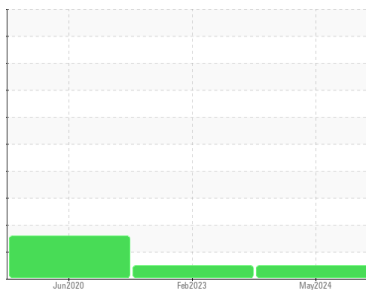




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

[618586]

Machine Id

MARION 8050 DL3124 - DRAG CASE (S/N 23187)

Component

Rear Gearbox

Fluid

{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			BRI006991	BRM001734	BRM001612
Sample Date	Client Info			15 May 2024	14 Feb 2023	03 Jun 2020
Machine Age	hrs	Client Info		126810	122910	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	30	192	383
Chromium	ppm	ASTM D5185m	>15	<1	2	3
Nickel	ppm	ASTM D5185m	>15	<1	2	3
Titanium	ppm	ASTM D5185m		0	<1	2
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	4	14
Lead	ppm	ASTM D5185m	>100	4	2	<1
Copper	ppm	ASTM D5185m	>200	82	67	110
Tin	ppm	ASTM D5185m	>25	1	<1	0
Antimony	ppm	ASTM D5185m	>5	---	---	1357
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

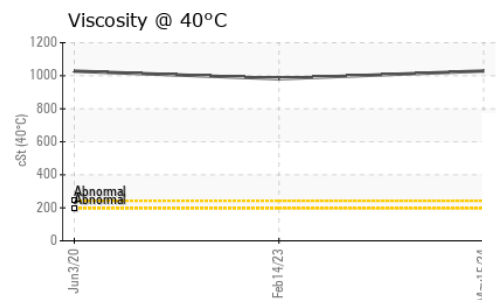
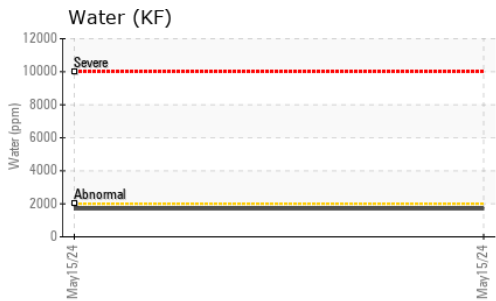
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		31	35	42
Manganese	ppm	ASTM D5185m		1	2	3
Magnesium	ppm	ASTM D5185m		<1	2	5
Calcium	ppm	ASTM D5185m		6	13	22
Phosphorus	ppm	ASTM D5185m		212	216	218
Zinc	ppm	ASTM D5185m		31	30	68
Sulfur	ppm	ASTM D5185m		7378	6214	9446

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	24	33	▲ 75
Sodium	ppm	ASTM D5185m		2	2	2
Potassium	ppm	ASTM D5185m	>20	4	0	7
Water	%	ASTM D6304	>0.2	0.170	---	---
ppm Water	ppm	ASTM D6304	>2000	1700	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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	0.2%	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG



OIL ANALYSIS REPORT

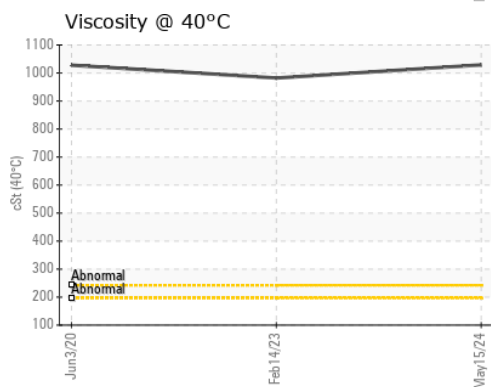
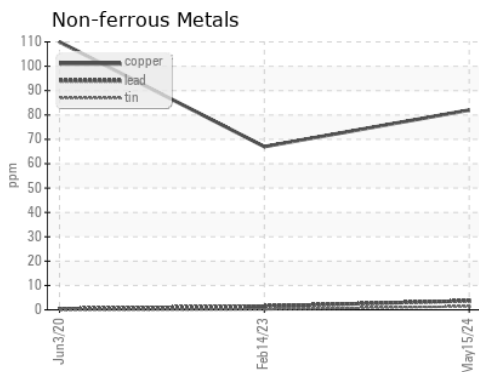
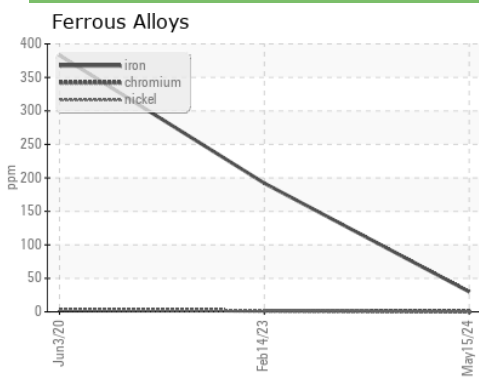


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	1029.	982	1028

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : BRI006991
Lab Number : 06207012
Unique Number : 11074473
Test Package : IND 1 (Additional Tests: KF)

Received : 11 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 2024 - Wes Davis

WESTMORELAND ROSEBUD MINING
 PO BOX 99
 COLSTRIP, MT
 US 59323
 Contact: RUSS ANZALONE
 CANZALONE@WESTMORELAND.COM

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)

T:
F: