



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Area
(YA111541)
Machine Id
2470
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0124210	PCA0101758	PCA0101781
Sample Date		Client Info		13 Jun 2024	28 Feb 2024	09 Jan 2024
Machine Age	hrs	Client Info		24942	24410	24147
Oil Age	hrs	Client Info		532	263	785
Filter Age	hrs	Client Info		532	263	785
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	6	4	4
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	3
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

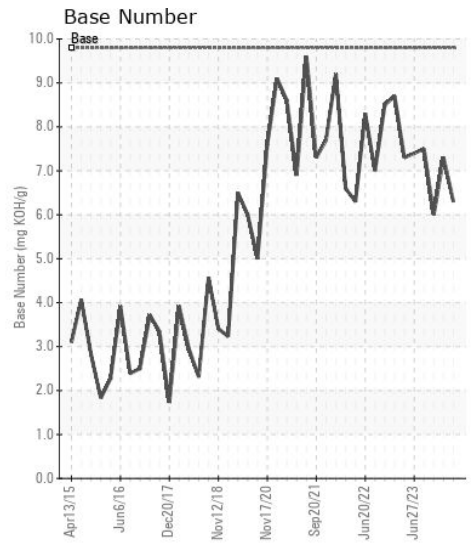
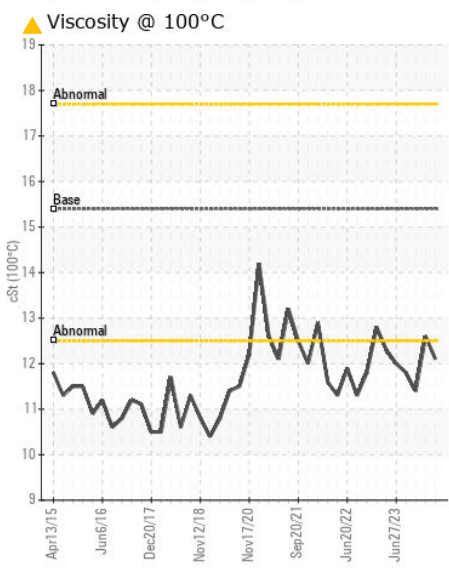
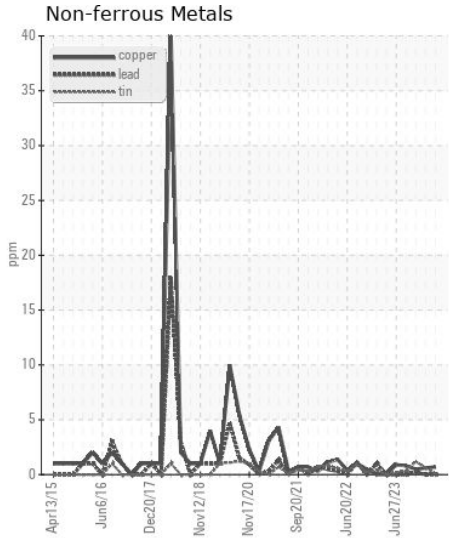
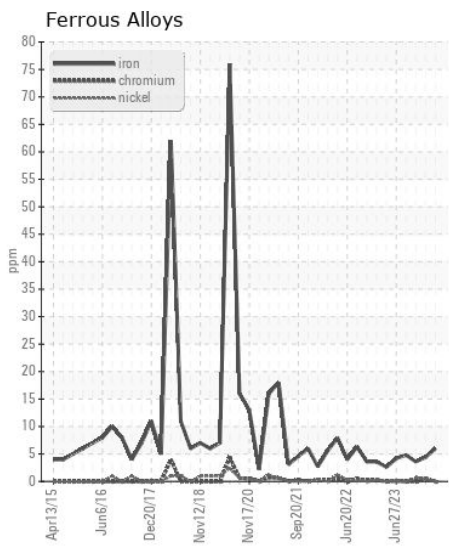
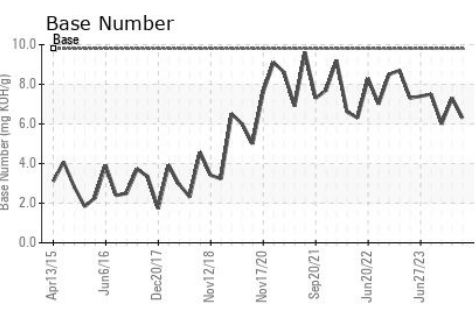
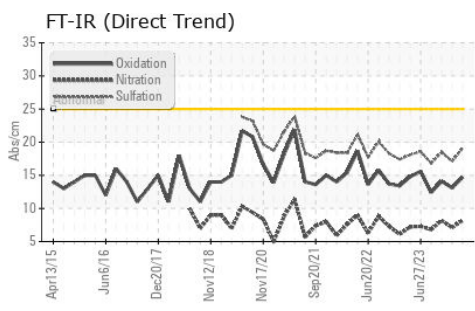
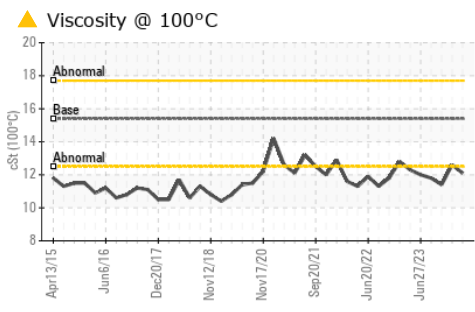
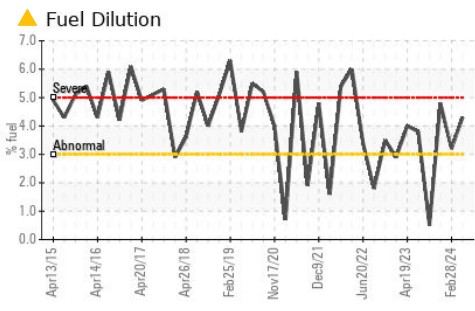
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	6	4	7
Potassium	ppm	ASTM D5185m	>20	1	<1	0
Fuel	%	ASTM D3524	>3.0	▲ 4.3	▲ 3.2	▲ 4.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.2	7.1	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	17.1	18.5
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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		2	3	19
Boron	ppm	ASTM D5185m	0	6	14	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	49	59	63
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	643	667	776
Calcium	ppm	ASTM D5185m	1070	1400	1262	1017
Phosphorus	ppm	ASTM D5185m	1150	975	970	895
Zinc	ppm	ASTM D5185m	1270	1155	1192	1100
Sulfur	ppm	ASTM D5185m	2060	3562	3481	2743
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	13.1	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.3	7.3	6.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.1	12.6	▲ 11.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0124210 **Received** : 17 Jun 2024
Lab Number : 06211242 **Tested** : 19 Jun 2024
Unique Number : 11084106 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 002 - Vance-Granville
 241 Vanco Mill Rd
 Henderson, NC
 US 27537
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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)