



# WEAR CHECK

## OIL ANALYSIS REPORT

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



Machine Id  
**2004 MACK 85**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (10 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013645</b>	KL0011766	KL0013199
Sample Date		Client Info		<b>09 Apr 2024</b>	27 Nov 2023	25 Oct 2023
Machine Age	mls	Client Info		<b>476656</b>	471821	496093
Oil Age	mls	Client Info		<b>16100</b>	11265	35537
Filter Age	mls	Client Info		<b>16100</b>	11265	35537
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>21</b>	20	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	5
Lead	ppm	ASTM D5185m	>40	<b>4</b>	4	4
Copper	ppm	ASTM D5185m	>330	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

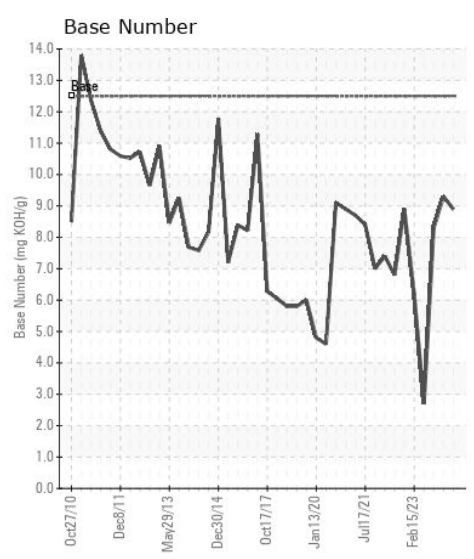
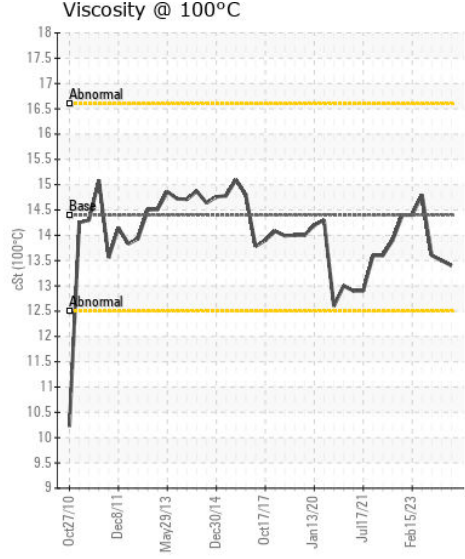
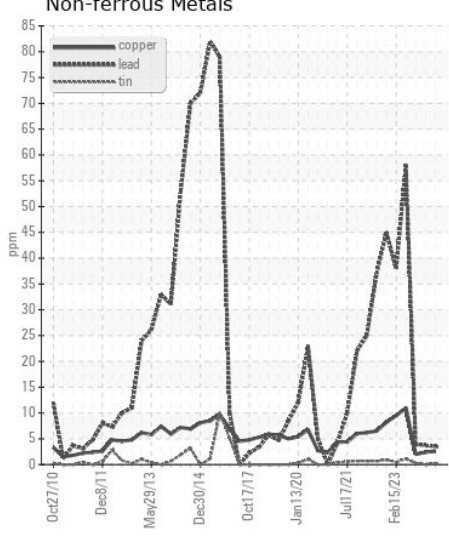
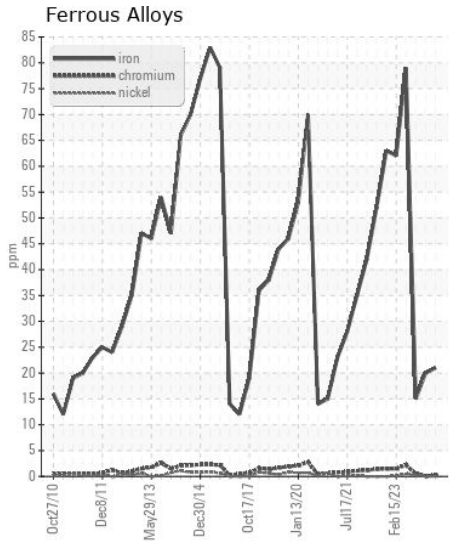
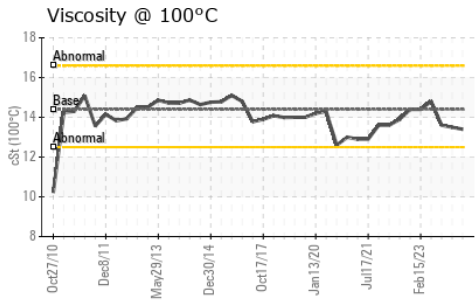
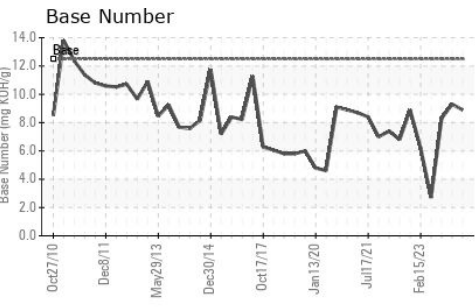
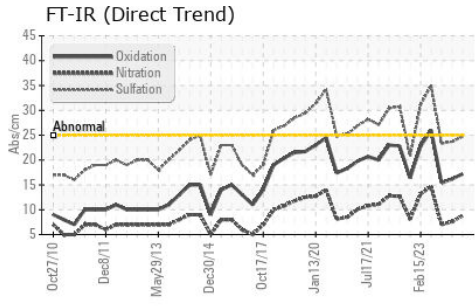
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	4
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	>4	<b>1.5</b>	1.2	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	7.6	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.7</b>	23.7	23.3
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>2</b>	3	3
Boron	ppm	ASTM D5185m	151	<b>260</b>	345	296
Barium	ppm	ASTM D5185m	0.4	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m	250	<b>127</b>	155	119
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	0	<b>744</b>	818	632
Calcium	ppm	ASTM D5185m	2046	<b>1580</b>	1853	1381
Phosphorus	ppm	ASTM D5185m	1043	<b>801</b>	824	715
Zinc	ppm	ASTM D5185m	943	<b>949</b>	1040	834
Sulfur	ppm	ASTM D5185m	5012	<b>3050</b>	3636	2888
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.2</b>	16.2	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>8.9</b>	9.3	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.4</b>	13.5	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013645  
**Lab Number** : 06149358  
**Unique Number** : 10979436  
**Test Package** : FLEET  
**Received** : 15 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 16 Apr 2024 - Wes Davis

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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)