



OIL ANALYSIS REPORT

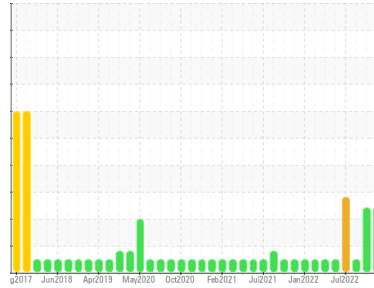
Sample Rating Trend

COOL CHEMICALS

Area
(P633852)
Machine Id
10775C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (30 QTS)



DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. 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.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0101753	GFL0101789	GFL0081023
Sample Date	Client Info	22 Mar 2024	13 Mar 2024	04 Aug 2023
Machine Age	hrs	15930	13950	13635
Oil Age	hrs	600	600	600
Oil Changed	Client Info	Changed	Changed	N/A
Sample Status		ABNORMAL	ABNORMAL	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	54	51	17
Chromium	ppm ASTM D5185m >4	4	4	1
Nickel	ppm ASTM D5185m >2	2	2	<1
Titanium	ppm ASTM D5185m	<1	<1	<1
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >9	7	8	4
Lead	ppm ASTM D5185m >30	7	6	<1
Copper	ppm ASTM D5185m >35	2	1	1
Tin	ppm ASTM D5185m >4	2	2	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	14	13	17
Barium	ppm ASTM D5185m 5	1	0	8
Molybdenum	ppm ASTM D5185m 50	68	67	50
Manganese	ppm ASTM D5185m 0	3	2	2
Magnesium	ppm ASTM D5185m 560	736	713	733
Calcium	ppm ASTM D5185m 1510	2033	1935	1335
Phosphorus	ppm ASTM D5185m 780	1052	918	712
Zinc	ppm ASTM D5185m 870	1218	1189	908
Sulfur	ppm ASTM D5185m 2040	2974	2874	2370

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	11	10	15
Sodium	ppm ASTM D5185m	▲ 25	▲ 25	6
Potassium	ppm ASTM D5185m >20	▲ 209	▲ 203	5

INFRA-RED

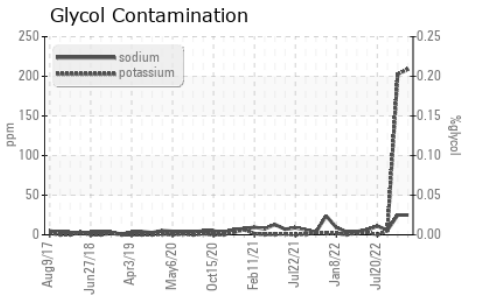
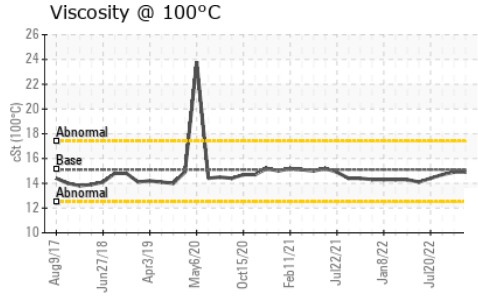
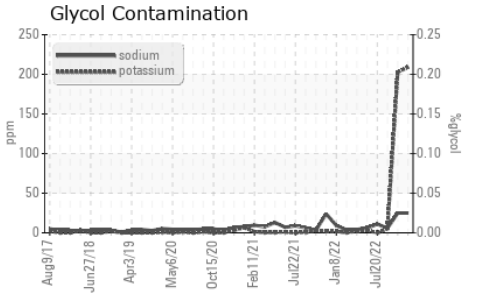
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0	0	0
Nitration	Abs/cm *ASTM D7624 >20	14.2	13.9	9.9
Sulfation	Abs/.1mm *ASTM D7415 >30	28.4	28.0	20.4

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	24.2	23.3	18.5
Base Number (BN)	mg KOH/g ASTM D2896 10.2	4.1	4.0	7.4



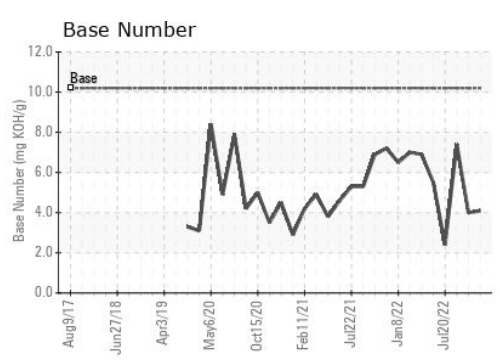
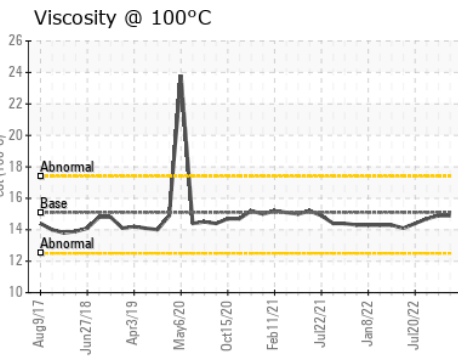
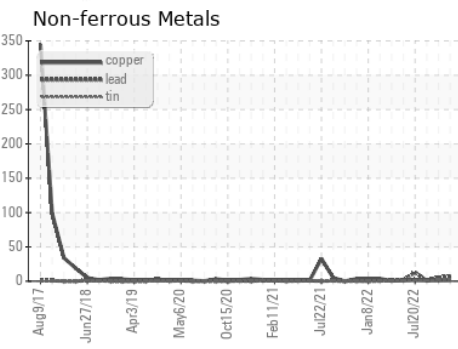
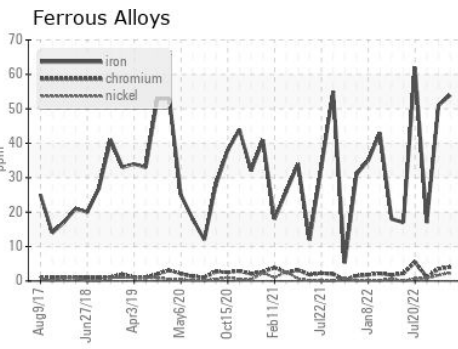
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
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	14.9	14.7

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101753 **Received** : 27 Mar 2024
Lab Number : 06130131 **Tested** : 01 Apr 2024
Unique Number : 10949596 **Diagnosed** : 01 Apr 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: ARCILIO RUEZ
 aruiz@gflenv.com

Certificate L2367
 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)