FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
784M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

An increase in the copper level is noted. All other component wear rates are normal.

CONTAMINATION

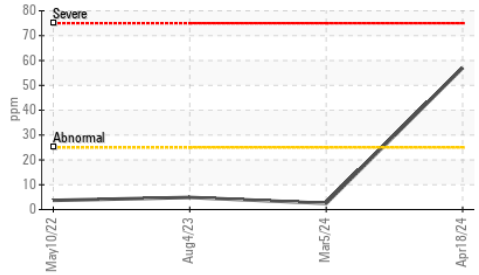
Fuel content negligible. Elemental level of silicon (Si) above normal.

FLUID CONDITION

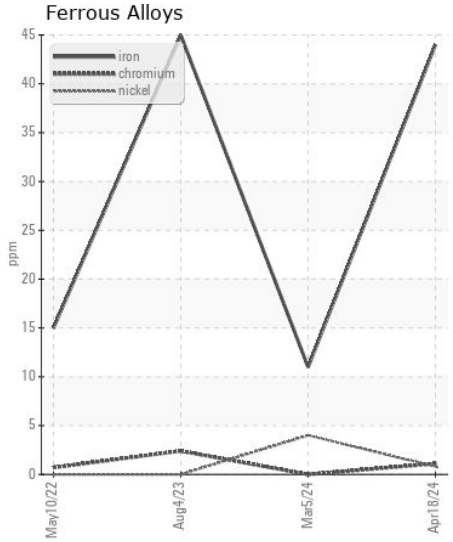
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116889	GFL0107697	GFL0081253
Sample Date		Client Info		18 Apr 2024	05 Mar 2024	04 Aug 2023
Machine Age	hrs	Client Info		16037	15714	14731
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	44	11	45
Chromium	ppm	ASTM D5185m	>20	1	0	2
Nickel	ppm	ASTM D5185m	>4	<1	4	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	5	<1	5
Lead	ppm	ASTM D5185m	>40	1	0	5
Copper	ppm	ASTM D5185m	>330	● 159	<1	2
Tin	ppm	ASTM D5185m	>15	2	2	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	▲ 57	2	5
Potassium	ppm	ASTM D5185m	>20	9	0	6
Fuel	%	ASTM D3524	>5	0.4	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	1.4
Nitration	Abs/cm	*ASTM D7624	>20	10.5	8.5	13.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	19.3	27.6
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		3	2	18
Boron	ppm	ASTM D5185m	0	116	<1	3
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	107	56	73
Manganese	ppm	ASTM D5185m	0	4	0	<1
Magnesium	ppm	ASTM D5185m	1010	754	1051	1009
Calcium	ppm	ASTM D5185m	1070	1338	1180	1285
Phosphorus	ppm	ASTM D5185m	1150	804	1001	1138
Zinc	ppm	ASTM D5185m	1270	990	1315	1373
Sulfur	ppm	ASTM D5185m	2060	2655	2927	3182
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.0	16.0	25.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.3	7.5	5.4
Visc @ 100°C	cSt	ASTM D445	15.4	● 10.7	13.8	14.2

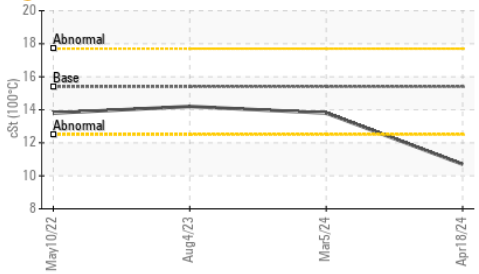
Silicon (ppm)



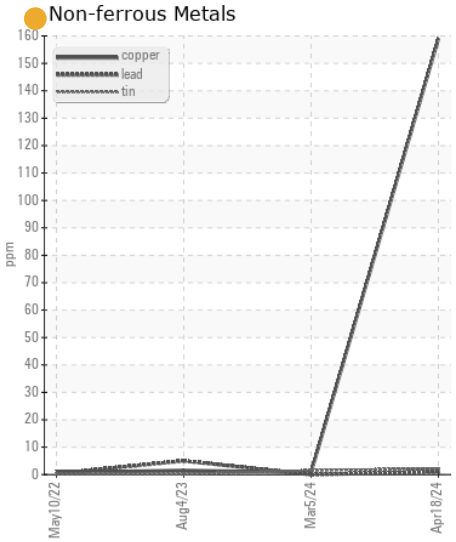
Ferrous Alloys



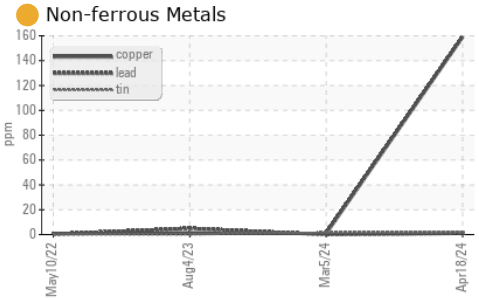
Viscosity @ 100°C



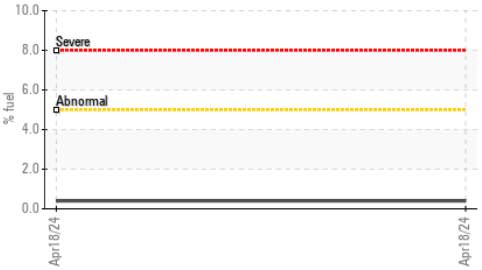
Non-ferrous Metals



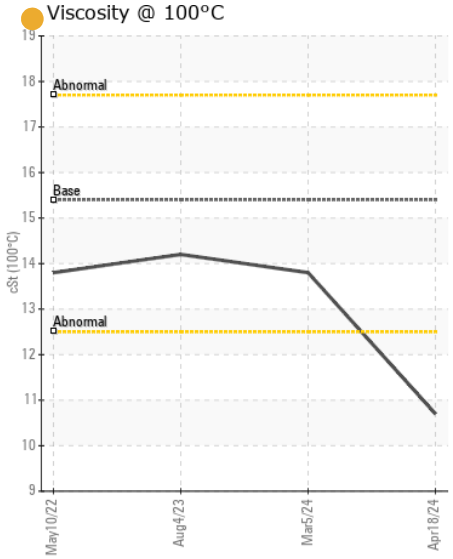
Non-ferrous Metals



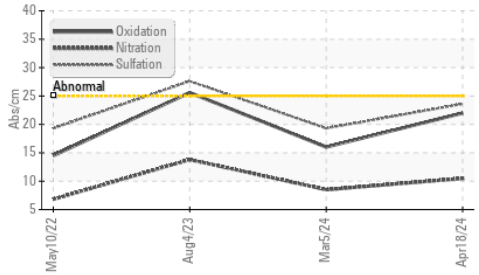
Fuel Dilution



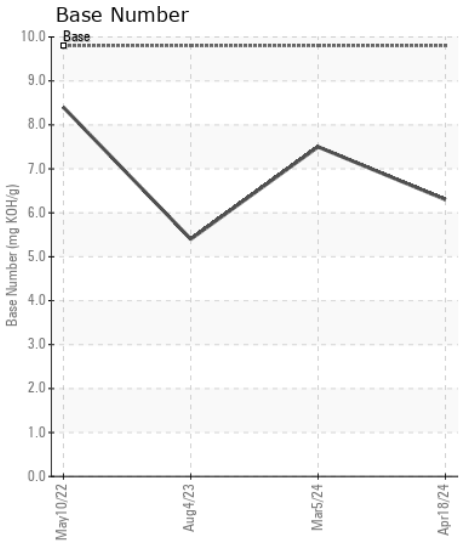
Viscosity @ 100°C



FT-IR (Direct Trend)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116889
Lab Number : 06157504
Unique Number : 10992927
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 23 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 26 Apr 2024 - Don Baldridge

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)

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