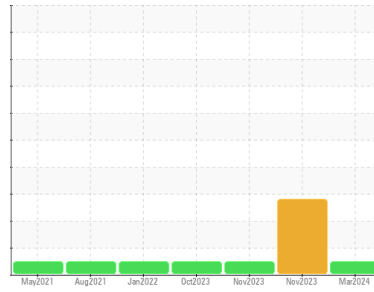




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
4514M
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (5 GAL)

DIAGNOSIS

Recommendation

(Customer Sample Comment: Early seamed)

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0115171	GFL0101470	GFL0101568
Sample Date	Client Info			28 Mar 2024	30 Nov 2023	10 Nov 2023
Machine Age	hrs	Client Info		25916	25704	25545
Oil Age	hrs	Client Info		216	25545	25404
Oil Changed	Client Info			Not Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL

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	24	18	11
Chromium	ppm	ASTM D5185m	>5	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>30	20	2	2
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>150	<1	2	1
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<1	<1	<1
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	60	53	48	56
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	892	710	857
Calcium	ppm	ASTM D5185m	1070	990	891	1025
Phosphorus	ppm	ASTM D5185m	1150	973	791	966
Zinc	ppm	ASTM D5185m	1270	1175	972	1135
Sulfur	ppm	ASTM D5185m	2060	3379	3554	2854

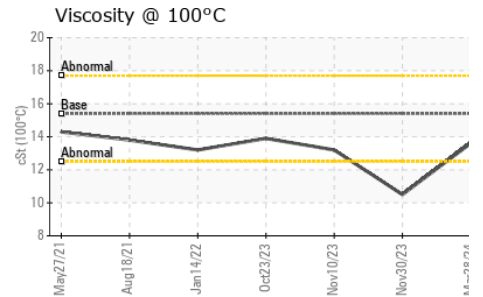
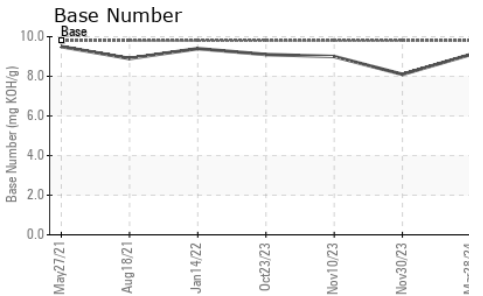
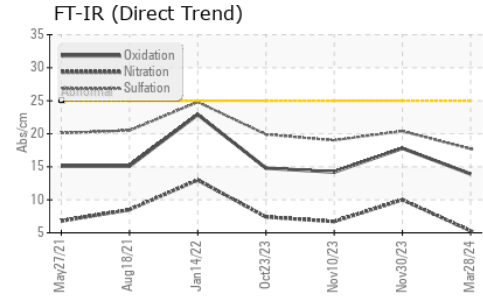
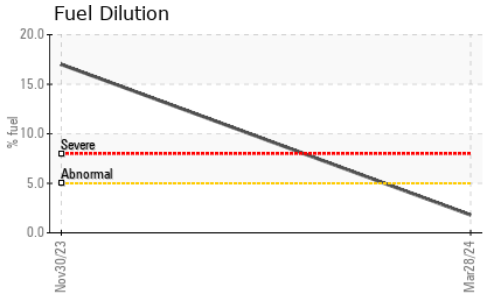
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	6	4	4
Sodium	ppm	ASTM D5185m		6	40	23
Potassium	ppm	ASTM D5185m	>20	<1	2	3
Fuel	%	ASTM D3524	>5	1.8	▲ 17.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	5.3	10.0	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	20.4	19.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.9	17.8	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.1	8.1	9.0



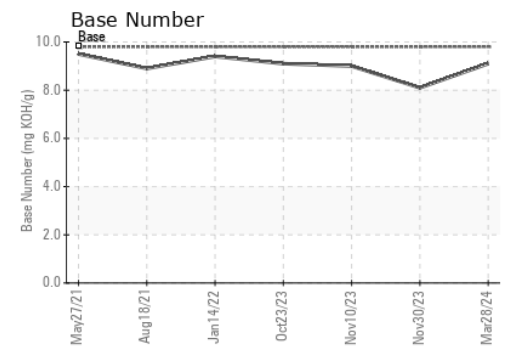
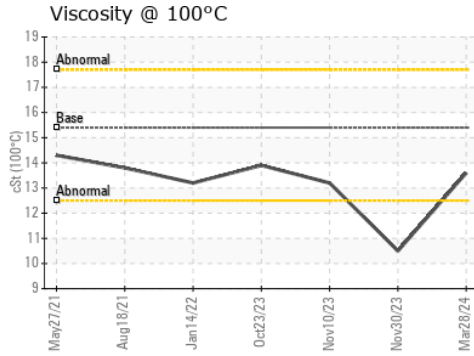
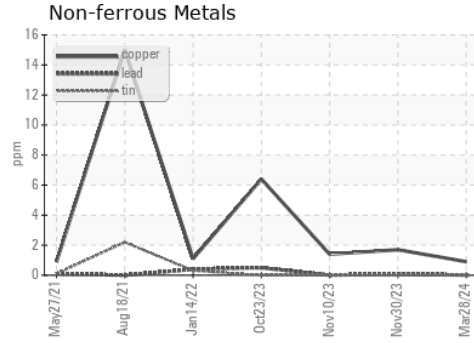
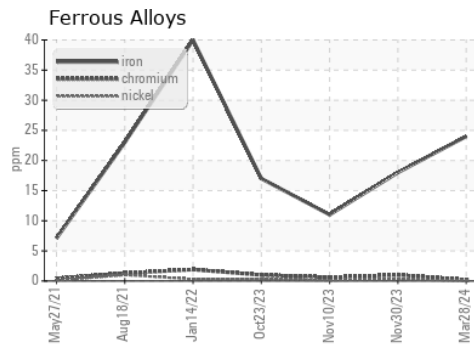
OIL ANALYSIS REPORT



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	13.6	▲ 10.5	13.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115171 **Received** : 02 Apr 2024
Lab Number : **06136799** **Tested** : 05 Apr 2024
Unique Number : 10956264 **Diagnosed** : 05 Apr 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 405 - Arbor Hills
 7811 Chubb Rd
 NORTHVILLE, MI
 US 48168
 Contact: John Nahal
 jnahal@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)