



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
929058
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: New Engine, so we changed early to flush engine.)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116136	GFL0104562	GFL0092625
Sample Date		Client Info		22 Apr 2024	21 Feb 2024	18 Oct 2023
Machine Age	hrs	Client Info		10675	10530	9932
Oil Age	hrs	Client Info		145	598	1136
Filter Age	hrs	Client Info		145	598	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	20	11	10
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	6	3	9
Lead	ppm	ASTM D5185m	>45	1	0	0
Copper	ppm	ASTM D5185m	>85	6	2	1
Tin	ppm	ASTM D5185m	>4	1	<1	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.

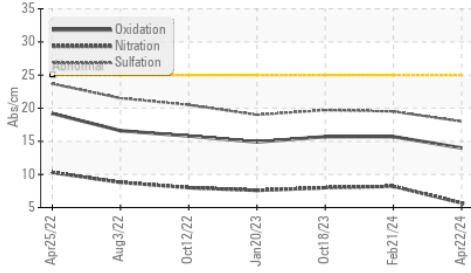
Silicon	ppm	ASTM D5185m	>30	12	6	4
Potassium	ppm	ASTM D5185m	>20	5	3	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	5.7	8.2	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	19.5	19.7
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

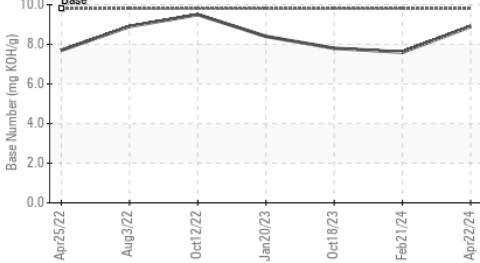
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		33	<1	<1
Boron	ppm	ASTM D5185m	0	3	2	0
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	58	58	63
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	1010	983	890	1042
Calcium	ppm	ASTM D5185m	1070	1066	1005	1094
Phosphorus	ppm	ASTM D5185m	1150	1165	965	1076
Zinc	ppm	ASTM D5185m	1270	1259	1153	1381
Sulfur	ppm	ASTM D5185m	2060	3789	2958	3033
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	15.7	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.9	7.6	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	13.5	13.5

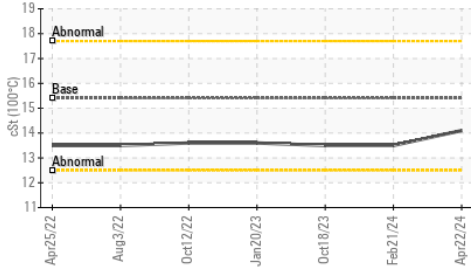
FT-IR (Direct Trend)



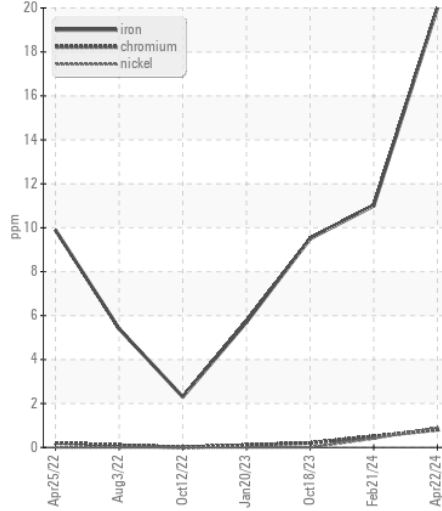
Base Number



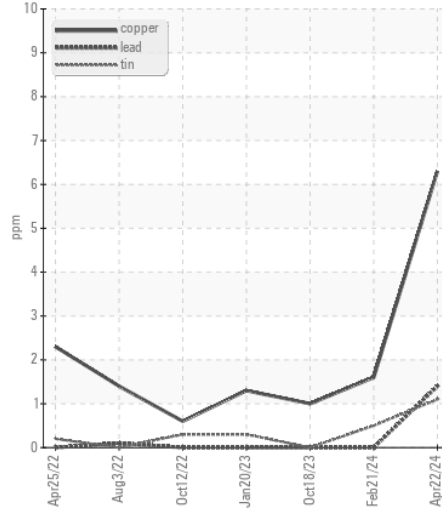
Viscosity @ 100°C



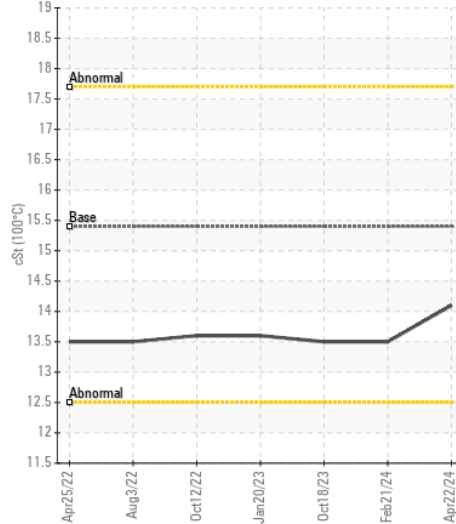
Ferrous Alloys



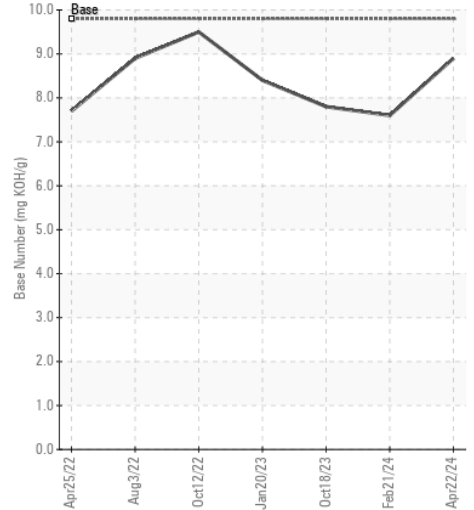
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116136
Lab Number : 06161073
Unique Number : 10996496
Test Package : FLEET

Received : 25 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 29 Apr 2024 - Don Baldrige

GFL Environmental - 947 - WB Horicon HC
 N7296 County Rd V
 Horicon, WI
 US 53032
 Contact: Tim Kieffer
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 T: (608)219-0288
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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)