

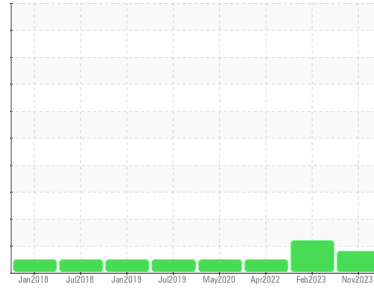


PROBLEM SUMMARY



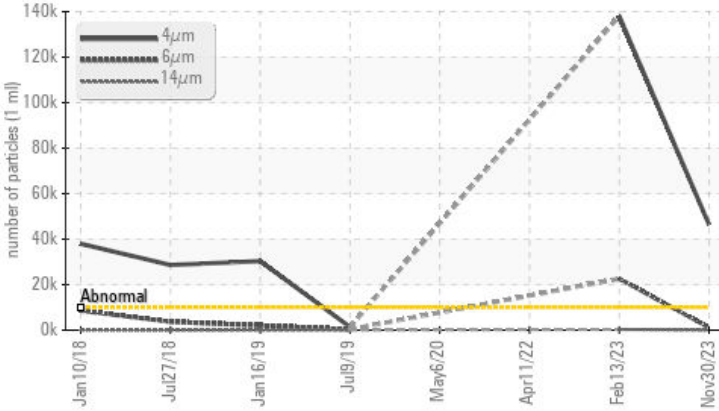
Area
GM Seattle Off Road Shop
 Machine Id
[GM Seattle Off Road Shop] 26-222
 Component
Transmission (Manual)
 Fluid
CAT TDTO 30W (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	ABNORMAL	NORMAL
Particles >4µm	ASTM D7647 >10000	▲ 46406	▲ 138053	---
Oil Cleanliness	ISO 4406 (c) >20/18/15	▲ 23/17/12	▲ 24/22/15	23/19/12

Customer Id: GARSEA
 Sample No.: PE0000595
 Lab Number: 06026294
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

13 Feb 2023 Diag: Jonathan Hester

ISO



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the fluid. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

view report



11 Apr 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the fluid. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

view report



06 May 2020 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the fluid. The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

view report



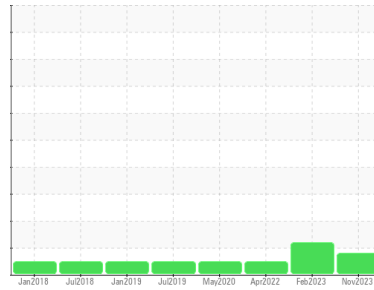
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area
GM Seattle Off Road Shop
 Machine Id
[GM Seattle Off Road Shop] 26-222
 Component
Transmission (Manual)
 Fluid
CAT TDTO 30W (--- GAL)



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PE0000595	PE0001064	PE12290965
Sample Date	Client Info		30 Nov 2023	13 Feb 2023	11 Apr 2022
Machine Age	hrs	Client Info	7634	6848	5649
Oil Age	hrs	Client Info	786	1199	2568
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184	>95	19	17	---
Iron	ppm	ASTM D5185m	>200	32	33
Chromium	ppm	ASTM D5185m	>5	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0
Titanium	ppm	ASTM D5185m		<1	0
Silver	ppm	ASTM D5185m	>7	0	0
Aluminum	ppm	ASTM D5185m	>25	3	3
Lead	ppm	ASTM D5185m	>45	<1	<1
Copper	ppm	ASTM D5185m	>225	44	16
Tin	ppm	ASTM D5185m	>10	<1	<1
Antimony	ppm	ASTM D5185m		---	---
Vanadium	ppm	ASTM D5185m		0	0
Cadmium	ppm	ASTM D5185m		0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		3	2
Barium	ppm	ASTM D5185m		0	0
Molybdenum	ppm	ASTM D5185m		0	2
Manganese	ppm	ASTM D5185m		<1	<1
Magnesium	ppm	ASTM D5185m		23	23
Calcium	ppm	ASTM D5185m	2980	3288	3636
Phosphorus	ppm	ASTM D5185m	1100	913	956
Zinc	ppm	ASTM D5185m	1270	1041	1182
Sulfur	ppm	ASTM D5185m		5558	6407

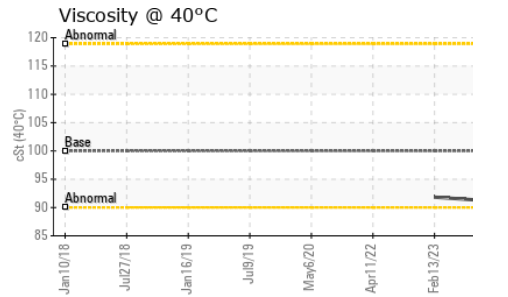
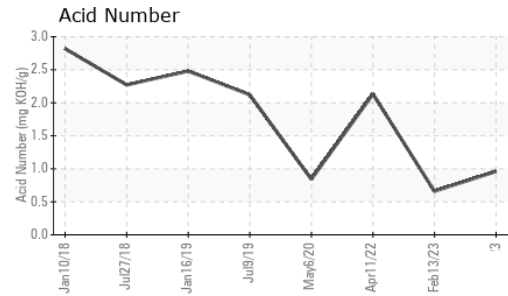
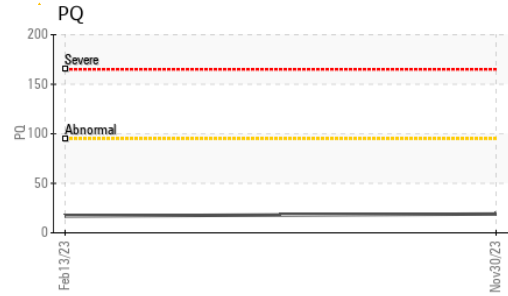
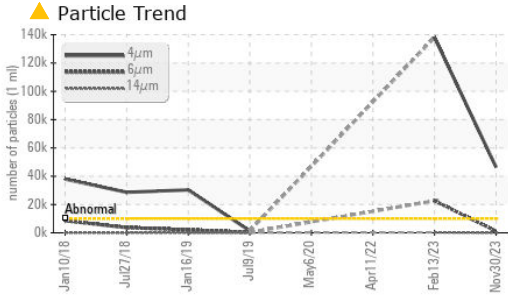
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>125	7	7
Sodium	ppm	ASTM D5185m		2	<1
Potassium	ppm	ASTM D5185m	>20	0	1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 46406	▲ 138053	---
Particles >6µm	ASTM D7647	>2500	1160	▲ 22617	---
Particles >14µm	ASTM D7647	>320	35	304	---
Particles >21µm	ASTM D7647	>80	9	37	---
Particles >38µm	ASTM D7647	>20	1	1	---
Particles >71µm	ASTM D7647	>4	1	1	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 23/17/12	▲ 24/22/15	23/19/12

OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.96	0.66	2.13

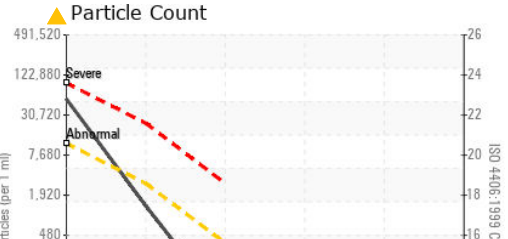
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---
Free Water	scalar	*Visual		NEG	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	91.1	91.83	---

SAMPLE IMAGES

method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0000595
Lab Number : 06026294
Unique Number : 10776085
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

Gary Merlino Construction - Off Road Shop
 9125 10TH AVE SOUTH
 SEATTLE, WA
 US 98108

Received : 06 Dec 2023
Diagnosed : 07 Dec 2023
Diagnostician : Don Baldrige

Contact: Jesse Patterson
 oilsamples@gmccinc.com
 T: 1(866)292-1303

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)