



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

P
Machine Id
KENWORTH 2978

Component
Diesel Engine

Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (18 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0844198	WC0707369	WC0707301
Sample Date		Client Info		27 Nov 2023	14 Feb 2023	11 May 2022
Machine Age	mls	Client Info		40695	2013	1402
Oil Age	mls	Client Info		10000	0	450
Filter Age	mls	Client Info		10000	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	40	32	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	15	15	8
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	6	5	4
Tin	ppm	ASTM D5185m	>15	<1	<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

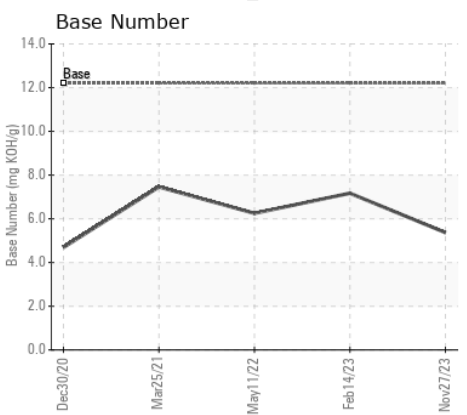
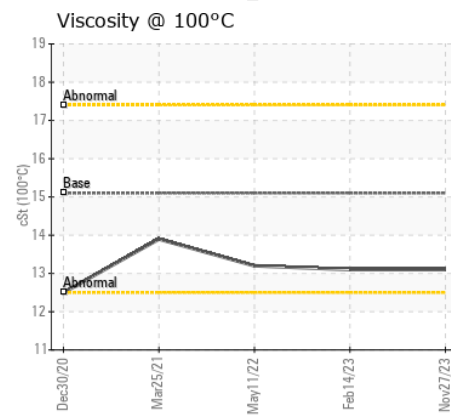
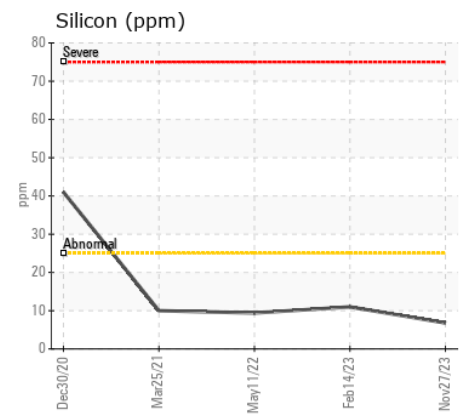
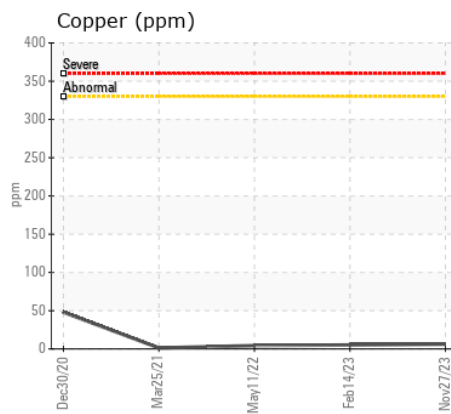
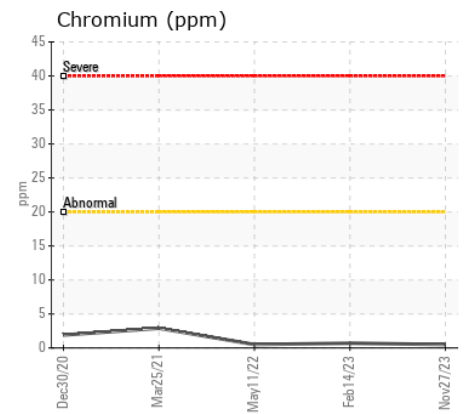
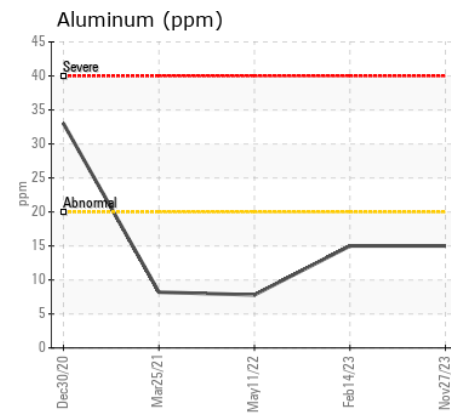
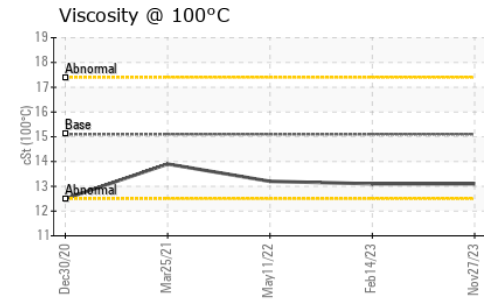
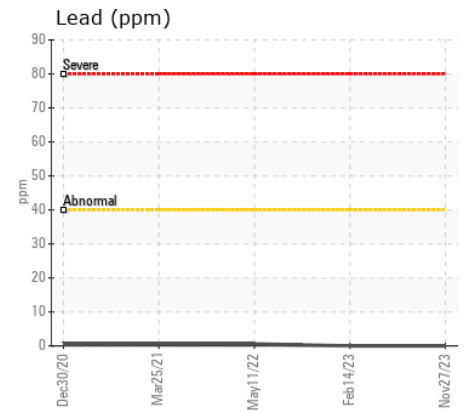
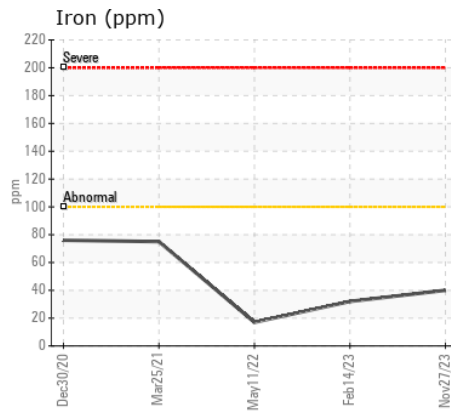
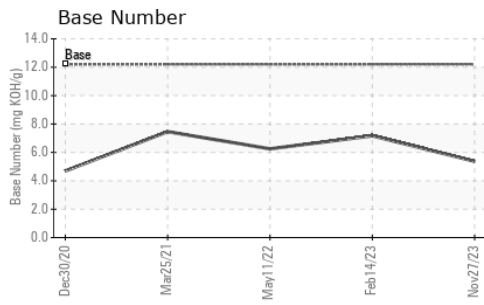
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	11	9
Potassium	ppm	ASTM D5185m	>20	20	20	9
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.5	10.5	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.5	22.7	19.8
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		0	4	2
Boron	ppm	ASTM D5185m		29	39	72
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		2	3	2
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		755	708	686
Calcium	ppm	ASTM D5185m		1331	1420	1443
Phosphorus	ppm	ASTM D5185m	1360	655	672	670
Zinc	ppm	ASTM D5185m	1480	875	826	798
Sulfur	ppm	ASTM D5185m		2667	3428	2917
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.2	17.1	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	5.37	7.17	6.25
Visc @ 100°C	cSt	ASTM D445	15.1	13.1	13.1	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0844198
Lab Number : 06077814
Unique Number : 10859905
Test Package : MOB 2
Received : 01 Feb 2024
Tested : 02 Feb 2024
Diagnosed : 04 Feb 2024 - Don Baldrige

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 5410 12TH STREET EAST
 FIFE, WA
 US 98424

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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)