	0
Molybdenum	ppm	ASTM D5185m	50	54	57	66
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	870	880	971
Calcium	ppm	ASTM D5185m	1510	938	963	1271
Phosphorus	ppm	ASTM D5185m	780	945	940	1147
Zinc	ppm	ASTM D5185m	870	1188	1160	1367
Sulfur	ppm	ASTM D5185m	2040	2741	2946	2835
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	14.2	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	7.2	8.0	8.3
Visc @ 100°C	cSt	ASTM D445	15.1	13.2	13.3	13.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0104848 **Received** : 30 Jan 2024
Lab Number : 06074403 **Diagnosed** : 31 Jan 2024
Unique Number : 10856494 **Diagnostician** : Sean Felton
Test Package : FLEET

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