

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

#### 130098 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

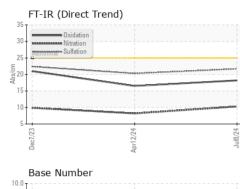
#### Fluid Condition

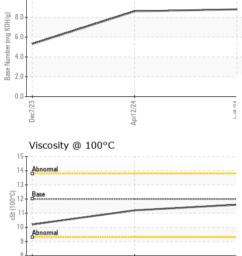
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

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SAMPLE INFORI	VIATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0128946	PCA0123926	PCA0113400
Sample Date		Client Info		08 Jul 2024	12 Apr 2024	07 Dec 2023
Machine Age	mls	Client Info		52534	36332	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
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	>100	45	34	<b>1</b> 25
Chromium	ppm	ASTM D5185m	>20	<1	1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	3	23
Lead	ppm	ASTM D5185m	>40	<1	2	3
Copper	ppm	ASTM D5185m	>330	15	20	258
Tin	ppm	ASTM D5185m	>15	<1	2	6
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	2	4	86
Barium	ppm	ASTM D5185m	0	0	0	4
	1-1-	AGTIVI DJTOJII	0	-	0	
Molybdenum	ppm	ASTM D5185m	50	66	68	18
Molybdenum Manganese						
•	ppm	ASTM D5185m	50	66	68	18
Manganese	ppm ppm	ASTM D5185m ASTM D5185m	50 0	66 <1	68 1	18 4
Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950	66 <1 1116	68 1 890	18 4 101
Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050	66 <1 1116 1236	68 1 890 1067	18 4 101 1099
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	66 <1 1116 1236 1127	68 1 890 1067 896	18 4 101 1099 852
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180	66 <1 1116 1236 1127 1415	68 1 890 1067 896 1208	18 4 101 1099 852 1096
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600	66 <1 1116 1236 1127 1415 3649	68 1 890 1067 896 1208 2862	18 4 101 1099 852 1096 2668
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	50 0 950 1050 995 1180 2600	66 <1 1116 1236 1127 1415 3649 current	68 1 890 1067 896 1208 2862 history1	18 4 101 1099 852 1096 2668 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600	66 <1 1116 1236 1127 1415 3649 current 6	68 1 890 1067 896 1208 2862 history1 8	18 4 101 1099 852 1096 2668 history2 ▲ 54
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 limit/base >25	66 <1 1116 1236 1127 1415 3649 current 6 2	68 1 890 1067 896 1208 2862 history1 8 0	18 4 101 1099 852 1096 2668 history2 54 3
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	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	50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20	66 <1 1116 1236 1127 1415 3649 current 6 2 <1	68 1 890 1067 896 1208 2862 history1 8 0 3	18 4 101 1099 852 1096 2668 <b>history2</b> ▲ 54 3 6
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20	66 <1 1116 1236 1127 1415 3649 current 6 2 <1 current	68 1 890 1067 896 1208 2862 history1 8 0 3 history1	18 4 101 1099 852 1096 2668 history2 54 3 6 bistory2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	66 <1 1116 1236 1127 1415 3649 current 6 2 <1 2 <1 current 1.1	68 1 890 1067 896 1208 2862 history1 8 0 3 history1 0.6	18 4 101 1099 852 1096 2668 history2 54 3 6 bistory2 0.8
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	50 0 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 <b>imit/base</b> >3 >20	66 <1 1116 1236 1127 1415 3649 <u>current</u> 6 2 <1 <u>current</u> 1.1 1.1 10.3	68 1 890 1067 896 1208 2862 history1 8 0 3 history1 0.6 8.2	18 4 101 1099 852 1096 2668 <b>history2</b> ▲ 54 3 6 <b>bistory2</b> 0.8 9.9
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	50 0 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 <b>imit/base</b> >3 >20	66 <1 1116 1236 1127 1415 3649 current 6 2 <1 current 1.1 10.3 21.7	68 1 890 1067 896 1208 2862 history1 8 0 3 <u>history1</u> 0.6 8.2 20.3	18 4 101 1099 852 1096 2668 history2 54 3 6 54 3 6 <b>history2</b> 0.8 9.9 22.4
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	50 0 950 1050 995 1180 2600 imit/base >25 20 20 imit/base >3 >20 30 imit/base	66 <1 1116 1236 1127 1415 3649 current 6 2 <1 current 1.1 10.3 21.7 current	68 1 890 1067 896 1208 2862 history1 8 0 3 history1 0.6 8.2 20.3 history1	18 4 101 1099 852 1096 2668 history2 54 3 6 bistory2 0.8 9.9 22.4 history2

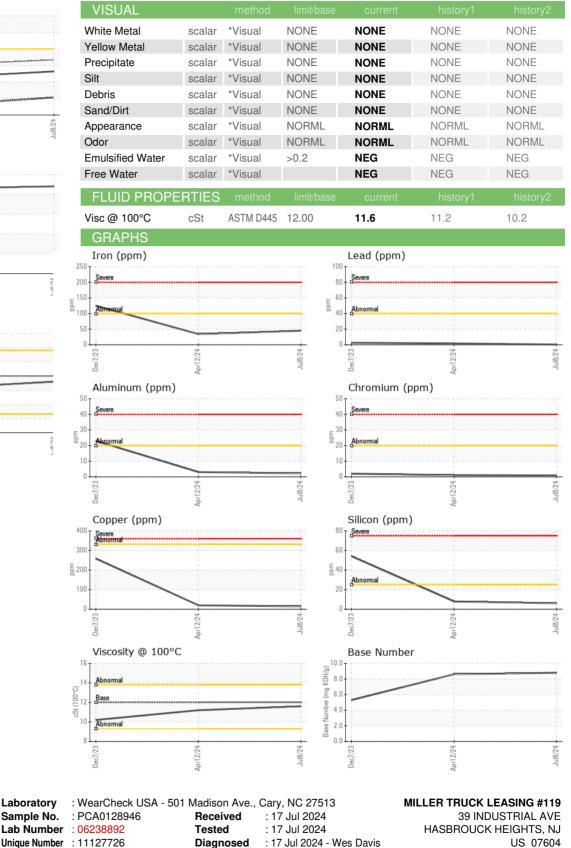


# **OIL ANALYSIS REPORT**





Apr12/24





Dec7/23

Test Package : MOB 1 (Additional Tests: TBN) 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)

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Laboratory

Sample No.

Contact/Location: MIKE LONGETTE - MILRUT

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