



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
431001

Component
Natural Gas Engine

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0028910	---	---
Sample Date	Client Info	30 Jun 2021	---	---
Machine Age	hrs	Client Info	0	---
Oil Age	hrs	Client Info	450	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	39	---
Chromium	ppm	ASTM D5185m >4	<1	---
Nickel	ppm	ASTM D5185m >2	<1	---
Titanium	ppm	ASTM D5185m	1	---
Silver	ppm	ASTM D5185m >2	0	---
Aluminum	ppm	ASTM D5185m >25	0	---
Lead	ppm	ASTM D5185m >45	1	---
Copper	ppm	ASTM D5185m >85	11	---
Tin	ppm	ASTM D5185m >4	<1	---
Antimony	ppm	ASTM D5185m	0	---
Vanadium	ppm	ASTM D5185m	0	---
Cadmium	ppm	ASTM D5185m	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	24	---
Barium	ppm	ASTM D5185m 5	2	---
Molybdenum	ppm	ASTM D5185m 50	51	---
Manganese	ppm	ASTM D5185m 0	3	---
Magnesium	ppm	ASTM D5185m 560	763	---
Calcium	ppm	ASTM D5185m 1510	1189	---
Phosphorus	ppm	ASTM D5185m 780	652	---
Zinc	ppm	ASTM D5185m 870	862	---
Sulfur	ppm	ASTM D5185m 2040	1871	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	▲ 73	---
Sodium	ppm	ASTM D5185m	7	---
Potassium	ppm	ASTM D5185m >20	7	---
Water	%	ASTM D6304 >0.2	0.102	---
ppm Water	ppm	ASTM D6304 >2000	1020	---

INFRA-RED

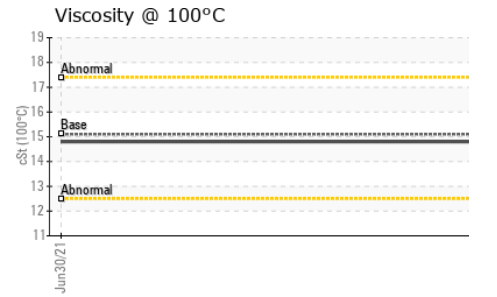
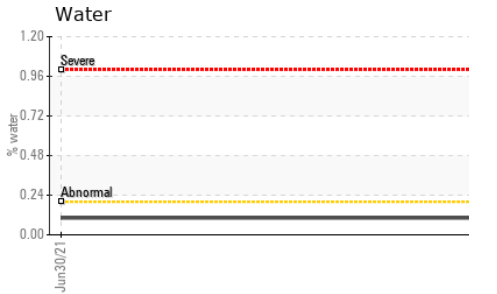
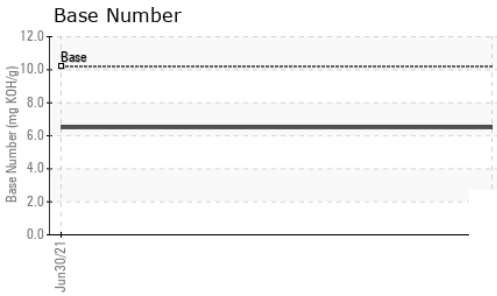
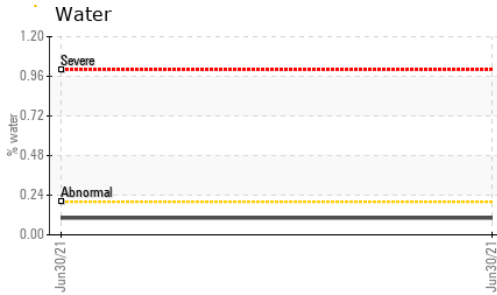
method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	13.2	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	24	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	22.3	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	6.5	---



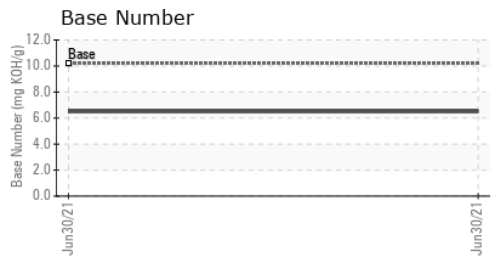
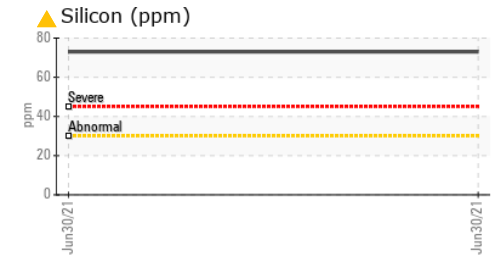
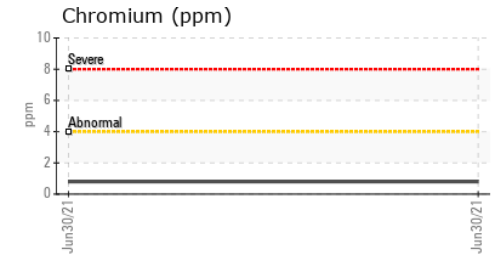
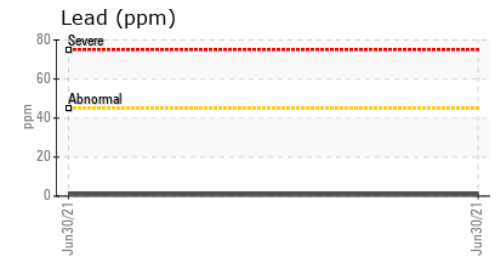
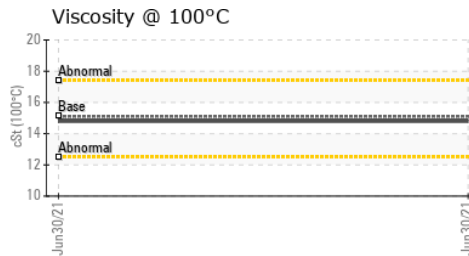
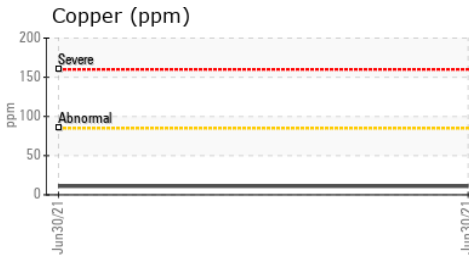
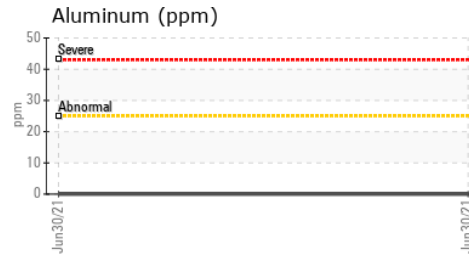
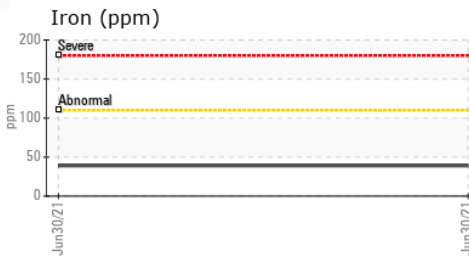
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.8	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0028910 **Received** : 23 Jul 2021
Lab Number : 05310245 **Diagnosed** : 27 Jul 2021
Unique Number : 9594214 **Diagnostician** : Doug Bogart
Test Package : MOB1+ (Additional Tests: KF)

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)

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