

### **OIL ANALYSIS REPORT**

Sample Rating Trend



# FORD 200 (S/N 1FM5K8D83JGA99478)

Gasoline Engine

PETRO CANADA SUPREME 5W20 MOTOR OIL (6 QTS)

#### 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.

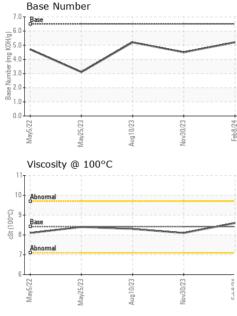
#### Fluid Condition

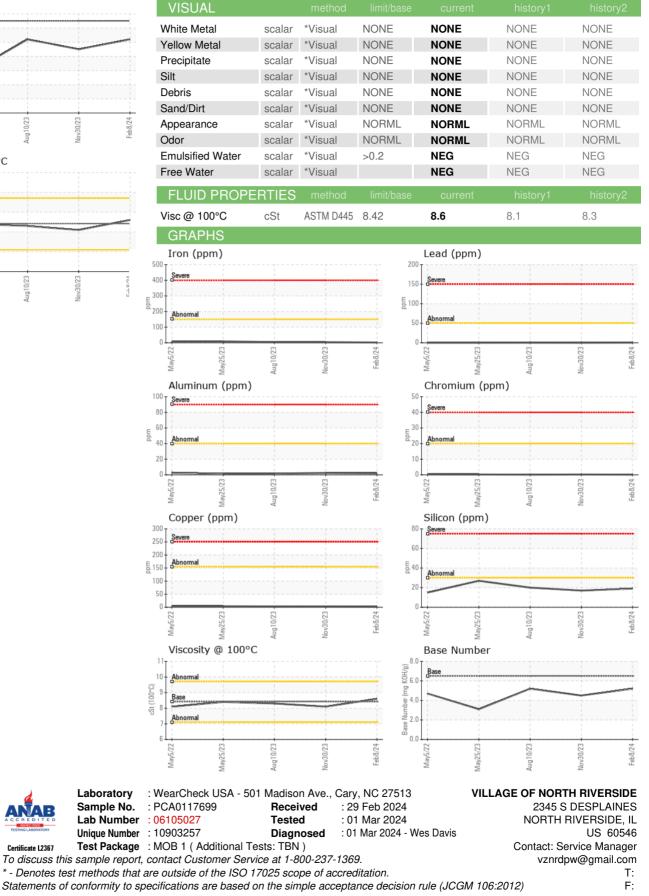
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

. ,		May2022	May2023	Aug2023 Nov2023	Feb2024	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0117699	PCA0112902	PCA0100387
Sample Date		Client Info		08 Feb 2024	30 Nov 2023	10 Aug 2023
Machine Age	mls	Client Info		87090	84536	74620
Oil Age	mls	Client Info		2554	4916	3047
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	2	4	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	2	2	2
Lead	ppm	ASTM D5185m	>50	<1	0	<1
Copper	ppm	ASTM D5185m	>155	2	3	3
Tin	ppm		>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	Method ASTM D5185m	limit/base	current 108	history1 51	history2 98
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	183	108	51	98
Boron Barium	ppm	ASTM D5185m ASTM D5185m	183 0	108 0	51 0	98 2
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36	108 0 65	51 0 60	98 2 62
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0	108 0 65 <1	51 0 60 <1	98 2 62 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417	108 0 65 <1 587	51 0 60 <1 481	98 2 62 <1 440
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417 1318	108 0 65 <1 587 1146	51 0 60 <1 481 1066	98 2 62 <1 440 1236
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	183 0 36 0 417 1318 773	108 0 65 <1 587 1146 775	51 0 60 <1 481 1066 685	98 2 62 <1 440 1236 687
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	183 0 36 0 417 1318 773 845	108 0 65 <1 587 1146 775 885	51 0 60 <1 481 1066 685 772	98 2 62 <1 440 1236 687 796
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	183 0 36 0 417 1318 773 845 2690	108 0 65 <1 587 1146 775 885 2896	51 0 60 <1 481 1066 685 772 2754	98 2 62 <1 440 1236 687 796 2830
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690	108 0 65 <1 587 1146 775 885 2896 current	51 0 60 <1 481 1066 685 772 2754 history1	98 2 62 <1 440 1236 687 796 2830 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	183 0 36 0 417 1318 773 845 2690 <b>limit/base</b> >30	108 0 65 <1 587 1146 775 885 2896 current 19	51 0 60 <1 481 1066 685 772 2754 history1 17	98 2 62 <1 440 1236 687 796 2830 history2 20
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 <b>limit/base</b> >30 >400	108 0 65 <1 587 1146 775 885 2896 <u>current</u> 19 3	51 0 60 <1 481 1066 685 772 2754 <b>history1</b> 17 5	98 2 62 <1 440 1236 687 796 2830 history2 20 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 <b>limit/base</b> >30 >400 >20	108 0 65 <1 587 1146 775 885 2896 current 19 3 <1	51 0 60 <1 481 1066 685 772 2754 <b>history1</b> 17 5 2	98 2 62 <1 440 1236 687 796 2830 history2 20 4 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 <b>limit/base</b> >30 >400 >20 <b>limit/base</b>	108 0 65 <1 587 1146 775 885 2896 current 19 3 <1 current	51 0 60 <1 481 1066 685 772 2754 history1 17 5 2 2 history1	98 2 62 <1 440 1236 687 796 2830 history2 20 4 1 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 <b>limit/base</b> >30 >400 >20 <b>limit/base</b>	108 0 65 <1 587 1146 775 885 2896 current 19 3 <1 29 current	51 0 60 <1 481 1066 685 772 2754 history1 17 5 2 2 history1 0.1	98 2 62 <1 440 1236 687 796 2830 history2 20 4 1 1 history2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 <i>imit/base</i> >30 >400 >20 <i>imit/base</i>	108 0 65 <1 587 1146 775 885 2896 current 19 3 <1 19 3 <1 current 0 8.5	51 0 60 <1 481 1066 685 772 2754 history1 17 5 2 2 history1 0.1 9.3	98 2 62 <1 440 1236 687 796 2830 history2 20 4 1 1 history2 0 8.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	183 0 36 0 417 1318 773 845 2690 <b>Imit/base</b> >30 >400 >20 <b>Imit/base</b> >20 <b>S</b>	108 0 65 <1 587 1146 775 885 2896 <u>current</u> 19 3 <1 <u>current</u> 0 8.5 17.7	51 0 60 <1 481 1066 685 772 2754 history1 17 5 2 2 history1 0.1 9.3 20.9	98 2 62 <1 440 1236 687 796 2830 history2 20 4 1 1 history2 0 8.1 18.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN 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	183 0 36 0 417 1318 773 845 2690 <b>imit/base</b> >30 >20 20 <b>imit/base</b> >20 >30 20	108 0 65 <1 587 1146 775 885 2896 Current 19 3 <1 0 current 0 8.5 17.7 Current	51 0 60 <1 481 1066 685 772 2754 history1 17 5 2 2 history1 0.1 9.3 20.9 history1	98 2 62 <1 440 1236 687 796 2830 history2 20 4 1 1 history2 0 8.1 18.5 history2



## **OIL ANALYSIS REPORT**





Certificate L2367