

# **OIL ANALYSIS REPORT**

Samp

Sample Rating Trend

NORMAL



# PETERBILT V63

Component

**Diesel Engine** 

PETRO CANADA DURON HP 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

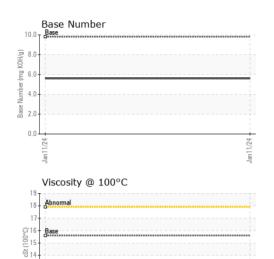
## **Fluid Condition**

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

SAMPLE INFORMATION   method   limit/base   current   history1   history2   Sample Date   Client Info   11 Jan 2024							
Cample Number   Client Info   PCA0112127	L)				Jan 2024		
Sample Date   Client Info   291520	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Date   Client Info   11 Jan 2024	Sample Number		Client Info		PCA0112127		
Machine Age   mls	Sample Date		Client Info		11 Jan 2024		
Contained   Client Info   Changed   Client Info   NORMAL   Contained   Conta	Machine Age	mls	Client Info		291520		
CONTAMINATION	Oil Age	mls	Client Info		21134		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Changed		Client Info		Changed		
Fuel	Sample Status				NORMAL		
Water         WC Method         >0.2         NEG             Glycol         WC Method         Imitibase         current         history1         history2           WEAR METALS         method         limitibase         current         history1         history2           Iron         ppm         ASTM D5185m         >110         25             Chromium         ppm         ASTM D5185m         >4         <1             Nickel         ppm         ASTM D5185m         >2         0             Silver         ppm         ASTM D5185m         >2         0             Silver         ppm         ASTM D5185m         >25         7             Silver         ppm         ASTM D5185m         >45         <1             Silver         ppm         ASTM D5185m         >45         <1             Copper         ppm         ASTM D5185m         >4         <1             Tin         ppm         ASTM D5185m         0 </td <td>CONTAMINAT</td> <td>ION</td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS   method   limit/base   current   history1   history2	Water		WC Method	>0.2	NEG		
Chromium	Glycol		WC Method		NEG		
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>110	25		
Silver	Chromium	ppm	ASTM D5185m	>4	<1		
Silver	Nickel	ppm	ASTM D5185m	>2	0		
Aluminum	Titanium	ppm	ASTM D5185m		2		
Lead	Silver	ppm	ASTM D5185m	>2	0		
Copper	Aluminum	ppm	ASTM D5185m	>25	7		
Tin	Lead	ppm	ASTM D5185m	>45	<1		
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         57             Molybdenum         ppm         ASTM D5185m         57             Manganese         ppm         ASTM D5185m         933             Magnesium         ppm         ASTM D5185m         1259             Phosphorus         ppm         ASTM D5185m         1064             Phosphorus         ppm         ASTM D5185m         1227             Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         <	Copper	ppm	ASTM D5185m	>85	1		
ADDITIVES	Tin	ppm	ASTM D5185m	>4	<1		
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1		
Barium	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         57             Manganese         ppm         ASTM D5185m         <1	Boron	ppm	ASTM D5185m		11		
Manganese         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         933             Calcium         ppm         ASTM D5185m         1259             Phosphorus         ppm         ASTM D5185m         1064             Zinc         ppm         ASTM D5185m         1227             Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         15             Sodium         ppm         ASTM D5185m         >20         6             Potassium         ppm         ASTM D5185m         >20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation	Barium	ppm	ASTM D5185m		0		
Manganese         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         933             Calcium         ppm         ASTM D5185m         1259             Phosphorus         ppm         ASTM D5185m         1064             Zinc         ppm         ASTM D5185m         1227             Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         15             Sodium         ppm         ASTM D5185m         >20         6             Potassium         ppm         ASTM D5185m         >20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation	Molybdenum		ASTM D5185m		57		
Magnesium         ppm         ASTM D5185m         933             Calcium         ppm         ASTM D5185m         1259             Phosphorus         ppm         ASTM D5185m         1064             Zinc         ppm         ASTM D5185m         1227             Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         30         15             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.1             FLUID DEGRADA	Manganese		ASTM D5185m		<1		
Calcium         ppm         ASTM D5185m         1259             Phosphorus         ppm         ASTM D5185m         1064             Zinc         ppm         ASTM D5185m         1227             Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         15             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         >20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation         Abs/.1mm         *ASTM D7624         >20         8.7             FLUID DEGRADATION         method         limit/base         current         history1         history2	-	ppm	ASTM D5185m		933		
Phosphorus         ppm         ASTM D5185m         1064             Zinc         ppm         ASTM D5185m         1227             Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         15             Sodium         ppm         ASTM D5185m         1             Potassium         ppm         ASTM D5185m         >20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation         Abs/.1mm         *ASTM D7624         >20         8.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Calcium		ASTM D5185m		1259		
Table   Tabl	Phosphorus		ASTM D5185m		1064		
Sulfur         ppm         ASTM D5185m         2809             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         15             Sodium         ppm         ASTM D5185m         1              Potassium         ppm         ASTM D5185m         >20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Sulfation         Abs/.1mm         *ASTM D7624         >20         8.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9			ASTM D5185m		1227		
Silicon   ppm   ASTM D5185m   >30   15	Sulfur	ppm	ASTM D5185m		2809		
Sodium	CONTAMINAN	TS	method	limit/base	current	history1	history2
Sodium	Silicon	ppm	ASTM D5185m	>30	15		
Potassium         ppm         ASTM D5185m         >20         6             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4             Nitration         Abs/cm         *ASTM D7624         >20         8.7             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9							
Soot %         %         *ASTM D7844 >3         0.4             Nitration         Abs/cm         *ASTM D7624 >20         8.7             Sulfation         Abs/.1mm         *ASTM D7415 >30         22.1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         17.9				>20			
Nitration         Abs/cm         *ASTM D7624         >20         8.7             Sulfation         Abs/.1mm         *ASTM D7415         >30         22.1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         17.9	Soot %	%	*ASTM D7844	>3	0.4		
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 17.9	Nitration	Abs/cm	*ASTM D7624	>20	8.7		
Oxidation	Sulfation	Abs/.1mm		>30	22.1		
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9		
	Base Number (BN)						



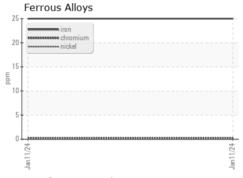
# **OIL ANALYSIS REPORT**



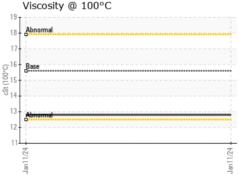
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual		NEG		

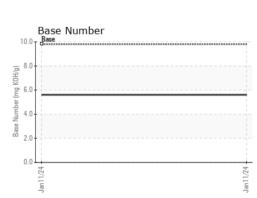
FLUID PROPE	RHES	method	limit/base		history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	12.8		

## **GRAPHS**



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8 1	mananan lead								
6+									
4									
2									
0 1	***************************************	***********	**********	 ******	*****	****	*****	******	***
Jan11/24									









Certificate L2367

Laboratory Sample No.

Lab Number : 06086961 Unique Number : 10874406

: PCA0112127 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 13 Feb 2024 **Tested** 

: 13 Feb 2024 Diagnosed : 13 Feb 2024 - Wes Davis **VOYAGER TRUCKING CORP** 

451 FRELINGHUYSEN AVENUE NEWARK, NJ US 07114

Contact: DAVID LOPEZ david@voyagertrucking.com

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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F: