MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
RIG 5
Machine Id
R5-CHANGE SHACK 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

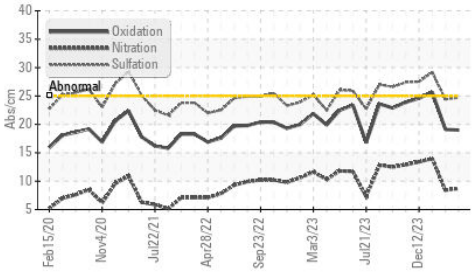
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

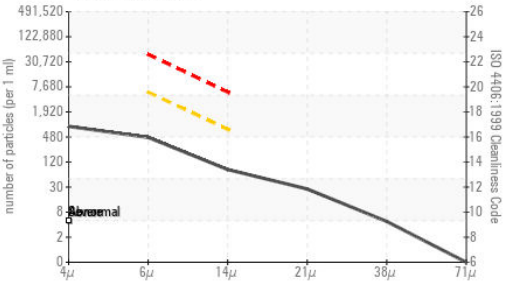
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013933	KL0013837	KL0014042
Sample Date		Client Info		20 Mar 2024	16 Feb 2024	11 Jan 2024
Machine Age	days	Client Info		45326	45338	45308
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	17	10	18
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	2
Lead	ppm	ASTM D5185m	>40	<1	<1	2
Copper	ppm	ASTM D5185m	>330	83	60	193
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	6	6
Potassium	ppm	ASTM D5185m	>20	5	3	6
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	1.2	1.1	2.6
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.4	14.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.7	24.4	29.2
Particles >4µm		ASTM D7647		757	4776	4994
Particles >6µm		ASTM D7647	>5000	412	2602	2720
Particles >14µm		ASTM D7647	>640	70	443	463
Particles >21µm		ASTM D7647	>160	24	149	156
Particles >38µm		ASTM D7647	>40	4	23	24
Particles >71µm		ASTM D7647	>10	0	2	2
Oil Cleanliness		ISO 4406 (c)	>19/16	16/13	19/16	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	6	2	1
Boron	ppm	ASTM D5185m		333	255	180
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		97	93	62
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		489	523	343
Calcium	ppm	ASTM D5185m		1615	1506	1842
Phosphorus	ppm	ASTM D5185m		817	708	859
Zinc	ppm	ASTM D5185m		887	896	1023
Sulfur	ppm	ASTM D5185m		3136	2530	3068
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	19.1	25.7
Base Number (BN)	mg KOH/g	ASTM D2896		8.72	9.31	7.15
Visc @ 100°C	cSt	ASTM D445	14.4	15.2	15.1	15.6

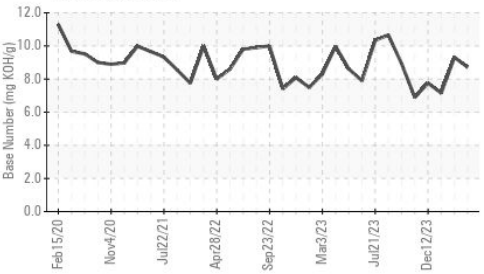
FT-IR (Direct Trend)



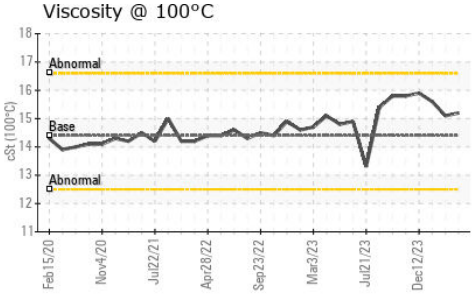
Particle Count



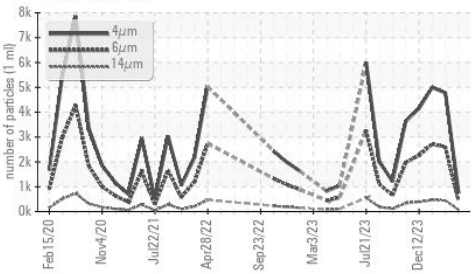
Base Number



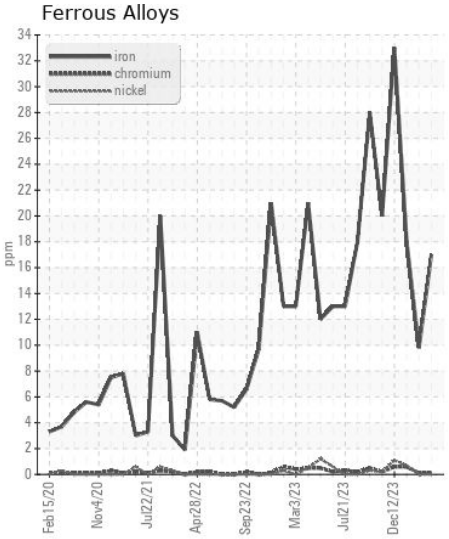
Viscosity @ 100°C



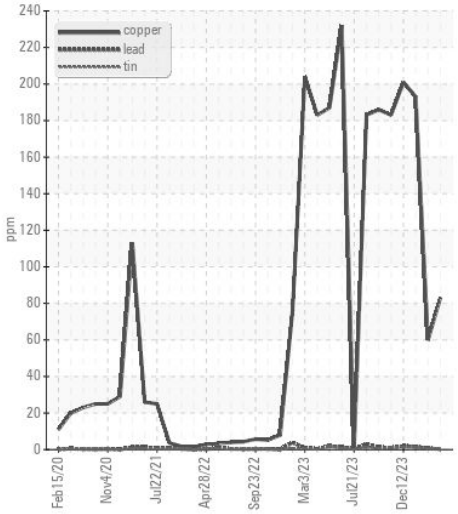
Particle Trend



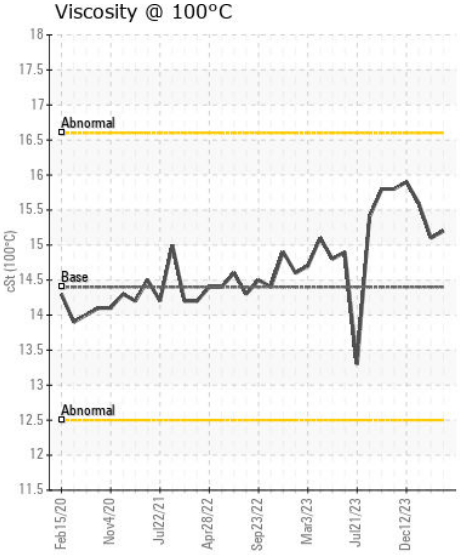
Ferrous Alloys



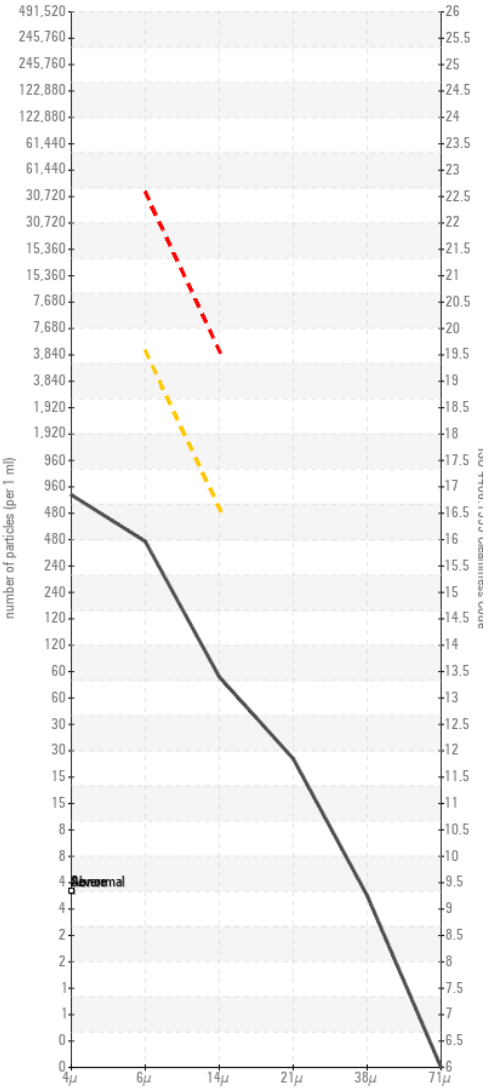
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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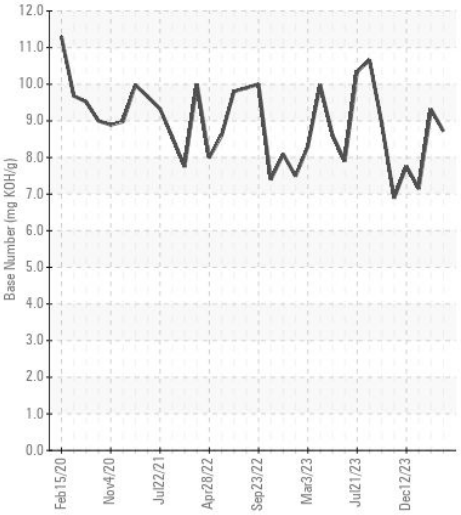

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: KL0013933	**Received**	: 10 Apr 2024
Lab Number	: 06145355	**Tested**	: 15 Apr 2024
Unique Number	: 10970163	**Diagnosed**	: 15 Apr 2024 - Jonathan Hester
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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