

# **OIL ANALYSIS REPORT**

Sample Rating Trend



KENWORTH 93362 - TIGER LINES

Component

**Diesel Engine** 

**CASTROL 15W40 (--- QTS)** 

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

## **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.

RLINES						
SAMPLE INFO	RMATION	√ method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0118166		
Sample Date		Client Info		08 Feb 2024		
Machine Age	mls	Client Info		516586		
Oil Age	mls	Client Info		25776		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINA	TION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR META	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	17		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	1		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		51		
Rarium	nnm	ΔSTM D5185m		n		

Gaaman	ррпп	/IOTIVI DOTOOIII		· ·		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		51		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		64		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		1086		
Calcium	ppm	ASTM D5185m		988		
Phosphorus	ppm	ASTM D5185m		1068		
Zinc	ppm	ASTM D5185m		1283		
Sulfur	ppm	ASTM D5185m		3160		
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	10		

Sodium	ppm	ASTM D5185m	>406	2		
Potassium	ppm	ASTM D5185m	>20	1		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4		
Nitration	Abs/cm	*ASTM D7624	>20	10.9		
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2		

Canadion	7100/.1111111	NOTWI D7 410	<b>&gt;00</b>		
FLUID DEGRAD	ATION	method			history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	 
Base Number (BN)	mg KOH/g	ASTM D2896		10.40	 

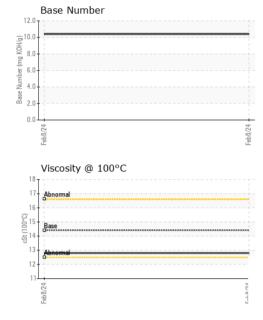


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ASTM D445 14.4

Visc @ 100°C



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	RTIES	method	limit/base	current	history1	history2

12.8

GRAPHS		
Iron (ppm)	Lead (ppm)	
Severe	80 Severe	
Abnormal	E 60	
Abnormal	40 Abnormal	
	20	
Feb8/24	Feb 8/24 + -	
Feb	Feb.	
Aluminum (ppm)	Chromium (ppm)	
Severe	40 Severe	
Abnormal	= 30 −	
Abnormal	abnormal 20	
	10	
Feb8/24 -	Feb 8/24 +	
- Ee	-de-	
Copper (ppm)	Silicon (ppm)	
Severe Abnormal	80 T Severe	
	E 40	
	Abnormal	
	20	
Feb 8/24	Feb 8/24	
Feb	Feb.	
Viscosity @ 100°C	Base Number	
Abnormal	(B) 10.0	
Base	¥ 8.0	
Abnomal	B 80 0.8.0 0.0 6.0 4.0 2.0	
	2.0	
Feb 8/24	Feb 8/24	
9	9 9	



Laboratory

Sample No. : PCA0118166 Lab Number : 06107641 Unique Number : 10911138 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 04 Mar 2024

Tested : 05 Mar 2024 Diagnosed : 05 Mar 2024 - Wes Davis

**VALLEY PACIFIC PETROLEUM SERVICES** 

152 FRANK WEST CIRCLE STOCKTON, CA US 95206

Contact: KATIE STONE KATIE.STONE@VPPS.NET

Certificate L2367 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)

T:

F: