



Area
(26831XA)
Machine Id
528006
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0119275	GFL0070958	GFL0058106
Sample Date		Client Info		15 Jun 2024	16 May 2024	09 May 2024
Machine Age	hrs	Client Info		14902	14684	14640
Oil Age	hrs	Client Info		0	0	0
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				ATTENTION	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	21	17	13
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	4	3	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

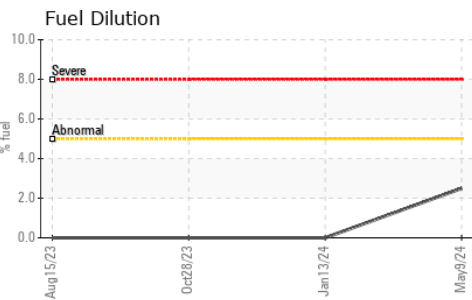
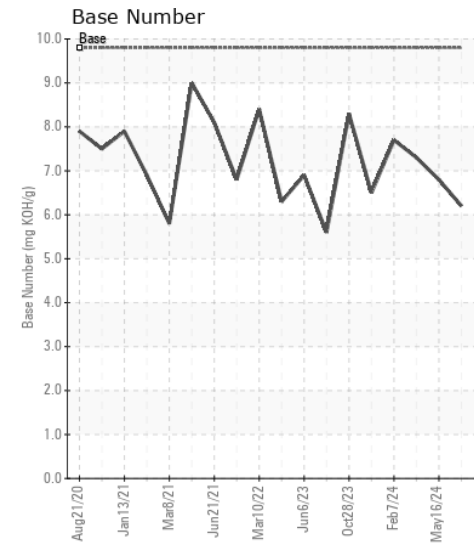
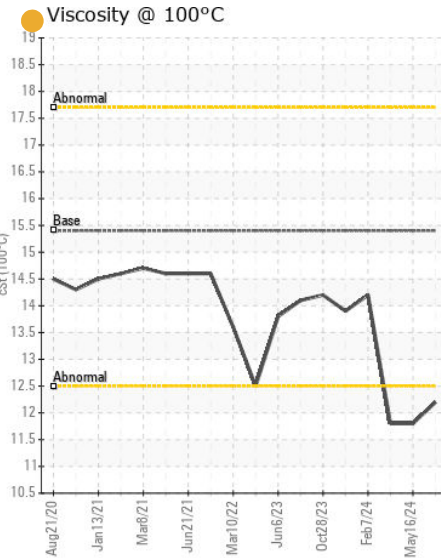
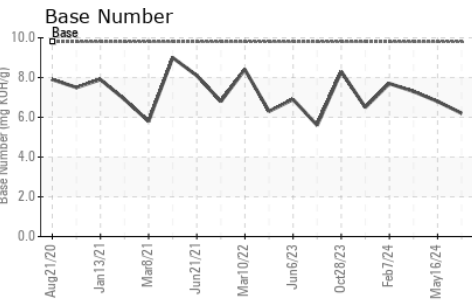
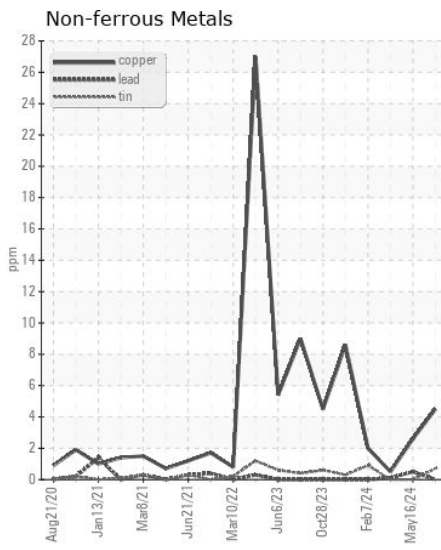
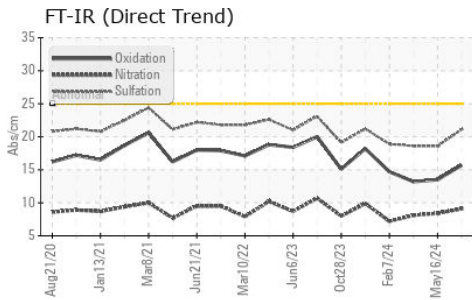
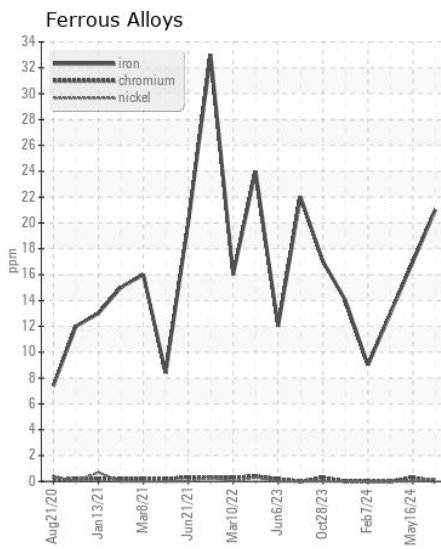
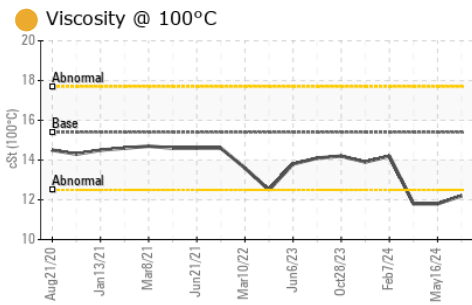
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	7	7
Potassium	ppm	ASTM D5185m	>20	15	11	11
Fuel	%	ASTM D3524	>5	<1.0	<1.0	▲ 2.5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.4	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	18.6	18.6
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		6	4	3
Boron	ppm	ASTM D5185m	0	28	62	● 67
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	30	28	26
Manganese	ppm	ASTM D5185m	0	1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	785	754	709
Calcium	ppm	ASTM D5185m	1070	1428	1473	1354
Phosphorus	ppm	ASTM D5185m	1150	902	860	787
Zinc	ppm	ASTM D5185m	1270	1016	982	● 895
Sulfur	ppm	ASTM D5185m	2060	3642	3733	3399
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	13.5	13.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.2	6.8	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	● 12.2	● 11.8	▲ 11.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0119275 **Received** : 18 Jun 2024
Lab Number : 06213284 **Tested** : 19 Jun 2024
Unique Number : 11086148 **Diagnosed** : 20 Jun 2024 - Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution)

GFL Environmental - 654 - Richmond Hauling
 11800 Lewis Road
 Chester, VA
 US 23831
 Contact: Jimmy Mayes
 jmayes@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: