



LUBE PLUS+

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
MIXERS
Machine Id
[MIXERS] M280
Component
Diesel Engine
Fluid
KENDALL 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. The oil 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		LP0001229	LP0000111	WC0661726
Sample Date		Client Info		20 Dec 2023	15 Aug 2023	18 Apr 2023
Machine Age	hrs	Client Info		21384	20824	20277
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	23	15	10
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	1	2
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	0
Lead	ppm	ASTM D5185m	>40	26	7	<1
Copper	ppm	ASTM D5185m	>330	2	2	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

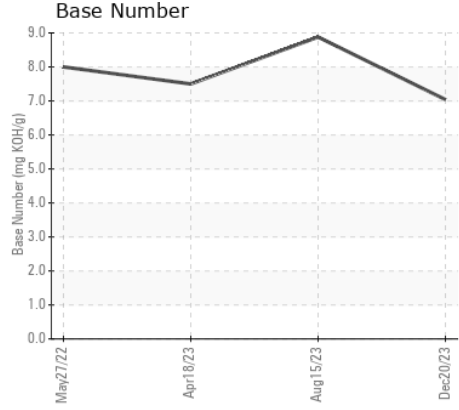
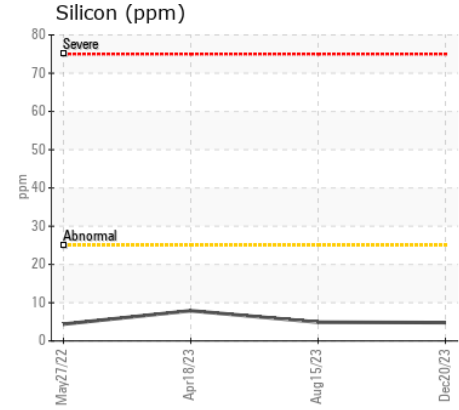
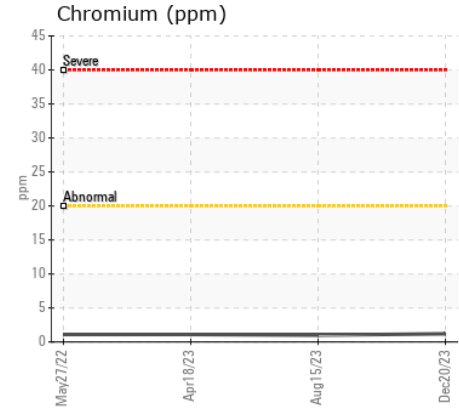
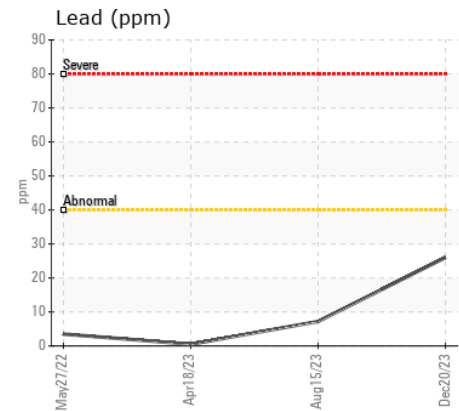
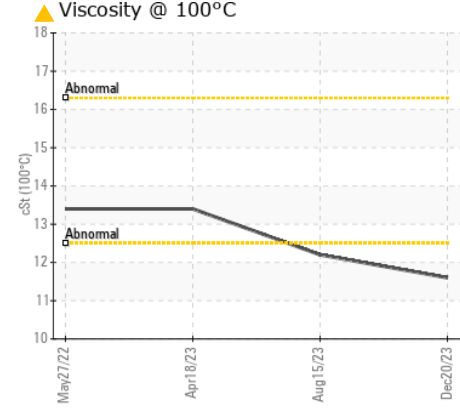
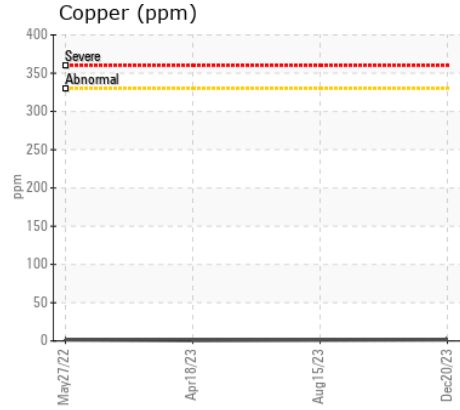
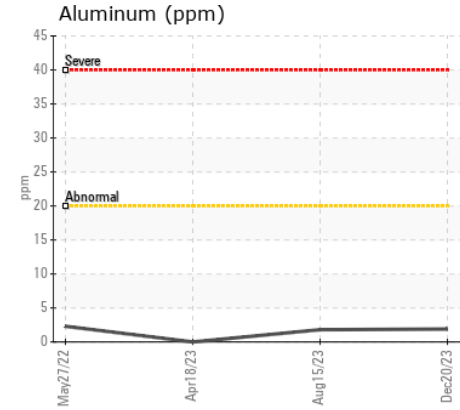
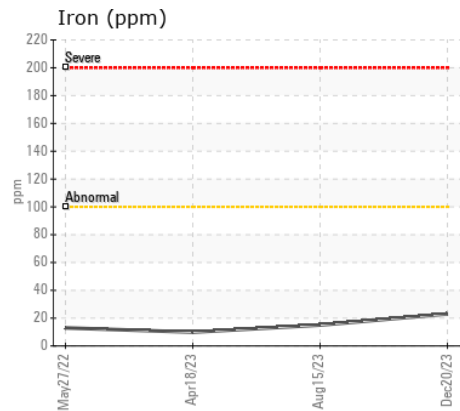
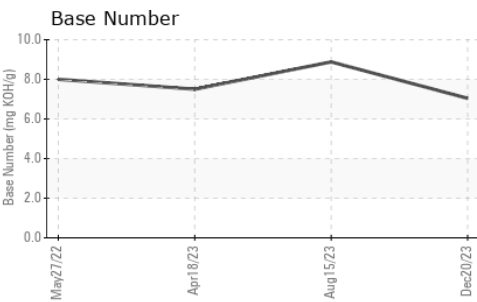
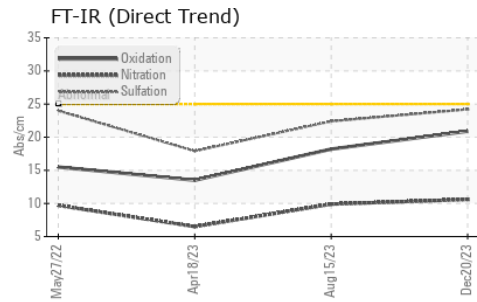
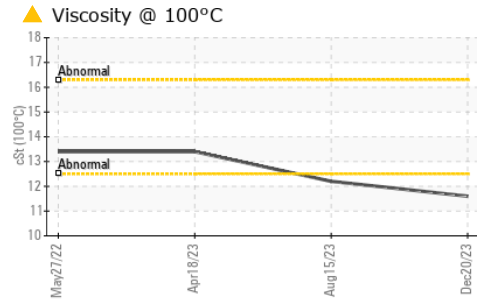
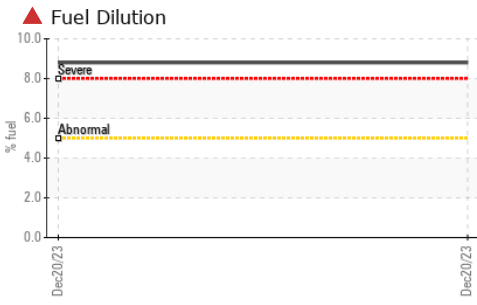
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	8
Potassium	ppm	ASTM D5185m	>20	0	1	<1
Fuel	%	ASTM D3524	>5	▲ 8.8	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.2	1.4	0.8
Nitration	Abs/cm	*ASTM D7624	>20	10.6	9.9	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	22.4	17.9
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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		8	13	2
Boron	ppm	ASTM D5185m	6.3	34	34	19
Barium	ppm	ASTM D5185m	0.6	0	2	2
Molybdenum	ppm	ASTM D5185m	0.4	73	81	57
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	277	172	280	851
Calcium	ppm	ASTM D5185m	1514	1935	1896	1052
Phosphorus	ppm	ASTM D5185m	634	841	993	989
Zinc	ppm	ASTM D5185m	743	1093	1188	1195
Sulfur	ppm	ASTM D5185m	2592	2978	3579	3125
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.9	18.2	13.5
Base Number (BN)	mg KOH/g	ASTM D2896		7.04	8.88	7.5
Visc @ 100°C	cSt	ASTM D445		▲ 11.6	12.2	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001229 **Received** : 26 Dec 2023
Lab Number : 06045667 **Tested** : 28 Dec 2023
Unique Number : 10806275 **Diagnosed** : 28 Dec 2023 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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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