



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
BAILEY CYL 288-308/NSL02006WT0623 - MCELROY

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO10001944	---	---
Sample Date		Client Info		08 Feb 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	1	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>20	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	2	---	---
Lead	ppm	ASTM D5185m	>20	<1	---	---
Copper	ppm	ASTM D5185m	>20	2	---	---
Tin	ppm	ASTM D5185m	>20	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	LIGHT	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>15	0	---	---
Potassium	ppm	ASTM D5185m	>20	9	---	---
Water	%	ASTM D6304	>0.05	0.005	---	---
ppm Water	ppm	ASTM D6304	>500	58	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ MODER	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---	---

FLUID CONDITION

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m	5	0	---	---
Barium	ppm	ASTM D5185m	5	14	---	---
Molybdenum	ppm	ASTM D5185m	5	1	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	25	<1	---	---
Calcium	ppm	ASTM D5185m	200	57	---	---
Phosphorus	ppm	ASTM D5185m	300	331	---	---
Zinc	ppm	ASTM D5185m	370	438	---	---
Sulfur	ppm	ASTM D5185m	2500	842	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.49	---	---
Visc @ 40°C	cSt	ASTM D445	46	▲ 29.7	---	---
Visc @ 100°C	cSt	ASTM D445	6.7	▲ 5.6	---	---
Viscosity Index (VI)	Scale	ASTM D2270	97	129	---	---

▲ Viscosity @ 100°C



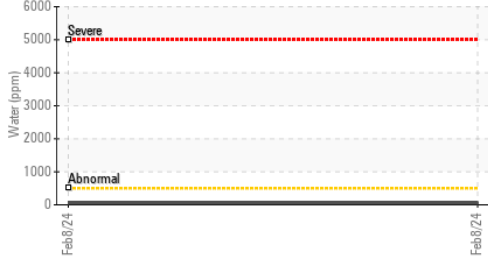
▲ Viscosity @ 40°C



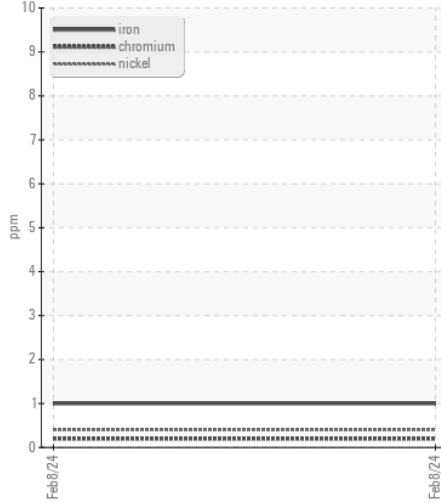
Acid Number



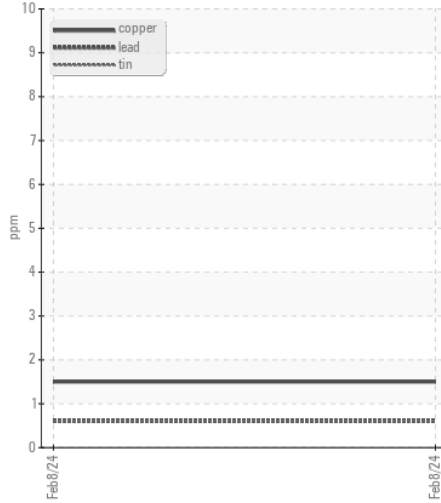
Water (KF)



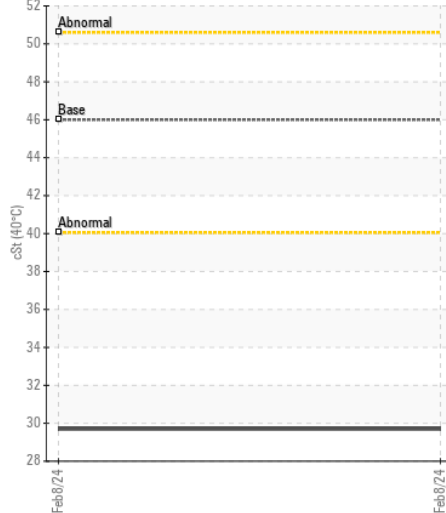
Ferrous Alloys



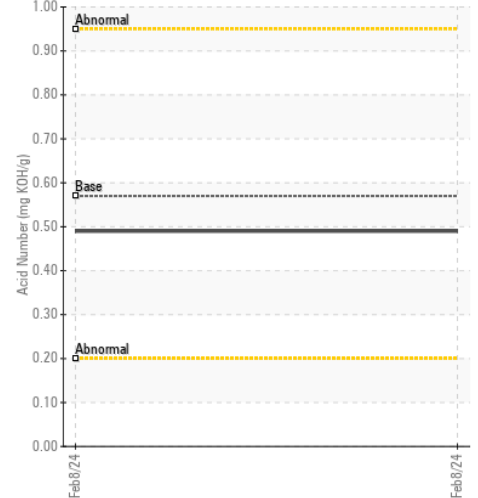
Non-ferrous Metals



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO10001944

Lab Number : 06086039

Unique Number : 10873484

Test Package : IND 2 (Additional Tests: KF, KV100, VI)

Received : 12 Feb 2024

Tested : 13 Feb 2024

Diagnosed : 13 Feb 2024 - Don Baldrige

TULCO OILS INC (001-TULSA DIVISION)

5240 EAST PINE

TULSA, OK

US 74115

Contact: DYLAN COPE

dylancope@tulco.com

T: (800)375-2347

F: x:

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)