

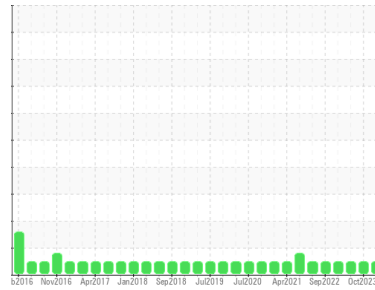


OIL ANALYSIS REPORT



Area
KANSAS/44/EG - EXCAVATOR
 Machine Id
20.304L [KANSAS^44^EG - EXCAVATOR]
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER 15W40 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0918251	WC0833893	WC0781154
Sample Date	Client Info		06 Jun 2024	30 Oct 2023	16 May 2023
Machine Age	hrs	Client Info	8043	7855	7558
Oil Age	hrs	Client Info	188	851	7004
Oil Changed	Client Info		Changed	Changed	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	22	33	17
Chromium	ppm	ASTM D5185m >20	<1	0	<1
Nickel	ppm	ASTM D5185m >2	<1	0	0
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >25	14	22	10
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	1	5	1
Tin	ppm	ASTM D5185m >15	<1	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	48	34	41
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	40	40	40
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 0	518	583	535
Calcium	ppm	ASTM D5185m	1664	1910	1728
Phosphorus	ppm	ASTM D5185m	869	904	946
Zinc	ppm	ASTM D5185m	977	1126	1139
Sulfur	ppm	ASTM D5185m	2916	3093	3497

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	8	7
Sodium	ppm	ASTM D5185m	2	5	2
Potassium	ppm	ASTM D5185m >20	2	<1	1

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.6	0.5
Nitration	Abs/cm	*ASTM D7624 >20	7.6	8.6	7.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	21.8	22.3	23.0

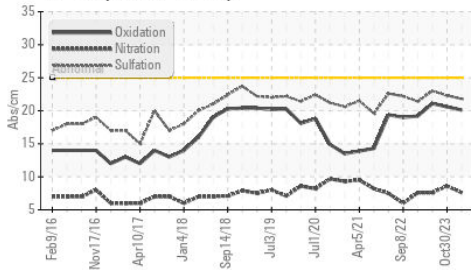
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.1	20.6	21.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.4	10.0	9.9	10.8

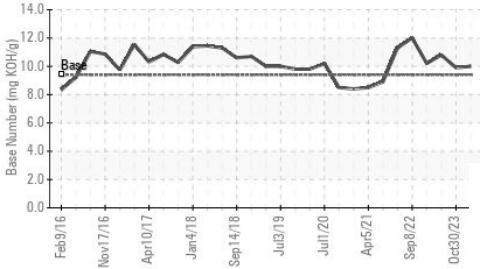


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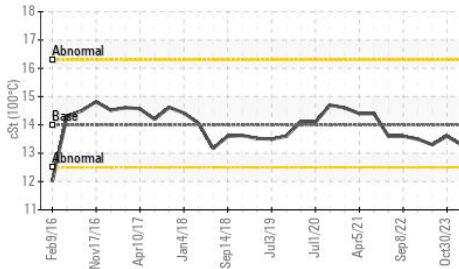
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

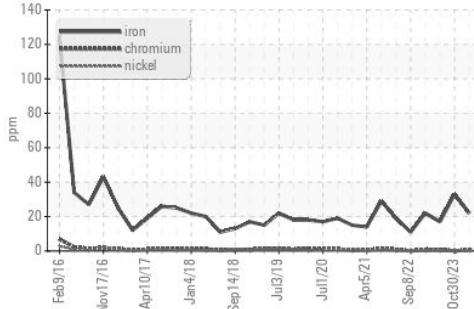


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

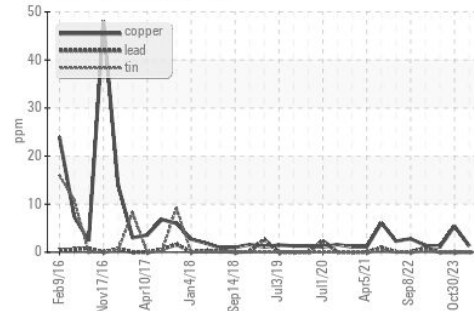
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	13.3	13.6	13.3

GRAPHS

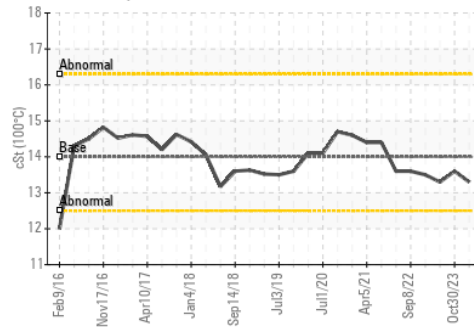
Ferrous Alloys



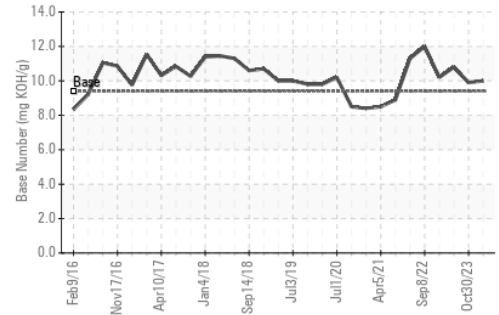
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : WC0918251

Lab Number : 06208412

Unique Number : 11075873

Test Package : CONST (Additional Tests: TBN)

Received : 13 Jun 2024

Tested : 14 Jun 2024

Diagnosed : 14 Jun 2024 - Wes Davis

SHERWOOD CONSTRUCTION CO INC

3219 WEST MAY ST

WICHITA, KS

US 67213

Contact: DOUG KING

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T: (316)617-3161

F: x:

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)