



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[PMIAS2856063]
 Machine Id
CATERPILLAR 3512C G4W00785 - GEN 02
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0034000	DC0026701	DC0025452
Sample Date		Client Info		26 Jan 2024	12 May 2023	09 Sep 2022
Machine Age	hrs	Client Info		0	213	210
Oil Age	hrs	Client Info		214	0	4
Filter Age	hrs	Client Info		0	0	4
Oil Changed		Client Info		Changed	Not Changd	N/A
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	1	1	<1
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	2	<1
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

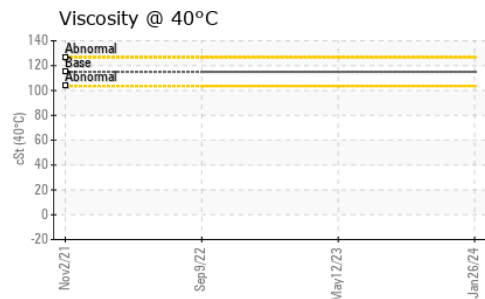
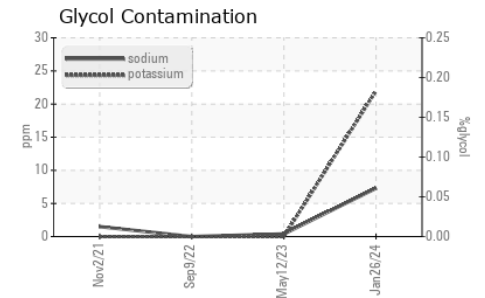
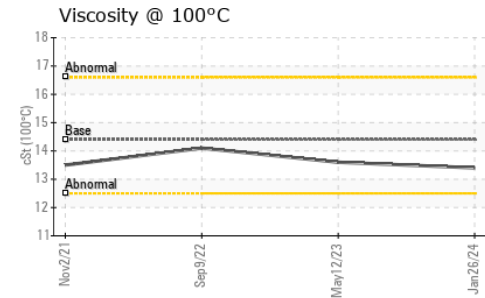
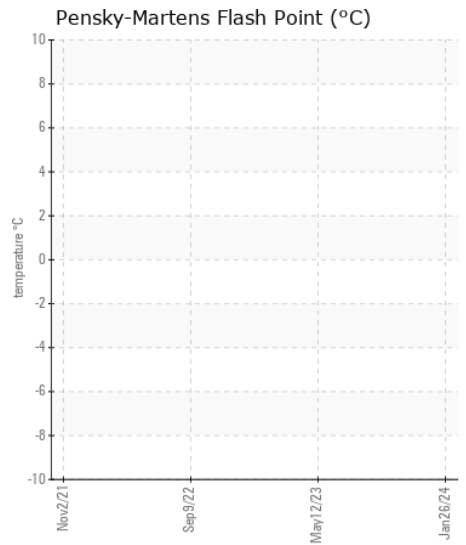
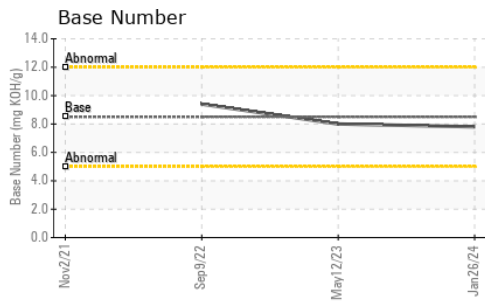
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	4	2
Potassium	ppm	ASTM D5185m	>20	22	0	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water	%	ASTM D6304	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.2	5.1	5.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.3	15.6	17.3
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	>0.2	NEG	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	>158	7	<1	0
Boron	ppm	ASTM D5185m	250	8	6	13
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	3	4	9
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	450	37	57	125
Calcium	ppm	ASTM D5185m	3000	1897	2241	2285
Phosphorus	ppm	ASTM D5185m	1150	792	868	895
Zinc	ppm	ASTM D5185m	1350	1031	1040	1118
Sulfur	ppm	ASTM D5185m	4250	3224	4058	4459
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.6	8.8	10.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.8	8.0	9.4
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	13.6	14.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0034000 **Received** : 22 Feb 2024
Lab Number : 06097541 **Tested** : 26 Feb 2024
Unique Number : 10890394 **Diagnosed** : 26 Feb 2024 - Sean Felton
Test Package : DF-5 (Additional Tests: API, Color-ASTM, FT-IR, GC-PerFuel, Glycol, ICP, KF, KV100, KV40, PerFuel)
Customer : LESLIE SNURR
 To discuss this sample report, contact Customer Service at 1-800-237-1369. **LSNURR@KGE.COM**
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. **T: (410)257-5225**
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) **F: (410)257-5227**