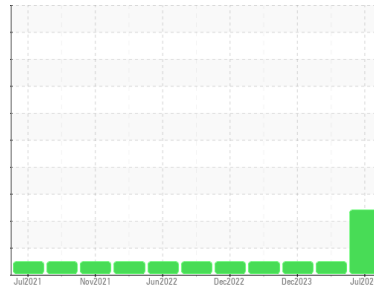




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
744010

Component
Natural Gas Engine

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

DIAGNOSIS

Recommendation

Check for low coolant level. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0119133	GFL0115505	GFL0089750
Sample Date	Client Info	16 Jul 2024	22 Mar 2024	16 Dec 2023
Machine Age	hrs	2190	22540	22185
Oil Age	hrs	22540	355	375
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	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	12	19	19
Chromium	ppm ASTM D5185m >4	<1	0	<1
Nickel	ppm ASTM D5185m >2	<1	<1	0
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	4	1	1
Copper	ppm ASTM D5185m >35	4	<1	<1
Tin	ppm ASTM D5185m >4	<1	<1	0
Vanadium	ppm ASTM D5185m	<1	0	<1
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	8	4	2
Barium	ppm ASTM D5185m 5	0	0	0
Molybdenum	ppm ASTM D5185m 50	62	56	56
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 560	615	854	807
Calcium	ppm ASTM D5185m 1510	1545	1052	1002
Phosphorus	ppm ASTM D5185m 780	805	1028	892
Zinc	ppm ASTM D5185m 870	1050	1230	1100
Sulfur	ppm ASTM D5185m 2040	2587	3329	2725

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	5	3	3
Sodium	ppm ASTM D5185m	116	17	17
Potassium	ppm ASTM D5185m >20	110	9	6

INFRA-RED

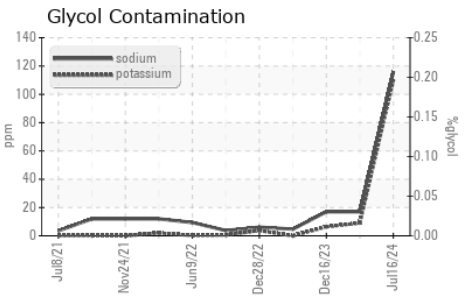
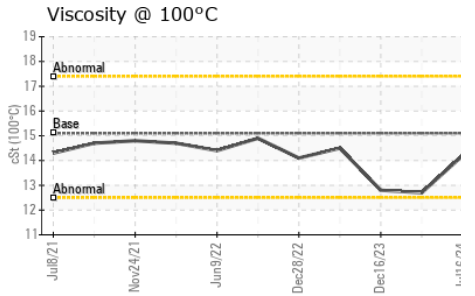
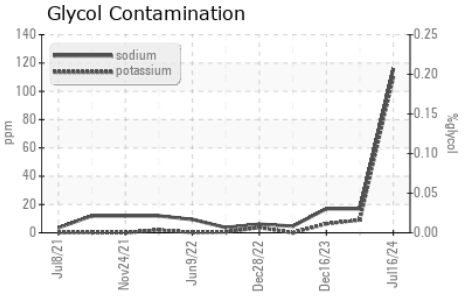
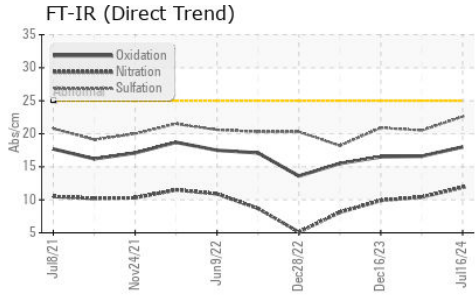
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0.2	1.5	1.4
Nitration	Abs/cm *ASTM D7624 >20	11.9	10.4	9.9
Sulfation	Abs/.1mm *ASTM D7415 >30	22.6	20.5	20.9

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.0	16.6	16.5
Base Number (BN)	mg KOH/g ASTM D2896 10.2	5.5	8.7	8.6



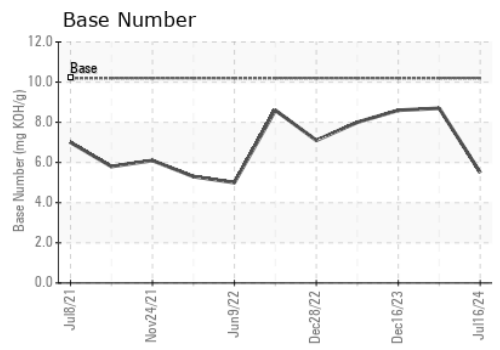
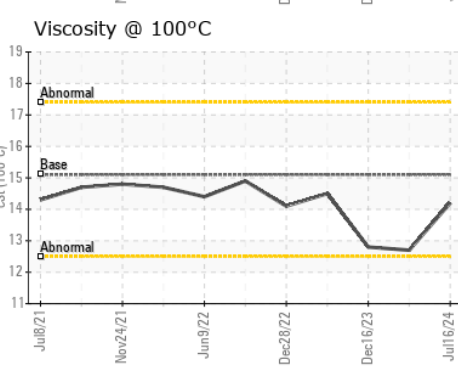
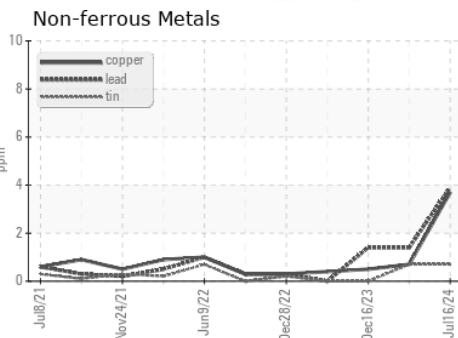
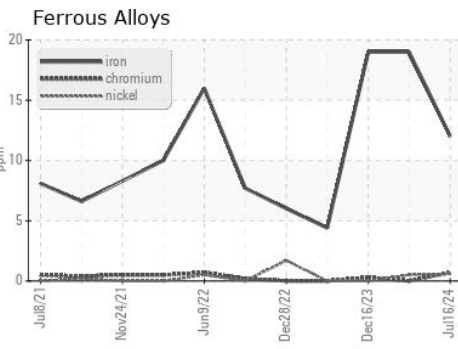
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	12.7

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0119133 **Received** : 18 Jul 2024
Lab Number : 06239842 **Tested** : 19 Jul 2024
Unique Number : 11128676 **Diagnosed** : 19 Jul 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

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)