

## **OIL ANALYSIS REPORT**

Sample Rating Trend







# VOLVO VNL 760 222

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- 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.

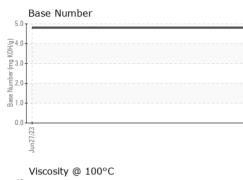
### Fluid Condition

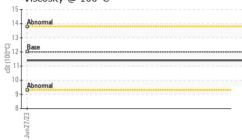
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

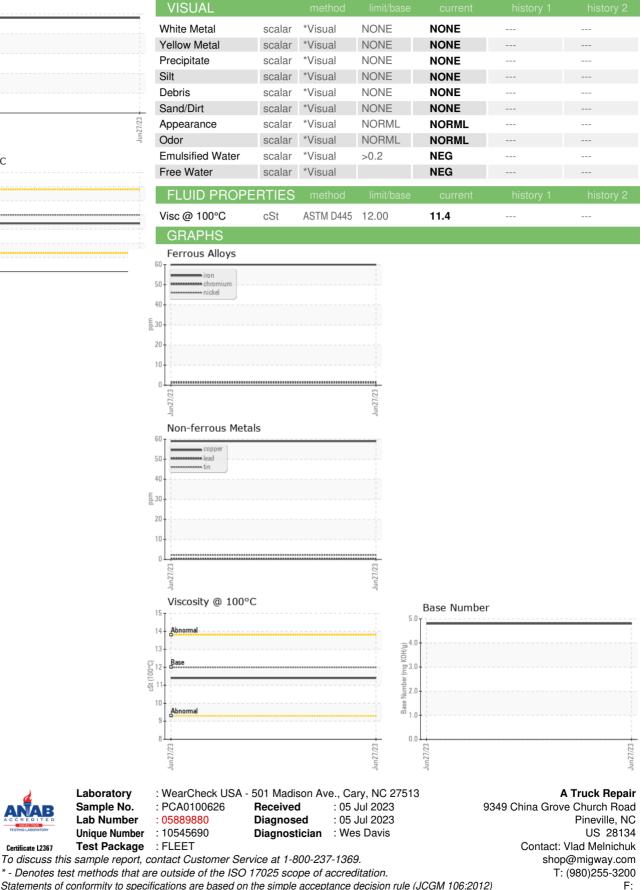
		method	limit/base	current	nistory i	nistory 2
Sample Number		Client Info		PCA0100626		
Sample Date		Client Info		27 Jun 2023		
Machine Age	mls	Client Info		79870		
Oil Age	mls	Client Info		40000		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
		ام م ال م ما			Istotom 1	bister O
CONTAMINAT		method	limit/base	current	history 1	history 2
Fuel		WC Method	>6.0	<1.0		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>100	60		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>2	2		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>25	14		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	59		
Tin	ppm	ASTM D5185m	>15	2		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	2	2		
Barium		ASTM D5185m	0	0		
	ppm	AOTIVI DOTODITI	0	•		
Molybdenum	ppm ppm	ASTM D5185m	50	72		
Molybdenum Manganese			50 0	72 2		
-	ppm	ASTM D5185m	50 0 950	72		
Manganese	ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050	72 2 876 1191		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	72 2 876 1191 938		
Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050	72 2 876 1191		 
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 0 950 1050 995	72 2 876 1191 938		
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	72 2 876 1191 938 1176	  	  
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	50 0 950 1050 995 1180 2600	72 2 876 1191 938 1176 2517	   	   
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	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	72 2 876 1191 938 1176 2517 current	     history 1	     history 2
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 ASTM D5185m	50 0 950 1050 995 1180 2600 <b>limit/base</b>	72 2 876 1191 938 1176 2517 current 9	    history 1	     history 2
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	72 2 876 1191 938 1176 2517 current 9 1	    history 1	    history 2
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	72 2 876 1191 938 1176 2517 current 9 1 35	    history 1  	    history 2  
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 <i>limit/base</i> >25 >20 <i>limit/base</i> >3	72 2 876 1191 938 1176 2517 current 9 1 35 current	    history 1   history 1	   history 2   history 2
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	50 0 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3	72 2 876 1191 938 1176 2517 current 9 1 35 current 0.8	    history 1   history 1  history 1	    history 2   history 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3 >20	72 2 876 1191 938 1176 2517 current 9 1 35 current 0.8 13.6	    history 1   history 1  history 1	     history 2  history 2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30	72 2 876 1191 938 1176 2517 current 9 1 35 current 0.8 13.6 26.3	    history 1   history 1  history 1	    history 2  history 2  history 2
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	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624	50 0 950 1050 995 1180 2600 imit/base >25 20 20 imit/base >3 >20 30 imit/base	72 2 876 1191 938 1176 2517 current 9 1 35 current 0.8 13.6 26.3 current	     history 1   history 1   history 1 	    history 2   history 2  history 2  history 2



# **OIL ANALYSIS REPORT**







Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

同臣

Page 2 of 2