MOB II | TULCO OILS 006 - National Division | WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
JAL NM [25030]
Machine Id
MRC-204
Component
Natural Gas Engine
Fluid
TULCO LUBSOIL GEO XL LOW ASH 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Particle count performed inadvertently.

WEAR

All component wear rates are normal.

CONTAMINATION

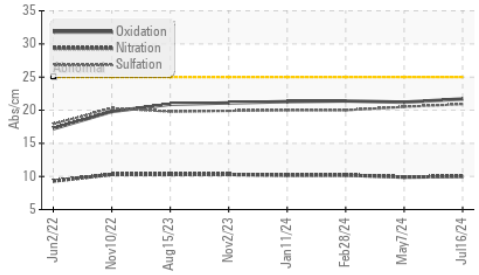
There is no indication of any contamination in the oil.

FLUID CONDITION

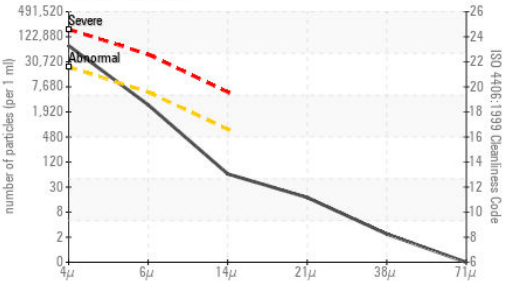
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO60002716	TO60002570	TO60001997
Sample Date		Client Info		16 Jul 2024	07 May 2024	28 Feb 2024
Machine Age	hrs	Client Info		25030	23949	22304
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Filter Changed		Client Info		Not Changd	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	15	13	11
Chromium	ppm	ASTM D5185m	>4	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	0	2
Lead	ppm	ASTM D5185m	>30	19	21	23
Copper	ppm	ASTM D5185m	>35	10	5	5
Tin	ppm	ASTM D5185m	>4	<1	<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	>+100	4	2	3
Potassium	ppm	ASTM D5185m	>20	4	0	3
Water	%	ASTM D6304	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.0	9.9	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	20.5	20.0
Particles >4µm		ASTM D7647	>20000	64808	---	---
Particles >6µm		ASTM D7647	>5000	2488	---	---
Particles >14µm		ASTM D7647	>640	55	---	---
Particles >21µm		ASTM D7647	>160	15	---	---
Particles >38µm		ASTM D7647	>40	2	---	---
Particles >71µm		ASTM D7647	>10	0	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	23/18/13	---	---
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		8	5	2
Boron	ppm	ASTM D5185m	100	54	69	66
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	1	1	0	2
Manganese	ppm	ASTM D5185m		2	<1	0
Magnesium	ppm	ASTM D5185m	10	12	8	10
Calcium	ppm	ASTM D5185m	1150	1376	1455	1349
Phosphorus	ppm	ASTM D5185m	290	290	299	283
Zinc	ppm	ASTM D5185m	272	359	373	358
Sulfur	ppm	ASTM D5185m	1900	2776	2722	2196
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.7	21.2	21.4
Acid Number (AN)	mg KOH/g	ASTM D8045		1.80	1.73	1.87
Base Number (BN)	mg KOH/g	ASTM D2896	4.2	2.99	3.57	3.42
Visc @ 40°C	cSt	ASTM D445	122	155	154	154
Visc @ 100°C	cSt	ASTM D445	13	14.7	14.8	14.7
Viscosity Index (VI)	Scale	ASTM D2270	103	93	94	93

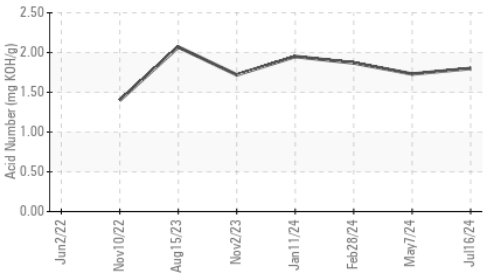
FT-IR (Direct Trend)



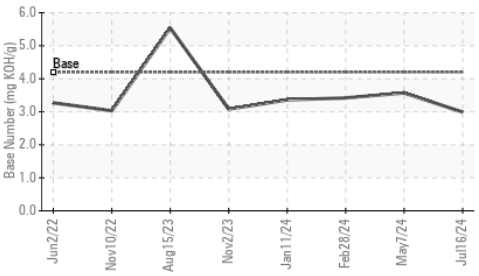
Particle Count



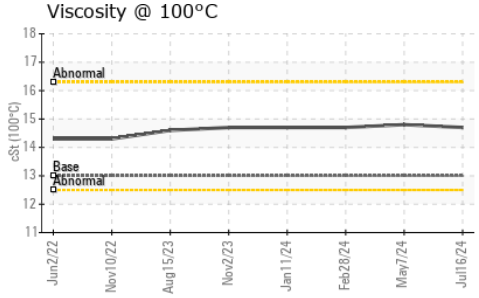
Acid Number



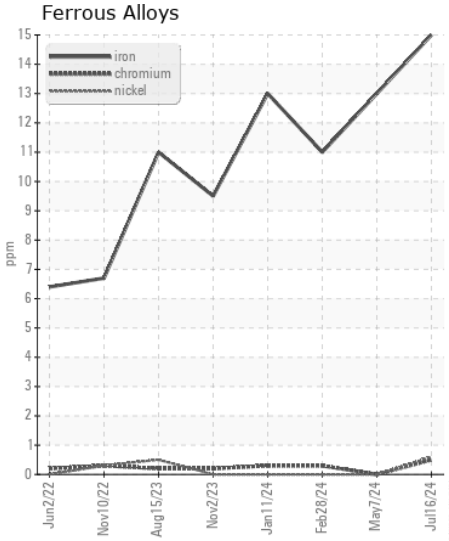
Base Number



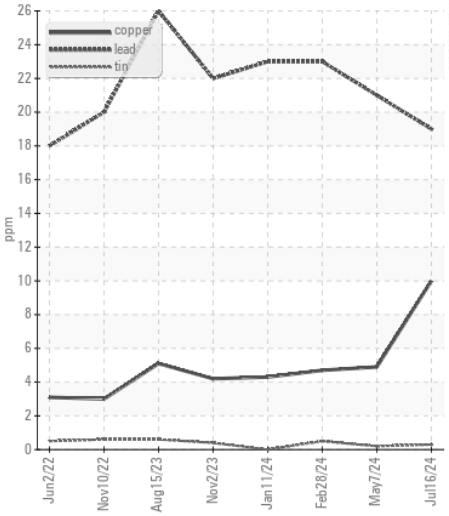
Viscosity @ 100°C



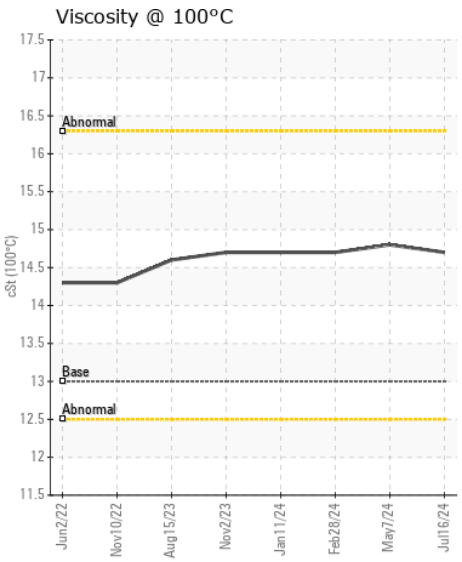
Ferrous Alloys



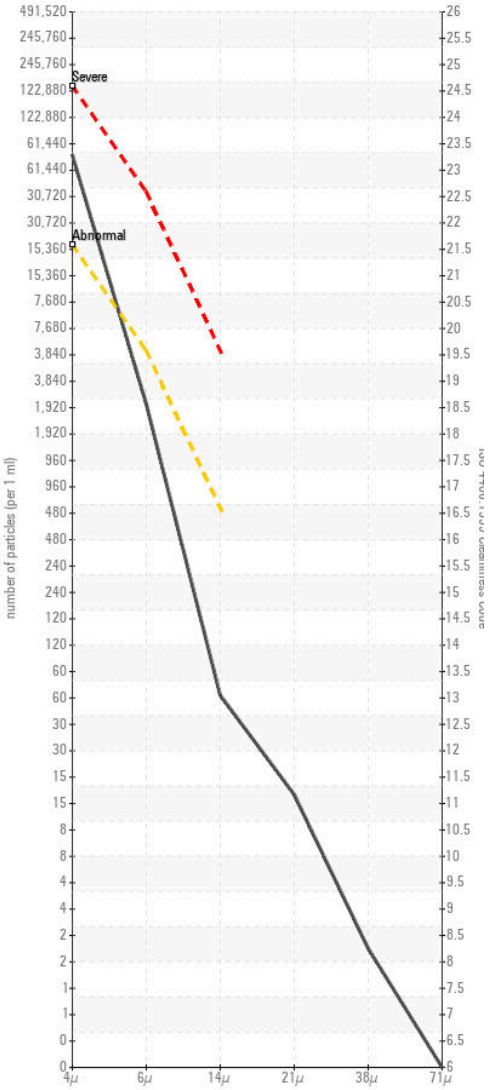
Non-ferrous Metals



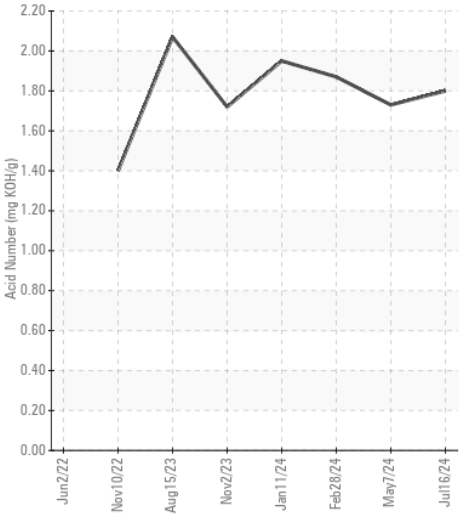
Viscosity @ 100°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60002716
Lab Number : 06238534
Unique Number : 11127368
Test Package : MOB 2 (Additional Tests: KF, KV40, PrtCount, VI)

Received : 16 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 19 Jul 2024 - Doug Bogart

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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