

## **OIL ANALYSIS REPORT**

Sample Rating Trend



#### Machine Id

### 525015-7015

### Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- LTR)

#### 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.

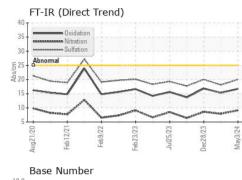
#### Fluid Condition

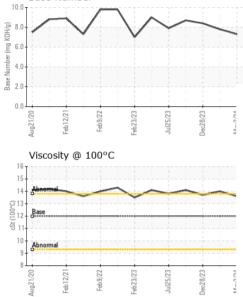
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0091840	GFL0112759	GFL0101343
Sample Date		Client Info		03 May 2024	02 Mar 2024	28 Dec 2023
Machine Age	hrs	Client Info		16952	16472	16031
Oil Age	hrs	Client Info		16952	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	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	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	14	5	2
Chromium	ppm	ASTM D5185m	>4	<1	0	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	2
Lead	ppm	ASTM D5185m	>45	<1	0	0
Copper	ppm	ASTM D5185m	>85	2	1	0
Tin	ppm	ASTM D5185m	>4	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	current 0	history1 0	history2 0
	ppm ppm	ASTM D5185m				-
Boron		ASTM D5185m	2	0	0	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	0 0	0	0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	0 0 61	0 0 59	0 4 59
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	0 0 61 <1	0 0 59 <1	0 4 59 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	0 0 61 <1 956	0 0 59 <1 942	0 4 59 0 925 1056 1037
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	0 0 61 <1 956 1077	0 0 59 <1 942 1049 1022 1246	0 4 59 0 925 1056 1037 1203
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	2 0 50 0 950 1050 995	0 0 61 <1 956 1077 1102	0 0 59 <1 942 1049 1022	0 4 59 0 925 1056 1037
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	2 0 50 950 1050 995 1180	0 0 61 <1 956 1077 1102 1254	0 0 59 <1 942 1049 1022 1246	0 4 59 0 925 1056 1037 1203
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	2 0 50 0 950 1050 995 1180 2600	0 0 61 <1 956 1077 1102 1254 3152	0 0 59 <1 942 1049 1022 1246 2925	0 4 59 0 925 1056 1037 1203 3342
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	2 0 50 950 1050 995 1180 2600	0 0 61 <1 956 1077 1102 1254 3152 current	0 0 59 <1 942 1049 1022 1246 2925 history1	0 4 59 0 925 1056 1037 1203 3342 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>	2 0 50 950 1050 995 1180 2600	0 0 61 <1 956 1077 1102 1254 3152 current 6	0 0 59 <1 942 1049 1022 1246 2925 history1 3	0 4 59 0 925 1056 1037 1203 3342 history2 0
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	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >30	0 0 61 <1 956 1077 1102 1254 3152 current 6 <	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0	0 4 59 0 925 1056 1037 1203 3342 <b>history2</b> 0 0 0 0 0
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	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >30	0 0 61 <1 956 1077 1102 1254 3152 <i>current</i> 6 <1 2 <i>current</i> 0.4	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0 history1 0.2	0 4 59 0 925 1056 1037 1203 3342 history2 0 0 0 0 0 history2
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	2 0 50 0 950 1050 995 1180 2600 <b>Imit/base</b> >30 >20 <b>Imit/base</b>	0 0 61 <1 956 1077 1102 1254 3152 current 6 <1 2 current	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0 history1 0.2 7.9	0 4 59 0 925 1056 1037 1203 3342 <b>history2</b> 0 0 0 0 0
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	2 0 50 0 950 1050 995 1180 2600 limit/base >30 }	0 0 61 <1 956 1077 1102 1254 3152 <i>current</i> 6 <1 2 <i>current</i> 0.4	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0 history1 0.2	0 4 59 0 925 1056 1037 1203 3342 history2 0 0 0 0 0 0 0 0 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	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >30 20 <i>imit/base</i> >3 >20	0 0 61 <1 956 1077 1102 1254 3152 current 6 <1 2 current 0.4 9.1	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0 history1 0.2 7.9	0 4 59 0 925 1056 1037 1203 3342 history2 0 0 0 0 0 0 history2 0.7 8.6
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	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >30 >20 <b>imit/base</b> >3 >20	0 0 61 <1 956 1077 1102 1254 3152 <u>current</u> 6 <1 2 <u>current</u> 0.4 9.1 20.0	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0 <u>history1</u> 0.2 7.9 18.1	0 4 59 0 925 1056 1037 1203 3342 <b>history2</b> 0 0 0 0 0 <b>bistory2</b> 0.7 8.6 20.0
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	2 0 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >30 >20 >30 >20 >30 >30	0 0 61 <1 956 1077 1102 1254 3152 current 6 <1 2 current 0.4 9.1 20.0 current	0 0 59 <1 942 1049 1022 1246 2925 history1 3 0 0 0 history1 0.2 7.9 18.1 history1	0 4 59 0 925 1056 1037 1203 3342 history2 0 0 0 0 0 history2 0.7 8.6 20.0 history2

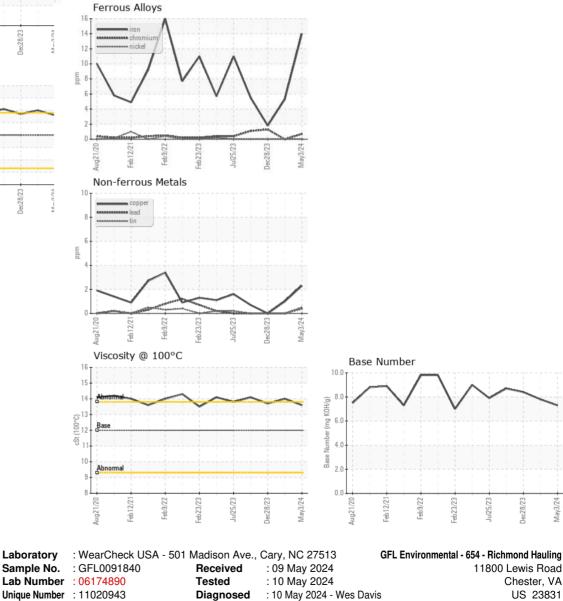


# **OIL ANALYSIS REPORT**





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	12.00	13.6	14.0	13.7
GRAPHS						





 Certificate 12367
 Test Package
 : FLEET

 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)

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