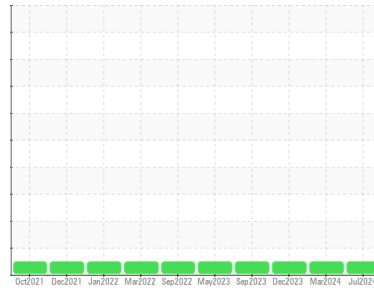




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

711010

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination 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		GFL0119142	GFL0115469	GFL0094231
Sample Date	Client Info		03 Jul 2024	22 Mar 2024	08 Dec 2023
Machine Age	hrs	Client Info	7830	7000	6175
Oil Age	hrs	Client Info	7005	825	711
Oil Changed	Client Info		Changed	Not Changd	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>50	22	21	5
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>9	4	2	1
Lead	ppm	ASTM D5185m	>30	1	1	<1
Copper	ppm	ASTM D5185m	>35	2	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	50	7	4	26
Barium	ppm	ASTM D5185m	5	0	0	11
Molybdenum	ppm	ASTM D5185m	50	64	59	50
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	889	889	542
Calcium	ppm	ASTM D5185m	1510	1415	1066	1460
Phosphorus	ppm	ASTM D5185m	780	1064	1049	759
Zinc	ppm	ASTM D5185m	870	1319	1255	912
Sulfur	ppm	ASTM D5185m	2040	3078	3441	2715

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>+100	4	3	3
Sodium	ppm	ASTM D5185m		30	17	4
Potassium	ppm	ASTM D5185m	>20	20	10	3

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		1.1	1.5	0
Nitration	Abs/cm	*ASTM D7624	>20	12.0	10.4	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	20.6	18.5

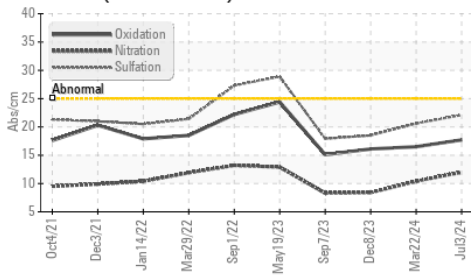
FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	16.5	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	8.0	8.7	7.4

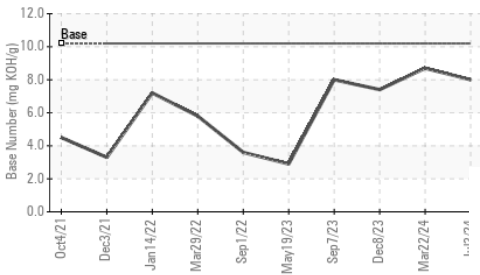


OIL ANALYSIS REPORT

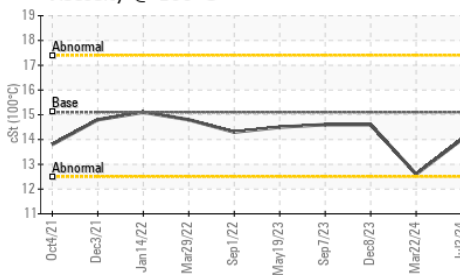
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

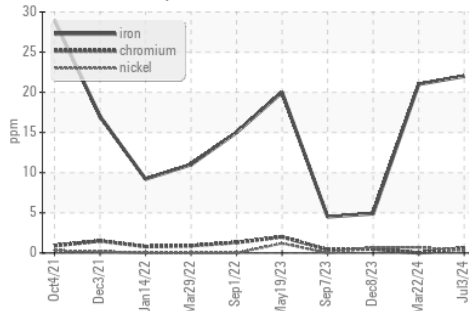


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

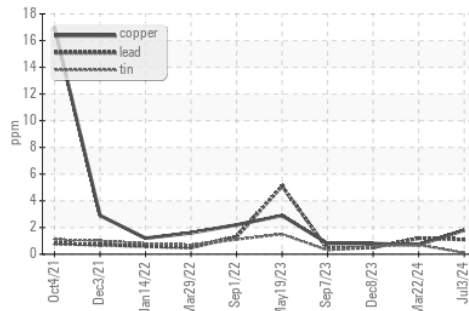
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	12.6

GRAPHS

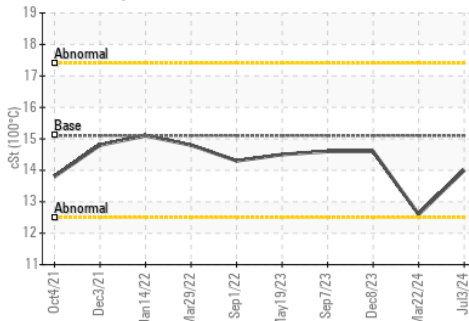
Ferrous Alloys



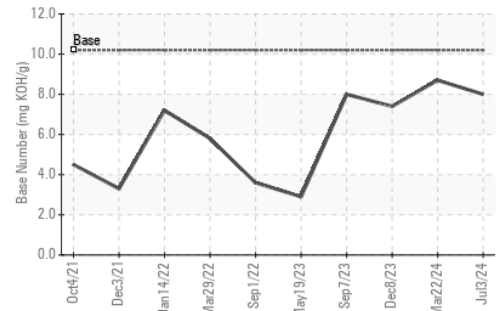
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0119142
 Lab Number : 06229965
 Unique Number : 11113458
 Test Package : FLEET

Received : 08 Jul 2024
 Tested : 09 Jul 2024
 Diagnosed : 09 Jul 2024 - Don Baldrige

GFL Environmental - 882 - Gainesville
 5002 SW 41st Blvd
 Gainesville, FL
 US 32608
 Contact: ROBERT CLARK
 robert.clark@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)

T:
F: