



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
912066
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0124100	GFL0120161	GFL0117249
Sample Date		Client Info		15 Jul 2024	29 May 2024	04 May 2024
Machine Age	hrs	Client Info		6393	6072	5922
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	MARGINAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	7	37	6
Chromium	ppm	ASTM D5185m	>4	<1	3	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>9	6	7	4
Lead	ppm	ASTM D5185m	>30	19	<1	5
Copper	ppm	ASTM D5185m	>35	4	2	2
Tin	ppm	ASTM D5185m	>4	<1	<1	2
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

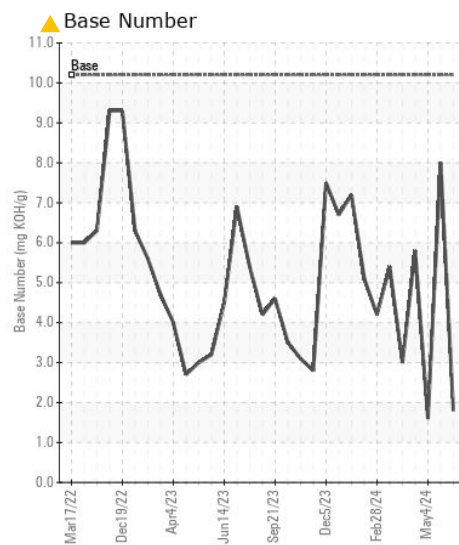
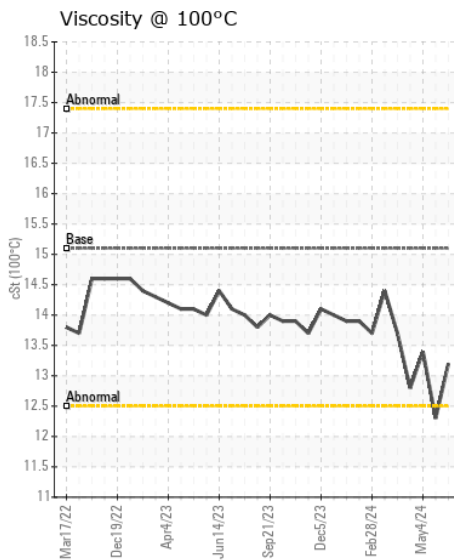
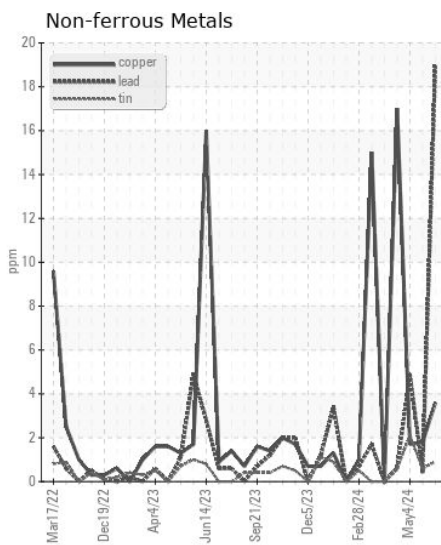
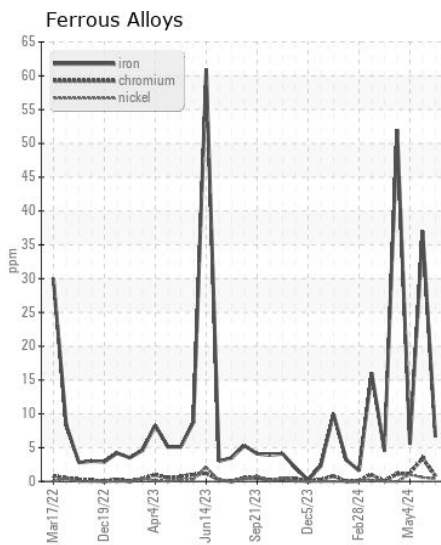
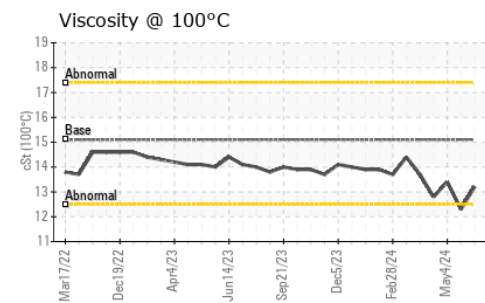
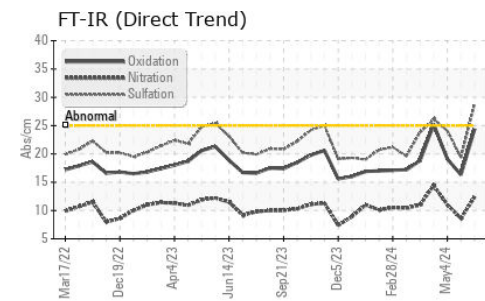
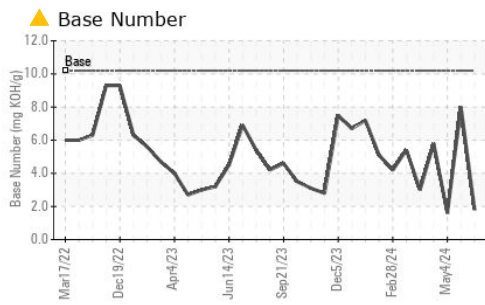
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	6	18	6
Potassium	ppm	ASTM D5185m	>20	3	9	3
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.4	0.1
Nitration	Abs/cm	*ASTM D7624	>20	12.4	8.6	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.8	19.4	24.1
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	5	11
Boron	ppm	ASTM D5185m	50	3	3	<1
Barium	ppm	ASTM D5185m	5	0	<1	0
Molybdenum	ppm	ASTM D5185m	50	50	60	45
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	560	555	882	544
Calcium	ppm	ASTM D5185m	1510	1736	1119	1778
Phosphorus	ppm	ASTM D5185m	780	837	1034	808
Zinc	ppm	ASTM D5185m	870	1016	1179	1004
Sulfur	ppm	ASTM D5185m	2040	2657	3031	3063
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.4	16.3	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	▲ 1.8	8.0	▲ 1.6
Visc @ 100°C	cSt	ASTM D445	15.1	13.2	▲ 12.3	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0124100

Lab Number : 06239849

Unique Number : 11128683

Test Package : FLEET

Received : 18 Jul 2024

Tested : 18 Jul 2024

Diagnosed : 19 Jul 2024 - Sean Felton

GFL Environmental - 836 - Kansas City Hauling

7801 East Truman Road

Kansas City, MO

US 64126

Contact: Loyce Stewart

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T:

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)