



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area
(BA85871)
Machine Id
4565M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (5 GAL)

RECOMMENDATION

Check for low coolant level. 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		GFL0115059	GFL0115022	GFL0089126
Sample Date		Client Info		14 May 2024	05 Mar 2024	25 Nov 2023
Machine Age	hrs	Client Info		20315	19724	19393
Oil Age	hrs	Client Info		591	421	17563
Filter Age	hrs	Client Info		591	421	17563
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ATTENTION	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	23	15	2
Chromium	ppm	ASTM D5185m	>5	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	4	2	1
Lead	ppm	ASTM D5185m	>25	1	0	0
Copper	ppm	ASTM D5185m	>100	<1	0	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

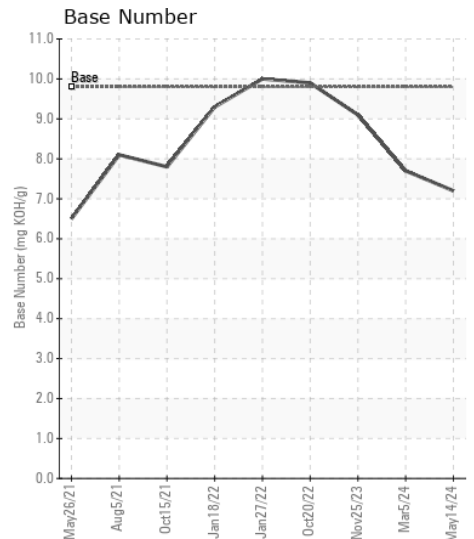
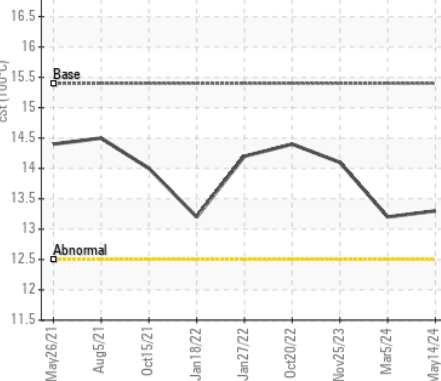
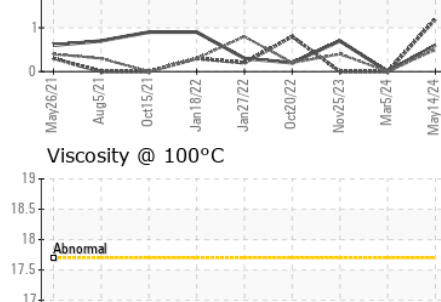
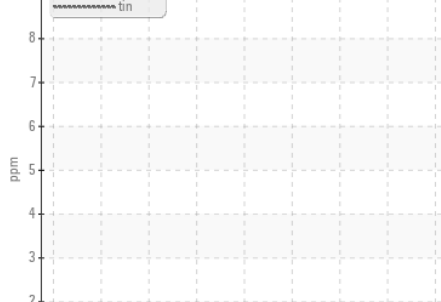
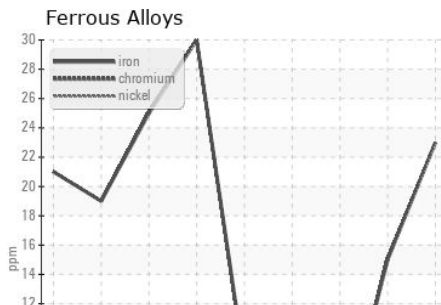
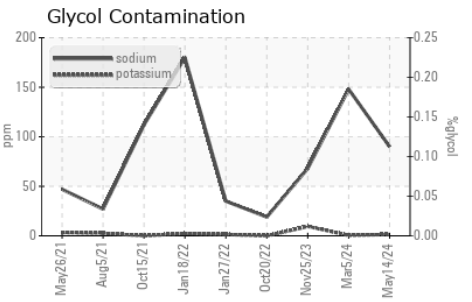
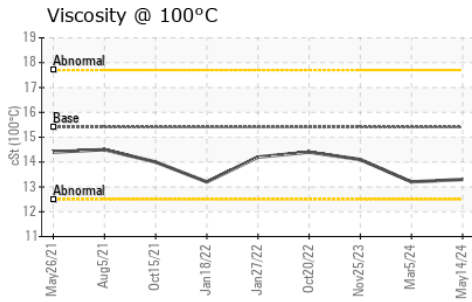
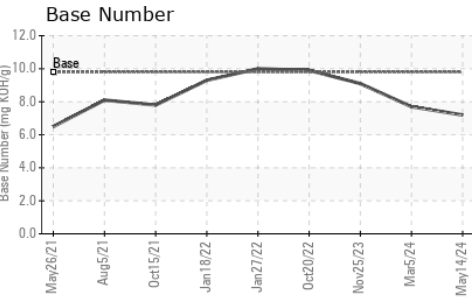
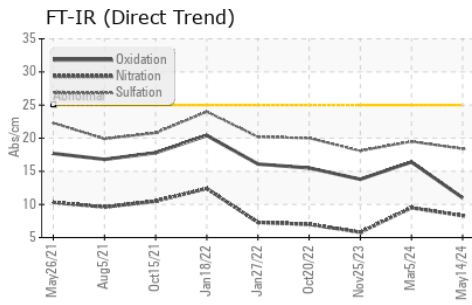
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	8	9	10
Potassium	ppm	ASTM D5185m	>20	1	<1	10
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.5	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.3	9.5	5.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	19.5	18.1
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		90	148	68
Boron	ppm	ASTM D5185m	0	3	<1	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	60	58
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	941	822	907
Calcium	ppm	ASTM D5185m	1070	999	930	995
Phosphorus	ppm	ASTM D5185m	1150	1009	834	1005
Zinc	ppm	ASTM D5185m	1270	1257	1043	1223
Sulfur	ppm	ASTM D5185m	2060	3384	2589	3024
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.0	16.4	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.2	7.7	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.2	14.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115059 **Received** : 24 May 2024
Lab Number : 06190232 **Tested** : 31 May 2024
Unique Number : 11046984 **Diagnosed** : 31 May 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 405 - Arbor Hills
 7811 Chubb Rd
 NORTHVILLE, MI
 US 48168
 Contact: Anthony Hopkins
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 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)