

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **GUASCOR 340.105**

Biogas Engine

PETRO CANADA RALUBE 40 CFS (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

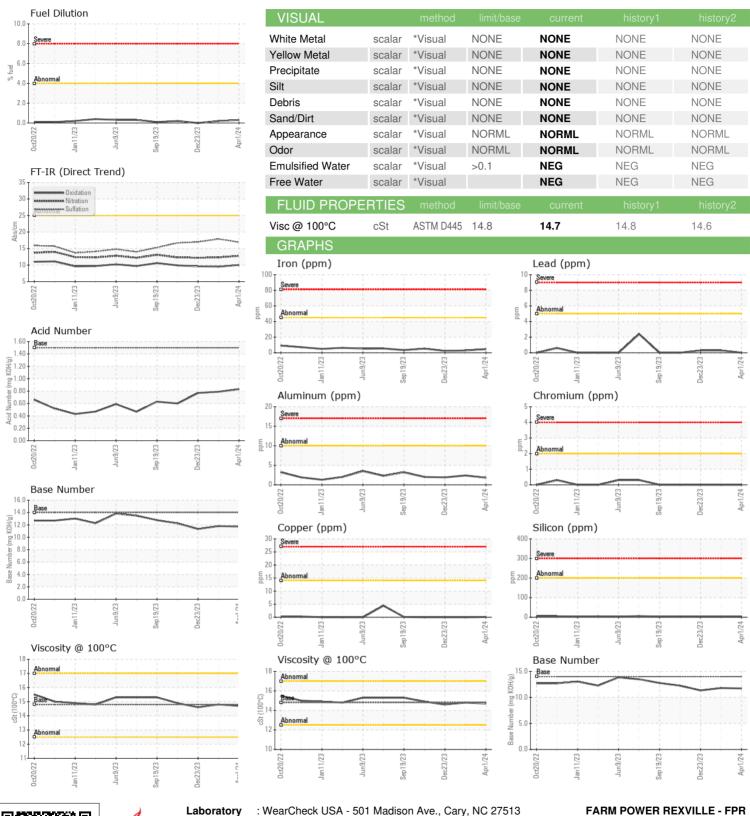
Fluid Condition

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.

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SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0092215	PCA0092223	PCA0092214
Sample Date		Client Info		01 Apr 2024	07 Feb 2024	23 Dec 2023
Machine Age	hrs	Client Info		119234	118062	116963
Oil Age	hrs	Client Info		1172	1099	1096
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
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>45	5	3	2
Chromium	ppm	ASTM D5185m	>2	0	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	2
Lead	ppm	ASTM D5185m	>5	0	<1	<1
Copper	ppm	ASTM D5185m	>14	<1	0	0
Tin	ppm	ASTM D5185m	>13	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				50		
Boron	ppm	ASTM D5185m	0	0	0	<1
	ppm					
Boron	• • •	ASTM D5185m	0	0	0	<1
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	0 0	0	<1
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 0	0 0 0	<1 0 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 0 <1	0 0 0 <1	<1 0 0 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 25	0 0 0 <1 18	0 0 0 <1 17	<1 0 0 <1 17
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 25 4300	0 0 0 <1 18 4820	0 0 0 <1 17 4407	<1 0 0 <1 17 4540
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 25 4300 1.6	0 0 0 <1 18 4820 4	0 0 0 <1 17 4407 3	<1 0 0 <1 17 4540 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 25 4300 1.6 2	0 0 0 <1 18 4820 4	0 0 0 <1 17 4407 3	<1 0 0 <1 17 4540 4 0 1674
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500	0 0 0 <1 18 4820 4 0 1891 current	0 0 0 <1 17 4407 3 0 1679 history1	<1 0 0 <1 17 4540 4 0 1674
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500 limit/base	0 0 0 <1 18 4820 4 0 1891	0 0 0 <1 17 4407 3 0 1679	<1 0 0 <1 17 4540 4 0 1674
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500	0 0 0 <1 18 4820 4 0 1891 current 3 6	0 0 0 <1 17 4407 3 0 1679 history1 3	<1 0 0 <1 17 4540 4 0 1674 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500 limit/base	0 0 0 <1 18 4820 4 0 1891 current 3 6	0 0 0 <1 17 4407 3 0 1679 history1	<1 0 0 <1 17 4540 4 0 1674 history2 3 19
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500 limit/base >200	0 0 0 <1 18 4820 4 0 1891 current 3 6	0 0 0 <1 17 4407 3 0 1679 history1 3	<1 0 0 <1 17 4540 4 0 1674 history2 3 19 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500 limit/base >200 >20	0 0 0 <1 18 4820 4 0 1891 current 3 6 0	0 0 0 <1 17 4407 3 0 1679 history1 3 8 <1	<1 0 0 17 4540 4 0 1674 history2 3 19 0 0.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500 limit/base >200 >20	0 0 0 -<1 18 4820 4 0 1891 current 3 6 0 0.3	0 0 0 <1 17 4407 3 0 1679 history1 3 8 <1 0.2	<1 0 0 <1 17 4540 4 0 1674 history2 3 19 0 0.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m	0 0 0 0 25 4300 1.6 2 1500 limit/base >200 >4.0	0 0 0 -<1 18 4820 4 0 1891 current 3 6 0 0.3	0 0 0 <1 17 4407 3 0 1679 history1 3 8 <1 0.2	<1 0 0 <1 17 4540 4 0 1674 history2 3 19 0 0.0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 0 0 25 4300 1.6 2 1500 limit/base >200 >4.0 limit/base	0 0 0 -<1 18 4820 4 0 1891 current 3 6 0 0.3 current	0 0 0 <1 17 4407 3 0 1679 history1 3 8 <1 0.2 history1	<1 0 0 17 4540 4 0 1674 history2 3 19 0 0.0 history2 0 12.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624 *ASTM D7624	0 0 0 0 25 4300 1.6 2 1500 limit/base >200 >4.0 limit/base	0 0 0 -1 18 4820 4 0 1891 current 3 6 0 0.3 current 0 12.8 16.9	0 0 0 <1 17 4407 3 0 1679 history1 3 8 <1 0.2 history1 0 12.3 17.9	<1 0 0 17 4540 4 0 1674 history2 3 19 0 0.0 history2 0 12.2 17.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m ASTM D7824 *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 0 0 0 25 4300 1.6 2 1500 limit/base >200 >4.0 limit/base	0 0 0 -<1 18 4820 4 0 1891 current 3 6 0 0.3 current 0 12.8 16.9	0 0 0 17 4407 3 0 1679 history1 3 8 <1 0.2 history1 0 12.3 17.9 history1	<1 0 0 1 17 4540 4 0 1674 history2 3 19 0 0.0 history2 0 12.2 17.0 history2



OIL ANALYSIS REPORT





Certificate 12367

Laboratory Sample No.

Lab Number

: PCA0092215 : 06141532 Unique Number : 10966340

Received : 08 Apr 2024 **Tested** Diagnosed

: 10 Apr 2024

: 10 Apr 2024 - Don Baldridge

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

To discuss this sample report, contact Customer Service at 1-800-237-1369.

 st - 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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Contact: JASON MITCHELL

Contact/Location: JASON MITCHELL - FARMOU

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