



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
MACK RD688S V78
Component
Rear Differential
Fluid
GEAR OIL SAE 80W140 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219604	JR0178531	JR0144842
Sample Date		Client Info		27 Jun 2024	27 Mar 2024	24 Oct 2023
Machine Age	hrs	Client Info		7586	7245	0
Oil Age	hrs	Client Info		2654	2313	1797
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>1100	131	147	108
Iron	ppm	ASTM D5185m	>1200	192	249	201
Chromium	ppm	ASTM D5185m	>8	<1	0	<1
Nickel	ppm	ASTM D5185m	>20	1	2	2
Titanium	ppm	ASTM D5185m	>4	<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>30	15	18	18
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	<1	1
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

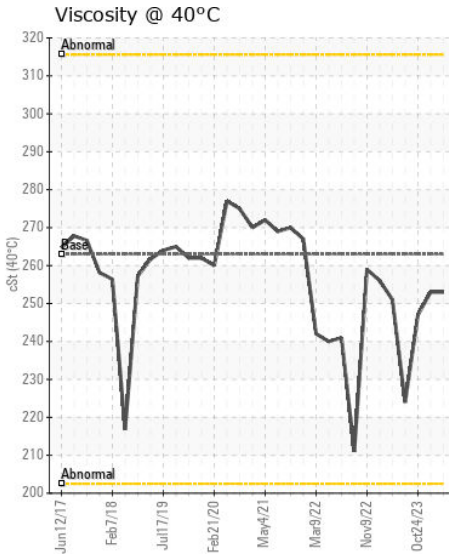
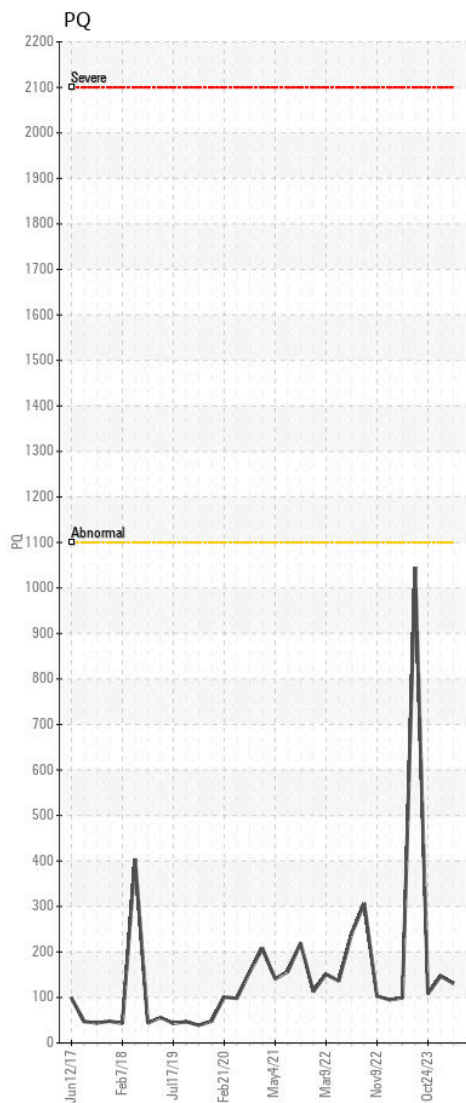
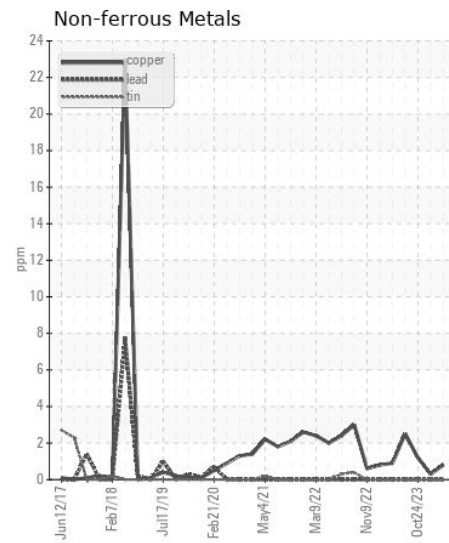
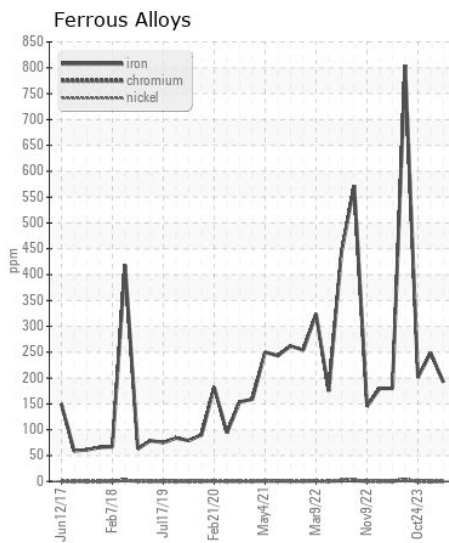
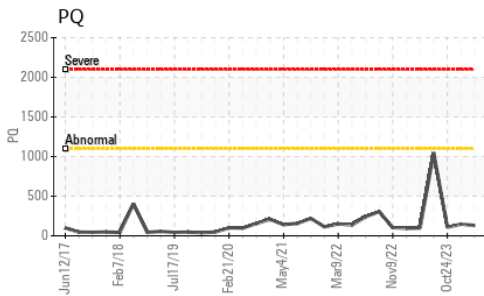
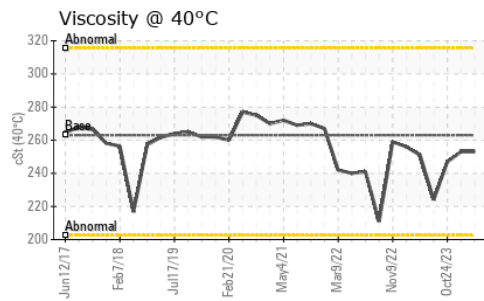
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>230	57	70	76
Potassium	ppm	ASTM D5185m	>20	3	2	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	LIGHT
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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	>.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<1	2	2
Boron	ppm	ASTM D5185m	400	255	281	263
Barium	ppm	ASTM D5185m	200	0	2	3
Molybdenum	ppm	ASTM D5185m	12	0	0	0
Manganese	ppm	ASTM D5185m		1	2	2
Magnesium	ppm	ASTM D5185m	12	0	0	3
Calcium	ppm	ASTM D5185m	150	0	0	45
Phosphorus	ppm	ASTM D5185m	1650	1084	1084	1048
Zinc	ppm	ASTM D5185m	125	<1	0	19
Sulfur	ppm	ASTM D5185m	22500	18433	23797	17836
Visc @ 40°C	cSt	ASTM D445	263	253	253	247



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219604
Lab Number : 06226550
Unique Number : 11110043
Test Package : CONST (Additional Tests: PQ)

MATTHEWS CONSTRUCTION
 127 GRAYSON RD
 ROCK HILL, SC
 US 29732
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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)