

OIL ANALYSIS REPORT

Sample Rating Trend





Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

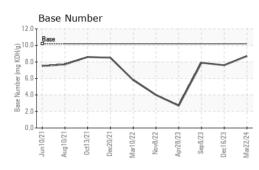
Fluid Condition

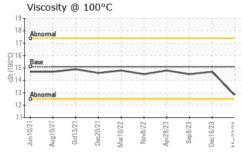
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

_ ,		Jun2021 Aug2	021 Oct2021 Dec2021 Mar2	022 Nov2022 Apr2023 Sep2023 Dec2	023 Mar2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0115481	GFL0106959	GFL0089713
Sample Date		Client Info		22 Mar 2024	16 Dec 2023	08 Sep 2023
Machine Age	hrs	Client Info		14663	14125	13464
Oil Age	hrs	Client Info		538	661	919
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	21	0	4
Chromium	ppm	ASTM D5185m	>4	0	<1	0
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	2	<1
Lead	ppm	ASTM D5185m	>30	1	0	0
Copper	ppm	ASTM D5185m	>35	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	4	21	27
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	59	46	51
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	560	894	580	594
Calcium	ppm	ASTM D5185m	1510	1092	1430	1645
Phosphorus	ppm	ASTM D5185m	780	1051	794	790
Zinc	ppm	ASTM D5185m	870	1273	976	974
Sulfur	ppm	ASTM D5185m	2040	3434	2482	2966
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	3	2	3
Sodium	ppm	ASTM D5185m		18	2	5
Potassium	ppm	ASTM D5185m	>20	9	0	<1
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		1.5	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.3	8.4	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	18.4	18.2
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	16.1	15.5
Ondation	/100/.111111	7101111071111	/ = 0	10.0	1011	
Soot % Nitration Sulfation FLUID DEGRAE	Abs/cm Abs/.1mm DATION	*ASTM D7624 *ASTM D7415 method	>20 >30 limit/base	1.5 10.3 20.5 current	0 8.4 18.4 history1	0.1 8.1 18.2 history2

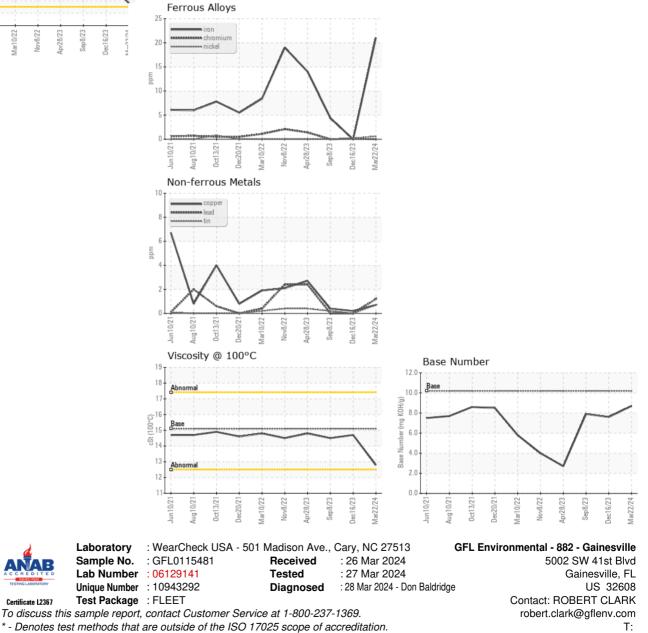


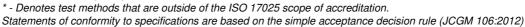
OIL ANALYSIS REPORT





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	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	12.8	14.7	14.5
GRAPHS						





Certificate L2367

F: