**WEAR CONTAMINATION FLUID CONDITION**  **NORMAL NORMAL NORMAL** 

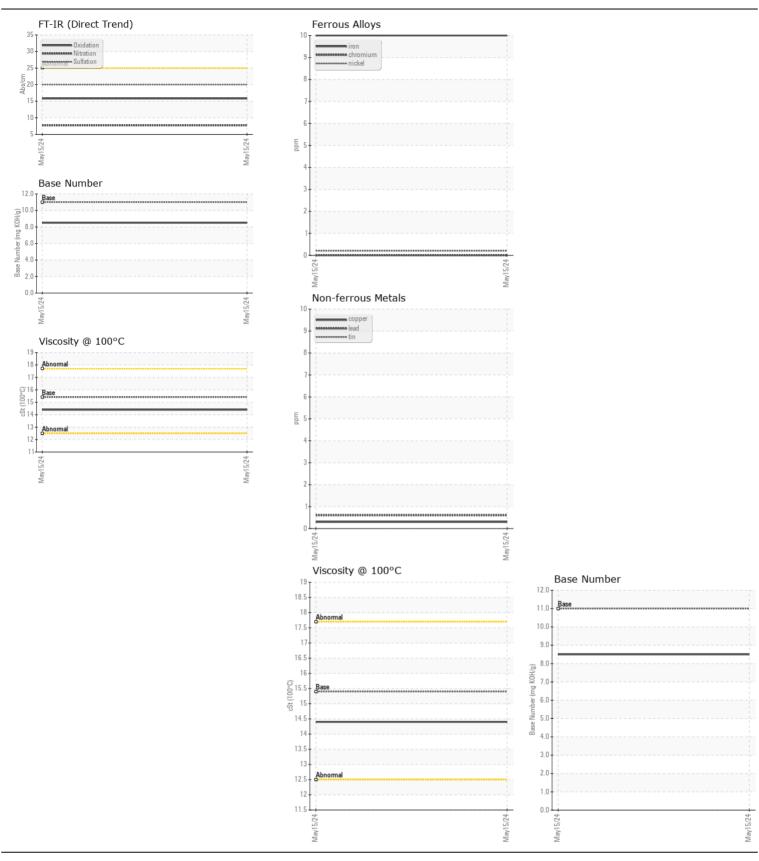
Machine Id

## **PETERBILT 496504**

Diesel Engine

CITGO CITGUARD 600 15W40 (48 QTS)

Test	CITGO CITGUARD 600 15W40 (48 QTS)					.,		
Resample at the next service interval to monitor.	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Cate   Clear thrid		Sample Number		Client Info		RPL0004343		
Machine Age   Client Info   Client Info   18076		Sample Date		Client Info		15 May 2024		
Filter Age		Machine Age	mls	Client Info				
Oil Changed   Client Info   Not Changed   Filter Changed   Sample Status   Not Changed   Not Chang		Oil Age	mls	Client Info		18076		
Filter Changed   Sample Status		Filter Age	mls	Client Info		18076		
Normal   N		Oil Changed		Client Info		Not Changd		
Normal   N		Filter Changed		Client Info		Not Changd		
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   20   0         Titanium   ppm   ASTM D5185m   20   0         Titanium   ppm   ASTM D5185m   0           Aluminum   ppm   ASTM D5185m   20   4           Aluminum   ppm   ASTM D5185m   20   4         Aluminum   ppm   ASTM D5185m   20   4         Lead   ppm   ASTM D5185m   20   4         Lead   ppm   ASTM D5185m   330   4           Copper   ppm   ASTM D5185m   330   4           Vanadium   ppm   ASTM D5185m   15   4         Vanadium   ppm   ASTM D5185m   15   4           Vanadium   ppm   ASTM D5185m   15   4           Vanadium   ppm   ASTM D5185m   15   4         Valuer   Visual   NONE   NONE         Valuer   Visual   NONE   NONE         Valuer   WC Method   5   4   0         Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0		_				-		
All component wear rates are normal.    Chromium   ppm   ASTM D5185m   20   0         Titanium   ppm   ASTM D5185m   20   0         Titanium   ppm   ASTM D5185m   0           Aluminum   ppm   ASTM D5185m   20   4           Aluminum   ppm   ASTM D5185m   20   4         Aluminum   ppm   ASTM D5185m   20   4         Lead   ppm   ASTM D5185m   20   4         Lead   ppm   ASTM D5185m   330   4           Copper   ppm   ASTM D5185m   330   4           Vanadium   ppm   ASTM D5185m   15   4         Vanadium   ppm   ASTM D5185m   15   4           Vanadium   ppm   ASTM D5185m   15   4           Vanadium   ppm   ASTM D5185m   15   4         Valuer   Visual   NONE   NONE         Valuer   Visual   NONE   NONE         Valuer   WC Method   5   4   0         Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0   0       Valuer   WC Method   5   0   0	WEAR	Iron	nnm	ASTM D5185m	~100	10		
Nickel   ppm   ASTM DSI85m   >4   <1       Titanium   ppm   ASTM DSI85m   >3   <1       Aluminum   ppm   ASTM DSI85m   >3   <1       Aluminum   ppm   ASTM DSI85m   >20   4       Lead   ppm   ASTM DSI85m   >40   <1       Copper   ppm   ASTM DSI85m   >30   <1       Vanadium   ppm   ASTM DSI85m   >40   <1       Copper   ppm   ASTM DSI85m   >30   <1       Vanadium   ppm   ASTM DSI85m   >40   <1       Vanadium   ppm   ASTM DSI85m   >30   <1       Vanadium   ppm   ASTM DSI85m   >20   <1       Vanadium   ppm   ASTM DSI85m   >25   7       Vanadium   ppm   ASTM DSI85m   >25   7       There is no indication of any contamination in the oil.      CONTAMINATION   Potassium   ppm   ASTM DSI85m   >25   7       Fuel   WC Method   50   2   NEG       Water   WC Method   50   2   NEG       Glycol   WC Method   50   2   NEG       Glycol   WC Method   50   2   NEG       Sulfation   ABs/sim   "ASTM D784   >3   0.2       Nitration   ABs/sim   "ASTM D784   >3   0.2       Sulfation   ABs/sim   "ASTM D784   >3   0.2       Debris   Scalar   "Visual   NONE   NONE       Debris   Scalar   "Visual   NONE       NONE   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       NONE         Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE       Debris   Scalar   "Visual   NONE	WEAN							
Nicket	All component wear rates are normal.							
Silver					>4			
Aluminum   ppm   ASTM D5185m   >20   4					0			
Lead								
Copper   ppm   ASTM D5185m   >330   <1         Tin   ppm   ASTM D5185m   >15   <1       Vanadium   ppm   ASTM D5185m   >15   <1       White Metal   scalar   Visual   NONE   NONE   NONE       Visual   NONE								
Tin								
Vanadium   ppm   ASTM D5185m   <1								
White Metal   Scalar   *Visual   NONE   NO					>15			
Vellow Metal   Scalar   Visual   NONE   NONE								
Silicon   ppm   ASTM D5185m   >25   7								
Potassium   ppm   ASTM D5185m   2-20   5		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium   ppm   ASTM D5185m   2-20   5	CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	7		
Water		Potassium	ppm	ASTM D5185m	>20	5		
Glycol   Soot % %		Fuel				<1.0		
Soot %		Water		WC Method	>0.2	NEG		
Soot %		Glycol		WC Method		NEG		
Sulfation   Abs/.tmm   *ASTM D71415   >30   20.0		Soot %	%	*ASTM D7844	>3	0.2		
Silt   Scalar   *Visual   NONE   NORML   NORML		Nitration	Abs/cm	*ASTM D7624	>20	7.7		
Debris   Scalar   *Visual   NONE   NORML   N		Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0		
Sand/Dirt   Scalar   *Visual   NONE   NONE   NORML		Silt	scalar	*Visual	NONE			
Sand/Dirt   Scalar   *Visual   NONE   NONE   NORML		Debris	scalar	*Visual	NONE	NONE		
Codor   Emulsified Water   Scalar   *Visual   NORML   NORML		Sand/Dirt	scalar		NONE	NONE		
Codor   Emulsified Water   Scalar   *Visual   NORML   NORML		Appearance	scalar	*Visual	NORML	NORML		
Emulsified Water   scalar   *Visual   >0.2   NEG		Odor	scalar	*Visual	NORML	NORML		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   0   0   0   0   0   0   0   0   0		<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   0   0   0   0   0   0   0   0   0	EL LUD CONDITION	0 "		AOTM DE LOS				
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   0   0         Molybdenum   ppm   ASTM D5185m   57   59         Magnesium   ppm   ASTM D5185m   825   452         Calcium   ppm   ASTM D5185m   1100   1752         Phosphorus   ppm   ASTM D5185m   1089   1280         Sulfur   ppm   ASTM D5185m   2769   3706         Oxidation   Abs/.1mm   *ASTM D7414   >25   15.8         Base Number (BN)   mg KOH/g   ASTM D2896   11.0   8.5	PLUID CONDITION				10			
oil. The condition of the oil is suitable for further service.    Molybdenum   ppm   ASTM D5185m   57   59         Manganese   ppm   ASTM D5185m   41         Magnesium   ppm   ASTM D5185m   1100   1752         Calcium   ppm   ASTM D5185m   1100   1752         Phosphorus   ppm   ASTM D5185m   1089   1280         Zinc   ppm   ASTM D5185m   2769   3706         Sulfur   ppm   ASTM D5185m   2769   3706         Oxidation   Abs/.1mm   *ASTM D7414   >25   15.8         Base Number (BN)   mg KOH/g   ASTM D2896   11.0   8.5	The BN result indicates that there is suitable alkalinity remaining in the							
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         825         452             Calcium         ppm         ASTM D5185m         1100         1752             Phosphorus         ppm         ASTM D5185m         933         1051             Zinc         ppm         ASTM D5185m         1089         1280             Sulfur         ppm         ASTM D5185m         2769         3706             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5								
Magnesium         ppm         ASTM D5185m         825         452             Calcium         ppm         ASTM D5185m         1100         1752             Phosphorus         ppm         ASTM D5185m         933         1051             Zinc         ppm         ASTM D5185m         1089         1280             Sulfur         ppm         ASTM D5185m         2769         3706             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5		-			5/			
Calcium         ppm         ASTM D5185m         1100         1752             Phosphorus         ppm         ASTM D5185m         933         1051             Zinc         ppm         ASTM D5185m         1089         1280             Sulfur         ppm         ASTM D5185m         2769         3706             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5					007			
Phosphorus         ppm         ASTM D5185m         933         1051             Zinc         ppm         ASTM D5185m         1089         1280             Sulfur         ppm         ASTM D5185m         2769         3706             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5		•						
Zinc         ppm         ASTM D5185m         1089         1280             Sulfur         ppm         ASTM D5185m         2769         3706             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5								
Sulfur         ppm         ASTM D5185m         2769         3706             Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5		·						
Oxidation         Abs/.1mm         *ASTM D7414         >25         15.8             Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5								
Base Number (BN)         mg KOH/g         ASTM D2896         11.0         8.5								
Visc @ 100°C cSt ASTM D445 15.4 14.4								
		Visc @ 100°C	cSt	ASTM D445	15.4	14.4		







Certificate L2367

Laboratory

Sample No.

: RPL0004343 Lab Number : 06193411 Unique Number : 11050163 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 May 2024 **Tested** : 30 May 2024

Diagnosed : 30 May 2024 - Wes Davis 8109 East Adamo Drive

Contact: Michael Reid REIDM@RushEnterprises.com T: (813)371-2130

RTL PACLEASE - 7025 - Tampa

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) Tampa, FL

US 33619