



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 345C 345C-2 (S/N TDG00286)
 Component
Diesel Engine
 Fluid
MOBIL DELVAC SUPER 1400 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TLY0002284	TLY0001647	TLY0001190
Sample Date		Client Info		16 Apr 2024	29 Jun 2023	29 Aug 2022
Machine Age	hrs	Client Info		12433	12050	11542
Oil Age	hrs	Client Info		11542	508	500
Filter Age	hrs	Client Info		11542	508	500
Oil Changed		Client Info		Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	54	50
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	2	3
Lead	ppm	ASTM D5185m	>40	2	7	8
Copper	ppm	ASTM D5185m	>330	17	89	▲ 367
Tin	ppm	ASTM D5185m	>15	2	4	6
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

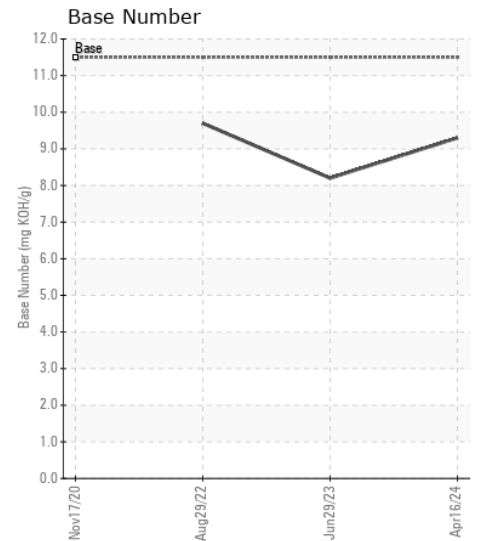
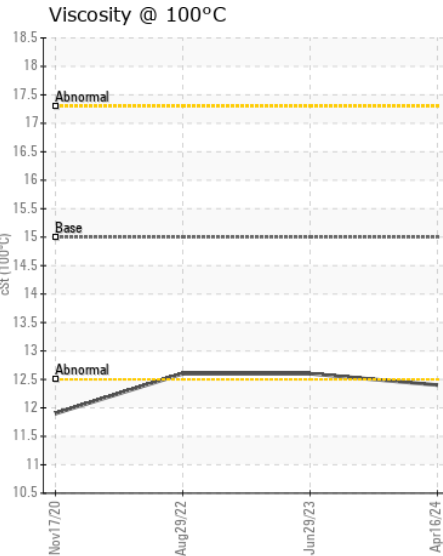
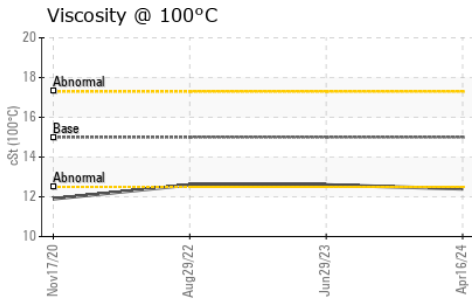
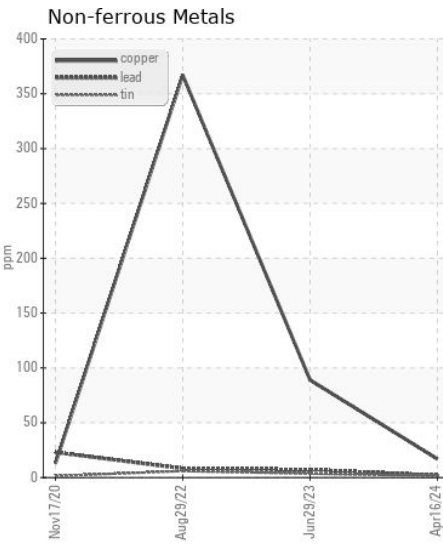
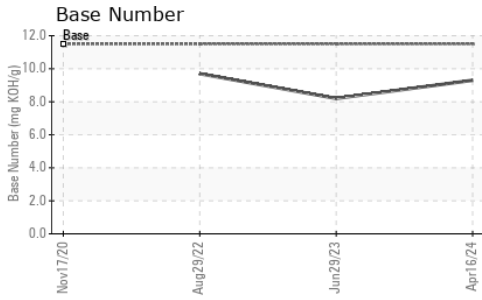
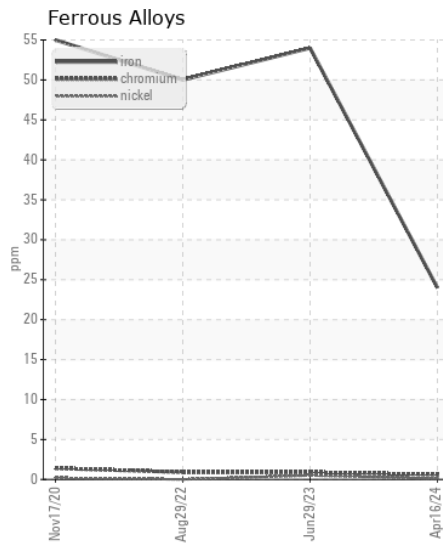
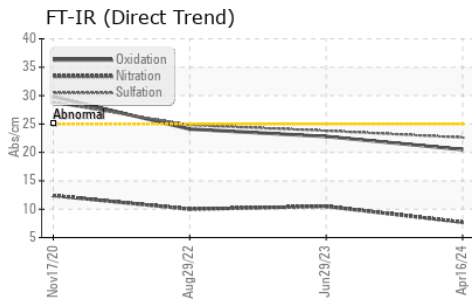
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	21	▲ 72
Potassium	ppm	ASTM D5185m	>20	17	2	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	7.7	10.5	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	23.8	24.8
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		49	2	4
Boron	ppm	ASTM D5185m		38	31	41
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		51	52	41
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		518	609	485
Calcium	ppm	ASTM D5185m		1565	1521	1667
Phosphorus	ppm	ASTM D5185m		785	774	746
Zinc	ppm	ASTM D5185m		940	1001	971
Sulfur	ppm	ASTM D5185m		2645	2229	2274
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.5	22.8	24.1
Base Number (BN)	mg KOH/g	ASTM D2896	11.5	9.3	8.2	9.7
Visc @ 100°C	cSt	ASTM D445	15.0	12.4	12.6	12.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TLY0002284 **Received** : 19 Apr 2024
Lab Number : 06154007 **Tested** : 22 Apr 2024
Unique Number : 10989430 **Diagnosed** : 22 Apr 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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)

GAINES & COMPANY
 112 WESTMINSTER RD
 REISTERSTOWN, MD
 US 21136

Contact: LANCE TANCRAITOR
 ltancraitor@gainesandco.com
 T: (410)833-9833

F: