



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 299 E187
Component
Right Final Drive
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0198034	JR0143432	JR0119345
Sample Date		Client Info		29 Jan 2024	14 Feb 2023	23 Feb 2022
Machine Age	hrs	Client Info		6301	5780	5255
Oil Age	hrs	Client Info		521	525	556
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>500	35	35	67
Iron	ppm	ASTM D5185m	>800	414	▲ 596	▲ 974
Chromium	ppm	ASTM D5185m	>10	5	8	▲ 11
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>15	<1	2	5
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	10	▲ 32	▲ 97
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	0	<1	1
Tin	ppm	ASTM D5185m	>8	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

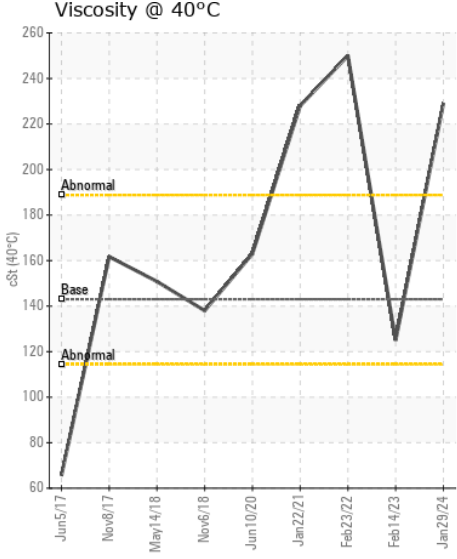
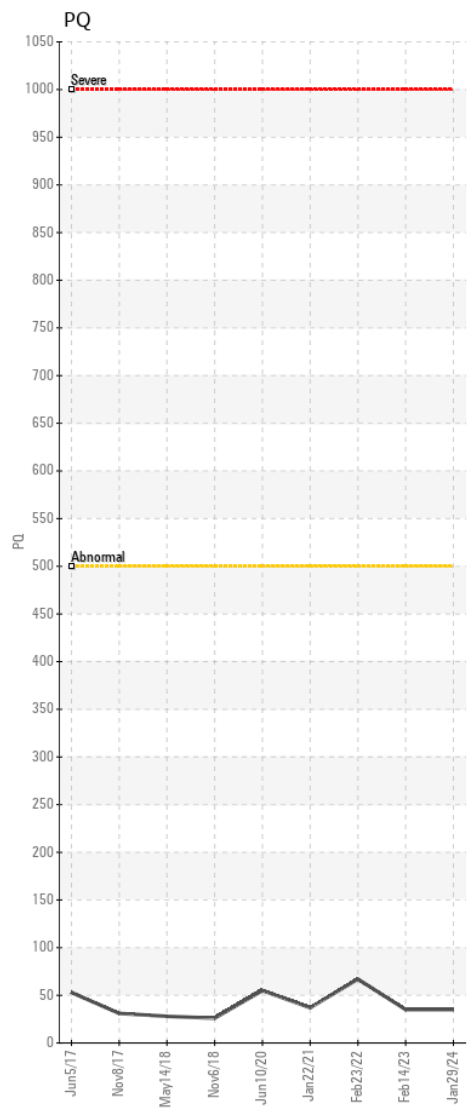
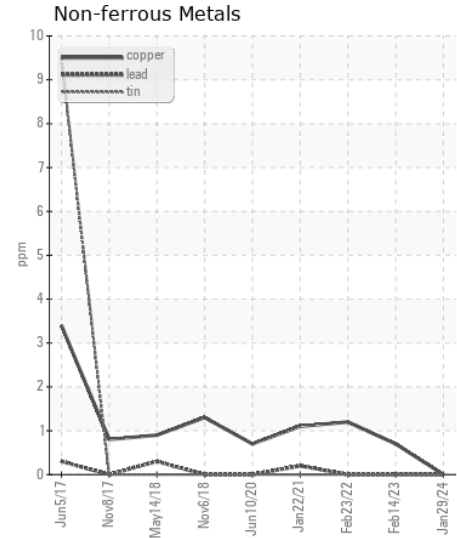
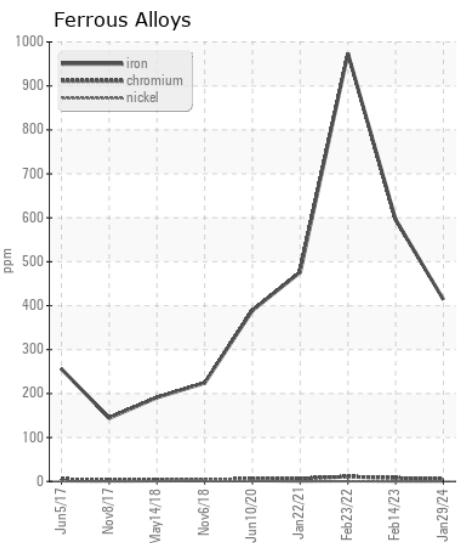
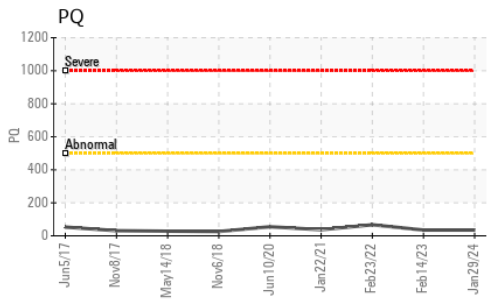
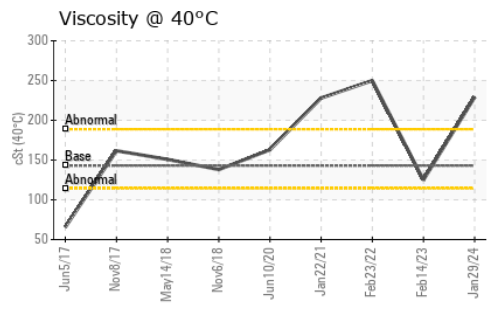
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>400	26	72	▲ 166
Potassium	ppm	ASTM D5185m	>20	<1	2	8
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	VLITE
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	2	4	6
Boron	ppm	ASTM D5185m	400	249	287	213
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	0	<1	<1
Manganese	ppm	ASTM D5185m		2	4	8
Magnesium	ppm	ASTM D5185m	12	2	4	19
Calcium	ppm	ASTM D5185m	150	0	15	30
Phosphorus	ppm	ASTM D5185m	1650	1061	1093	940
Zinc	ppm	ASTM D5185m	125	0	6	3
Sulfur	ppm	ASTM D5185m	22500	18677	21737	15719
Visc @ 40°C	cSt	ASTM D445	143	229	125	250



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0198034 **Received** : 07 Feb 2024
Lab Number : 06082817 **Tested** : 08 Feb 2024
Unique Number : 10870262 **Diagnosed** : 09 Feb 2024 - Sean Felton
Test Package : CONST (Additional Tests: PQ)

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 US 29732
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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)