FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
810029
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (28 QTS)

RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

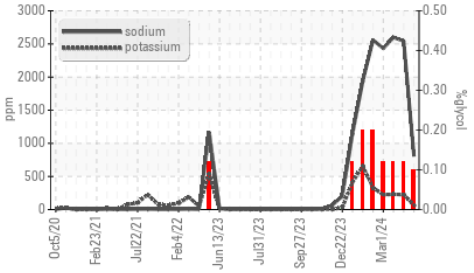
Test for glycol is positive. There is a high amount of fuel present in the oil. There is a high concentration of glycol present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

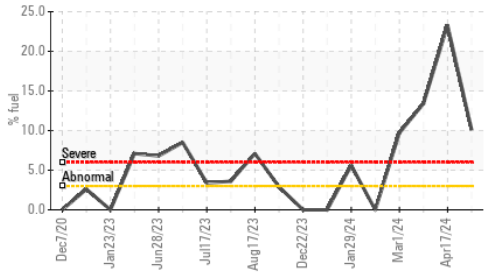
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111413	GFL0111486	GFL0068809
Sample Date		Client Info		20 May 2024	17 Apr 2024	19 Mar 2024
Machine Age	hrs	Client Info		10302	10212	10045
Oil Age	hrs	Client Info		90	520	353
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>75	15	50	31
Chromium	ppm	ASTM D5185m	>5	<1	2	1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	3	8	6
Lead	ppm	ASTM D5185m	>25	0	<1	<1
Copper	ppm	ASTM D5185m	>100	<1	3	2
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	16	45	46
Potassium	ppm	ASTM D5185m	>20	69	225	230
Fuel	%	ASTM D3524	>3.0	10.1	23.3	13.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	0.12	0.12
Soot %	%	*ASTM D7844	>6	0.6	1.3	1
Nitration	Abs/cm	*ASTM D7624	>20	10.2	16.4	14.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	24.3	22.1
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	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		808	2543	2599
Boron	ppm	ASTM D5185m	0	18	48	67
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	80	127	139
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	860	601	701
Calcium	ppm	ASTM D5185m	1070	975	746	847
Phosphorus	ppm	ASTM D5185m	1150	908	586	680
Zinc	ppm	ASTM D5185m	1270	1158	843	979
Sulfur	ppm	ASTM D5185m	2060	3261	2428	2434
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	22.3	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.7	11.1	14.0
Visc @ 100°C	cSt	ASTM D445	15.4	11.1	9.4	10.3

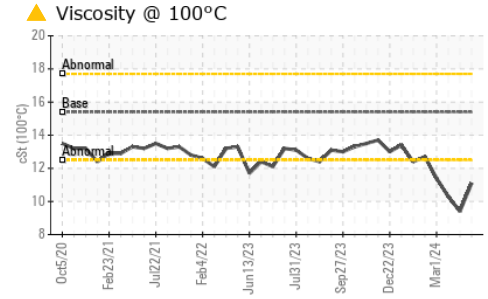
Glycol Contamination



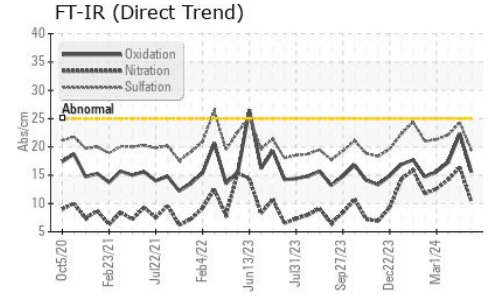
Fuel Dilution



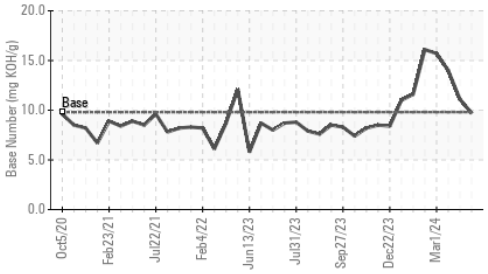
Viscosity @ 100°C



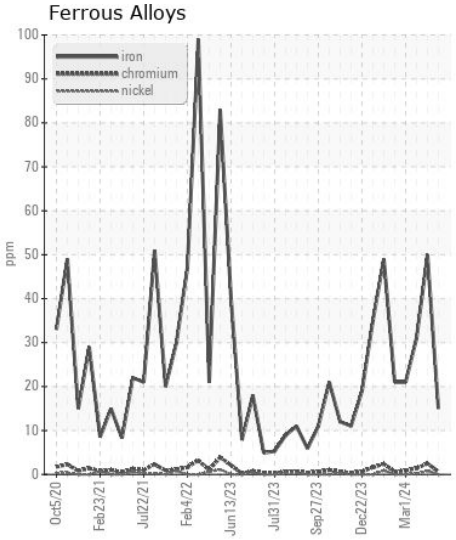
FT-IR (Direct Trend)



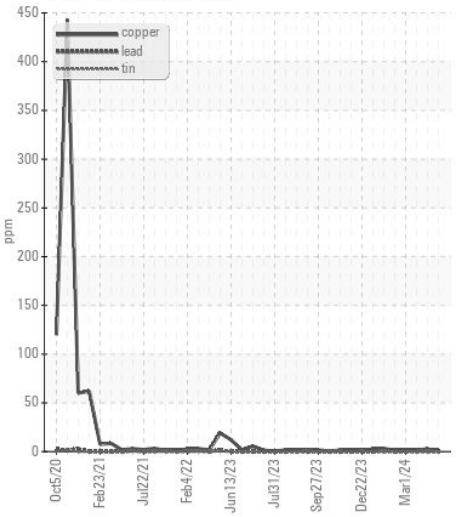
Base Number



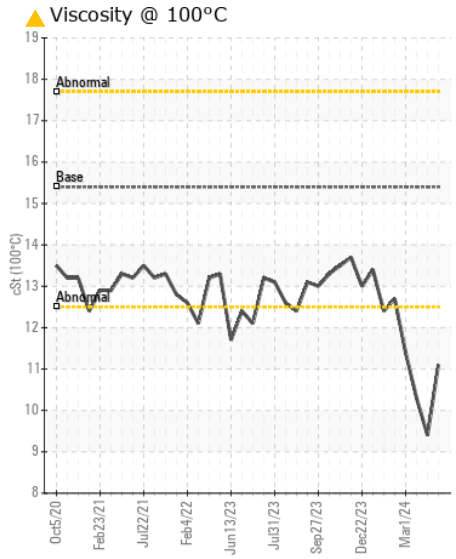
Ferrous Alloys



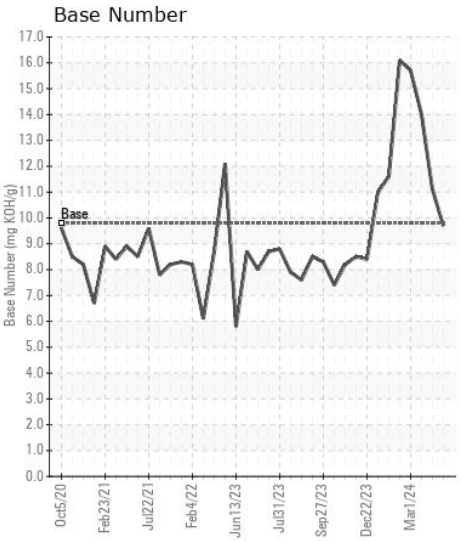
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111413
Lab Number : 06187501
Unique Number : 11044253
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 22 May 2024
Tested : 28 May 2024
Diagnosed : 28 May 2024 - Wes Davis

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)

GFL Environmental - 073 - Warner Robins - Transwaste
155 Story Road
Warner Robins, GA
US 31093
Contact: JOSH MALONEY
jmaloney@gflenv.com
T:
F: