WEAR
CONTAMINATION
FLUID CONDITION

NORMAL NORMAL ABNORMAL

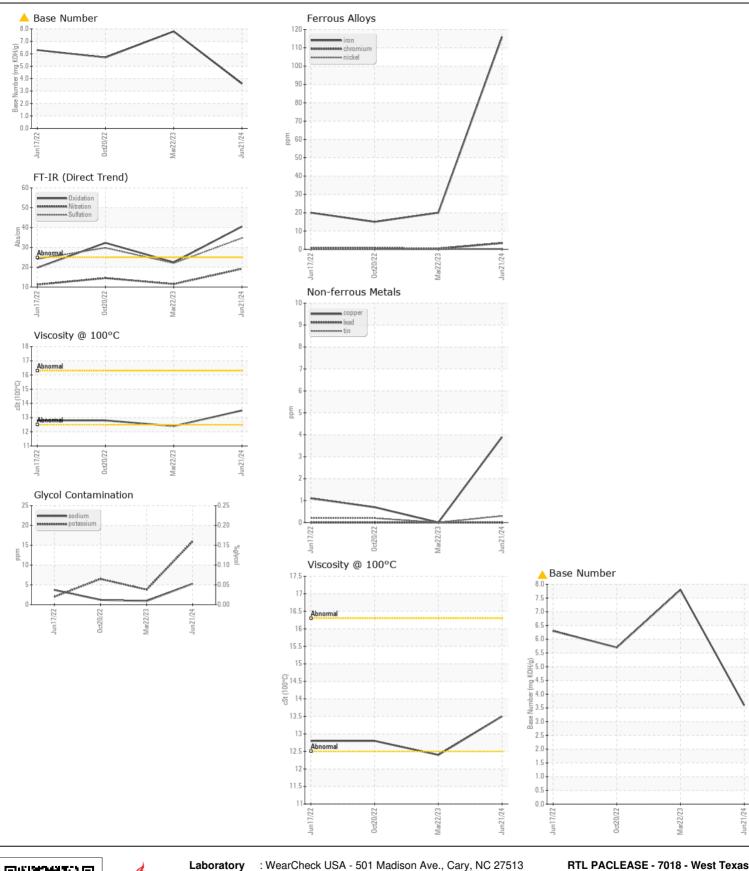
Machine Id

PETERBILT 459489

Component

Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		RPL0011801	RPL0003920	RPL0003796
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		21 Jun 2024	22 Mar 2023	20 Oct 202
	Machine Age	mls	Client Info		118856	86251	71549
	Oil Age	mls	Client Info		14858	14702	9876
	Filter Age	mls	Client Info		14858	14702	9876
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ABNORMAL	ATTENTION	NORMAL
VEAR	Iron	ppm	ASTM D5185m	\165	116	20	15
WLAN	Chromium	ppm	ASTM D5185m		3	<1	<1
All component wear rates are normal.	Nickel	ppm		>4	<1	0	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver		ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m		19	5	4
	Lead		ASTM D5185m		0	0	0
	Copper	ppm	ASTM D5185m		4	0	<1
	Tin	ppm	ASTM D5185m		<1	0	<1
	Vanadium	ppm	ASTM D5185m	/5	0	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
			v 100aa1				
CONTAMINATION	Silicon	ppm	ASTM D5185m	>35	21	10	8
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	16	4	6
	Fuel		WC Method	>3.0	<1.0	<u> </u>	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol	%	*ASTM D2982		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>7.5	1.5	0.4	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	19.2	11.5	14.5
	Sulfation	Abs/.1mm	*ASTM D7415		34.7	22.0	29.8
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
<u></u>	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>118	5	<1	1
The BN level is low. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		22	35	35
	Barium	ppm	ASTM D5185m		0	0	<1
	Molybdenum	ppm	ASTM D5185m		118	50	49
	Manganese	ppm	ASTM D5185m		2	<1	<1
	Magnesium	ppm	ASTM D5185m		712	537	568
	Calcium	ppm	ASTM D5185m		1371	1512	1495
	Phosphorus	ppm	ASTM D5185m		792	696	758
	Zinc	ppm	ASTM D5185m		948	923	933
	Sulfur	ppm	ASTM D5185m		3240	2517	2675
	Oxidation	Abs/.1mm	*ASTM D7414	>25	40.5	22.5	32.3
	Base Number (BN) Visc @ 100°C	mg KOH/g cSt	ASTM D2896 ASTM D445		▲ 3.6 13.5	7.8 12.4	5.7 12.8







Certificate L2367

Laboratory Sample No.

: RPL0011801 Lab Number : 06220643

Unique Number : 11098840

Received **Tested**

Diagnosed Test Package: FLEET (Additional Tests: Glycol)

: 26 Jun 2024 : 27 Jun 2024

: 27 Jun 2024 - Jonathan Hester

RTL PACLEASE - 7018 - West Texas 1230 South Grandview

Odessa, TX US 79761

Contact: David Johnson JohnsonD@RushEnterprises.com T: (512)401-7063

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)