OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
KENWORTH 3948
Component
Diesel Engine
Fluid
CHEVRON DELO 400 XLE 10W30 (44 QTS)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

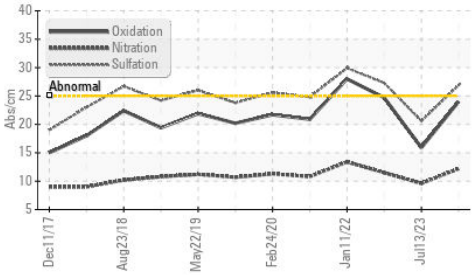
Sodium and/or potassium levels are high.

FLUID CONDITION

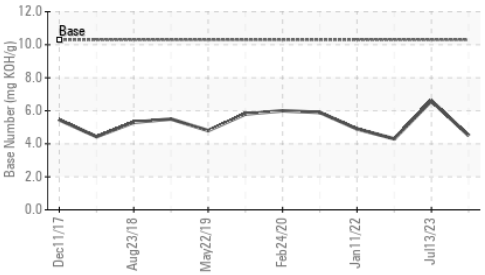
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0909935	WC0754173	WC0487048
Sample Date		Client Info		26 Mar 2024	13 Jul 2023	29 Sep 2022
Machine Age	mls	Client Info		385330	339868	292382
Oil Age	mls	Client Info		45422	47486	45722
Filter Age	mls	Client Info		45422	47486	45722
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	30	5	43
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	10	5	13
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	16	3	20
Tin	ppm	ASTM D5185m	>15	2	<1	2
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	11	6	16
Potassium	ppm	ASTM D5185m	>20	▲ 22	6	9
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	0.5	0.3	0.7
Nitration	Abs/cm	*ASTM D7624	>20	12.2	9.6	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.9	20.6	27.3
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
Sodium	ppm	ASTM D5185m		▲ 353	2	35
Boron	ppm	ASTM D5185m		12	35	20
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		47	1	6
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m		788	755	739
Calcium	ppm	ASTM D5185m	2900	1468	1342	1491
Phosphorus	ppm	ASTM D5185m	1100	785	723	725
Zinc	ppm	ASTM D5185m	1200	869	842	879
Sulfur	ppm	ASTM D5185m	4000	3371	2981	3334
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.0	15.9	24.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.3	4.5	6.6	4.3
Visc @ 100°C	cSt	ASTM D445	11.9	12.0	13.5	12.4

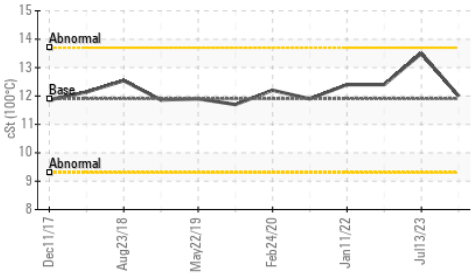
FT-IR (Direct Trend)



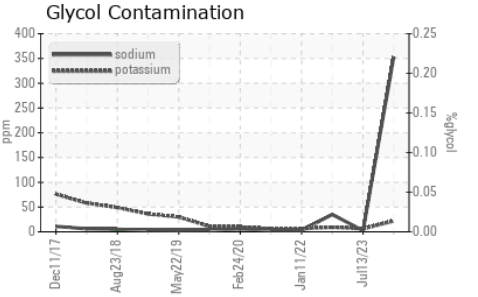
Base Number



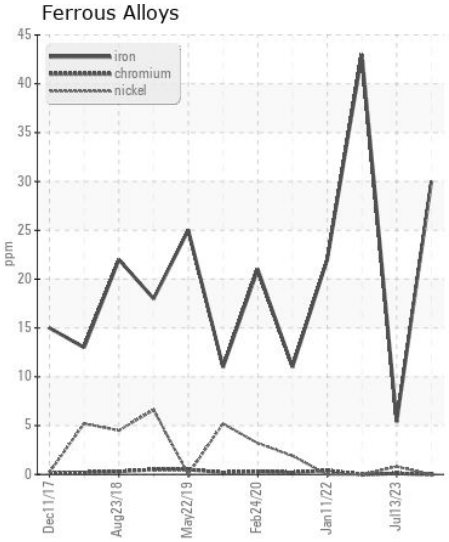
Viscosity @ 100°C



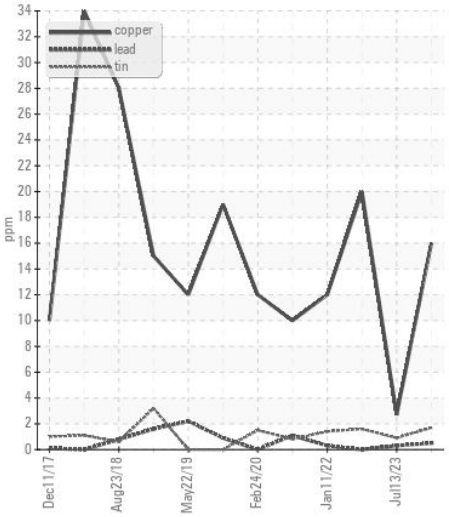
Glycol Contamination



Ferrous Alloys



Non-ferrous Metals



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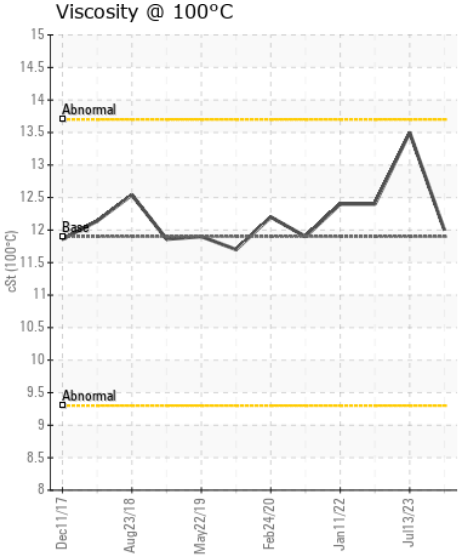

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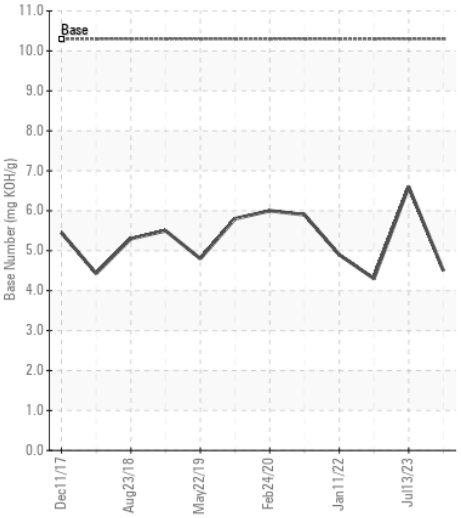

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0909935
Lab Number : 06187148
Unique Number : 11043900
Test Package : FLEET (Additional Tests: Glycol)

Received : 21 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Jonathan Hester

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)

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