FLEET LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(BC60905)
Machine Id
411016-1387
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

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

CONTAMINATION

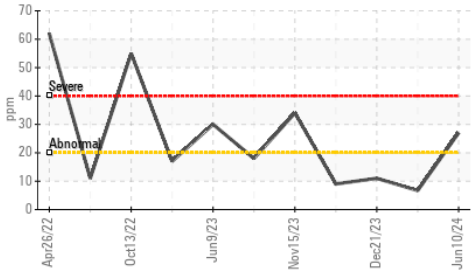
There is no indication of any contamination in the oil.

FLUID CONDITION

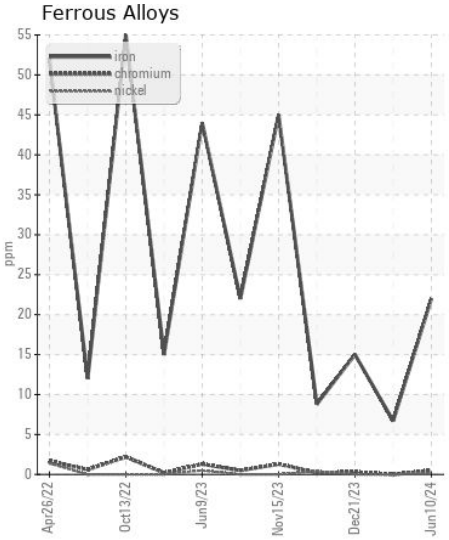
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100016	GFL0110294	GFL0103052
Sample Date		Client Info		10 Jun 2024	04 Mar 2024	21 Dec 2023
Machine Age	hrs	Client Info		4135	4033	3966
Oil Age	hrs	Client Info		500	67	130
Filter Age	hrs	Client Info		500	67	130
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>90	22	7	15
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 27	7	11
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	11	7	1
Tin	ppm	ASTM D5185m	>15	0	0	<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	5	3	4
Potassium	ppm	ASTM D5185m	>20	13	1	12
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	0.3	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.6	5.5	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	16.8	18.0
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		2	0	0
Boron	ppm	ASTM D5185m	0	8	0	6
Barium	ppm	ASTM D5185m	0	0	0	9
Molybdenum	ppm	ASTM D5185m	60	59	56	64
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	927	880	922
Calcium	ppm	ASTM D5185m	1070	1111	1033	1118
Phosphorus	ppm	ASTM D5185m	1150	1060	1001	1003
Zinc	ppm	ASTM D5185m	1270	1257	1169	1217
Sulfur	ppm	ASTM D5185m	2060	3616	2860	3020
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	13.3	14.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	8.7	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	13.3	13.2

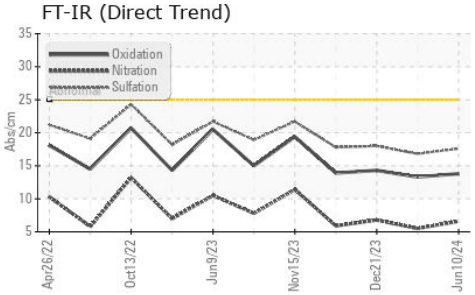
Aluminum (ppm)



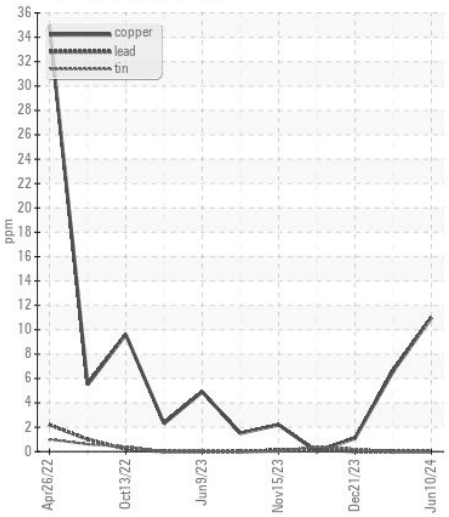
Ferrous Alloys



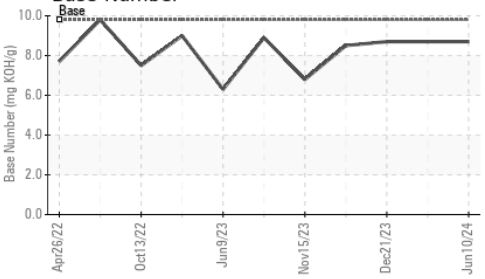
FT-IR (Direct Trend)



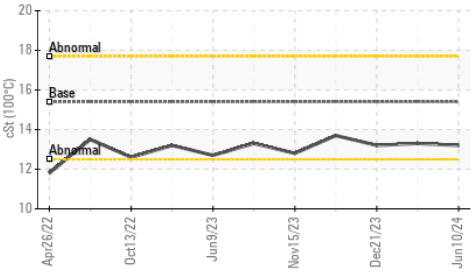
Non-ferrous Metals



Base Number



Viscosity @ 100°C



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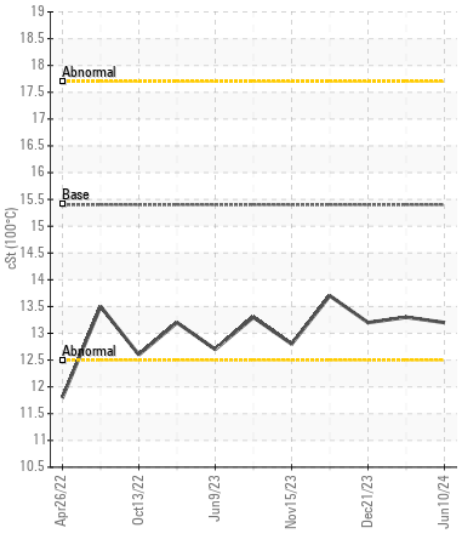
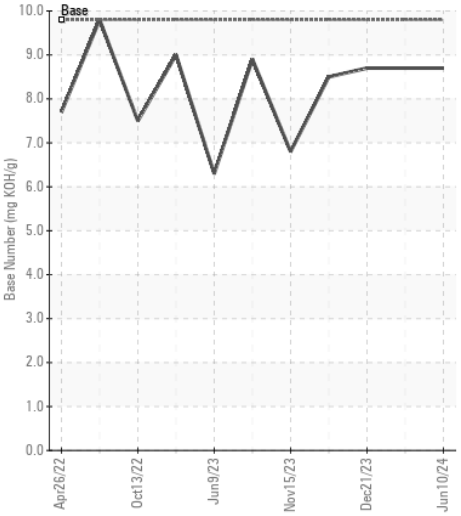


Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: GFL0100016	**Received**	: 17 Jun 2024
Lab Number	: 06211336	**Tested**	: 19 Jun 2024
Unique Number	: 11084200	**Diagnosed**	: 19 Jun 2024 - Don Baldridge
Test Package	: FLEET		

GFL Environmental - 622 - Traverse City Hauling
160 Hughes Dr
Traverse City, MI
US 49686
Contact: GARY BREWER

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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