

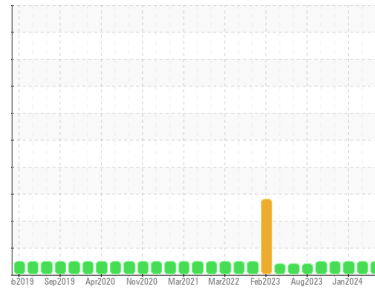


OIL ANALYSIS REPORT



Area
OKLAHOMA/3/EG - TRUCK-OFF-HWY-HEAVY HAUL
 Machine Id
69.11 [OKLAHOMA^3^EG - TRUCK-OFF-HWY-HEAVY HAUL]
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- 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			WC0935123	WC0914525	WC0874012
Sample Date	Client Info			05 Jun 2024	27 Mar 2024	31 Jan 2024
Machine Age	hrs Client Info			11090	10727	10325
Oil Age	hrs Client Info			0	402	9940
Oil Changed	Client Info			N/A	Changed	Changed
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		4	5	2
Chromium	ppm ASTM D5185m	>20		<1	<1	<1
Nickel	ppm ASTM D5185m	>2		0	<1	0
Titanium	ppm ASTM D5185m	>2		<1	<1	0
Silver	ppm ASTM D5185m	>2		0	0	0
Aluminum	ppm ASTM D5185m	>25		2	2	1
Lead	ppm ASTM D5185m	>40		<1	<1	<1
Copper	ppm ASTM D5185m	>330		2	3	3
Tin	ppm ASTM D5185m	>15		<1	1	<1
Vanadium	ppm ASTM D5185m			<1	<1	0
Cadmium	ppm ASTM D5185m			0	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0		59	53	53
Barium	ppm ASTM D5185m	0		0	0	0
Molybdenum	ppm ASTM D5185m	0		40	41	38
Manganese	ppm ASTM D5185m			0	<1	<1
Magnesium	ppm ASTM D5185m	0		465	491	493
Calcium	ppm ASTM D5185m			1615	1644	1621
Phosphorus	ppm ASTM D5185m			751	744	760
Zinc	ppm ASTM D5185m			870	905	883
Sulfur	ppm ASTM D5185m			2565	2550	2474

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>25		4	5	4
Sodium	ppm ASTM D5185m			<1	2	3
Potassium	ppm ASTM D5185m	>20		2	2	<1

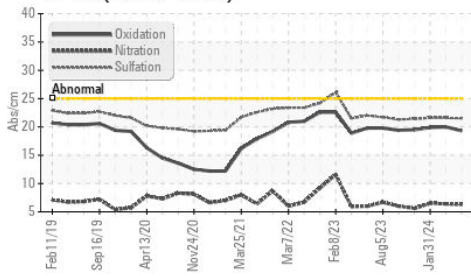
INFRA-RED		method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	>3		0.2	0.2	0.1
Nitration	Abs/cm *ASTM D7624	>20		6.3	6.4	6.5
Sulfation	Abs/.1mm *ASTM D7415	>30		21.5	21.6	21.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25		19.3	20.0	19.9
Base Number (BN)	mg KOH/g ASTM D2896	9.4		10.0	10.0	10.1

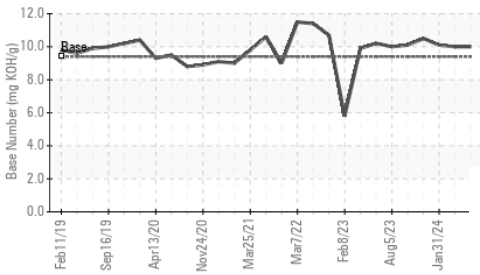


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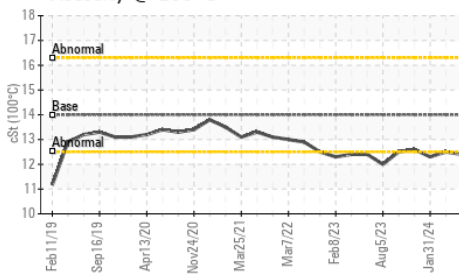
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

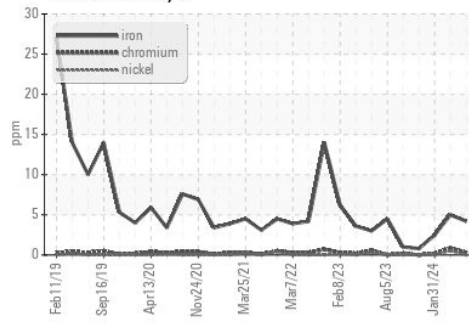


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

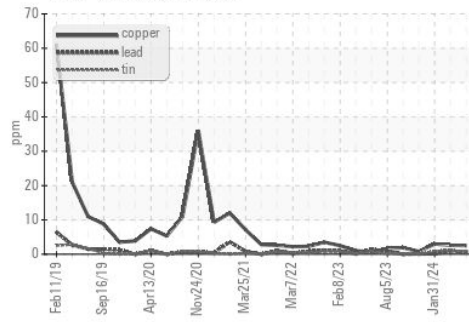
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 14	12.4	12.5	12.3

GRAPHS

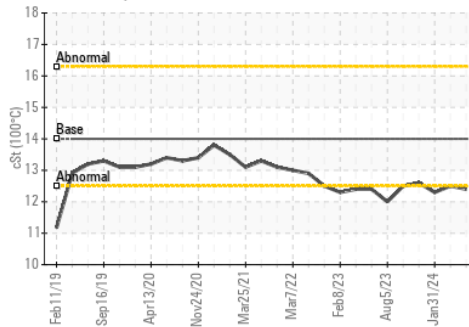
Ferrous Alloys



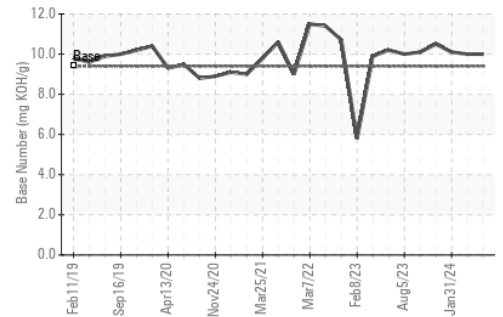
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0935123 **Received** : 12 Jun 2024
Lab Number : **06207588** **Tested** : 13 Jun 2024
Unique Number : 11075049 **Diagnosed** : 13 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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 3219 WEST MAY ST
 WICHITA, KS
 US 67213
 Contact: DOUG KING
 doug.king@sherwood.net
 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)