



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**AUTOCAR 1199E**  
Component  
**Diesel Engine**  
Fluid  
**PURUS SYNTHETIC BLEND 15W40 (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013246</b>	KL0013226	KL0011470
Sample Date		Client Info		<b>14 Feb 2024</b>	06 Sep 2023	04 May 2023
Machine Age	mls	Client Info		<b>14681</b>	114654	112070
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	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>	ABNORMAL	ABNORMAL

### WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>▲ 115</b>	▲ 130	▲ 101
Chromium	ppm	ASTM D5185m	>4	<b>2</b>	3	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>4</b>	3	5
Lead	ppm	ASTM D5185m	>50	<b>28</b>	34	23
Copper	ppm	ASTM D5185m	>55	<b>15</b>	18	14
Tin	ppm	ASTM D5185m	>4	<b>3</b>	4	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

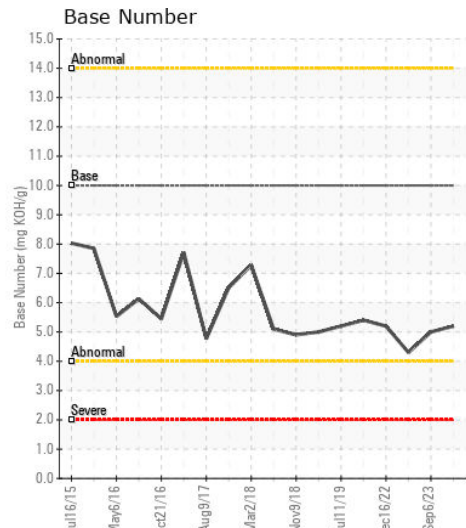
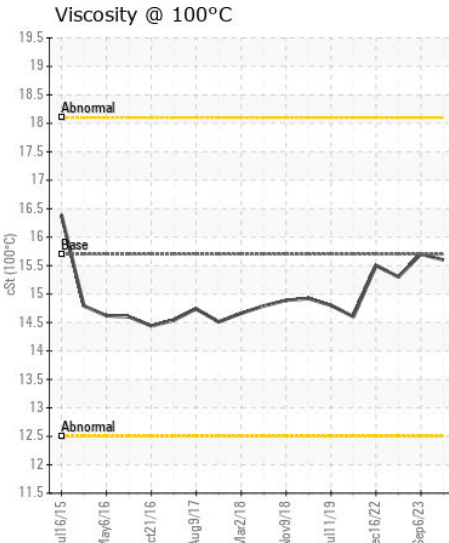
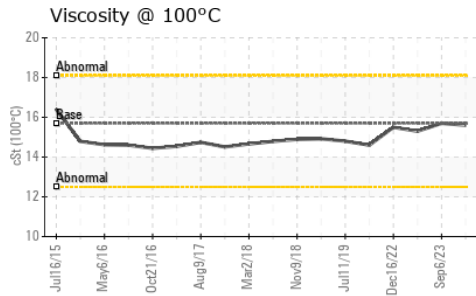
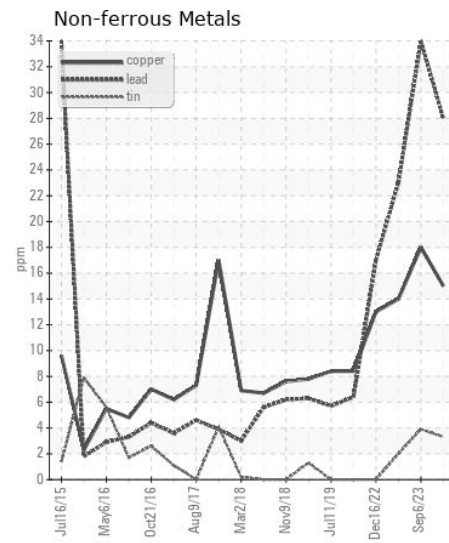
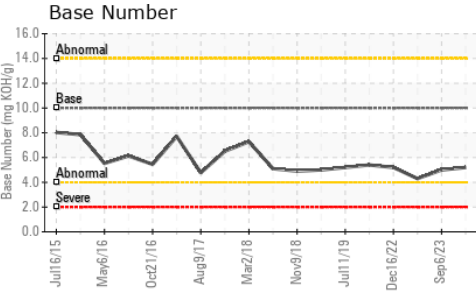
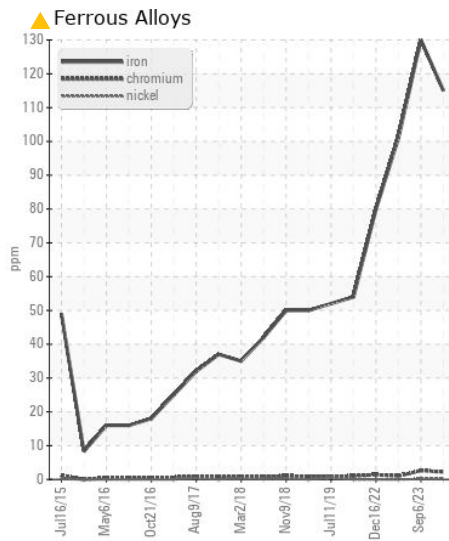
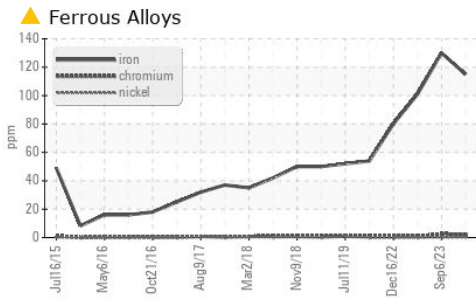
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>8</b>	9	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	6	2
Fuel		WC Method	>3.0	<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	>6	<b>1.6</b>	1.5	1.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.7</b>	11.1	12.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>30.8</b>	27.9	31.6
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

### 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		<b>7</b>	12	8
Boron	ppm	ASTM D5185m		<b>34</b>	52	37
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>69</b>	79	65
Manganese	ppm	ASTM D5185m		<b>2</b>	3	<1
Magnesium	ppm	ASTM D5185m		<b>727</b>	866	630
Calcium	ppm	ASTM D5185m		<b>1611</b>	1907	1763
Phosphorus	ppm	ASTM D5185m		<b>1184</b>	1321	1116
Zinc	ppm	ASTM D5185m		<b>1419</b>	1632	1394
Sulfur	ppm	ASTM D5185m		<b>3452</b>	3771	3751
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>28.4</b>	25.5	29.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>5.2</b>	5.0	4.3
Visc @ 100°C	cSt	ASTM D445	15.7	<b>15.6</b>	15.7	15.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013246  
**Lab Number** : 06104756  
**Unique Number** : 10902986  
**Test Package** : FLEET  
**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 04 Mar 2024 - Sean Felton

**VILLAGE OF RUIDOSO**  
 313 CREE MEADOWS DR  
 RUIDOSO, NM  
 US 88355  
 Contact: JERRY PARSONS  
 jerryparsons@ruidoso-nm.gov  
 T: (575)257-1702  
 F: x:

Certificate L2367  
 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)