



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

[20833]

Machine Id

KENWORTH TLL 33

Component

Diesel Engine

Fluid

VALVOLINE PREMIUM BLUE (48 LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC06237334	WC06047325	WC05892617
Sample Date		Client Info		27 May 2024	06 Dec 2023	23 May 2023
Machine Age	kms	Client Info		840799	779153	717257
Oil Age	kms	Client Info		61646	61896	56047
Filter Age	kms	Client Info		61646	61896	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	14	18	16
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	6
Lead	ppm	ASTM D5185m	>40	2	2	<1
Copper	ppm	ASTM D5185m	>330	4	1	1
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

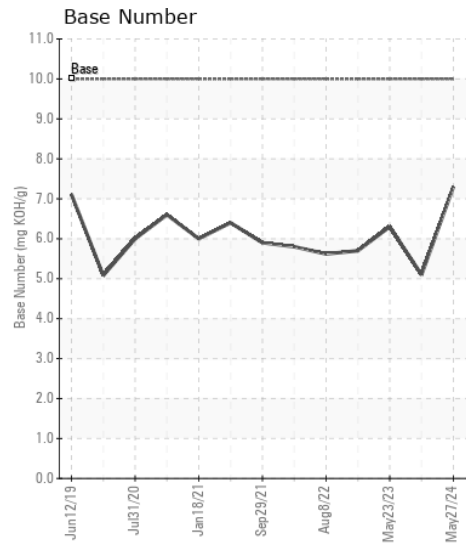
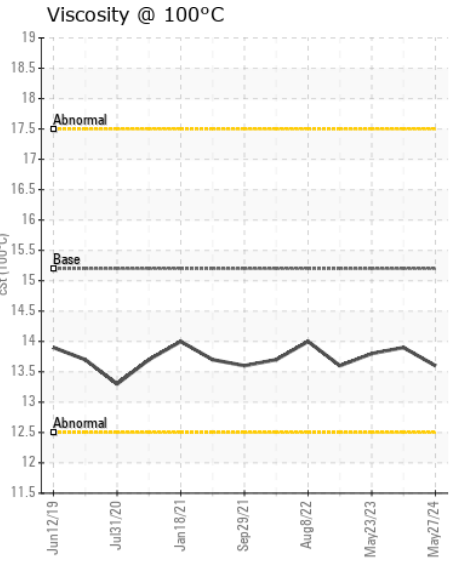
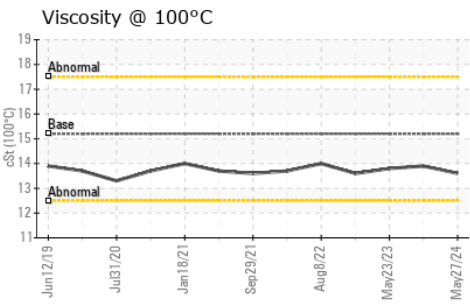
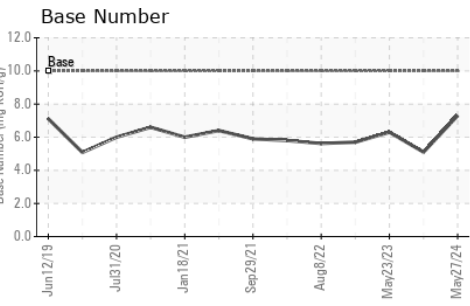
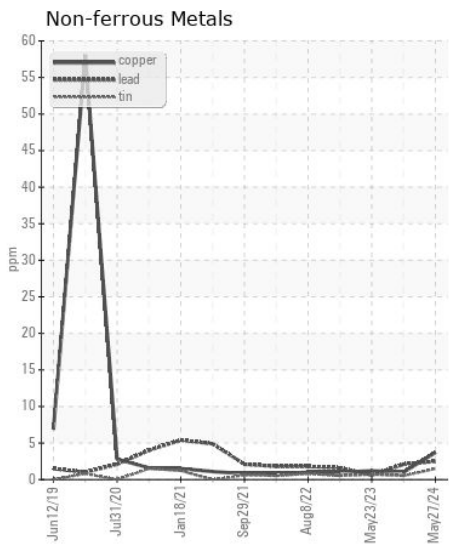
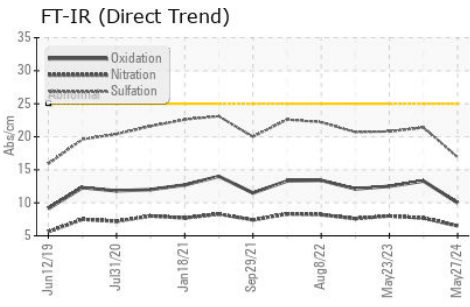
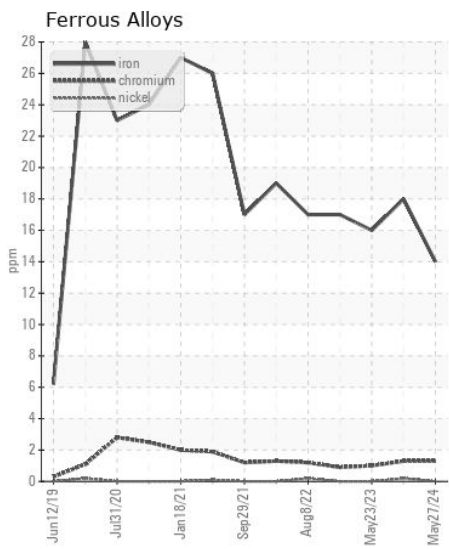
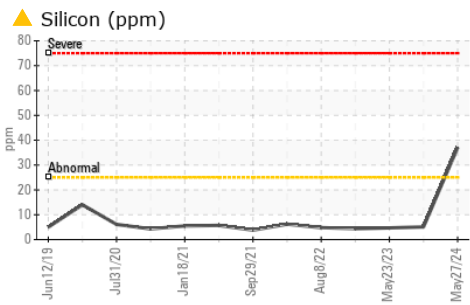
Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>25	▲ 37	5	5
Potassium	ppm	ASTM D5185m	>20	1	8	10
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.2	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.5	7.7	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.9	21.4	20.8
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	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		11	<1	2
Boron	ppm	ASTM D5185m	2.9	0	3	8
Barium	ppm	ASTM D5185m	0.1	2	10	0
Molybdenum	ppm	ASTM D5185m	0.0	0	3	5
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	18	39	19	38
Calcium	ppm	ASTM D5185m	2936	2417	2562	2579
Phosphorus	ppm	ASTM D5185m	998	953	907	979
Zinc	ppm	ASTM D5185m	1095	1086	1165	1207
Sulfur	ppm	ASTM D5185m	5469	4317	3568	4457
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.0	13.3	12.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	7.3	5.1	6.3
Visc @ 100°C	cSt	ASTM D445	15.2	13.6	13.9	13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06237334
Lab Number : 06237334
Unique Number : 11126168
Test Package : FLEET
Received : 15 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 17 Jul 2024 - Don Baldridge

TRANZLIQUID
 81 HEWLETTS RD
 MOUNT MAUNGANUI, ZZ
 NZ
 Contact: AARON LOYE
 aaron@truckline.co.nz
 T:
 F:

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)