



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834047
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0122867	GFL0122822	GFL0122935
Sample Date		Client Info		10 Jul 2024	12 Jun 2024	11 Jun 2024
Machine Age	hrs	Client Info		1903	1763	1738
Oil Age	hrs	Client Info		1903	1763	1738
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	20	16	18
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>9	3	3	2
Lead	ppm	ASTM D5185m	>30	2	<1	1
Copper	ppm	ASTM D5185m	>35	4	3	4
Tin	ppm	ASTM D5185m	>4	1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

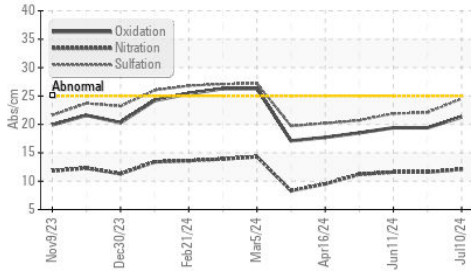
Silicon	ppm	ASTM D5185m	>+100	9	8	8
Potassium	ppm	ASTM D5185m	>20	2	3	2
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	12.1	11.6	11.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.5	22.1	21.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

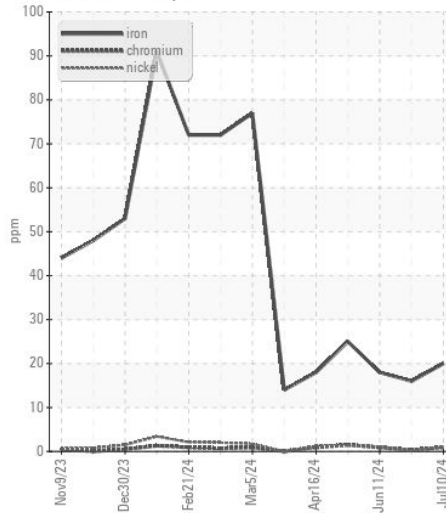
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		8	7	8
Boron	ppm	ASTM D5185m	50	5	10	8
Barium	ppm	ASTM D5185m	5	0	0	<1
Molybdenum	ppm	ASTM D5185m	50	55	52	53
Manganese	ppm	ASTM D5185m	0	2	2	2
Magnesium	ppm	ASTM D5185m	560	585	625	564
Calcium	ppm	ASTM D5185m	1510	1600	1611	1575
Phosphorus	ppm	ASTM D5185m	780	725	699	770
Zinc	ppm	ASTM D5185m	870	970	993	971
Sulfur	ppm	ASTM D5185m	2040	2304	2776	2608
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	19.4	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	3.4	4.4	4.5
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.4	14.6

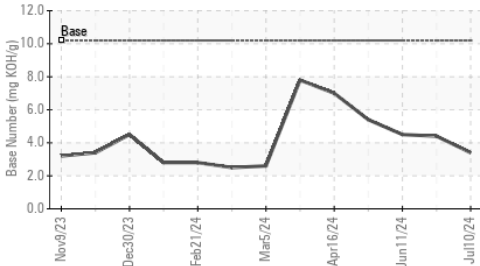
FT-IR (Direct Trend)



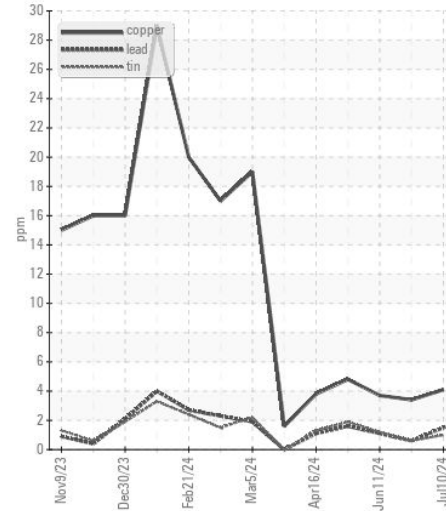
Ferrous Alloys



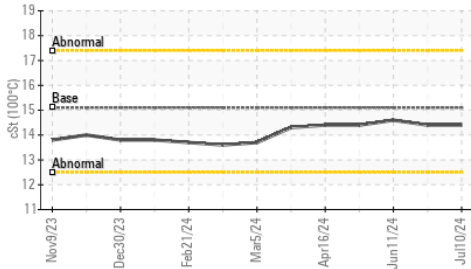
Base Number



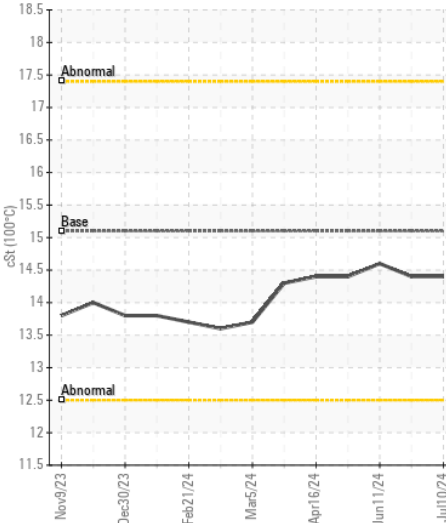
Non-ferrous Metals



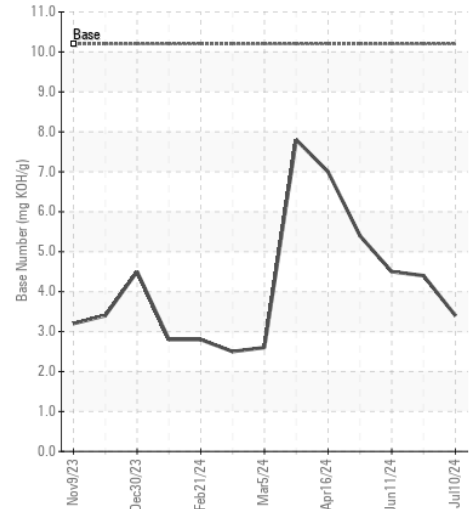
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0122867
Lab Number : 06238721
Unique Number : 11127555
Test Package : FLEET

Received : 16 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 18 Jul 2024 - Sean Felton

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: SARA PATRICK
 spatrack@gflenv.com

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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F: