FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4521M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

The aluminum level is abnormal. All other component wear rates are normal.

CONTAMINATION

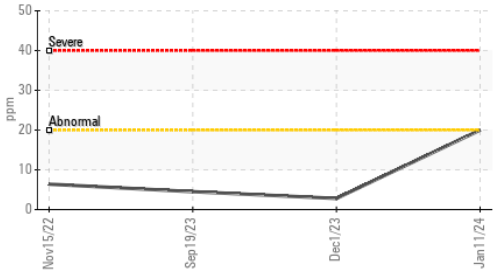
There is no indication of any contamination in the oil.

FLUID CONDITION

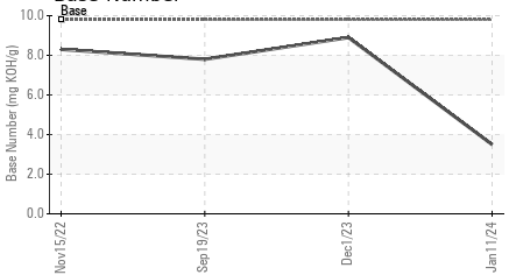
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110001	GFL0104386	GFL0085011
Sample Date		Client Info		11 Jan 2024	01 Dec 2023	19 Sep 2023
Machine Age	hrs	Client Info		23308	23057	22582
Oil Age	hrs	Client Info		251	23057	22582
Filter Age	hrs	Client Info		0	23057	22582
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>90	25	10	53
Chromium	ppm	ASTM D5185m	>20	2	<1	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 20	3	4
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	12	2	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	4	9
Potassium	ppm	ASTM D5185m	>20	14	7	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0	0.1	1.3
Nitration	Abs/cm	*ASTM D7624	>20	11.1	5.9	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	17.9	22.9
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		14	0	13
Boron	ppm	ASTM D5185m	0	2	0	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	54	85	65
Manganese	ppm	ASTM D5185m	0	<1	0	1
Magnesium	ppm	ASTM D5185m	1010	602	1374	1007
Calcium	ppm	ASTM D5185m	1070	1504	1431	1184
Phosphorus	ppm	ASTM D5185m	1150	717	1464	1097
Zinc	ppm	ASTM D5185m	1270	963	1780	1352
Sulfur	ppm	ASTM D5185m	2060	2419	4669	3506
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.9	13.7	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	3.5	8.9	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	14.1	14.3

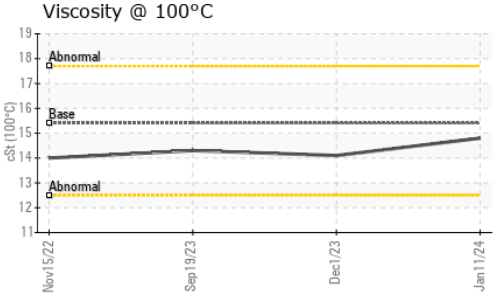
Aluminum (ppm)



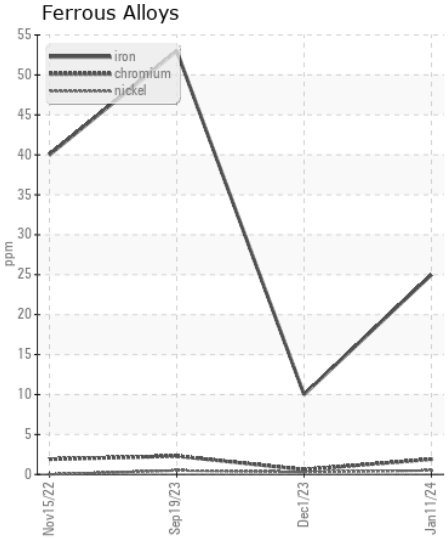
Base Number



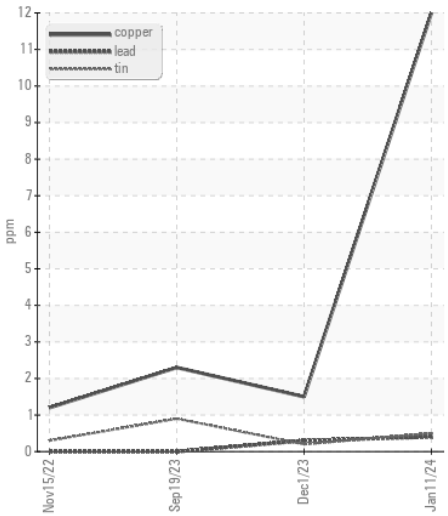
Viscosity @ 100°C



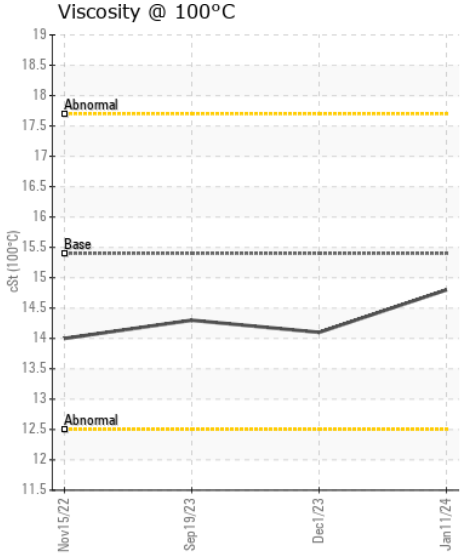
Ferrous Alloys



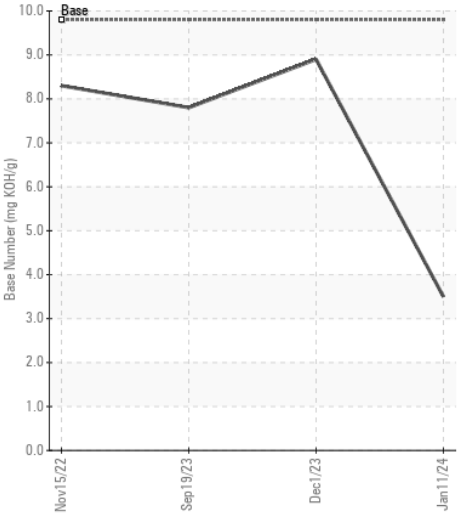
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: GFL0110001	**Recieved**	: 16 Jan 2024
Lab Number	: 06060746	**Diagnosed**	: 17 Jan 2024
Unique Number	: 10832128	**Diagnostician**	: Jonathan Hester
Test Package	: FLEET		

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 - 410 - Michigan West
39000 Van Born Rd
Wayne, MI
US 48184
Contact: Belal Dgheish
bdgheish@gflenv.com
T: (734)714-2340
F: