



**James River
Equipment**

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[05W44442]
Machine Id
CATERPILLAR 938M 0J3R03125
Component
Front Differential
Fluid
CAT TDTO SAE 50 (24 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195764	JR0192064	JR0182101
Sample Date		Client Info		17 Jan 2024	13 Nov 2023	10 Aug 2023
Machine Age	hrs	Client Info		14960	14521	14004
Oil Age	hrs	Client Info		439	13098	13037
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		42	32	27
Iron	ppm	ASTM D5185m	>500	14	30	23
Chromium	ppm	ASTM D5185m	>3	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	0	1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>30	2	2	3
Lead	ppm	ASTM D5185m	>13	0	<1	<1
Copper	ppm	ASTM D5185m	>103	<1	2	1
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

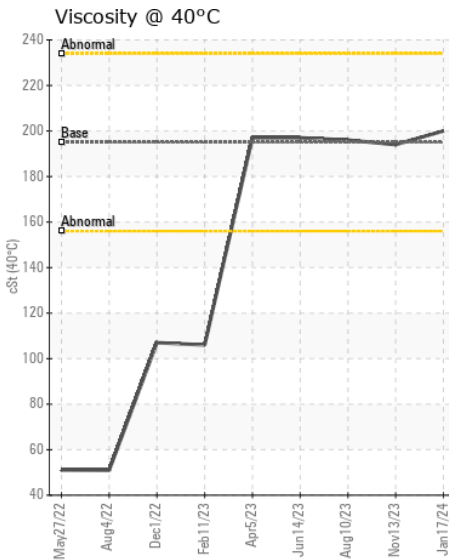
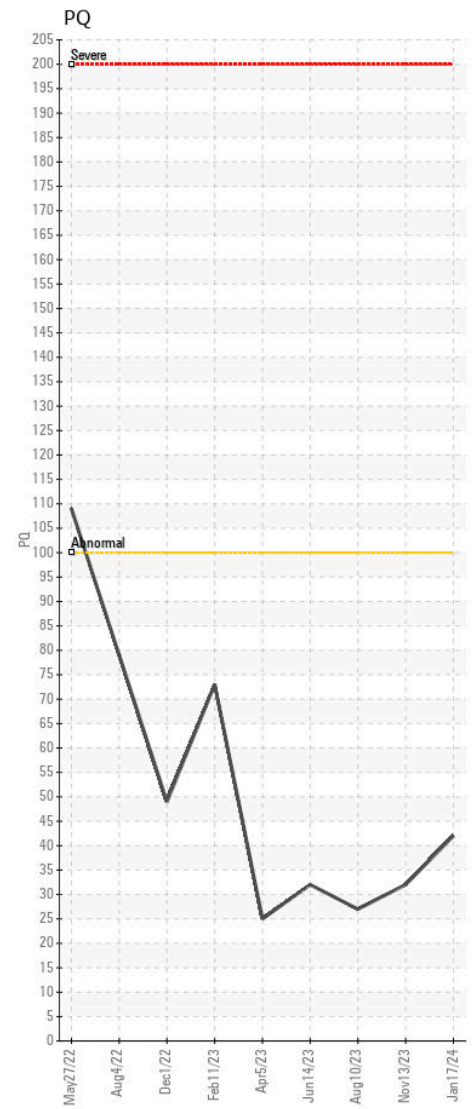
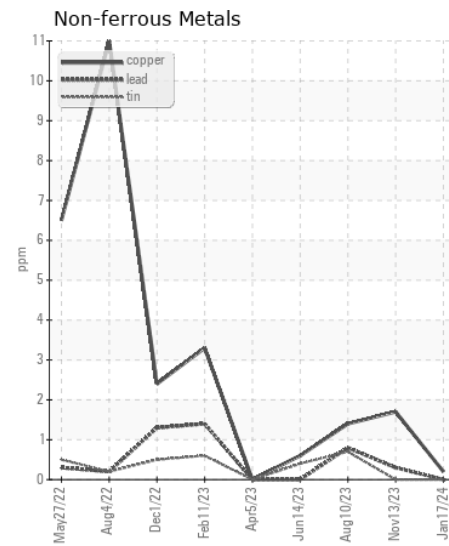
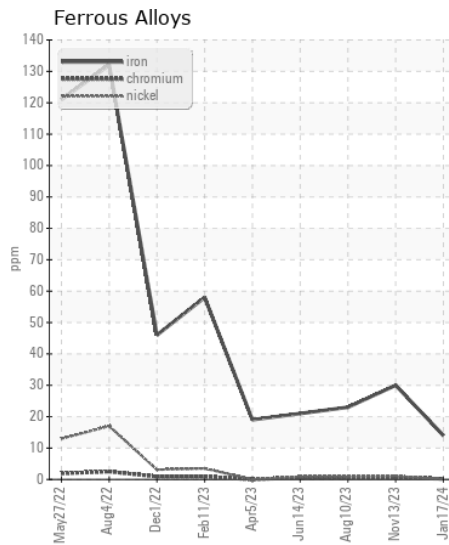
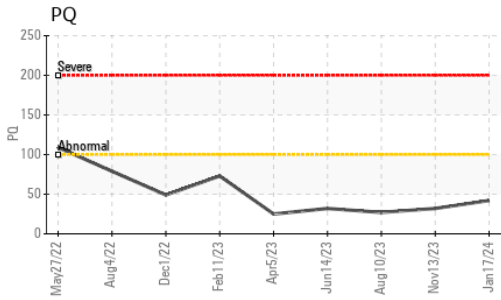
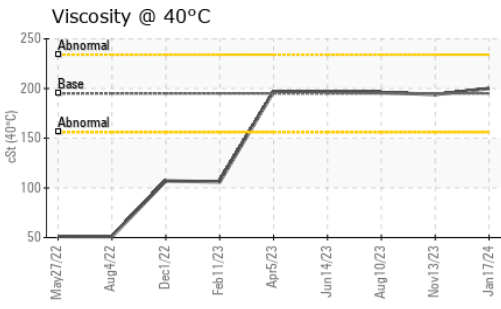
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	7	11	9
Potassium	ppm	ASTM D5185m	>20	1	3	1
Water		WC Method	>.2	NEG	NEG	NEG
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	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	0	3
Boron	ppm	ASTM D5185m		2	3	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	1	<1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		8	10	13
Calcium	ppm	ASTM D5185m	2980	2776	3078	3273
Phosphorus	ppm	ASTM D5185m	1100	957	1077	1107
Zinc	ppm	ASTM D5185m	1270	1144	1271	1361
Sulfur	ppm	ASTM D5185m		8078	8723	9353
Visc @ 40°C	cSt	ASTM D445	195	200	194	196



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195764 **Received** : 18 Jan 2024
Lab Number : 06065147 **Diagnosed** : 19 Jan 2024
Unique Number : 10836529 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: PQ)

JRE - MANASSAS PARK
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 MANASSAS PARK, VA
 US 20111
 Contact: BRANDON RATLIFF
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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)