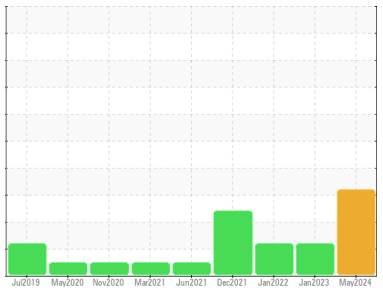
OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
KENWORTH T880 T-858 (S/N 1XKZD40X5KJ371026)
Component
Diesel Engine
Fluid
DURALENE Dura-Max 15W40 (44 QTS)

DIAGNOSIS

Recommendation
Check for low coolant level. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

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

Fluid Condition
The BN level is low.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0934759**	WC0693416	WC0546600
Sample Date		Client Info		**23 May 2024**	25 Jan 2023	26 Jan 2022
Machine Age	mls	Client Info		**358027**	308361	226131
Oil Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Not Changd
Sample Status				**ABNORMAL**	ATTENTION	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	▲ **132**	42	17
Chromium	ppm	ASTM D5185m	>20	**6**	1	<1
Nickel	ppm	ASTM D5185m	>2	**<1**	<1	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	0	<1
Silver	ppm	ASTM D5185m	>2	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**15**	8	4
Lead	ppm	ASTM D5185m	>40	**14**	14	3
Copper	ppm	ASTM D5185m	>330	**6**	8	2
Tin	ppm	ASTM D5185m	>15	**2**	2	<1
Antimony	ppm	ASTM D5185m		**---**	---	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**3**	<1	130
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**8**	17	138
Manganese	ppm	ASTM D5185m		**2**	<1	<1
Magnesium	ppm	ASTM D5185m		**61**	54	48
Calcium	ppm	ASTM D5185m		**2401**	2479	2426
Phosphorus	ppm	ASTM D5185m		**918**	860	1001
Zinc	ppm	ASTM D5185m		**1135**	1129	1126
Sulfur	ppm	ASTM D5185m		**4107**	4138	3525

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**11**	8	16
Sodium	ppm	ASTM D5185m		● **144**	● 289	▲ 1376
Potassium	ppm	ASTM D5185m	>20	**9**	8	14
Glycol	%	*ASTM D2982		**NEG**	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**1.1**	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**15.8**	12.2	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**35.9**	30.7	22.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**35.1**	22.1	11.6
Base Number (BN)	mg KOH/g	ASTM D2896		▲ **2.8**	4.6	10.0

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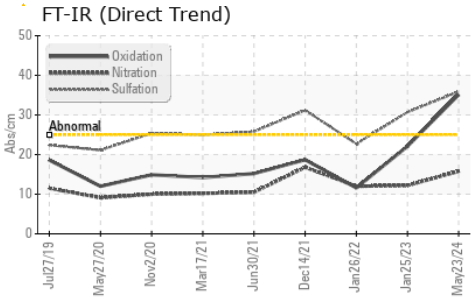
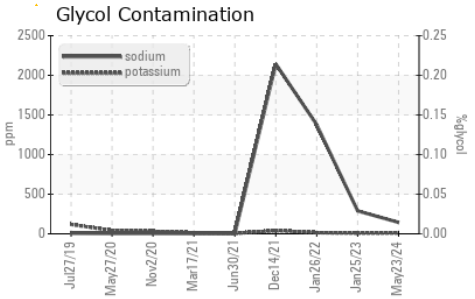
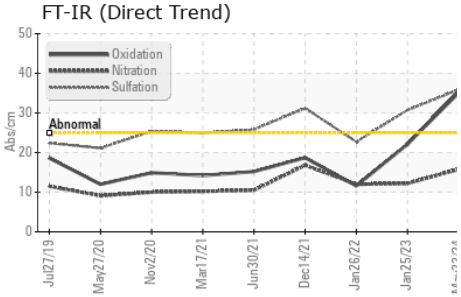
FT-IR (Direct Trend)



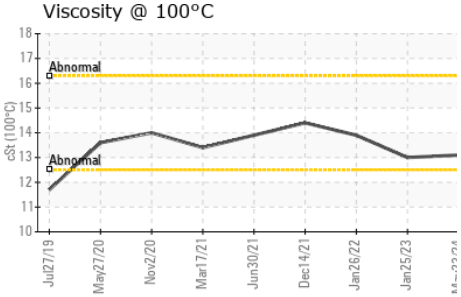
Glycol Contamination



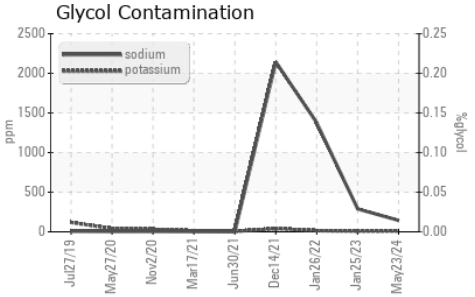
FT-IR (Direct Trend)



Viscosity @ 100°C



Glycol Contamination

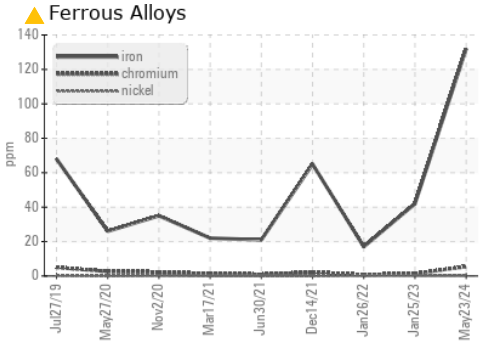


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

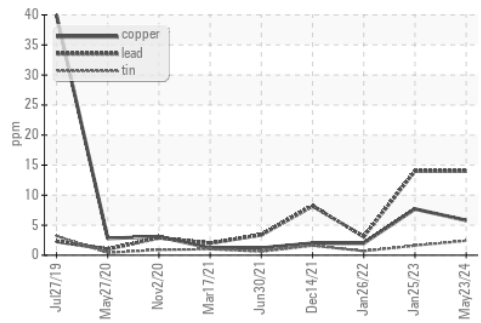
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		**13.1**	13.0	13.9

GRAPHS

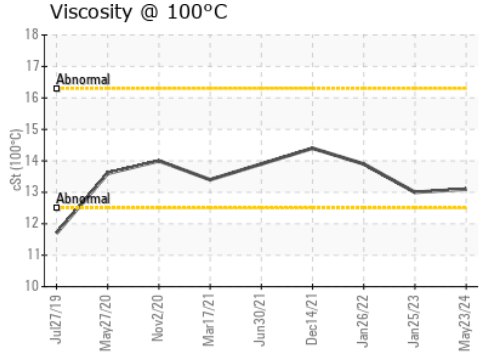
Ferrous Alloys



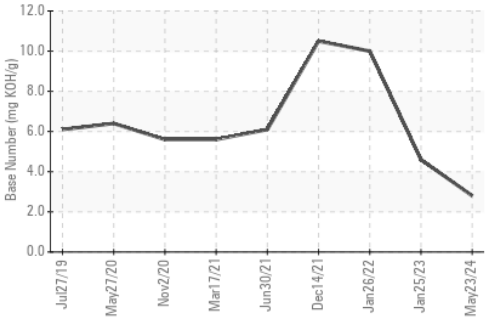
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0934759
Lab Number : 06217486
Unique Number : 11090350
Test Package : CONST (Additional Tests: Glycol, TBN)

Received : 21 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Sean Felton

EAI EQUIPMENT A DIIV OF PLEASANT CONSTRUCTION INC
24024 FREDERICK ROAD
CLARKSBURG, MD
US 20871
Contact: Service Manager

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)

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