FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
834094
Component
Diesel Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- QTS)

RECOMMENDATION

The oil is near the end of it`s useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

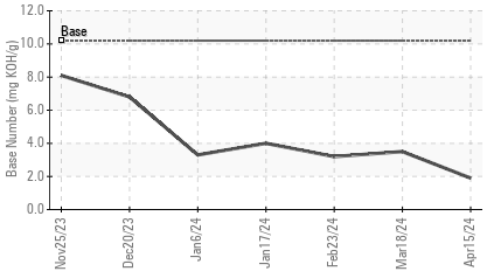
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

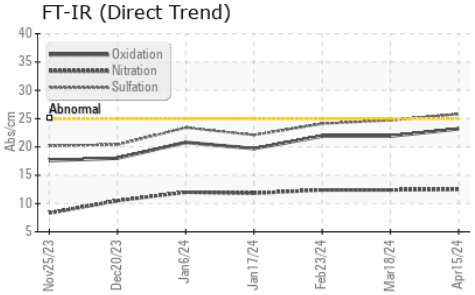
The BN level is low.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0118758	GFL0114110	GFL0108045
Sample Date		Client Info		15 Apr 2024	18 Mar 2024	23 Feb 2024
Machine Age	hrs	Client Info		998	860	716
Oil Age	hrs	Client Info		998	716	593
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	64	53	58
Chromium	ppm	ASTM D5185m	>20	3	2	1
Nickel	ppm	ASTM D5185m	>4	3	2	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	32	27	25
Lead	ppm	ASTM D5185m	>40	2	2	<1
Copper	ppm	ASTM D5185m	>330	19	15	16
Tin	ppm	ASTM D5185m	>15	2	2	<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	27	24	29
Potassium	ppm	ASTM D5185m	>20	115	113	92
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0	0
Nitration	Abs/cm	*ASTM D7624	>20	12.5	12.4	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.8	24.7	24.1
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		5	8	6
Boron	ppm	ASTM D5185m	50	7	10	9
Barium	ppm	ASTM D5185m	5	3	2	3
Molybdenum	ppm	ASTM D5185m	50	65	58	60
Manganese	ppm	ASTM D5185m	0	14	12	14
Magnesium	ppm	ASTM D5185m	560	746	720	871
Calcium	ppm	ASTM D5185m	1510	1292	1286	1369
Phosphorus	ppm	ASTM D5185m	780	820	706	803
Zinc	ppm	ASTM D5185m	870	970	885	1025
Sulfur	ppm	ASTM D5185m	2040	2651	2553	2627
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.2	21.9	21.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	▲ 1.9	3.5	3.2
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.2	14.2

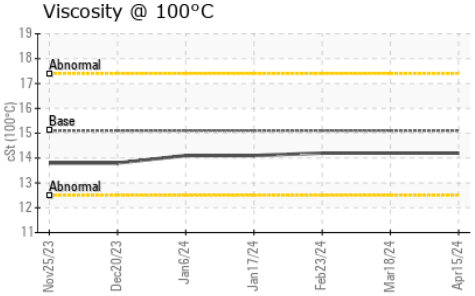
Base Number



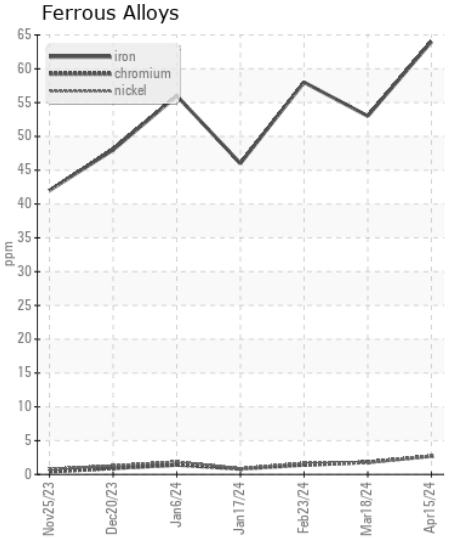
FT-IR (Direct Trend)



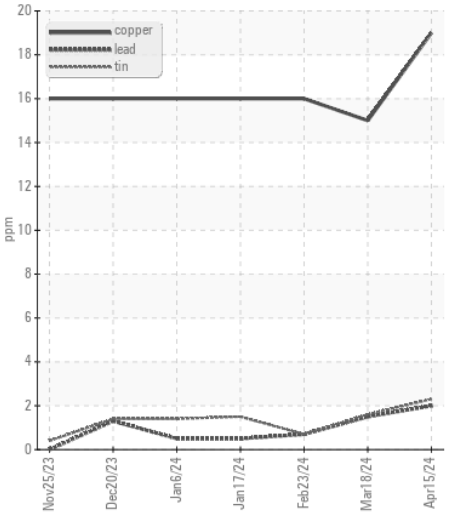
Viscosity @ 100°C



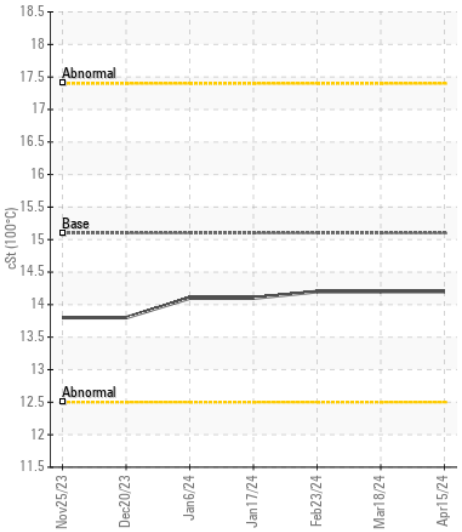
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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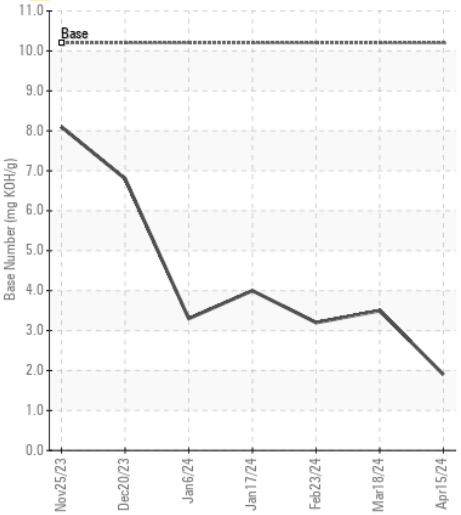

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118758
Lab Number : 06156771
Unique Number : 10992194
Test Package : FLEET

Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 24 Apr 2024 - Sean Felton

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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