



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
920088-205328

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0109193	GFL0109144	GFL0109158
Sample Date		Client Info		08 Apr 2024	06 Mar 2024	08 Feb 2024
Machine Age	hrs	Client Info		10062	9927	9788
Oil Age	hrs	Client Info		600	700	700
Filter Age	hrs	Client Info		0	700	700
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	6	4	22
Chromium	ppm	ASTM D5185m	>5	<1	<1	▲ 6
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	4
Lead	ppm	ASTM D5185m	>150	0	0	0
Copper	ppm	ASTM D5185m	>90	0	0	0
Tin	ppm	ASTM D5185m	>5	<1	0	0
Vanadium	ppm	ASTM D5185m		0	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.

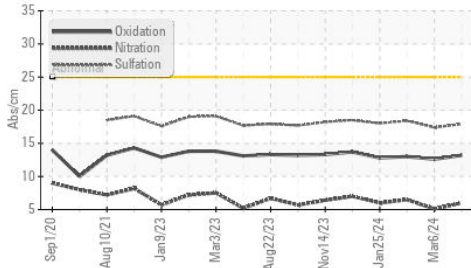
Silicon	ppm	ASTM D5185m	>35	3	3	4
Potassium	ppm	ASTM D5185m	>20	5	1	9
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.4	0.3	0.7
Nitration	Abs/cm	*ASTM D7624	>20	6.0	5.1	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	17.4	18.4
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

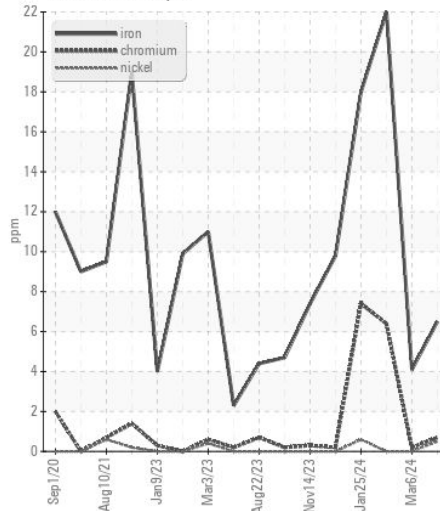
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	1	2
Boron	ppm	ASTM D5185m	0	1	2	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	56	62	58
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	1010	959	1023	991
Calcium	ppm	ASTM D5185m	1070	1044	1139	1032
Phosphorus	ppm	ASTM D5185m	1150	1084	1121	1106
Zinc	ppm	ASTM D5185m	1270	1293	1361	1288
Sulfur	ppm	ASTM D5185m	2060	3810	3971	3148
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	12.6	13.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	8.8	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	14.0	13.8

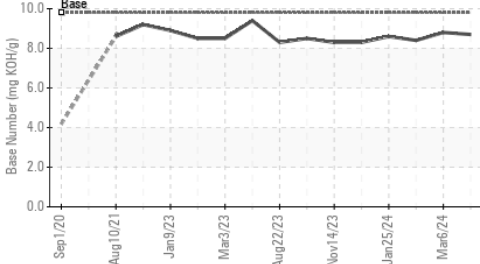
FT-IR (Direct Trend)



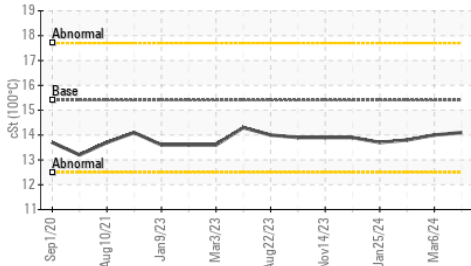
Ferrous Alloys



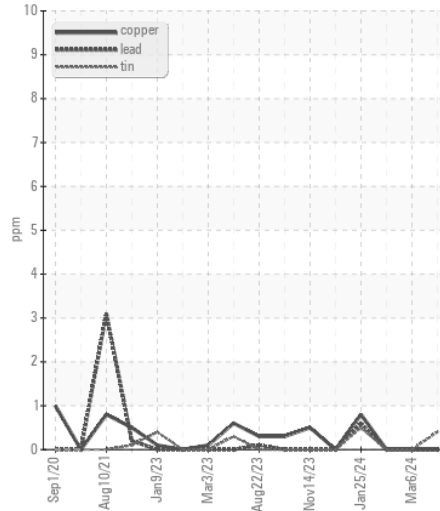
Base Number



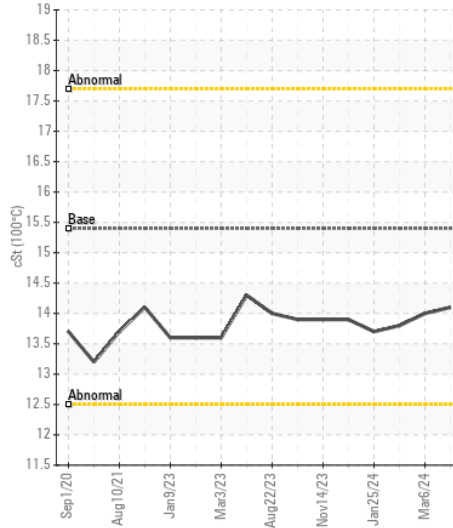
Viscosity @ 100°C



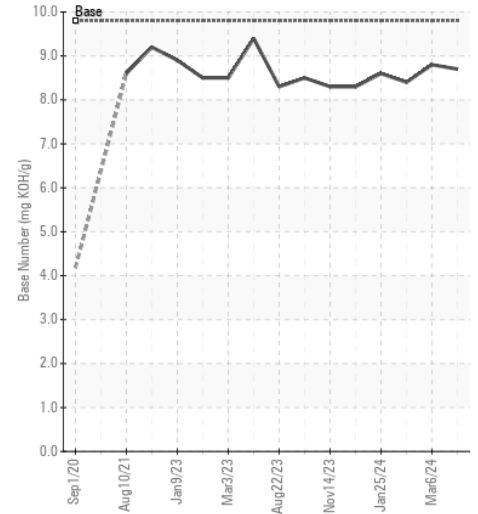
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109193
Lab Number : 06146426
Unique Number : 10976504
Test Package : FLEET

Received : 11 Apr 2024
Tested : 12 Apr 2024
Diagnosed : 12 Apr 2024 - Wes Davis

GFL Environmental - 822 - Springfield Hauling
 2120 West Bennett Street
 Springfield, MO
 US 65807

Contact: Dennis Moore
 dennis.moore@gflenv.com

T: (417)403-3641

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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