



WEAR	<b>ATTENTION</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**KLEEMANN KT80-2 0789**

Component  
**Diesel Engine**

Fluid  
**{not provided} (--- QTS)**

### RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.

### WEAR

All component wear rates are normal.

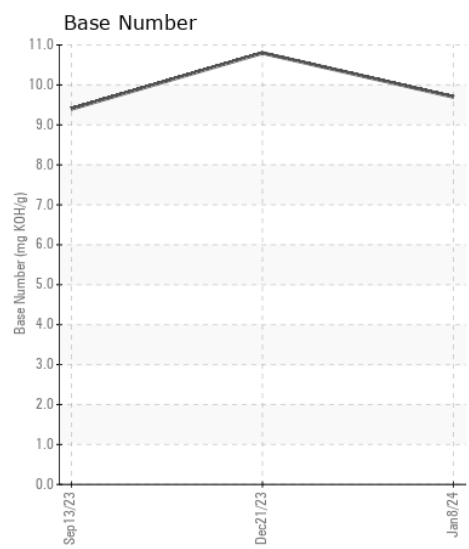
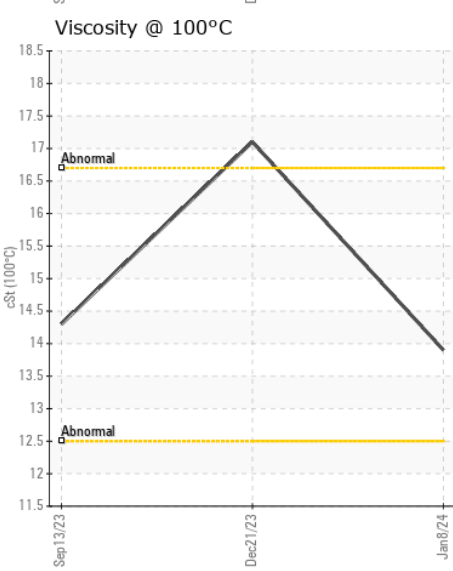
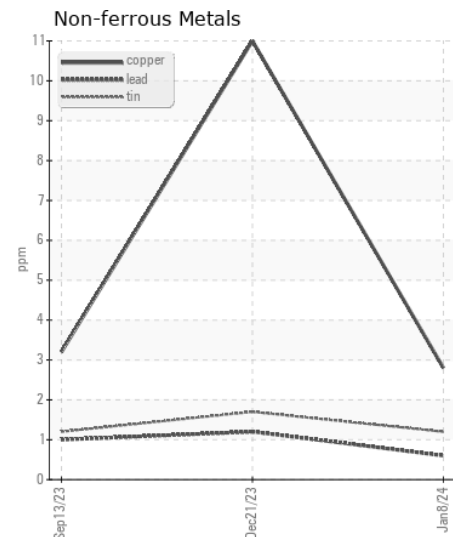
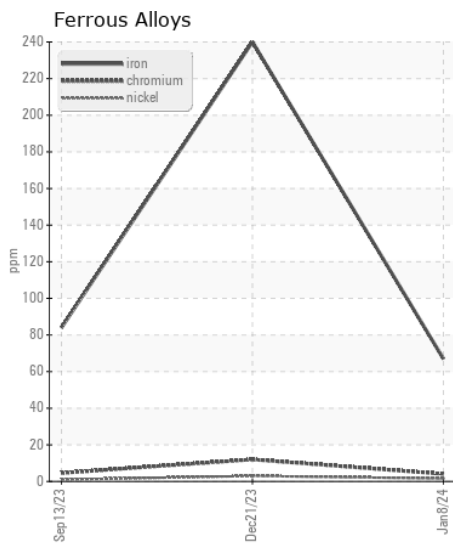
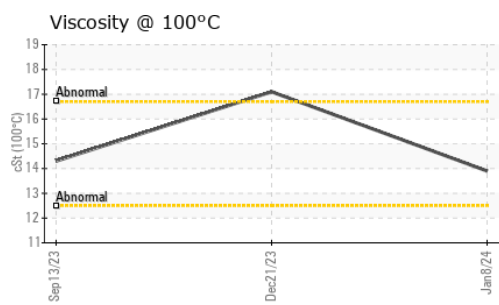
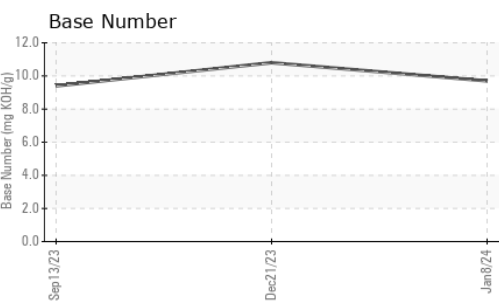
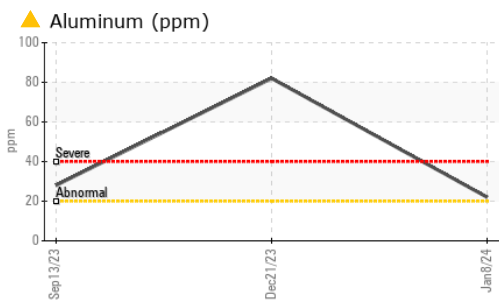
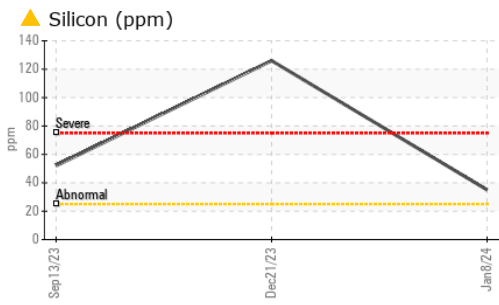
### CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### 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		<b>JR0182696</b>	JR0194338	JR0182855
Sample Date		Client Info		<b>08 Jan 2024</b>	21 Dec 2023	13 Sep 2023
Machine Age	hrs	Client Info		<b>0</b>	2410	1935
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>100	<b>67</b>	240	84
Chromium	ppm	ASTM D5185m	>20	<b>4</b>	12	5
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	3	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>22</b>	82	28
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	11	3
Tin	ppm	ASTM D5185m	>15	<b>1</b>	2	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	<b>35</b>	126	52
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	9	4
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	1.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.7</b>	16.0	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	28.9	22.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185m		<b>0</b>	13	5
Boron	ppm	ASTM D5185m		<b>259</b>	99	232
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>233</b>	214	260
Manganese	ppm	ASTM D5185m		<b>1</b>	3	1
Magnesium	ppm	ASTM D5185m		<b>806</b>	1073	877
Calcium	ppm	ASTM D5185m		<b>1362</b>	1562	1717
Phosphorus	ppm	ASTM D5185m		<b>814</b>	1158	948
Zinc	ppm	ASTM D5185m		<b>1066</b>	1407	1182
Sulfur	ppm	ASTM D5185m		<b>3228</b>	3180	3639
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.6</b>	29.7	19.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.7</b>	10.8	9.4
Visc @ 100°C	cSt	ASTM D445		<b>13.9</b>	17.1	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0182696 **Received** : 09 Jan 2024  
**Lab Number** : 06055181 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 10821130 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

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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