



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 257B III 129 (S/N B7H01539)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RW0004732	RW0003823	RW0003096
Sample Date		Client Info		24 Apr 2024	27 Sep 2022	08 Feb 2022
Machine Age	hrs	Client Info		4792	6	0
Oil Age	hrs	Client Info		206	6	0
Filter Age	hrs	Client Info		206	6	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	15	9
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	2
Aluminum	ppm	ASTM D5185m	>25	1	2	1
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	3	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

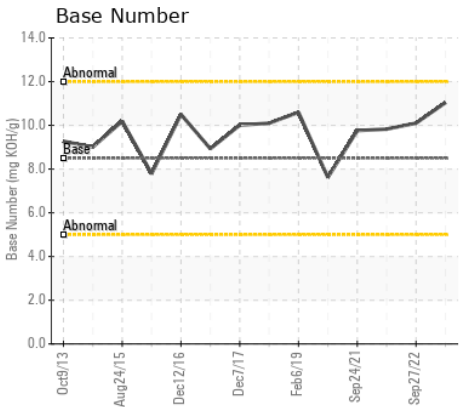
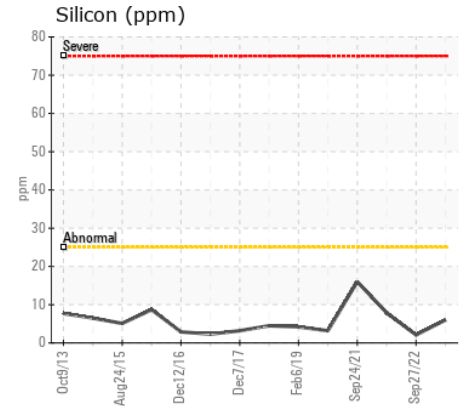
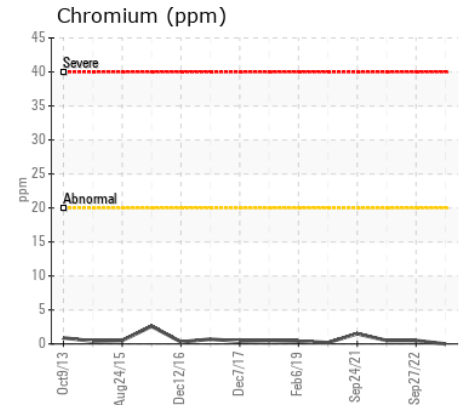
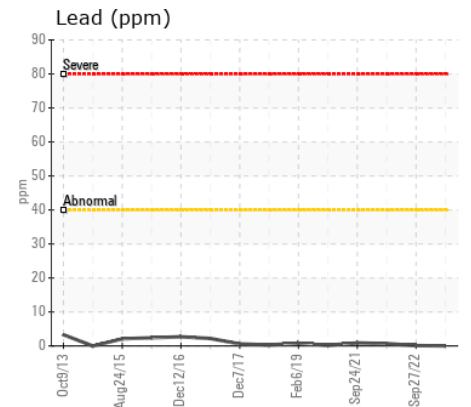
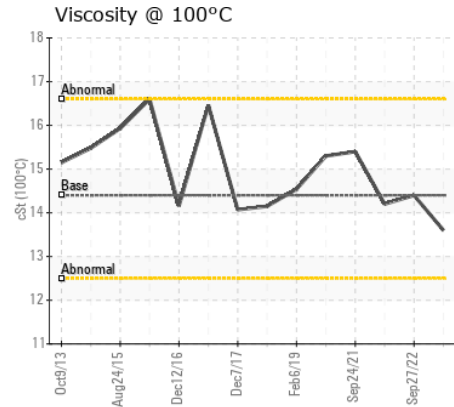
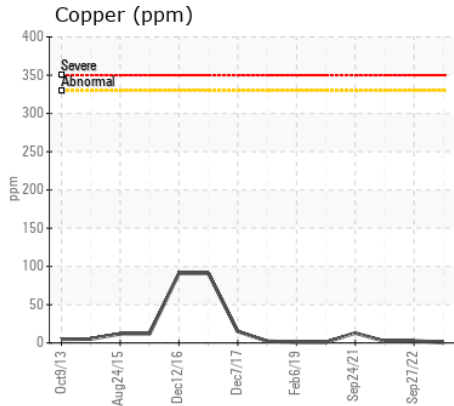
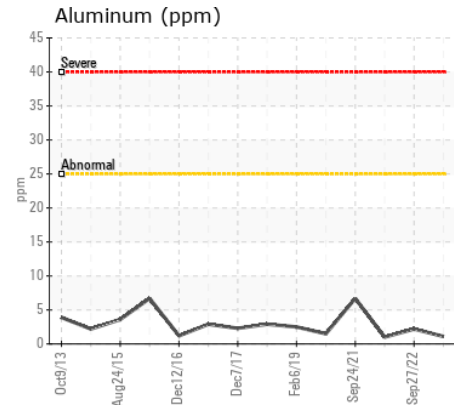
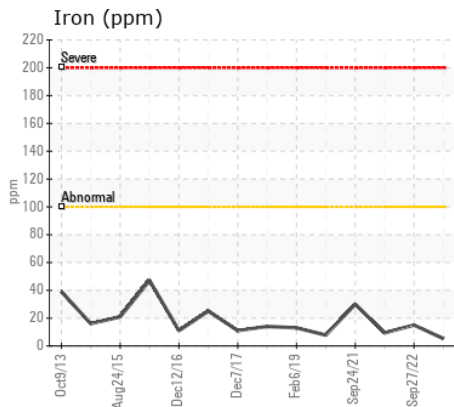
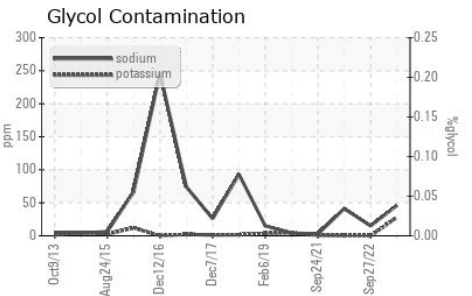
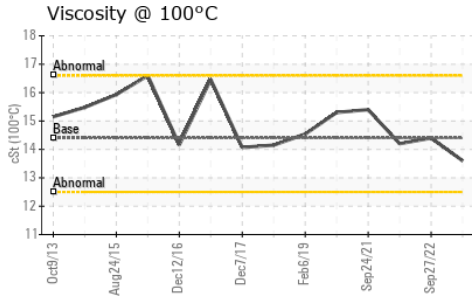
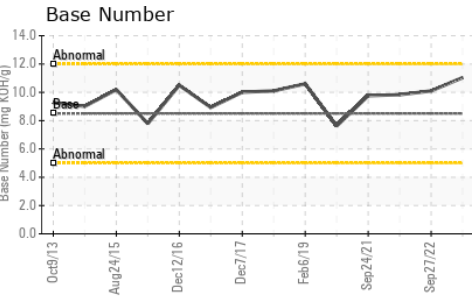
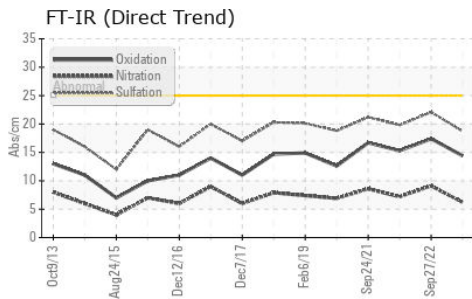
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	2	8
Potassium	ppm	ASTM D5185m	>20	28	0	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.2	9.1	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.7	22.1	19.8
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	>158	46	15	41
Boron	ppm	ASTM D5185m	250	18	6	32
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	74	71	65
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	958	1030	925
Calcium	ppm	ASTM D5185m	3000	1282	1295	1315
Phosphorus	ppm	ASTM D5185m	1150	1183	1141	1094
Zinc	ppm	ASTM D5185m	1350	1322	1346	1238
Sulfur	ppm	ASTM D5185m	4250	3936	3829	2894
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	17.4	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	11.04	10.1	9.83
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	14.4	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0004732
Lab Number : 06176212
Unique Number : 11022265
Test Package : MOB 2 (Additional Tests: Glycol)

Received : 10 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Sean Felton

HALLACK CONTRACTING, INC.
 4223 W POLK
 HART, MI
 US 49420

Contact: DAN HALLACK KARL BUTCHER
 shop@hallackcontracting.com

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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