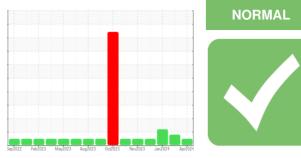


### **OIL ANALYSIS REPORT**

SAMPLE INFORMATION metho

Sample Rating Trend



Machine Id

# 727100-361676

#### Component Diesel Engine

Fluid PETRO CANADA DURON SHP 15W40 (--- 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.

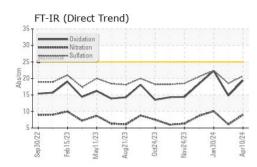
#### Fluid Condition

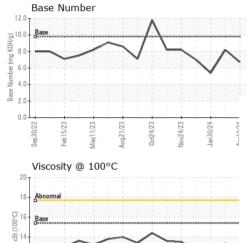
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM		method	limit/base	current	nistory i	nistory2
Sample Number		Client Info		GFL0104823	GFL0104962	GFL0104955
Sample Date		Client Info		10 Apr 2024	13 Feb 2024	30 Jan 2024
Machine Age	mls	Client Info		159948	156539	155303
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	MARGINAL	ABNORMAL
-				Normize		A DIVOTIMALE
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<b>2</b> .6	<b>6</b> .3
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	>100	8	4	16
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	<1	1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	0	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method			history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1 0	history2 0
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	0	0	0	0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	0 0 60	0 0	0 0	0
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	0 0 57	0 0 55	0 0 55
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	0 0 57 0	0 0 55 0	0 0 55 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	0 0 57 0 953	0 0 55 0 894	0 0 55 <1 854
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	0 0 57 0 953 1114	0 0 55 0 894 940	0 0 55 <1 854 987
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	0 0 57 0 953 1114 1052	0 0 55 0 894 940 985	0 0 55 <1 854 987 912
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 60 0 1010 1070 1150 1270	0 0 57 0 953 1114 1052 1301	0 0 55 0 894 940 985 1153	0 0 55 <1 854 987 912 1183
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	0 0 57 0 953 1114 1052 1301 3583	0 0 55 0 894 940 985 1153 2847	0 0 55 <1 854 987 912 1183 2706
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 60 1010 1070 1150 1270 2060	0 0 57 0 953 1114 1052 1301 3583 current	0 0 55 0 894 940 985 1153 2847 history1	0 0 55 <1 854 987 912 1183 2706 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>	0 0 60 1010 1070 1150 1270 2060 <b>Jimit/base</b>	0 0 57 0 953 1114 1052 1301 3583 current 3	0 0 55 0 894 940 985 1153 2847 history1 3	0 0 55 <1 854 987 912 1183 2706 history2 6
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 ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 <b>Jimit/base</b>	0 0 57 0 953 1114 1052 1301 3583 current 3 4	0 0 55 0 894 940 985 1153 2847 <b>history1</b> 3 3	0 0 55 <1 854 987 912 1183 2706 history2 6 5
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	0 0 0 1010 1070 1150 1270 2060 <b>limit/base</b> >25 >20	0 0 57 0 953 1114 1052 1301 3583 current 3 4 4 <1	0 0 55 0 894 940 985 1153 2847 history1 3 3 0	0 0 55 <1 854 987 912 1183 2706 history2 6 5 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>Imit/base</b> >25 >20 <b>Imit/base</b> >3	0 0 57 0 953 1114 1052 1301 3583 current 3 4 <1 current 0.4	0 0 55 0 894 940 985 1153 2847 history1 3 3 0 history1 0.2	0 0 55 <1 854 987 912 1183 2706 history2 6 5 0 0 history2
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	0 0 0 1010 1070 1150 1270 2060 <b>Imit/base</b> >25 >20 <b>Imit/base</b> >3	0 0 57 0 953 1114 1052 1301 3583 current 3 4 <1 current	0 0 55 0 894 940 985 1153 2847 history1 3 3 0 bistory1	0 0 55 <1 854 987 912 1183 2706 history2 6 5 0 0 history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc 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	0 0 57 0 953 1114 1052 1301 3583 <i>current</i> 3 4 <1 <i>current</i> 0.4 9.0	0 0 55 0 894 940 985 1153 2847 history1 3 3 0 history1 0.2 6.1	0 0 55 <1 854 987 912 1183 2706 history2 6 5 0 V history2 0.5 10.1
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 D7844 *ASTM D7844 *ASTM D7844	0 0 0 1010 1070 1150 2260 225 220 220 imit/base >3 >20 >30 imit/base	0 0 57 0 953 1114 1052 1301 3583 <i>current</i> 3 4 <1 <i>current</i> 0.4 9.0 20.7	0 0 55 0 894 940 985 1153 2847 history1 3 3 3 0 history1 0.2 6.1 18.5 history1	0 0 55 <1 854 987 912 1183 2706 history2 6 5 0 0 history2 0.5 10.1 22.4 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 D5185m	0 0 0 1010 1070 1150 2260 225 220 220 imit/base >3 >20 >30 imit/base >3	0 0 57 0 953 1114 1052 1301 3583 <i>current</i> 3 4 <1 <i>current</i> 0.4 9.0 20.7	0 0 55 0 894 940 985 1153 2847 history1 3 3 3 0 history1 0.2 6.1 18.5	0 0 55 <1 854 987 912 1183 2706 history2 6 5 0 0 history2 0.5 10.1 22.4



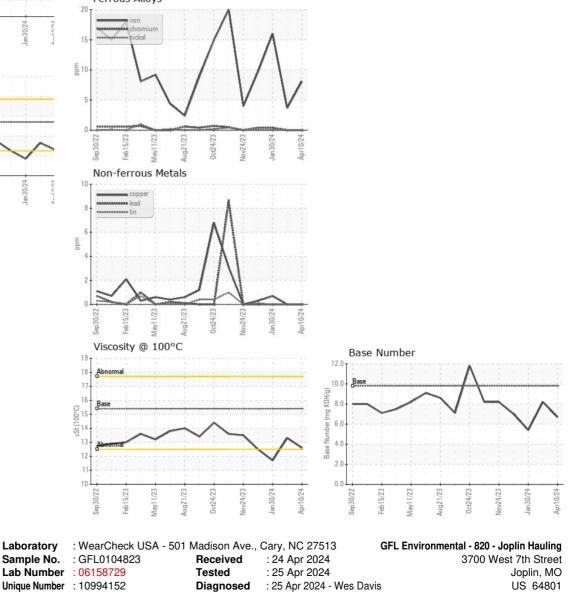
## **OIL ANALYSIS REPORT**





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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	13.3	▲ 11.7
GRAPHS						

Ferrous Alloys





12

10 Sep30/22

Feb15/23

May11/23

Aug21/23

0v74/73

Unique Number : 10994152 Diagnosed : 25 Apr 2024 - Wes Davis Test Package : FLEET Contact: James Jarrett Certificate 12367 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)

Report Id: GFL820 [WUSCAR] 06158729 (Generated: 04/25/2024 11:39:37) Rev: 1

Submitted By: VINCE ASTI Page 2 of 2

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