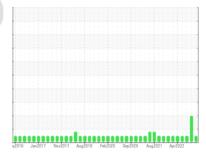


OIL ANALYSIS REPORT

(YA122800) **3644C AUTOCAR ACX**

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (48 QTS)



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

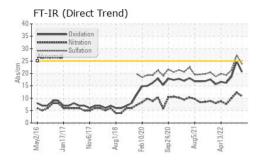
Fluid Condition

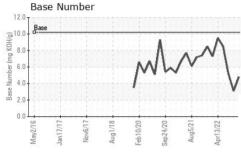
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

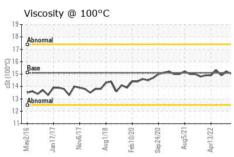
SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info GFL0117522 GFL0103251 GFL0087112 Sample Date Client Info 01 Jun 2024 03 Jan 2024 05 Jul 2023 Machine Age hrs Client Info 0 0 550 Oil Age hrs Client Info 0 0 550 Oil Changed Client Info 0 Changed Changed Sample Status NORMAL ABNORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1 2 1 Nickel ppm ASTM D5185m >2<
Machine Age hrs Client Info 4022 2938 1756 Oil Age hrs Client Info 0 0 550 Oil Changed Sample Status Client Info Changed NoRMAL Changed ABNORMAL Changed NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1 2 1 Nickel ppm ASTM D5185m >2 0 1 <1 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 0 Lead ppm ASTM D5185m >35
Oil Age hrs Client Info 0 0 550 Oil Changed Sample Status Client Info Changed Changed NORMAL Changed ABNORMAL Changed NORMAL CONTAMINATION method limit/base current history1 history2 WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1 2 1 Nickel ppm ASTM D5185m >2 0 1 <1 Silver ppm ASTM D5185m >9 3 5 <1 Lead ppm ASTM D5185m >9 3 5 <1 Copper ppm ASTM D5185m >3 0 0 <1 Cadadium ppm ASTM D5185m >3
Oil Changed Sample Status Client Info Changed NORMAL Changed ABNORMAL Changed NORMAL Changed NORMAL Changed NORMAL Changed NORMAL Changed NORMAL Changed NORMAL Control NORMAL WEAR METALS wethod limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1 2 1 Nickel ppm ASTM D5185m >2 0 1 <1 Silver ppm ASTM D5185m >9 3 5 <1 Lead ppm ASTM D5185m >9 3 5 <1 Lead ppm ASTM D5185m >30 10 ▲ 31 1 Copper ppm ASTM D5185m >4 2 4 2 Vanadium ppm ASTM D5185m
Sample Status NORMAL ABNORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1 2 1 Nickel ppm ASTM D5185m >2 0 1 <1 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >9 3 5 <1 Lead ppm ASTM D5185m >30 10 31 1 Copper ppm ASTM D5185m >35 <1 2 2 Tin ppm ASTM D5185m >4 2 4 2 Vanadium ppm ASTM D5185m 0 0 0 <1 Cadmium ppm ASTM D5185m 50 19 9 <td< th=""></td<>
Iron ppm ASTM D5185m >50 9 21 16 Chromium ppm ASTM D5185m >4 <1
Chromium ppm ASTM D5185m >4 <1
Nickel ppm ASTM D5185m >2 0 1 <1
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >9 3 5 <1 Lead ppm ASTM D5185m >30 10 ▲ 31 1 Copper ppm ASTM D5185m >35 <1 2 2 Tin ppm ASTM D5185m >4 2 4 2 Vanadium ppm ASTM D5185m 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 9 9 Barium ppm ASTM D5185m 5 <1 0 <1 Molybdenum ppm ASTM D5185m 50 55 59 52 Mangaesium
Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >9 3 5 <1
Aluminum ppm ASTM D5185m >9 3 5 <1
Lead ppm ASTM D5185m >30 10 ▲ 31 1 Copper ppm ASTM D5185m >35 <1
Copper ppm ASTM D5185m >35 <1
Tin ppm ASTM D5185m >4 2 4 2 Vanadium ppm ASTM D5185m 0 0 <1
Vanadium ppm ASTM D5185m 0 0 <1
Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 9 9 Barium ppm ASTM D5185m 5 <1 0 <1 Molybdenum ppm ASTM D5185m 50 55 59 52 Manganese ppm ASTM D5185m 0 1 1 <1 Magnesium ppm ASTM D5185m 560 601 690 594 Calcium ppm ASTM D5185m 1510 1711 1782 1646
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 9 9 Barium ppm ASTM D5185m 5 <1 0 <1 Molybdenum ppm ASTM D5185m 50 55 59 52 Manganese ppm ASTM D5185m 0 1 1 <1 Magnesium ppm ASTM D5185m 560 601 690 594 Calcium ppm ASTM D5185m 1510 1711 1782 1646
Boron ppm ASTM D5185m 50 19 9 9 Barium ppm ASTM D5185m 5 <1
Barium ppm ASTM D5185m 5 <1
Molybdenum ppm ASTM D5185m 50 55 59 52 Manganese ppm ASTM D5185m 0 1 1 <1
Manganese ppm ASTM D5185m 0 1 1 <1
Magnesium ppm ASTM D5185m 560 601 690 594 Calcium ppm ASTM D5185m 1510 1711 1782 1646
Calcium ppm ASTM D5185m 1510 1711 1782 1646
Phosphorus ppm ASTM D5185m 780 835 872 697
Zinc ppm ASTM D5185m 870 1015 1099 952
Sulfur ppm ASTM D5185m 2040 2644 2310 2669
CONTAMINANTS method limit/base current history1 history2
Silicon ppm ASTM D5185m >+100 9 12 12
Sodium ppm ASTM D5185m 8 13 14
Potassium ppm ASTM D5185m >20 2 8 17
INFRA-RED method limit/base current history1 history2
Soot % % *ASTM D7844 0 0 0.1
Soot % % *ASTM D7844 0 0 0.1 Nitration Abs/cm *ASTM D7624 >20 10.8 12.3 10.0
Nitration Abs/cm *ASTM D7624 >20 10.8 12.3 10.0
Nitration Abs/cm *ASTM D7624 >20 10.8 12.3 10.0 Sulfation Abs/.1mm *ASTM D7415 >30 23.8 27.4 21.2



OIL ANALYSIS REPORT



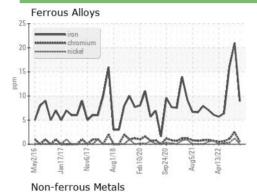


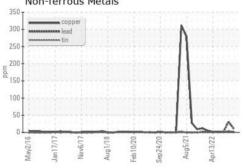


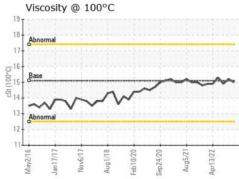
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

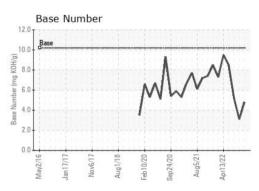
	FLUID PROPE	RTIES	method				history2
,	Visc @ 100°C	cSt	ASTM D445	15.1	15.0	15.2	14.9

GRAPHS













Certificate 12367

Laboratory Sample No.

: GFL0117522 Lab Number : 06199817 Unique Number : 11061940

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

: 05 Jun 2024 : 05 Jun 2024 Diagnosed

: 05 Jun 2024 - Wes Davis

GFL Environmental - 001 - Raleigh(CNG) 3741 Conquest Drive

Garner, NC US 27529 Contact: Craig Johnson

craig.johnson@gflenv.com T: (919)662-7100

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) F: (919)662-7130