



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
814018
 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		GFL0128557	GFL0122999	GFL0119376
Sample Date		Client Info		06 Jul 2024	20 Jun 2024	08 May 2024
Machine Age	hrs	Client Info		913	849	618
Oil Age	hrs	Client Info		64	231	80
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	8	7	34
Chromium	ppm	ASTM D5185m	>20	<1	0	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	8
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	1	1	<1
Aluminum	ppm	ASTM D5185m	>20	<1	2	6
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	63	50	258
Tin	ppm	ASTM D5185m	>15	0	<1	4
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.

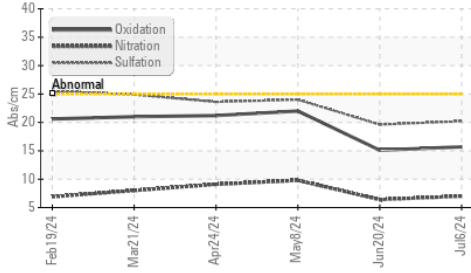
Silicon	ppm	ASTM D5185m	>25	8	9	60
Potassium	ppm	ASTM D5185m	>20	0	4	8
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.4	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	19.6	24.0
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

FLUID CONDITION

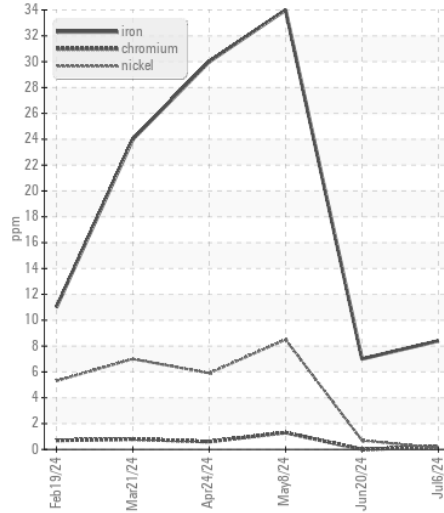
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	3	<1
Boron	ppm	ASTM D5185m	0	13	20	204
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	60	63	64	118
Manganese	ppm	ASTM D5185m	0	<1	1	4
Magnesium	ppm	ASTM D5185m	1010	901	967	696
Calcium	ppm	ASTM D5185m	1070	1139	1099	1368
Phosphorus	ppm	ASTM D5185m	1150	979	999	733
Zinc	ppm	ASTM D5185m	1270	1133	1240	873
Sulfur	ppm	ASTM D5185m	2060	3089	3434	2681
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	15.1	22.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	8.5	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.7	10.3

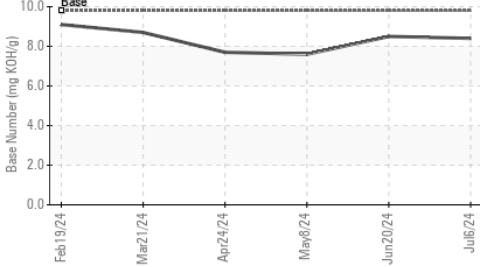
FT-IR (Direct Trend)



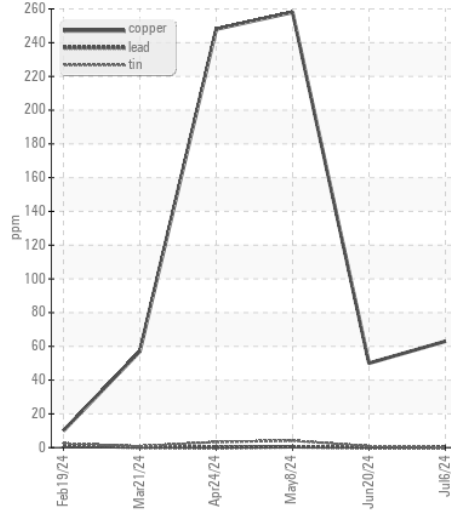
Ferrous Alloys



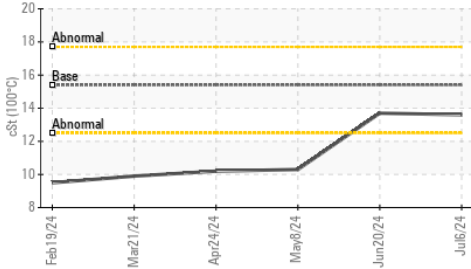
Base Number



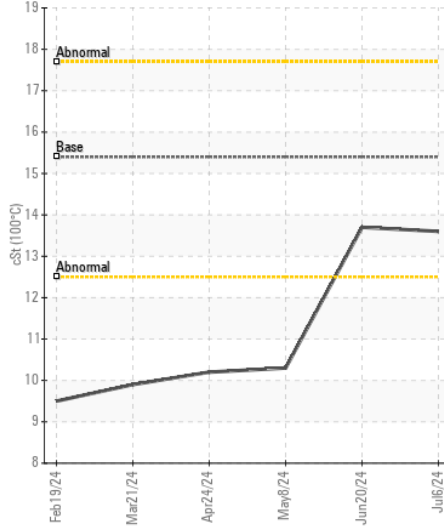
Non-ferrous Metals



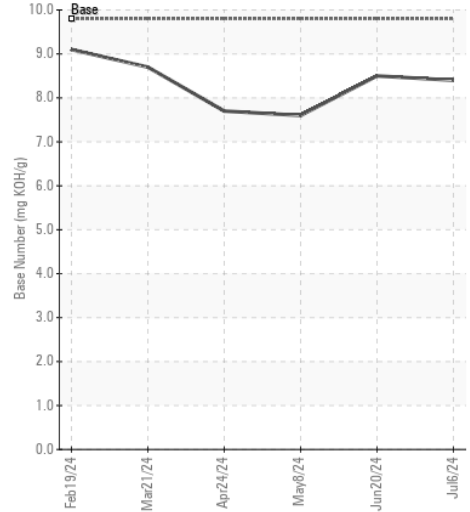
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0128557
Lab Number : 06234278
Unique Number : 11123112
Test Package : FLEET

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

GFL Environmental - 814 - Little Rock Hauling
 4005 Hwy 161 N.
 Little Rock, AR
 US 72117
 Contact: Brad Koenig
 bkoenig@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: