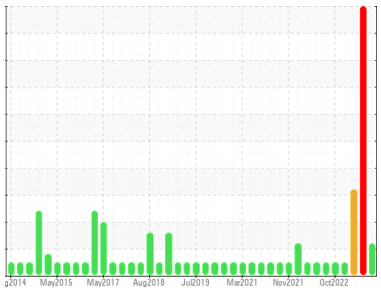
OIL ANALYSIS REPORT

Sample Rating Trend



COOL CHEMICALS

Area
(YA115786)
Machine Id
3491C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (30 GAL)

DIAGNOSIS

Recommendation
Check for low coolant level. We recommend an early resample to monitor this condition.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0123395**	GFL0082421	GFL0082436
Sample Date		Client Info		**18 Jun 2024**	16 Apr 2024	05 Jan 2024
Machine Age	hrs	Client Info		**97464**	0	97464
Oil Age	hrs	Client Info		**97464**	0	97464
Oil Changed		Client Info		**N/A**	N/A	Changed
Sample Status				**ABNORMAL**	SEVERE	ABNORMAL

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	**23**	▲ 82	▲ 60
Chromium	ppm	ASTM D5185m	>4	**2**	4	3
Nickel	ppm	ASTM D5185m	>2	**0**	<1	2
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>9	**2**	▲ 13	4
Lead	ppm	ASTM D5185m	>30	**4**	11	2
Copper	ppm	ASTM D5185m	>35	**1**	▲ 55	3
Tin	ppm	ASTM D5185m	>4	**0**	3	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**33**	30	8
Barium	ppm	ASTM D5185m	5	**<1**	0	0
Molybdenum	ppm	ASTM D5185m	50	**52**	91	57
Manganese	ppm	ASTM D5185m	0	**1**	2	2
Magnesium	ppm	ASTM D5185m	560	**615**	464	536
Calcium	ppm	ASTM D5185m	1510	**1743**	1386	1592
Phosphorus	ppm	ASTM D5185m	780	**871**	702	686
Zinc	ppm	ASTM D5185m	870	**1056**	889	971
Sulfur	ppm	ASTM D5185m	2040	**3151**	2329	2356

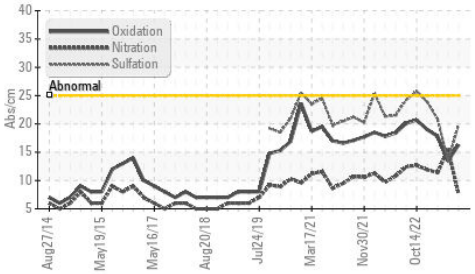
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**9**	29	12
Sodium	ppm	ASTM D5185m		**9**	▲ 483	▲ 99
Potassium	ppm	ASTM D5185m	>20	▲ **109**	▲ 4933	▲ 321
Glycol	%	*ASTM D2982		**---**	▲ 0.20	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	**7.6**	15.5	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.8**	13.6	20.8

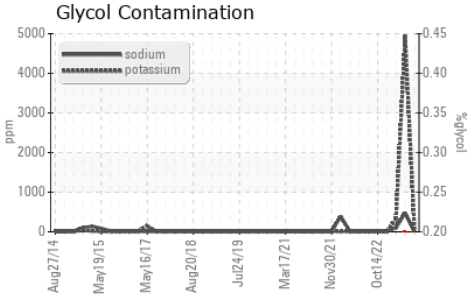
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**16.3**	13.5	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**7.8**	45.2	6.0

OIL ANALYSIS REPORT

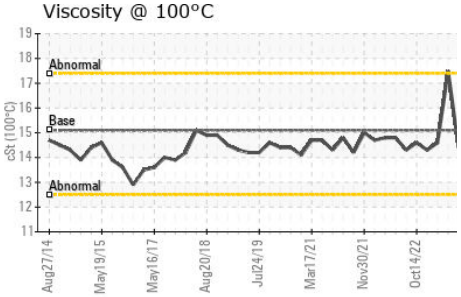
FT-IR (Direct Trend)



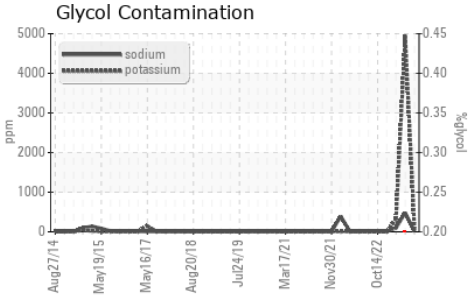
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

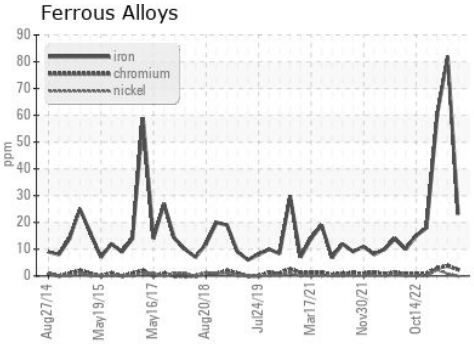


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	SOLID	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	▲ 0.2%	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

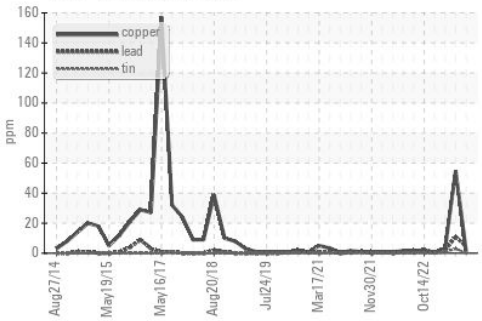
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.4**	▲ 17.5	14.6

GRAPHS

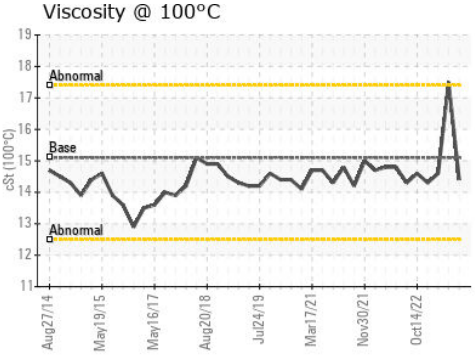
Ferrous Alloys



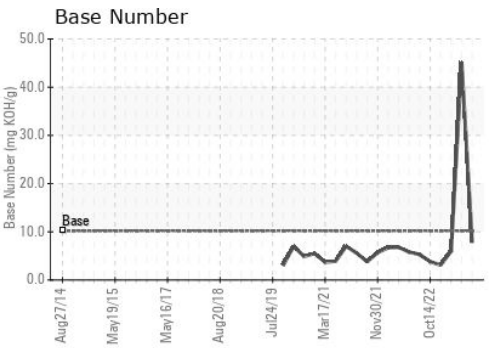
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0123395
Lab Number : 06215578
Unique Number : 11088442
Test Package : FLEET

Received : 20 Jun 2024
Tested : 21 Jun 2024
Diagnosed : 21 Jun 2024 - Sean Felton

GFL Environmental - 007 - Brunswick
2809 Galloway Road
Bolivia, NC
US 28422
Contact: DONALD CRAVEN
dcraven@gflenv.com
T:
F: (910)253-4179

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)