



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CRANE CARRIER 182359
Component
Front Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (27 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0898717	WC0861051	WC0812428
Sample Date		Client Info		31 Jan 2024	20 Sep 2023	26 Apr 2023
Machine Age	mls	Client Info		48785	45033	40957
Oil Age	mls	Client Info		3752	4076	3760
Filter Age	mls	Client Info		3752	4076	3760
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>75	17	9	10
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	5	<1	3
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>100	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<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

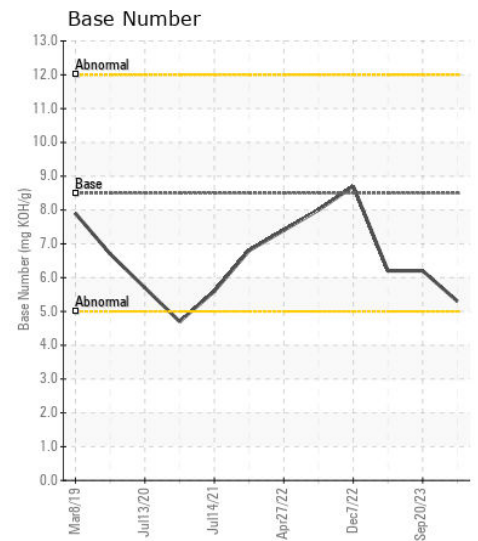
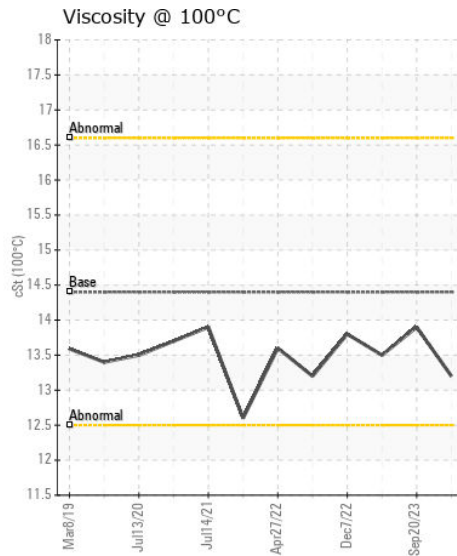
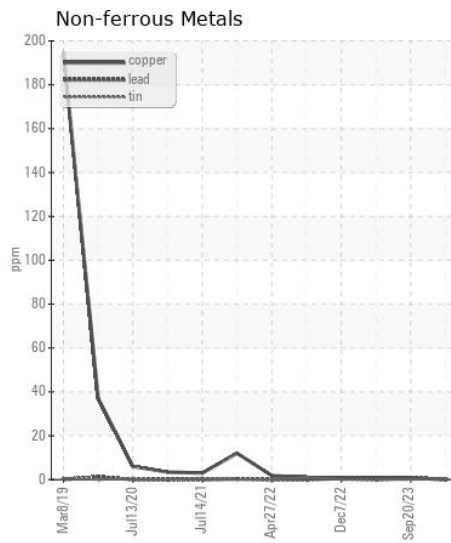
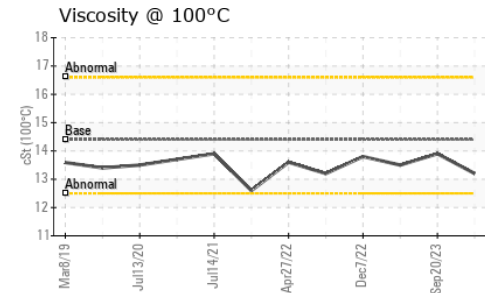
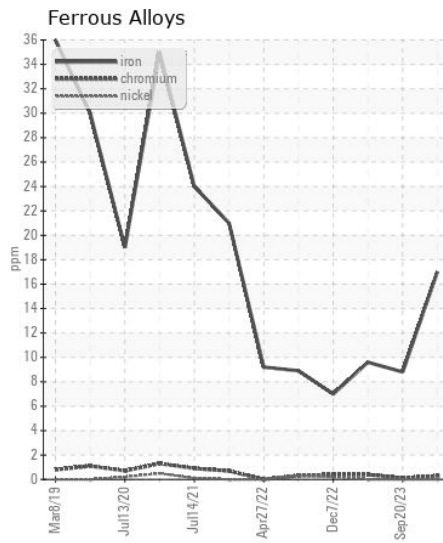
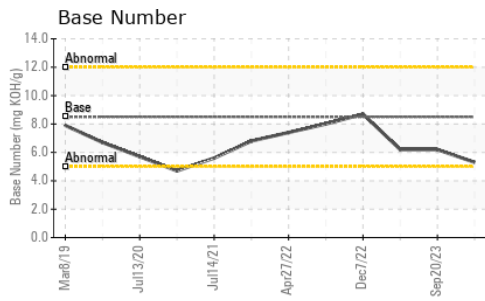
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	6	4
Potassium	ppm	ASTM D5185m	>20	3	3	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.6	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	12.4	11.0	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	20.7	19.6
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	6	6	5
Boron	ppm	ASTM D5185m	250	23	30	29
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	50	50	48
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	738	852	793
Calcium	ppm	ASTM D5185m	3000	1051	1328	1204
Phosphorus	ppm	ASTM D5185m	1150	652	771	686
Zinc	ppm	ASTM D5185m	1350	844	973	889
Sulfur	ppm	ASTM D5185m	4250	2207	2970	2826
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.2	19.5	19.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.3	6.2	6.2
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.9	13.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0898717

Lab Number : 06082998

Unique Number : 10870443

Test Package : FLEET

Received : 07 Feb 2024

Tested : 08 Feb 2024

Diagnosed : 08 Feb 2024 - Wes Davis

CITY OF GREENSBORO
401 PATTON AVE - BUILDING H
GREENSBORO, NC
US 27406

Contact: JERRY GUNTER
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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)

T: x:

F: x: