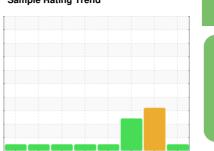


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Poplar Gap B

Component

Natural Gas Engine

PETRO CANADA SENTRON LD 3000 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

AL)		Dec2022 J	an 2023 Feb 2023 Mar 20	23 Apr2023 May2023 Jun2023	Jul2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0091291	PCA0091290	PCA0091295
Sample Date		Client Info		10 Jul 2023	06 Jun 2023	01 May 2023
Machine Age	hrs	Client Info		81099	80296	79438
Oil Age	hrs	Client Info		332	5607	4749
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	3	11	10
Chromium	ppm	ASTM D5185m	>4	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>9	1	3	6
Lead	ppm	ASTM D5185m	>30	2	△ 32	23
Copper	ppm	ASTM D5185m	>35	<1	5	2
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	1	<1	0	0
Molybdenum	ppm	ASTM D5185m	2	4	4	6
Manganese	ppm	ASTM D5185m	1	0	<1	0
Magnesium	ppm	ASTM D5185m	5	24	18	39
Calcium	nnm	ACTM DE10Em	1000	1417	1761	1815
- and and	ppm	ASTM D5185m	1220	1717	1701	
Phosphorus	ppm	ASTM D5185m	298	291	342	366
Phosphorus	ppm	ASTM D5185m	298	291	342	366
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	298 350	291 370	342 457	366 430
Phosphorus Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	298 350 1995 limit/base	291 370 2950	342 457 3459	366 430 3184
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	298 350 1995 limit/base	291 370 2950 current	342 457 3459 history1	366 430 3184 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	298 350 1995 limit/base	291 370 2950 current	342 457 3459 history1	366 430 3184 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	298 350 1995 limit/base >+100 >20	291 370 2950 current 1 0	342 457 3459 history1 2	366 430 3184 history2 2 2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	298 350 1995 limit/base >+100 >20	291 370 2950 current 1 0 <1	342 457 3459 history1 2 1	366 430 3184 history2 2 2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	298 350 1995 limit/base >+100 >20 >4.0	291 370 2950 current 1 0 <1	342 457 3459 history1 2 1 1 0.5	366 430 3184 history2 2 2 1 0.2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method	298 350 1995 limit/base >+100 >20 >4.0	291 370 2950 current 1 0 <1 0.2	342 457 3459 history1 2 1 0.5 history1	366 430 3184 history2 2 2 1 0.2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844	298 350 1995 limit/base >+100 >20 >4.0 limit/base	291 370 2950 current 1 0 <1 0.2 current	342 457 3459 history1 2 1 0.5 history1	366 430 3184 history2 2 2 1 0.2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624	298 350 1995 limit/base >+100 >20 >4.0 limit/base	291 370 2950 current 1 0 <1 0.2 current 0 4.4	342 457 3459 history1 2 1 1 0.5 history1 0.1 13.1	366 430 3184 history2 2 2 1 0.2 history2 0 12.2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7415	298 350 1995 limit/base >+100 >20 >4.0 limit/base >20 >30	291 370 2950 current 1 0 <1 0.2 current 0 4.4 14.2	342 457 3459 history1 2 1 0.5 history1 0.1 13.1 26.3	366 430 3184 history2 2 2 1 0.2 history2 0 12.2 23.1
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm TS ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7415 method	298 350 1995 limit/base >+100 >20 >4.0 limit/base >20 >30 limit/base	291 370 2950	342 457 3459 history1 2 1 0.5 history1 0.1 13.1 26.3 history1	366 430 3184 history2 2 2 1 0.2 history2 0 12.2 23.1 history2



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number **Unique Number**

: PCA0091291 : 05903897 : 10565253

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

: 20 Jul 2023 : 26 Jul 2023

Diagnostician : Doug Bogart Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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)

ENERVEST OPERATING - POPLAR GAP B

1663 CRESCENT ROAD GRUNDY, VA

US 24614

Contact: Service Manager

F:

T: