

# **OIL ANALYSIS REPORT**

SAMPLE INFORMATION method

# Sample Rating Trend



NORMAL

Component **Diesel Engine** 

Fluic PETRO CANADA DURON SHP 15W40 (48 QTS)

# DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

812016 AUTOCAR ACX

### Wear

Machine Id

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		method	limit/base	current	nistory i	nistory2
Sample Number		Client Info		GFL0094770	GFL0094668	GFL0089349
Sample Date		Client Info		25 Jan 2024	01 Nov 2023	10 Aug 2023
Machine Age	hrs	Client Info		5904	5244	4615
Oil Age	hrs	Client Info		660	629	890
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	2	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	17	16	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	13	<u> </u>	3
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	<1	3	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method			history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1 4	history2 4
	ppm ppm	ASTM D5185m			· · · · ·	
Boron		ASTM D5185m	0	1	4	4
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	1 0	4	4
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	1 0 59	4 0 63	4 2 66
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	1 0 59 <1	4 0 63 0	4 2 66 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	1 0 59 <1 1000	4 0 63 0 911	4 2 66 0 935
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 60 0 1010 1070	1 0 59 <1 1000 1115	4 0 63 0 911 1092	4 2 66 0 935 1202
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 60 0 1010 1070 1150	1 0 59 <1 1000 1115 1077	4 0 63 0 911 1092 985	4 2 66 0 935 1202 1066
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	0 0 60 0 1010 1070 1150 1270 2060	1 0 59 <1 1000 1115 1077 1285 3014	4 0 63 0 911 1092 985 1211 3236	4 2 66 0 935 1202 1066 1252 3411
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	0 0 60 1010 1070 1150 1270 2060	1 0 59 <1 1000 1115 1077 1285 3014 current	4 0 63 0 911 1092 985 1211 3236 history1	4 2 66 0 935 1202 1066 1252 3411 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	0 0 60 1010 1070 1150 1270 2060	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4	4 0 63 0 911 1092 985 1211 3236 history1 4	4 2 66 0 935 1202 1066 1252 3411 history2 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 <b>limit/base</b>	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4	4 0 63 0 911 1092 985 1211 3236 history1 4 1	4 2 66 0 935 1202 1066 1252 3411 history2 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>imit/base</b> >25	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38	4 2 66 0 935 1202 1066 1252 3411 history2 1 0 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 <b>limit/base</b>	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4	4 0 63 0 911 1092 985 1211 3236 history1 4 1	4 2 66 0 935 1202 1066 1252 3411 history2 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>imit/base</b> >25	1 0 59 <1 1000 1115 1077 1285 3014 current 4 4 18	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38	4 2 66 0 935 1202 1066 1252 3411 history2 1 0 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 225 >20 20	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4 18 <i>current</i>	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38 history1	4 2 66 0 935 1202 1066 1252 3411 <b>history2</b> 1 0 6 <b>history2</b>
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 225 >25 >20 <b>limit/base</b> >3	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4 18 <i>current</i> 0.4	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38 history1 0.5	4 2 66 0 935 1202 1066 1252 3411 history2 1 0 6 history2 0.2
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	0 0 0 1010 1070 1150 1270 2060 imit/base >25 >20 imit/base >3 >20	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4 18 <i>current</i> 0.4 8.7	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38 history1 0.5 8.5	4 2 66 0 935 1202 1066 1252 3411 history2 1 0 6 history2 0.2 5.7
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 D7844 *ASTM D7844	0 0 0 1010 1070 1150 2260 225 220 220 imit/base >3 >20 >30 imit/base	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4 4 18 <i>current</i> 0.4 8.7 19.3 <i>current</i>	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38 history1 0.5 8.5 19.7 history1	4 2 66 0 935 1202 1066 1252 3411 history2 1 0 6 history2 0.2 5.7 17.9 history2
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 D7414	0 0 0 1010 1070 1150 1270 2060 2060 225 20 220 220 20 33 220 330 225	1 0 59 <1 1000 1115 1077 1285 3014 <i>current</i> 4 4 18 <i>current</i> 0.4 8.7 19.3	4 0 63 0 911 1092 985 1211 3236 history1 4 1 38 history1 0.5 8.5 19.7	4 2 66 0 935 1202 1066 1252 3411 history2 1 0 6 history2 0.2 5.7 17.9



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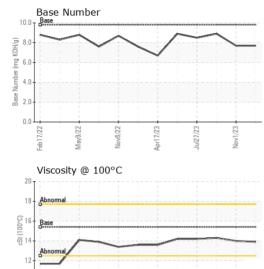
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# **OIL ANALYSIS REPORT**

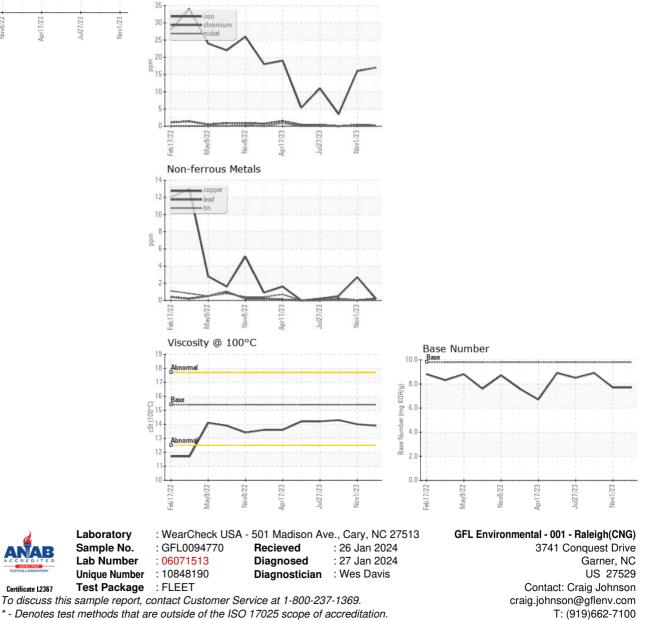
Ferrous Alloys

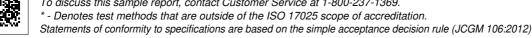


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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	14.0	14.3
GRAPHS						





Certificate L2367

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