



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL



Area
OKLAHOMA/3/EG - LOADER
Machine Id
50.25L [OKLAHOMA^3^EG - LOADER]
Component
Diesel Engine
Fluid
MOBIL 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0886944	WC0726146	WC0746328
Sample Date		Client Info		31 Jan 2024	10 Dec 2022	27 Oct 2022
Machine Age	hrs	Client Info		22322	21603	21310
Oil Age	hrs	Client Info		21603	21310	744
Filter Age	hrs	Client Info		21603	21310	744
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	MARGINAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	26	23	53
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	▲ 1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	<1
Lead	ppm	ASTM D5185m	>40	<1	1	2
Copper	ppm	ASTM D5185m	>330	11	2	9
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Light fuel dilution occurring.

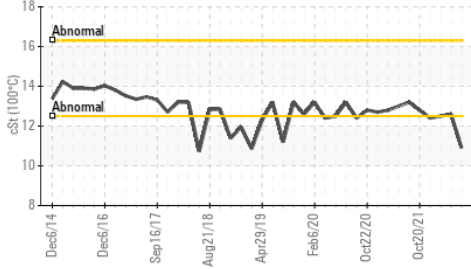
Silicon	ppm	ASTM D5185m	>25	12	4	6
Potassium	ppm	ASTM D5185m	>20	1	0	0
Fuel	%	ASTM D3524	>5	▲ 2.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.8	1.6
Nitration	Abs/cm	*ASTM D7624	>20	6.7	7.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	24.7	26.5
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

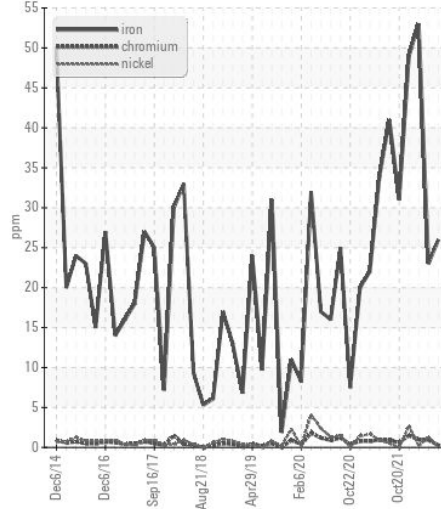
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>118	6	3	0
Boron	ppm	ASTM D5185m		48	49	36
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		36	41	39
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		449	481	477
Calcium	ppm	ASTM D5185m		1579	1621	1727
Phosphorus	ppm	ASTM D5185m		866	738	700
Zinc	ppm	ASTM D5185m		1020	865	874
Sulfur	ppm	ASTM D5185m		2643	2497	2661
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	21.3	21.7
Base Number (BN)	mg KOH/g	ASTM D2896		10.1	10.0	10.0
Visc @ 100°C	cSt	ASTM D445		▲ 10.9	12.6	12.5

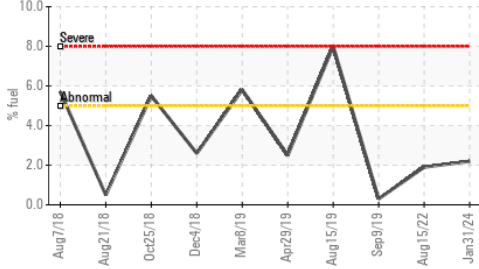
▲ Viscosity @ 100°C



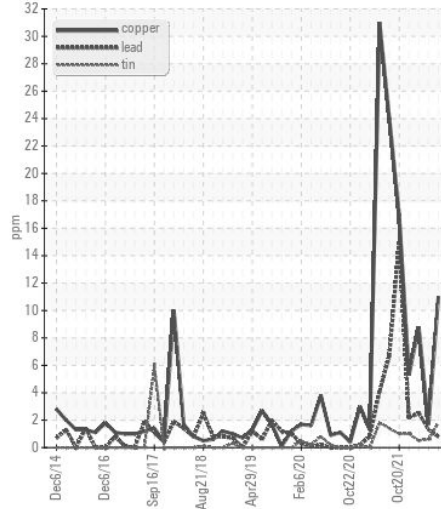
Ferrous Alloys



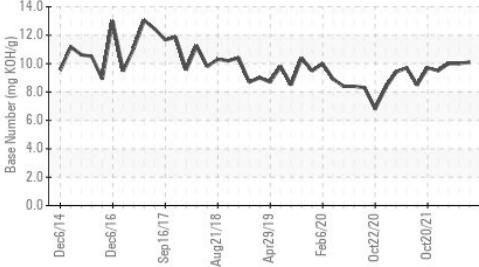
▲ Fuel Dilution



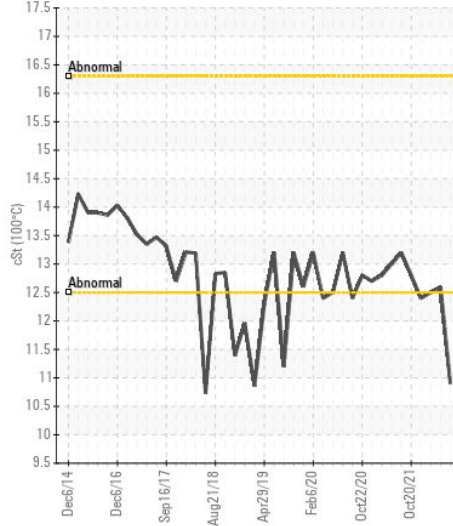
Non-ferrous Metals



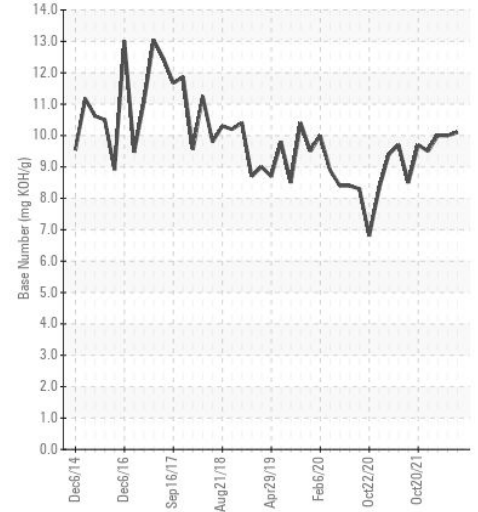
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886944 **Received** : 23 Feb 2024
Lab Number : 06098112 **Tested** : 27 Feb 2024
Unique Number : 10896342 **Diagnosed** : 27 Feb 2024 - Wes Davis
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)