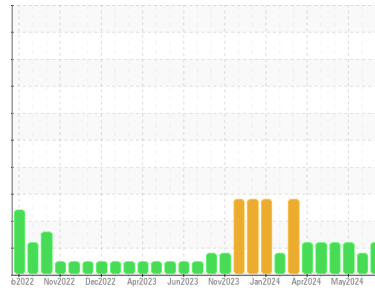




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
227068-9

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (12 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0125841	GFL0125857	GFL0118694
Sample Date	Client Info	02 Jul 2024	13 Jun 2024	28 May 2024
Machine Age	hrs	20512	20293	20293
Oil Age	hrs	252	150	400
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		ABNORMAL	MARGINAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >80	10	6	17
Chromium	ppm	ASTM D5185m >5	<1	<1	2
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	<1	0	<1
Aluminum	ppm	ASTM D5185m >30	2	<1	2
Lead	ppm	ASTM D5185m >30	<1	<1	<1
Copper	ppm	ASTM D5185m >150	2	<1	2
Tin	ppm	ASTM D5185m >5	0	0	<1
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	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	<1
Molybdenum	ppm	ASTM D5185m 60	61	60	61
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	944	1049	952
Calcium	ppm	ASTM D5185m 1070	1059	1164	1062
Phosphorus	ppm	ASTM D5185m 1150	1157	1140	1046
Zinc	ppm	ASTM D5185m 1270	1273	1399	1205
Sulfur	ppm	ASTM D5185m 2060	3802	3969	3121

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >20	5	4	14
Sodium	ppm	ASTM D5185m	2	2	3
Potassium	ppm	ASTM D5185m >20	<1	2	2
Fuel	%	ASTM D3524 >5	▲ 4.2	▲ 2.4	▲ 7.2

INFRA-RED

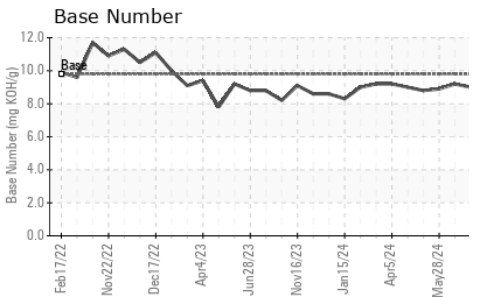
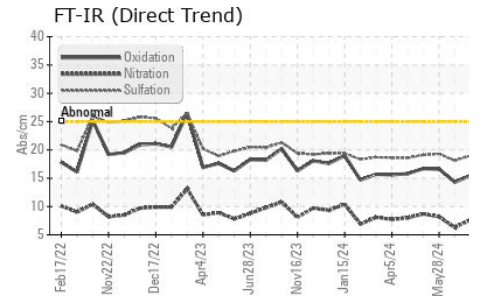
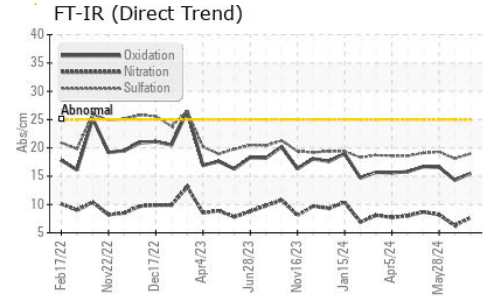
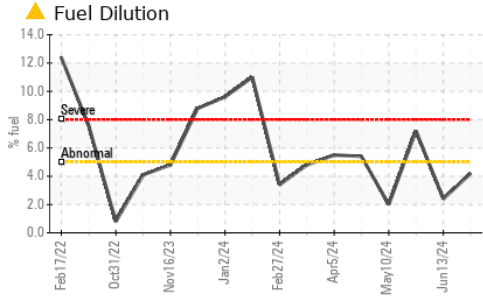
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.2	0.1	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.7	6.3	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.0	18.1	19.3

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.5	14.3	16.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.0	9.2	8.9



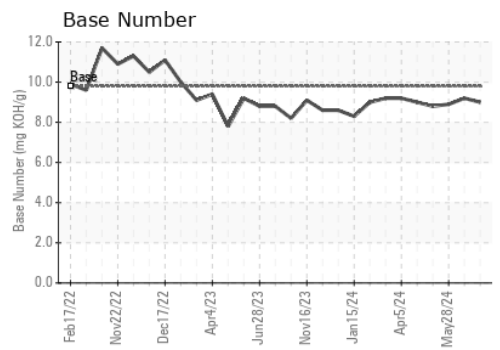
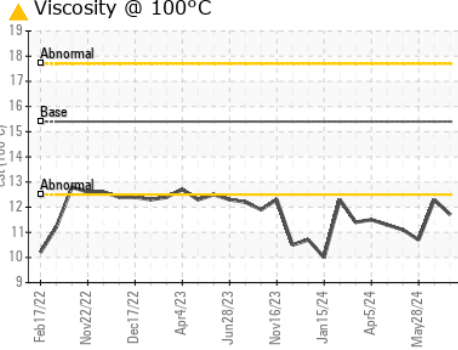
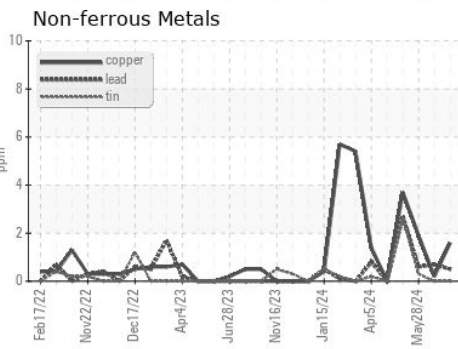
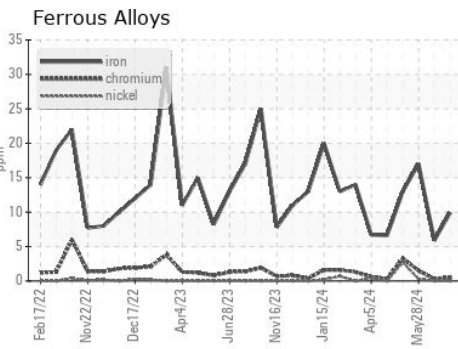
OIL ANALYSIS REPORT



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	▲ 11.7	12.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0125841 **Received** : 09 Jul 2024
Lab Number : 06231191 **Tested** : 11 Jul 2024
Unique Number : 11114684 **Diagnosed** : 11 Jul 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 166 - Phenix City
 18 Old Brickyard Rd
 Phenix City, AL
 US 36869
 Contact: DEAN PEACE JR
 dean.peace@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)