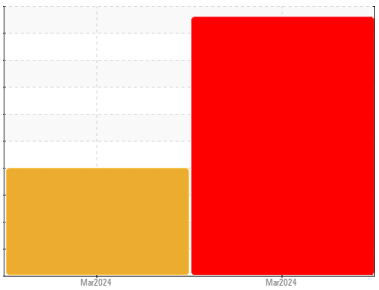
PROBLEM SUMMARY

Sample Rating Trend

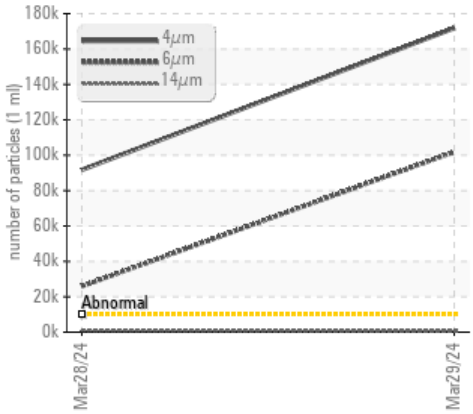


DIRT

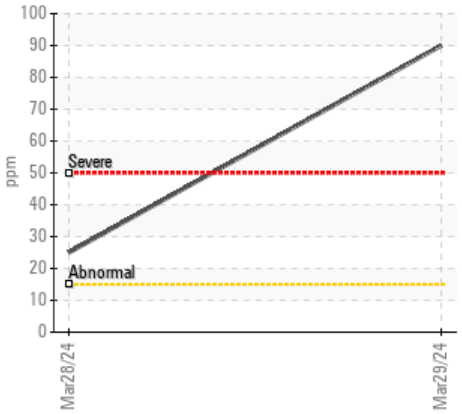
Machine Id
F465701
Component
Plain Bearing
Fluid
ROYAL PURPLE SYNFILM GT 32 (32 Oz)

COMPONENT CONDITION SUMMARY

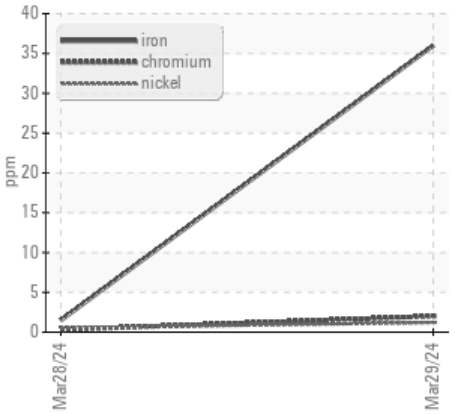
▲ Particle Trend



▲ Silicon (ppm)



▲ Ferrous Alloys



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	---
Iron	ppm	ASTM D5185m	>20	▲ **36**	2	---
Silicon	ppm	ASTM D5185m	>15	▲ **90**	▲ 25	---
Particles >4µm		ASTM D7647	>10000	▲ **171816**	▲ 91707	---
Particles >6µm		ASTM D7647	>2500	▲ **101828**	▲ 25898	---
Particles >14µm		ASTM D7647	>160	▲ **541**	▲ 1070	---
Oil Cleanliness		ISO 4406 (c)	>20/18/14	▲ **25/24/16**	▲ 24/22/17	---

Customer Id: CALGREMT
Sample No.: RP0038312
Lab Number: 06138053
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

DIRT

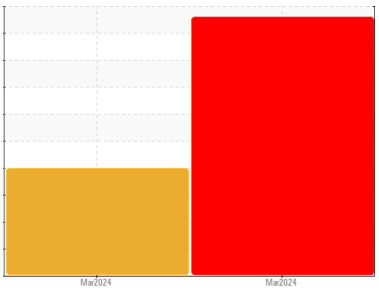
28 Mar 2024 Diag: Don Baldridge

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
F465701
Component
Plain Bearing
Fluid
ROYAL PURPLE SYNFILM GT 32 (32 Oz)

DIAGNOSIS

▲ Recommendation
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

▲ Wear
All component wear rates are normal.

▲ Contamination
There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RP0038312**	RP0038313	---
Sample Date		Client Info		**29 Mar 2024**	28 Mar 2024	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**SEVERE**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	▲ **36**	2	---
Chromium	ppm	ASTM D5185m	>20	**2**	<1	---
Nickel	ppm	ASTM D5185m	>20	**1**	<1	---
Titanium	ppm	ASTM D5185m		**<1**	<1	---
Silver	ppm	ASTM D5185m		**0**	0	---
Aluminum	ppm	ASTM D5185m	>20	**2**	2	---
Lead	ppm	ASTM D5185m	>20	**<1**	2	---
Copper	ppm	ASTM D5185m	>20	**2**	1	---
Tin	ppm	ASTM D5185m	>20	**8**	2	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	---
Cadmium	ppm	ASTM D5185m		**<1**	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**<1**	<1	---
Manganese	ppm	ASTM D5185m		**1**	<1	---
Magnesium	ppm	ASTM D5185m		**80**	78	---
Calcium	ppm	ASTM D5185m		**7**	8	---
Phosphorus	ppm	ASTM D5185m		**<1**	6	---
Zinc	ppm	ASTM D5185m		**2**	6	---

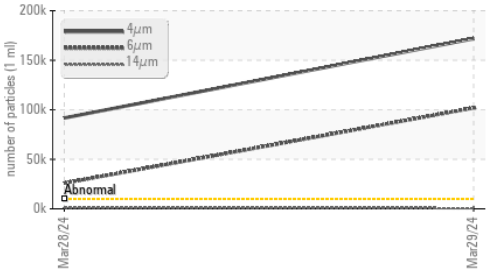
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	▲ **90**	▲ 25	---
Sodium	ppm	ASTM D5185m		**4**	4	---
Potassium	ppm	ASTM D5185m	>20	**47**	44	---
Water	%	ASTM D6304	>2	**0.008**	0.007	---
ppm Water	ppm	ASTM D6304		**84**	74	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **171816**	▲ 91707	---
Particles >6µm		ASTM D7647	>2500	▲ **101828**	▲ 25898	---
Particles >14µm		ASTM D7647	>160	▲ **541**	▲ 1070	---
Particles >21µm		ASTM D7647	>40	**22**	▲ 272	---
Particles >38µm		ASTM D7647	>10	**1**	▲ 13	---
Particles >71µm		ASTM D7647	>3	**0**	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/14	▲ **25/24/16**	▲ 24/22/17	---

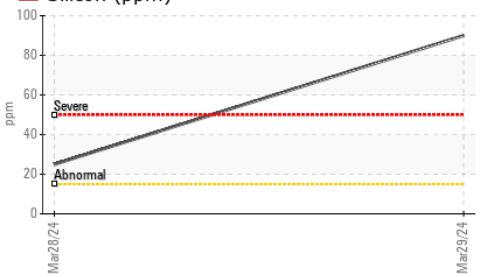
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.35**	0.35	---

OIL ANALYSIS REPORT

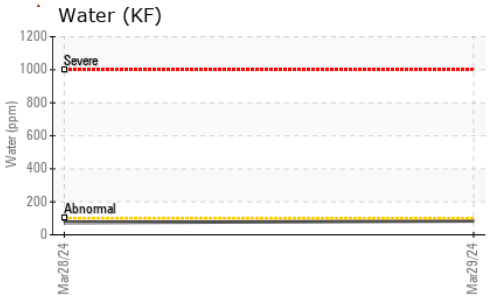
Particle Trend



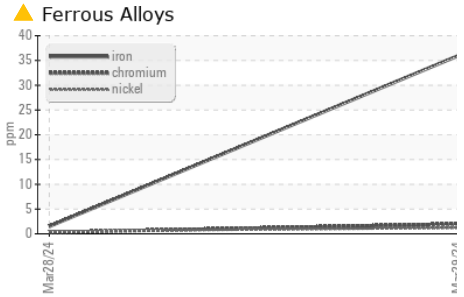
Silicon (ppm)



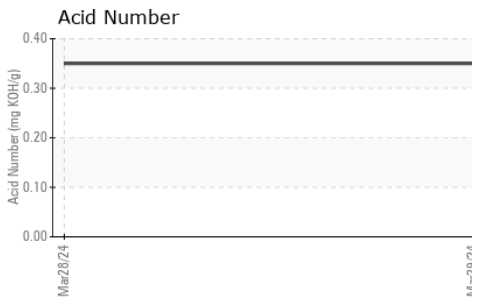
Water (KF)



Ferrous Alloys



Acid Number



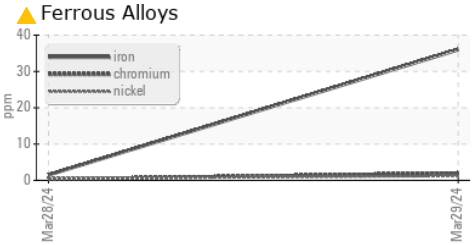
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>2	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	**32.7**	37.8	---

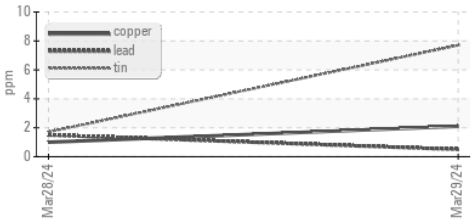
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

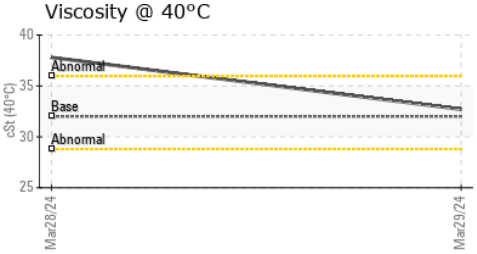
Ferrous Alloys



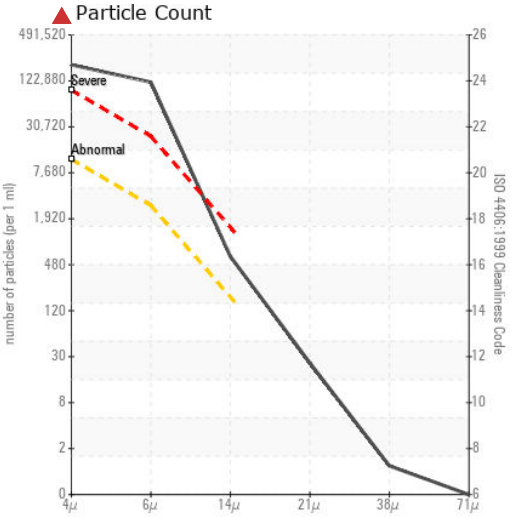
Non-ferrous Metals



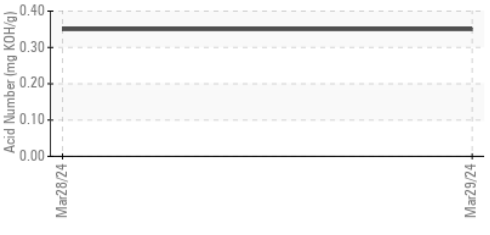
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038312
Lab Number : 06138053
Unique Number : 10962861
Test Package : IND 2 (Additional Tests: PrtCount)

Received : 03 Apr 2024
Tested : 04 Apr 2024
Diagnosed : 05 Apr 2024 - Don Baldridge

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)

CALUMET MONTANA REFINERY
1807 3RD ST NW
GREAT FALLS, MT
US 59404
Contact: CODY MCRADY
brian.schoechert@clmt.com
T: (406)454-9854
F:

Report Id: CALGREMT [WUSCAR] 06138053 (Generated: 04/05/2024 19:27:09) Rev: 1

Contact/Location: CODY MCRADY - CALGREMT