



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2729
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0098890	GFL0099023	GFL0098857
Sample Date		Client Info		16 Apr 2024	25 Mar 2024	28 Feb 2024
Machine Age	mls	Client Info		326005	319690	319690
Oil Age	mls	Client Info		326005	316767	316767
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	15	29	9
Chromium	ppm	ASTM D5185m	>5	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	3
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>150	2	<1	4
Copper	ppm	ASTM D5185m	>90	5	<1	<1
Tin	ppm	ASTM D5185m	>5	1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
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.

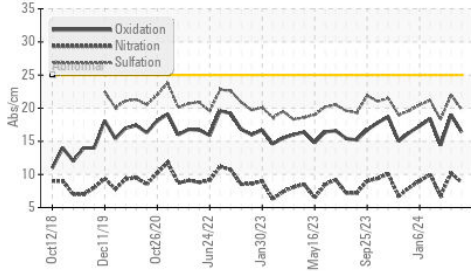
Silicon	ppm	ASTM D5185m	>35	6	6	6
Potassium	ppm	ASTM D5185m	>20	4	36	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.3	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.8	10.2	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	22.0	18.3
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

FLUID CONDITION

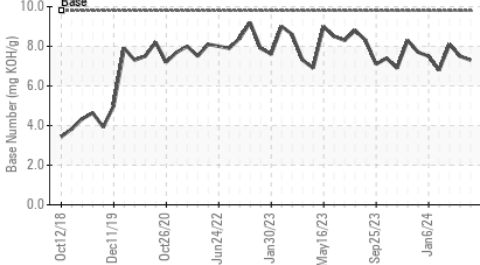
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	42	2
Boron	ppm	ASTM D5185m	0	6	0	6
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	60	63	63	58
Manganese	ppm	ASTM D5185m	0	1	<1	0
Magnesium	ppm	ASTM D5185m	1010	878	1020	898
Calcium	ppm	ASTM D5185m	1070	1227	1257	1368
Phosphorus	ppm	ASTM D5185m	1150	1000	1113	1162
Zinc	ppm	ASTM D5185m	1270	1233	1380	1274
Sulfur	ppm	ASTM D5185m	2060	3328	3836	3508
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	19.0	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.3	7.5	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	12.7	14.7	12.9

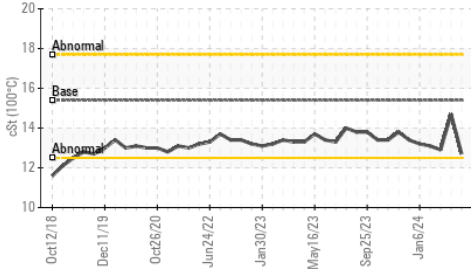
FT-IR (Direct Trend)



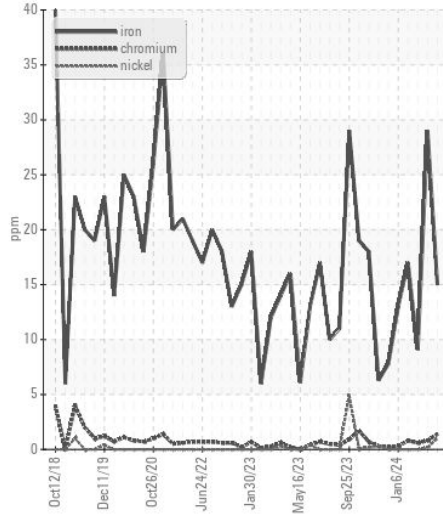
Base Number



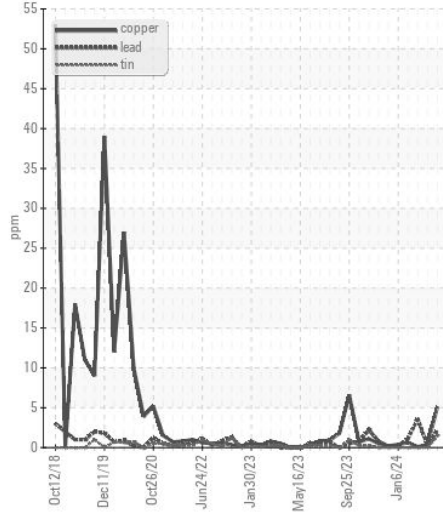
Viscosity @ 100°C



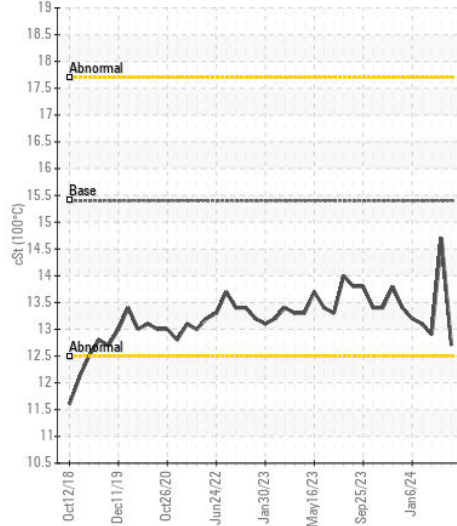
Ferrous Alloys



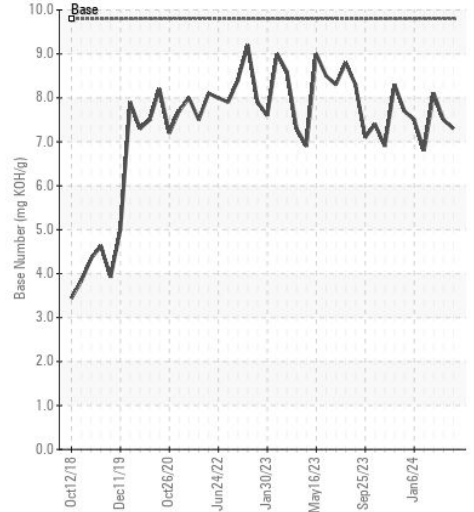
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0098890
 Lab Number : 06160201
 Unique Number : 10995624
 Test Package : FLEET

Received : 25 Apr 2024
 Tested : 26 Apr 2024
 Diagnosed : 26 Apr 2024 - Wes Davis

GFL Environmental - 084 - Clarksville
 699 Jack Miller Boulevard
 Clarksville, TN
 US 37042

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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)