MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
RIG 4
Machine Id
CATERPILLAR 3512 R4-G-03 NKL
Component
Diesel Engine
Fluid
CHEVRON 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

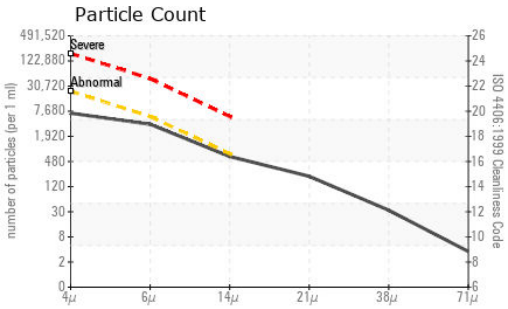
CONTAMINATION

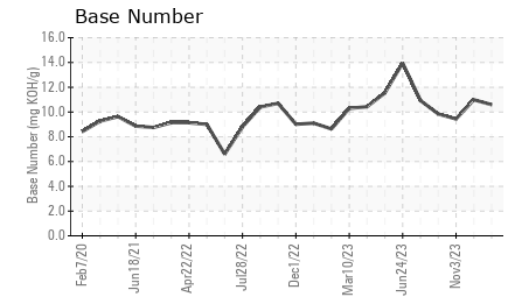
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

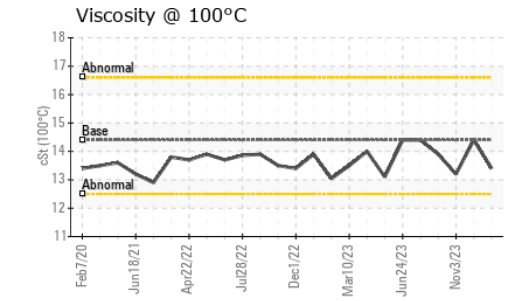
FLUID CONDITION

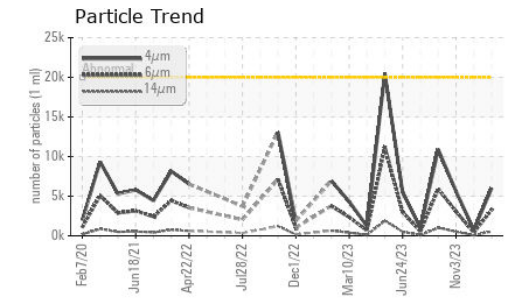
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

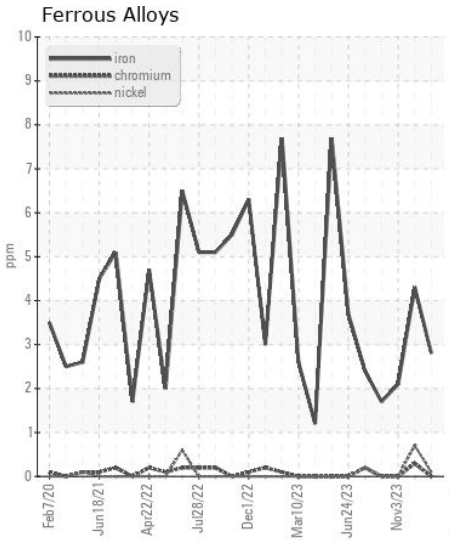
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013891	KL0014061	KL0013132
Sample Date		Client Info		28 Feb 2024	12 Dec 2023	03 Nov 2023
Machine Age	days	Client Info		45350	45272	45233
Oil Age	days	Client Info		0	0	0
Filter Age	days	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	3	4	2
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	2	3
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	0	3	<1
Tin	ppm	ASTM D5185m	>15	0	<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
Silicon	ppm	ASTM D5185m	>25	11	8	16
Potassium	ppm	ASTM D5185m	>20	0	2	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.6	4.5	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	22.4	24.2
Particles >4µm		ASTM D7647	>20000	5994	739	5629
Particles >6µm		ASTM D7647	>5000	3265	403	3066
Particles >14µm		ASTM D7647	>640	556	69	522
Particles >21µm		ASTM D7647	>160	187	23	176
Particles >38µm		ASTM D7647	>40	29	4	27
Particles >71µm		ASTM D7647	>10	3	0	3
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/16	17/16/13	20/19/16
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
Sodium	ppm	ASTM D5185m	>50	2	<1	2
Boron	ppm	ASTM D5185m		348	362	309
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		135	120	128
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		765	642	673
Calcium	ppm	ASTM D5185m		1808	1459	1498
Phosphorus	ppm	ASTM D5185m		804	666	721
Zinc	ppm	ASTM D5185m		923	802	839
Sulfur	ppm	ASTM D5185m		3216	2678	2435
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	15.3	18.1
Base Number (BN)	mg KOH/g	ASTM D2896		10.59	10.99	9.44
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	14.4	13.2

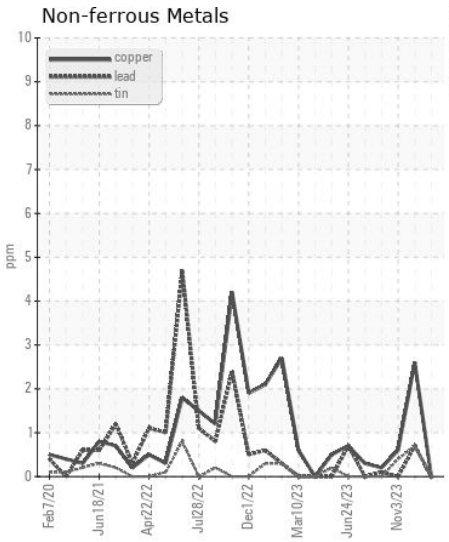


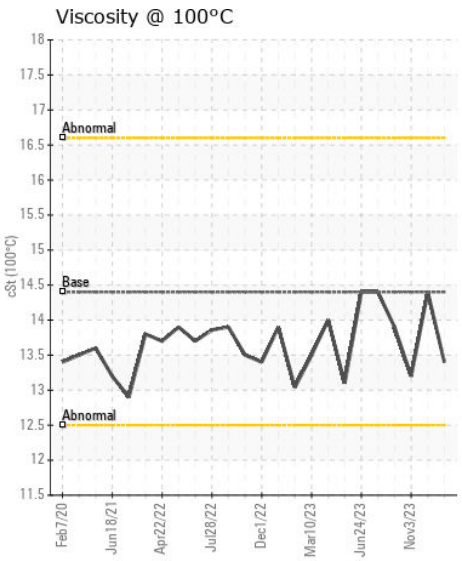


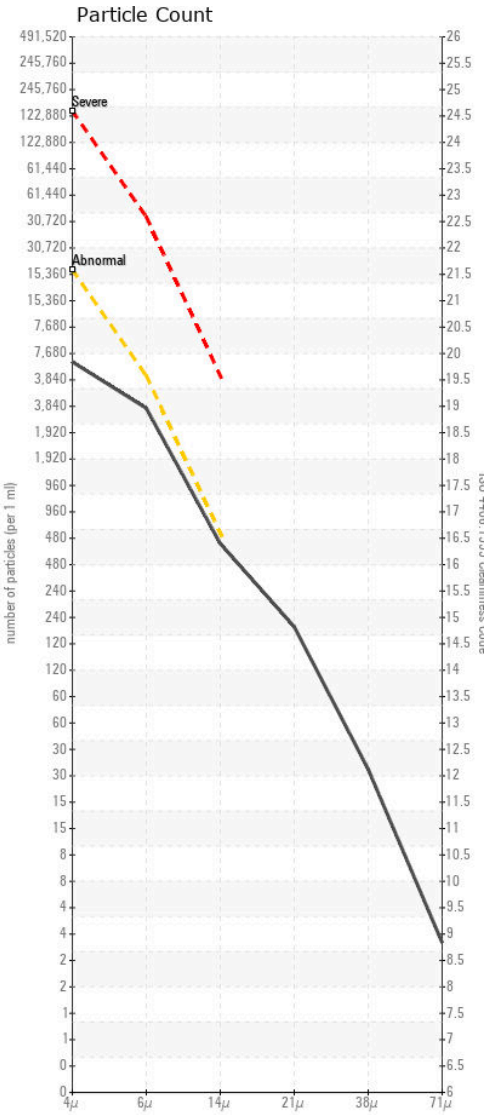


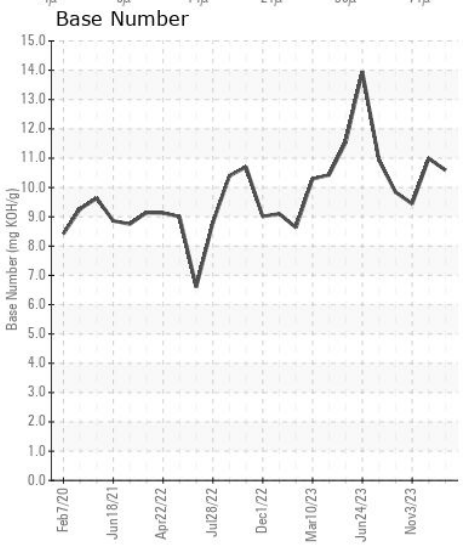












Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: KL0013891	**Received**	: 21 Mar 2024
Lab Number	: 06125814	**Tested**	: 25 Mar 2024
Unique Number	: 10939965	**Diagnosed**	: 25 Mar 2024 - Don Baldridge
Test Package	: MOB 2 (Additional Tests: PrtCount)		

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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