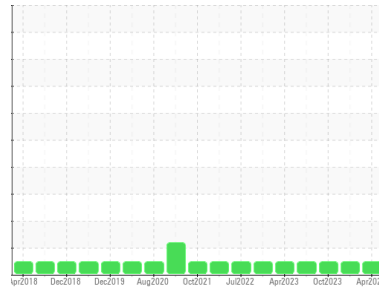




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
KENWORTH 3942
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL 10W40 (40 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0906896	WC0863252	WC0663165
Sample Date	Client Info			06 Apr 2024	20 Dec 2023	09 Oct 2023
Machine Age	mls	Client Info		373572	351488	336809
Oil Age	mls	Client Info		351487	274055	26704
Oil Changed	Client Info			Not Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	19	46	37
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	6	14	14
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	5	3	7
Tin	ppm	ASTM D5185m	>15	<1	2	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	22	20	25
Barium	ppm	ASTM D5185m	10	0	0	3
Molybdenum	ppm	ASTM D5185m	100	8	4	4
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	798	846	702
Calcium	ppm	ASTM D5185m	3000	1435	1512	1339
Phosphorus	ppm	ASTM D5185m	1150	791	779	664
Zinc	ppm	ASTM D5185m	1350	887	907	755
Sulfur	ppm	ASTM D5185m	4250	3644	3154	2619

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	9	10
Sodium	ppm	ASTM D5185m		64	19	18
Potassium	ppm	ASTM D5185m	>20	11	23	24
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0

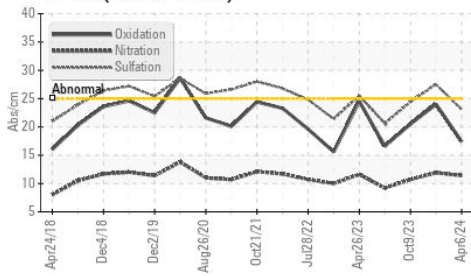
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	11.4	11.9	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	27.5	24.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	24.0	20.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.8	4.7	5.0

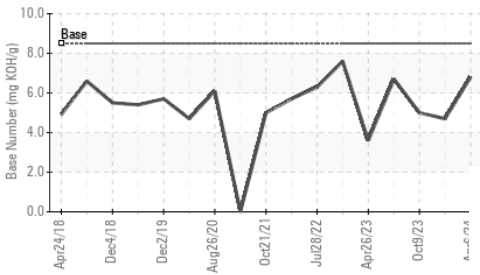


OIL ANALYSIS REPORT

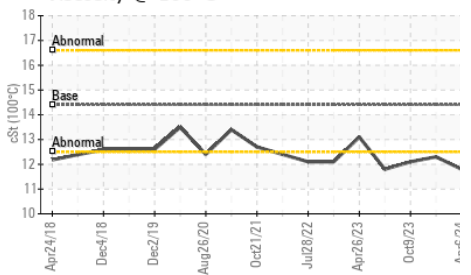
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

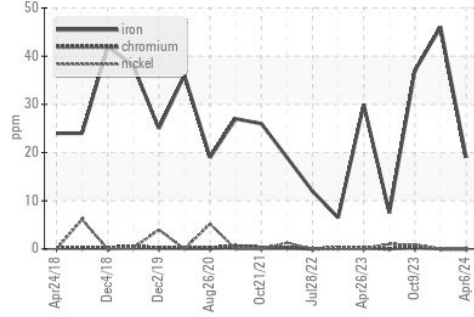


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

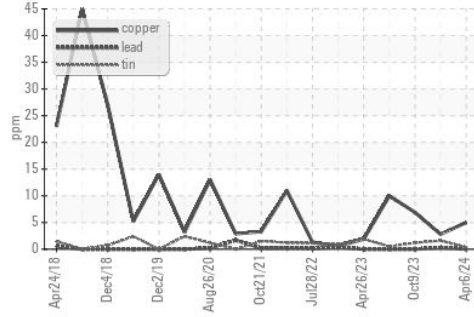
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	11.8	12.3

GRAPHS

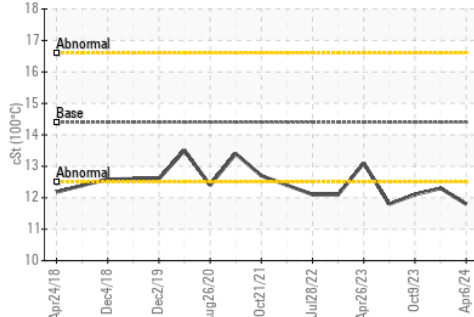
Ferrous Alloys



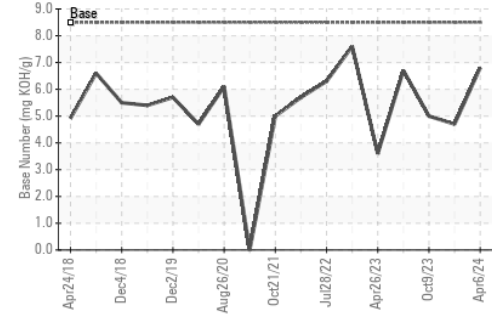
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0906896 **Received** : 11 Apr 2024
Lab Number : 06146498 **Tested** : 15 Apr 2024
Unique Number : 10976576 **Diagnosed** : 15 Apr 2024 - Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution)

LTI/MILKY WAY - SUNNYSIDE
 333 MIDVALE RD
 SUNNYSIDE, WA
 US 98944
 Contact: Barbara Kluever
 bkluever@lynden.com
 T: (509)839-5844
 F: (509)839-6556

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)