

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id 316707

#### Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- 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.

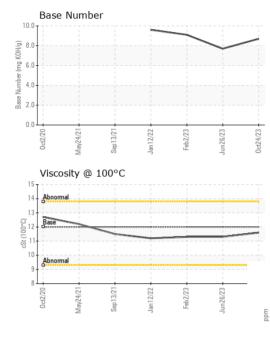
## Fluid Condition

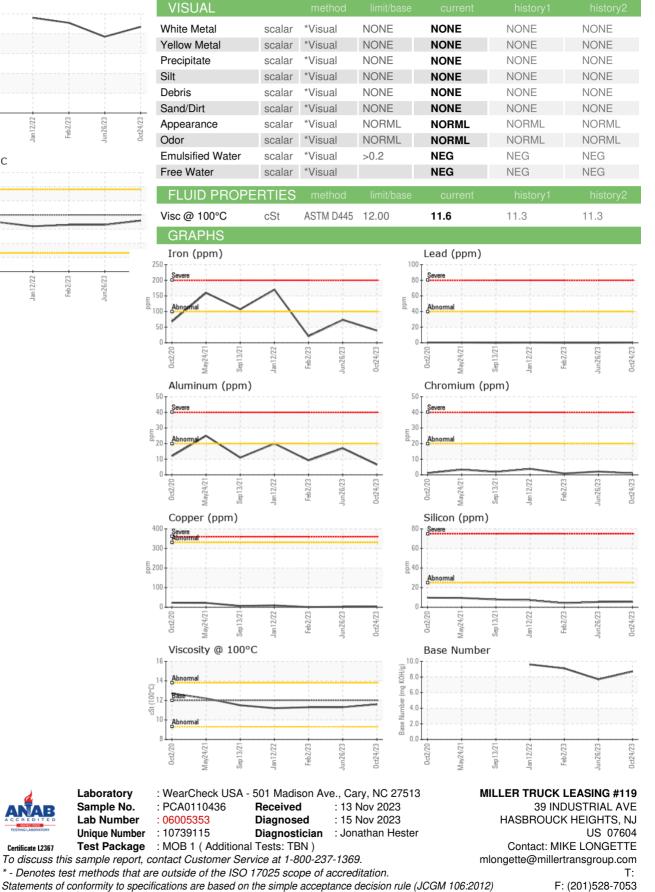
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110436	PCA0101338	PCA0089708
Sample Date		Client Info		24 Oct 2023	26 Jun 2023	02 Feb 2023
Machine Age	mls	Client Info		95408	83916	70120
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS method limit/base current history1 his					history2	
Iron	ppm	ASTM D5185m	>100	39	73	21
Chromium	ppm	ASTM D5185m	>20	1	2	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	17	9
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	4	2	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	1	10	18
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	50	66	71	64
Managana		ACTM DE10Em	0	<1	<1	<1
Manganese	ppm	ASTM D5185m	0	</th <th></th> <th></th>		
Manganese Magnesium	ppm ppm	ASTM D5185m	950	988	926	878
-						878 1108
Magnesium	ppm	ASTM D5185m	950	988	926	
Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	950 1050	988 1177	926 1206	1108
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995	988 1177 1066	926 1206 1036	1108 961
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180	988 1177 1066 1287	926 1206 1036 1266	1108 961 1181
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600	988 1177 1066 1287 3276	926 1206 1036 1266 3061	1108 961 1181 3517
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600 limit/base	988 1177 1066 1287 3276 current	926 1206 1036 1266 3061 history1	1108 961 1181 3517 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25	988 1177 1066 1287 3276 current 6	926 1206 1036 1266 3061 history1 5	1108 961 1181 3517 history2 4
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25	988 1177 1066 1287 3276 current 6 0	926 1206 1036 1266 3061 history1 5 <1	1108 961 1181 3517 history2 4 <1
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20	988 1177 1066 1287 3276 current 6 0 6	926 1206 1036 1266 3061 history1 5 <1 12	1108 961 1181 3517 history2 4 <1 6
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b>	988 1177 1066 1287 3276 current 6 0 6 current	926 1206 1036 1266 3061 history1 5 <1 12 history1	1108 961 1181 3517 history2 4 <1 6 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	988 1177 1066 1287 3276 current 6 0 6 current 0.4	926 1206 1036 1266 3061 <b>history1</b> 5 <1 12 <b>history1</b> 0.7	1108 961 1181 3517 history2 4 <1 6 history2 0.3
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	988 1177 1066 1287 3276 current 6 0 6 current 0.4 9.3	926 1206 1036 1266 3061 <b>history1</b> 5 <1 12 <b>history1</b> 0.7 12.1	1108 961 1181 3517 history2 4 <1 6 history2 0.3 7.6
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	950 1050 995 1180 2600 <b>imit/base</b> >25 >20 <b>imit/base</b> >3 >20 >3 >20	988 1177 1066 1287 3276 current 6 0 6 6 current 0.4 9.3 20.2	926 1206 1036 1266 3061 <b>history1</b> 5 <1 12 <b>history1</b> 0.7 12.1 22.7	1108 961 1181 3517 history2 4 <1 6 history2 0.3 7.6 18.6
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7415	950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3 >20 >30 <b>limit/base</b>	988 1177 1066 1287 3276 current 6 0 6 0 6 current 0.4 9.3 20.2 current	926 1206 1036 1266 3061 <b>history1</b> 5 <1 12 <b>history1</b> 0.7 12.1 22.7 <b>history1</b>	1108 961 1181 3517 history2 4 <1 6 history2 0.3 7.6 18.6 history2



# **OIL ANALYSIS REPORT**





Certificate L2367

Laboratory

Sample No.

Lab Number

Unique Number

Contact/Location: MIKE LONGETTE - MILRUT