

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

CONSTRUCTORS, INC Machine Id CHEVROLET GASOLINE 04-0629 Component

Front Gasoline Engine

PETRO CANADA DURON ADVANCED 5W30 (--- GAL)

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.

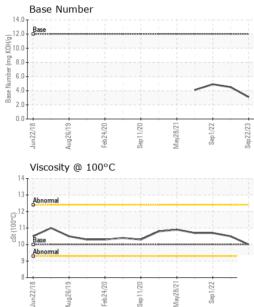
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0004780	SBP0002332	SBP0001191
Sample Date		Client Info		22 Sep 2023	26 Jan 2023	01 Sep 2022
Machine Age	hrs	Client Info		10594	10309	9981
Oil Age	hrs	Client Info		285	328	273
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	29	40	18
Chromium	ppm	ASTM D5185m	>20	2	3	1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>40	1	6	3
Lead	ppm	ASTM D5185m	>50	<1	0	<1
Copper	ppm	ASTM D5185m	>155	7	6	7
Tin	ppm	ASTM D5185m	>10	0	<1	1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 25	history1 46	history2 50
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	0	25	46	50
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 43	25 0	46 0	50 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43	25 0 71	46 0 75	50 0 68
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0	25 0 71 <1	46 0 75 <1	50 0 68 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0 920	25 0 71 <1 529	46 0 75 <1 516	50 0 68 <1 475
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0 920 1330	25 0 71 <1 529 1305	46 0 75 <1 516 1207	50 0 68 <1 475 1118
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790	25 0 71 <1 529 1305 685	46 0 75 <1 516 1207 641	50 0 68 <1 475 1118 569
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880	25 0 71 <1 529 1305 685 823	46 0 75 <1 516 1207 641 811	50 0 68 <1 475 1118 569 691
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200	25 0 71 <1 529 1305 685 823 3577	46 0 75 <1 516 1207 641 811 3218	50 0 68 <1 475 1118 569 691 2473
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200	25 0 71 <1 529 1305 685 823 3577 current	46 0 75 <1 516 1207 641 811 3218 history1	50 0 68 <1 475 1118 569 691 2473 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 43 920 1330 790 880 2200 Limit/base	25 0 71 <1 529 1305 685 823 3577 current 13	46 0 75 <1 516 1207 641 811 3218 history1 18	50 0 68 <1 475 1118 569 691 2473 history2 10
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 0 43 920 1330 790 880 2200 limit/base >30 >400	25 0 71 <1 529 1305 685 823 3577 current 13 4	46 0 75 <1 516 1207 641 811 3218 history1 18 2	50 0 68 <1 475 1118 569 691 2473 history2 10 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200 Limit/base >30 >400 >20	25 0 71 <1 529 1305 685 823 3577 current 13 4 3	46 0 75 <1 516 1207 641 811 3218 history1 18 2 1	50 0 68 <1 475 1118 569 691 2473 history2 10 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200 Imit/base >30 >400 >20 Imit/base	25 0 71 <1 529 1305 685 823 3577 current 13 4 3 3 Current	46 0 75 <1 516 1207 641 811 3218 history1 18 2 1 1 history1	50 0 68 <1 475 1118 569 691 2473 history2 10 2 2 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200 Imit/base >30 >400 >20 Imit/base	25 0 71 <1 529 1305 685 823 3577 current 13 4 3 2 0	46 0 75 <1 516 1207 641 811 3218 history1 18 2 1 1 8 2 1 1 18 2 1 1 0.1	50 0 68 <1 475 1118 569 691 2473 history2 10 2 2 2 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200 Iimit/base >30 >400 >20 Iimit/base	25 0 71 <1 529 1305 685 823 3577 current 13 4 3 current 0 0 11.4	46 0 75 <1 516 1207 641 811 3218 history1 18 2 1 18 2 1 history1 0.1 0.1	50 0 68 <1 475 1118 569 691 2473 history2 10 2 2 10 2 2 history2 0.1 10.0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 43 0 920 1330 790 880 2200 Imit/base >30 >400 >20 Imit/base >20 Imit/base	25 0 71 <1 529 1305 685 823 3577 current 13 4 3 Current 0 11.4 23.1	46 0 75 <1 516 1207 641 811 3218 history1 18 2 1 1 8 2 1 1 0.1 0.1 0.4 21.6	50 0 68 <1 475 1118 569 691 2473 history2 10 2 2 2 history2 0.1 10.0 2 2.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 0 43 0 920 1330 790 880 2200 Iimit/base >30 >20 20 Iimit/base >20 >20 30 >30 >20	25 0 71 <1 529 1305 685 823 3577 current 13 4 3 current 0 11.4 23.1 current	46 0 75 <1 516 1207 641 811 3218 history1 18 2 1 18 2 1 1 0.1 10.4 21.6 history1	50 0 68 <1 475 1118 569 691 2473 history2 10 2 2 history2 0.1 10.0 2 2.2 history2



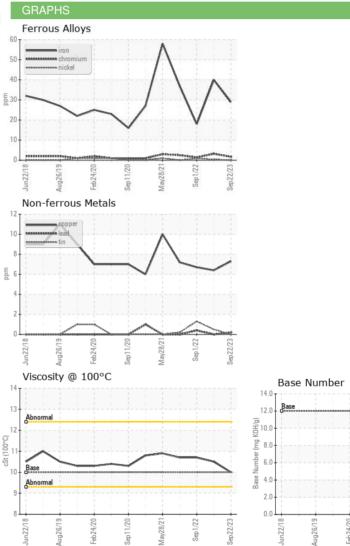
Jun22/18

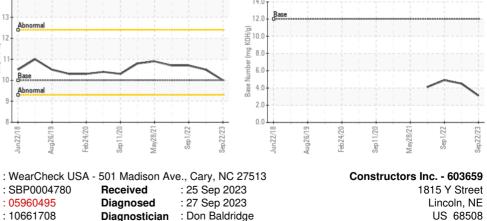
Aug26/19

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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.0	10.0	10.5	10.7
ОРАРИС						





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Test Package : FLEET Certificate L2367 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)

Received

Diagnosed

: 25 Sep 2023

: 27 Sep 2023

: SBP0004780

: 05960495 : 10661708

Laboratory

Sample No.

Lab Number

Unique Number