MOB II

TULCO OILS 006 - National Division

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
JAL NM
Machine Id
MRC-204
Component
Compressor
Fluid
TULCO LUBSOIL GEO XL LOW ASH 40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

The copper level is abnormal. All other component wear rates are normal.

CONTAMINATION

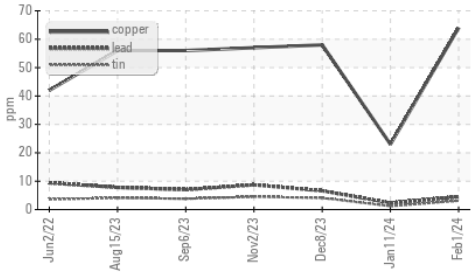
The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

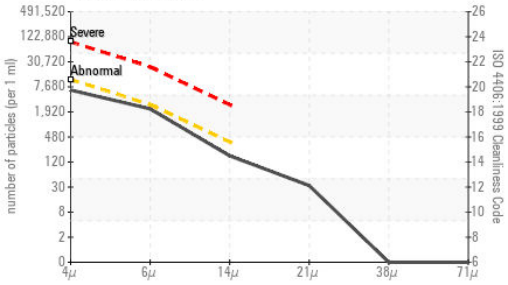
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO60001978	TO60002008	TO60001628
Sample Date		Client Info		01 Feb 2024	11 Jan 2024	08 Dec 2023
Machine Age	hrs	Client Info		21625	21170	20347
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Filter Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>50	0	2	5
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	2	2
Lead	ppm	ASTM D5185m	>25	4	2	7
Copper	ppm	ASTM D5185m	>50	▲ 64	23	▲ 58
Tin	ppm	ASTM D5185m	>15	3	1	4
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	<1	2	2
Potassium	ppm	ASTM D5185m	>20	0	2	1
Water	%	ASTM D6304	>0.1	0.008	0.007	0.020
ppm Water	ppm	ASTM D6304	>1000	82	71	203
Particles >4µm		ASTM D7647	>10000	5589	5816	4475
Particles >6µm		ASTM D7647	>2500	1988	1000	1277
Particles >14µm		ASTM D7647	>320	149	21	79
Particles >21µm		ASTM D7647	>80	29	5	17
Particles >38µm		ASTM D7647	>20	0	0	1
Particles >71µm		ASTM D7647	>4	0	0	1
Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/18/14	20/17/12	19/17/13
Silt	scalar	*Visual	NONE	NONE	NONE	MODER
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		3	0	2
Boron	ppm	ASTM D5185m	100	68	92	87
Barium	ppm	ASTM D5185m		0	3	0
Molybdenum	ppm	ASTM D5185m	1	<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	10	9	6	9
Calcium	ppm	ASTM D5185m	1150	1214	1215	1170
Phosphorus	ppm	ASTM D5185m	290	289	302	284
Zinc	ppm	ASTM D5185m	272	330	295	301
Sulfur	ppm	ASTM D5185m	1900	1864	3153	1662
Acid Number (AN)	mg KOH/g	ASTM D8045		0.663	1.19	0.973
Visc @ 40°C	cSt	ASTM D445	122	128	128	131
Visc @ 100°C	cSt	ASTM D445	13	13.3	13.2	13.4
Viscosity Index (VI)	Scale	ASTM D2270	103	97	96	96

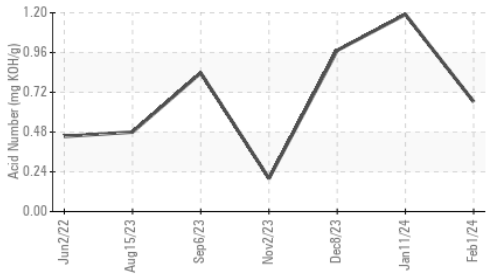
Non-ferrous Metals



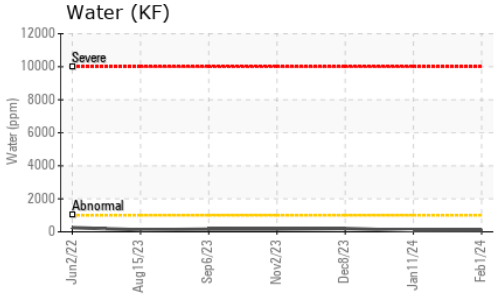
Particle Count



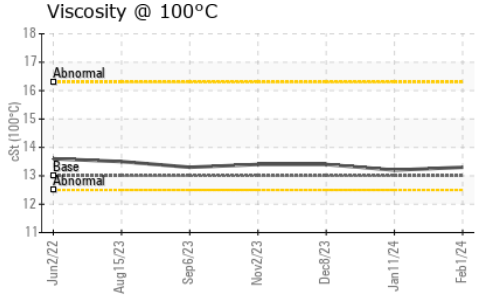
Acid Number



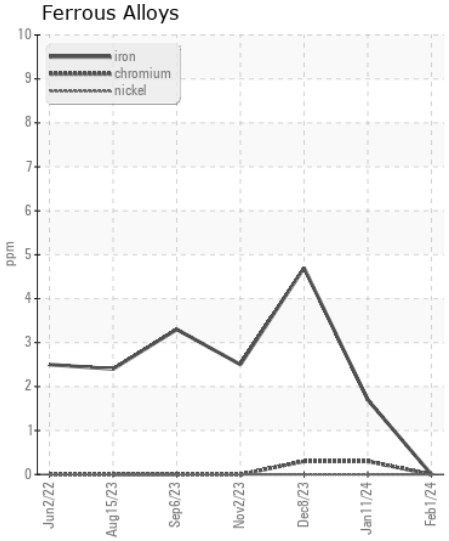
Water (KF)



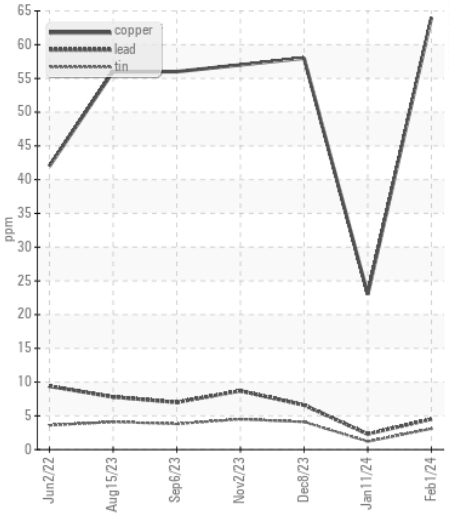
Viscosity @ 100°C



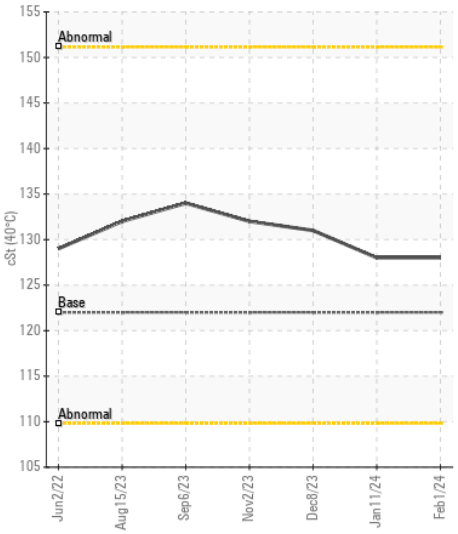
Ferrous Alloys



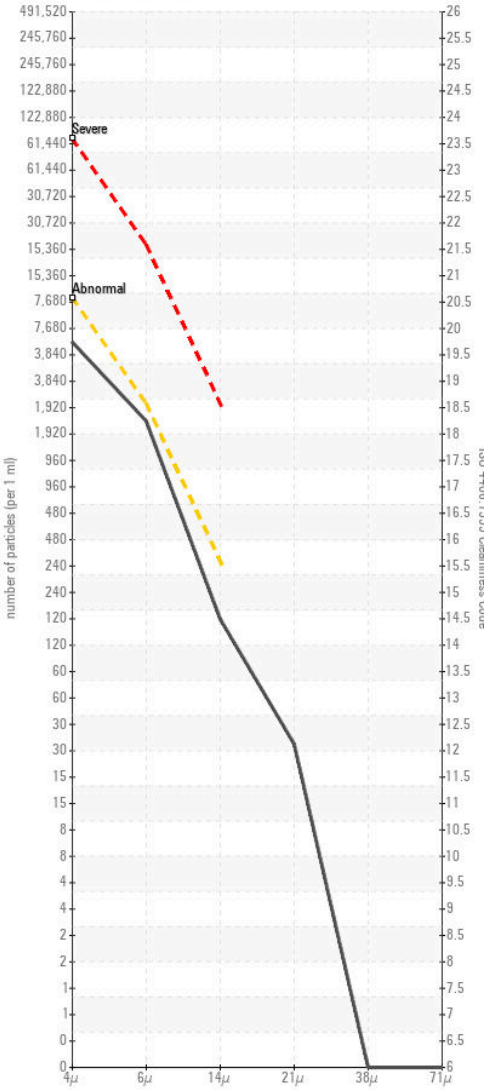
Non-ferrous Metals



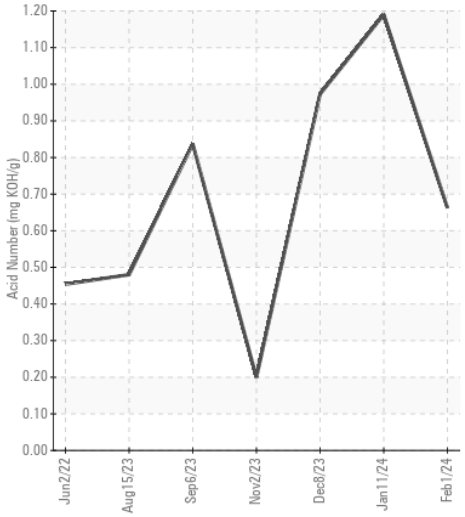
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60001978 **Received** : 13 Feb 2024
Lab Number : 06087286 **Tested** : 14 Feb 2024
Unique Number : 10874731 **Diagnosed** : 14 Feb 2024 - Don Baldridge
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI)

Certificate L2367

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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