



OIL ANALYSIS REPORT

Sample Rating Trend

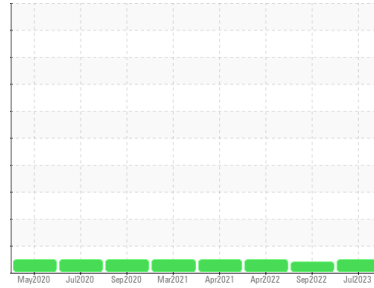
NORMAL



Machine Id
826032-6025

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0079788	GFL0055080	GFL0031011	
Sample Date	Client Info	24 Jul 2023	22 Sep 2022	04 Apr 2022	
Machine Age	hrs	Client Info	18141	16192	15029
Oil Age	hrs	Client Info	616	16192	15029
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	ATTENTION	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	0.4	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >110	38	21	35
Chromium	ppm	ASTM D5185m >4	2	1	2
Nickel	ppm	ASTM D5185m >2	0	<1	0
Titanium	ppm	ASTM D5185m	9	5	2
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >25	4	3	6
Lead	ppm	ASTM D5185m >45	6	1	3
Copper	ppm	ASTM D5185m >85	3	2	7
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	16	17	16
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	60	62	61
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	979	838	871
Calcium	ppm	ASTM D5185m 1070	1297	1204	1219
Phosphorus	ppm	ASTM D5185m 1150	1110	1007	1095
Zinc	ppm	ASTM D5185m 1270	1350	1259	1268
Sulfur	ppm	ASTM D5185m 2060	3843	3706	2585

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >30	14	7	13
Sodium	ppm	ASTM D5185m	9	5	3
Potassium	ppm	ASTM D5185m >20	2	4	5

INFRA-RED

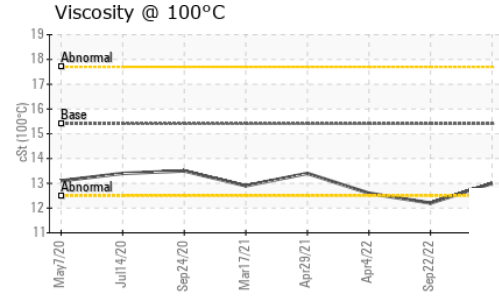
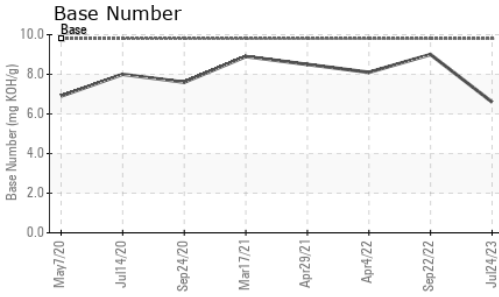
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.8	0.7	1.1
Nitration	Abs/cm	*ASTM D7624 >20	11.2	9.5	10.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.1	20.9	22.3

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.5	15.7	16.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.6	9.0	8.1



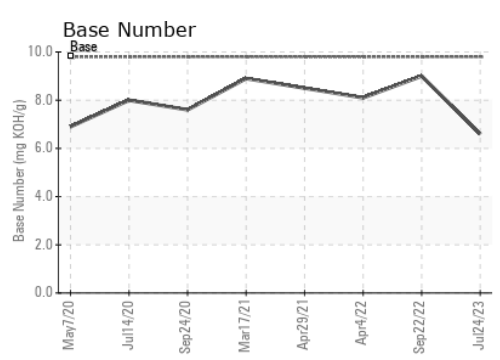
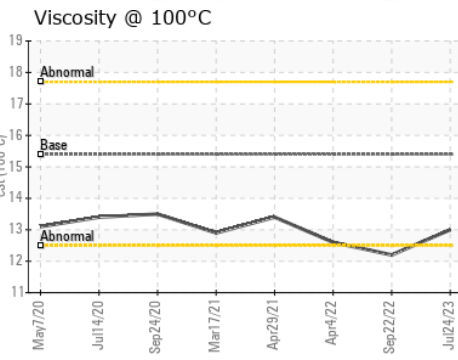
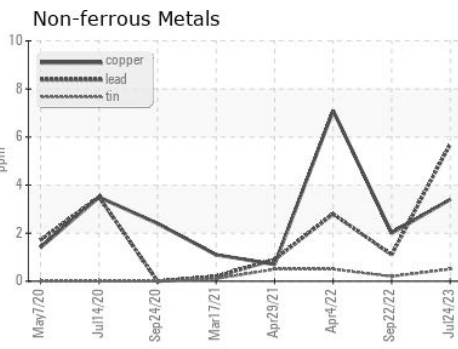
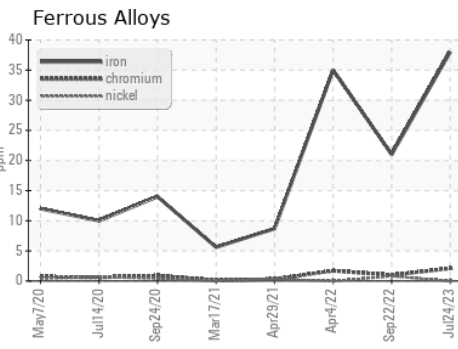
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	▲ 12.2	12.6

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0079788 **Received** : 11 Aug 2023
Lab Number : 05922740 **Diagnosed** : 14 Aug 2023
Unique Number : 10602687 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 663 - Lake Ariel (Scranton Hauling)
 17 Industrial Park Rd
 Lake Ariel, PA
 US 18436
 Contact: Eric Merone
 emerone@countyclecycling.net
 T:
 F:

Certificate L2367
 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)