



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR CS563 E57
Component
Diesel Engine
Fluid
CAT DIESEL ENGINE OIL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0198403	JR0188418	JR0154973
Sample Date		Client Info		12 Jan 2024	04 Dec 2023	19 Jan 2023
Machine Age	hrs	Client Info		3974	3957	3645
Oil Age	hrs	Client Info		20	312	237
Filter Age	hrs	Client Info		20	312	237
Oil Changed		Client Info		Not Chngd	Changed	N/A
Filter Changed		Client Info		Not Chngd	Changed	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	45	▲ 111	25
Chromium	ppm	ASTM D5185m	>20	4	▲ 21	7
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	4	4
Lead	ppm	ASTM D5185m	>40	<1	2	2
Copper	ppm	ASTM D5185m	>330	1	4	2
Tin	ppm	ASTM D5185m	>15	0	1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

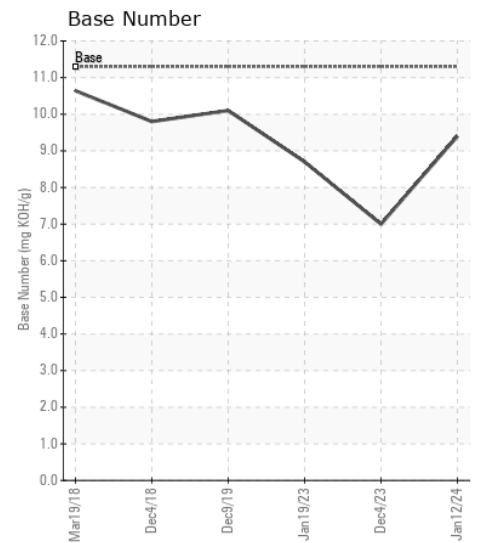
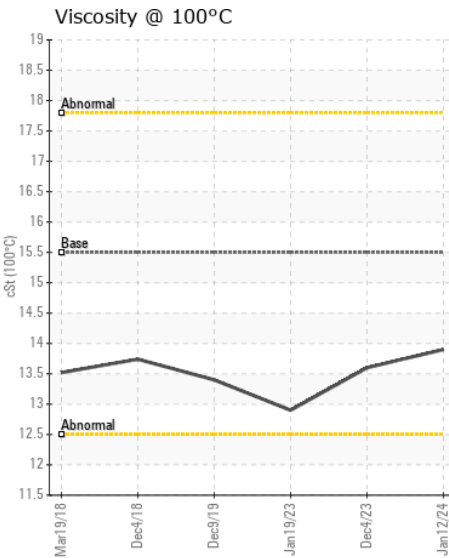
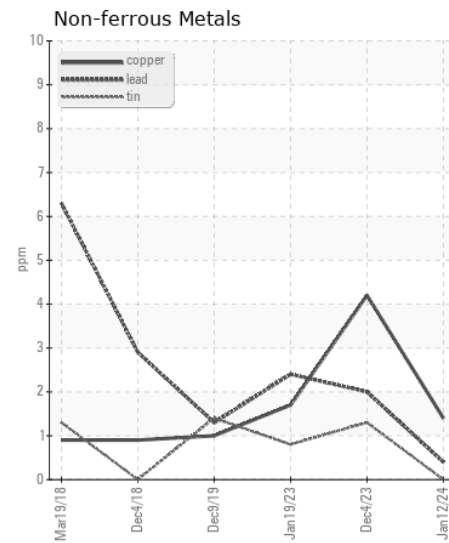
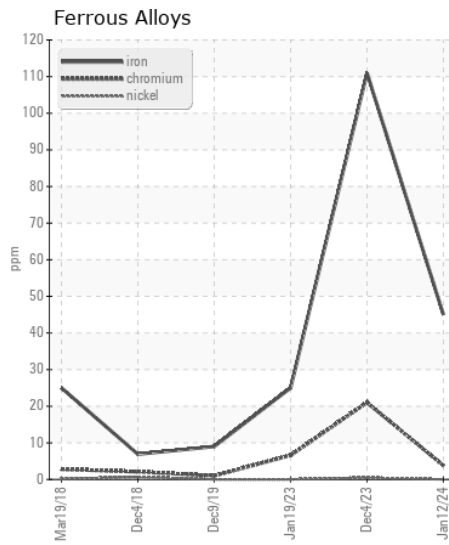
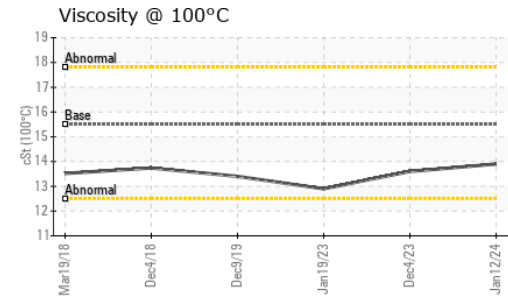
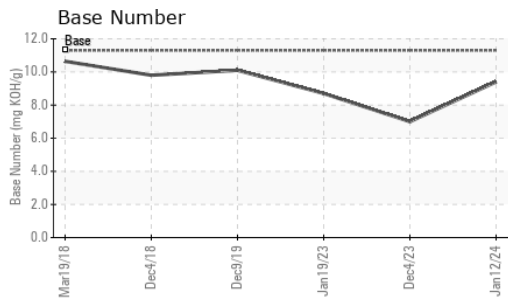
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	7	6
Potassium	ppm	ASTM D5185m	>20	1	0	0
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	0.1	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.4	9.8	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	22.4	23.5
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		<1	2	4
Boron	ppm	ASTM D5185m		264	206	211
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		236	245	242
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		848	811	781
Calcium	ppm	ASTM D5185m		1428	1446	1496
Phosphorus	ppm	ASTM D5185m		875	946	813
Zinc	ppm	ASTM D5185m	1460	1102	1057	1029
Sulfur	ppm	ASTM D5185m		3060	2974	3149
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	18.5	20.9
Base Number (BN)	mg KOH/g	ASTM D2896	11.3	9.4	7.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.5	13.9	13.6	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0198403 **Received** : 17 Jan 2024
Lab Number : 06062500 **Diagnosed** : 18 Jan 2024
Unique Number : 10833882 **Diagnostician** : Don Baldrige
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)

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