



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
KENWORTH R10
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (40 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001946	LP0001333	LP0001110
Sample Date		Client Info		26 Jun 2024	09 Jan 2024	16 Oct 2023
Machine Age	hrs	Client Info		10144	8989	8536
Oil Age	hrs	Client Info		503	450	433
Filter Age	hrs	Client Info		503	450	433
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	14	10
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

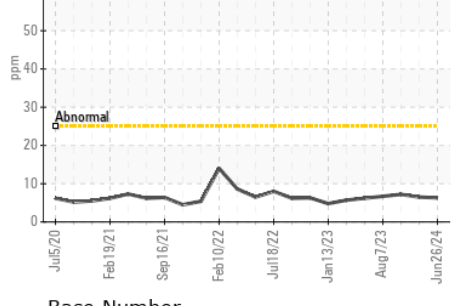
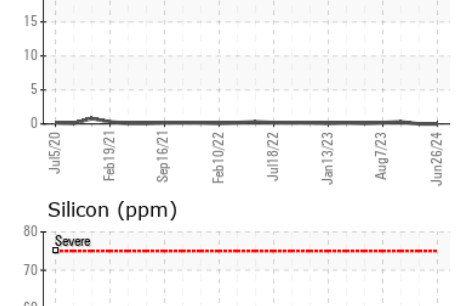
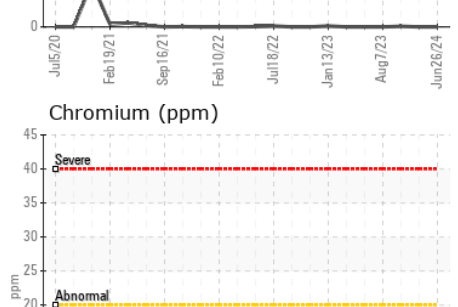
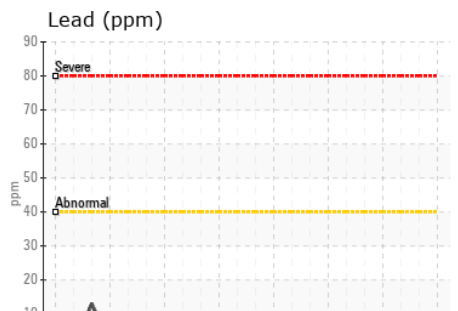
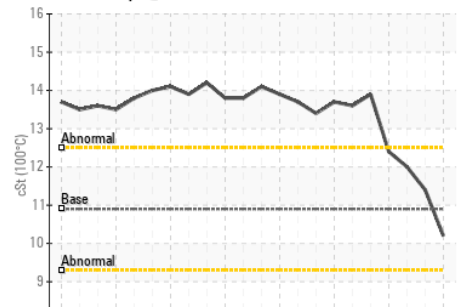
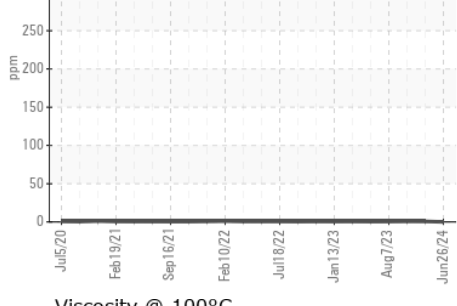
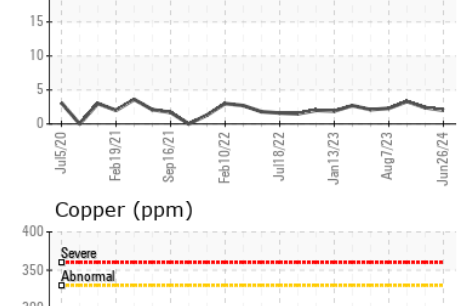
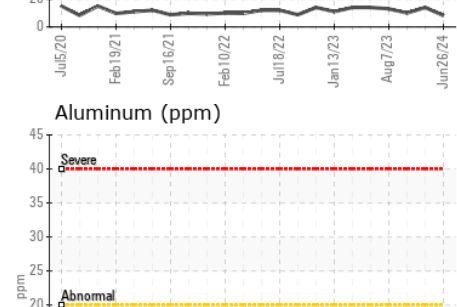
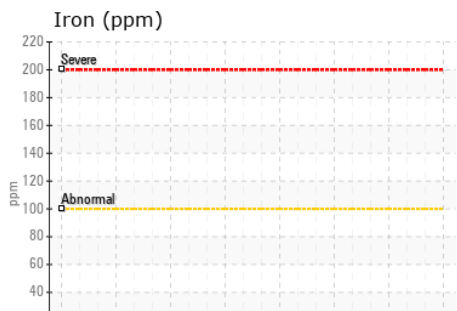
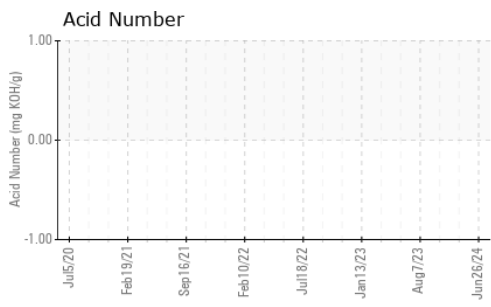
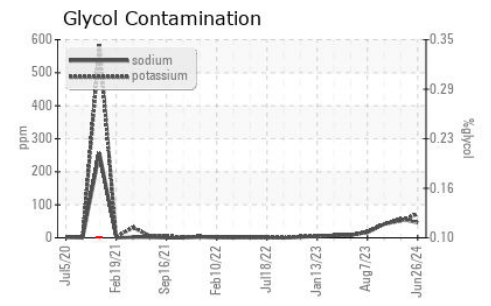
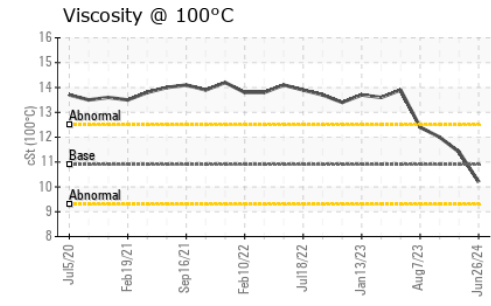
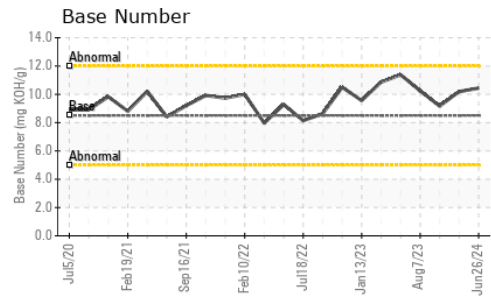
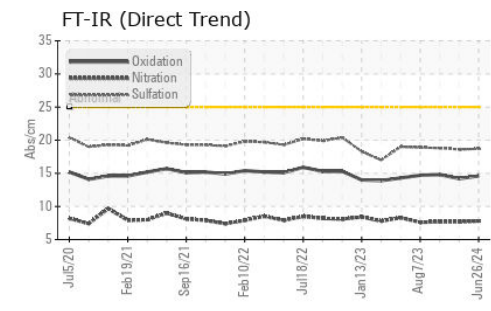
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>25	6	6	7
Potassium	ppm	ASTM D5185m	>20	72	52	42
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.8	7.7	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	18.6	18.8
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 acceptable for the time in service.

Sodium	ppm	ASTM D5185m		46	57	42
Boron	ppm	ASTM D5185m	250	5	6	1
Barium	ppm	ASTM D5185m	10	0	0	10
Molybdenum	ppm	ASTM D5185m	100	68	66	75
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	450	965	987	1061
Calcium	ppm	ASTM D5185m	3000	1144	1068	1177
Phosphorus	ppm	ASTM D5185m	1150	1080	1044	1232
Zinc	ppm	ASTM D5185m	1350	1300	1251	1426
Sulfur	ppm	ASTM D5185m	4250	3731	3403	4116
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	14.2	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.44	10.19	9.17
Visc @ 100°C	cSt	ASTM D445	10.9	10.2	11.4	12.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001946
Lab Number : 06226453
Unique Number : 11109946
Test Package : MOB 2 (Additional Tests: Glycol, KV40, TAN Man)

Received : 02 Jul 2024
Tested : 05 Jul 2024
Diagnosed : 05 Jul 2024 - Jonathan Hester

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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)