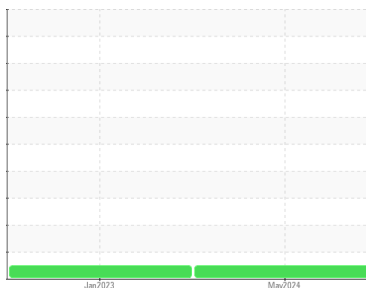




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**MARION 8200 DL3127 - DRAG CASE 1 (S/N 23266)**  
 Component  
**Front Gearbox**  
 Fluid  
**{not provided} (100 GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.  
 Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

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			<b>BRI001880</b>	BRM001736	---
Sample Date	Client Info			<b>15 May 2024</b>	06 Jan 2023	---
Machine Age	hrs	Client Info		<b>217845</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	Not Changd	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>50</b>	39	---
Chromium	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	1	---
Lead	ppm	ASTM D5185m	>100	<b>5</b>	1	---
Copper	ppm	ASTM D5185m	>200	<b>20</b>	9	---
Tin	ppm	ASTM D5185m	>25	<b>1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

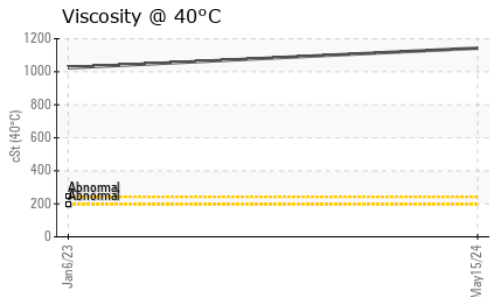
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>85</b>	69	---
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>2</b>	<1	---
Calcium	ppm	ASTM D5185m		<b>8</b>	4	---
Phosphorus	ppm	ASTM D5185m		<b>578</b>	466	---
Zinc	ppm	ASTM D5185m		<b>21</b>	18	---
Sulfur	ppm	ASTM D5185m		<b>7416</b>	5749	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>24</b>	12	---
Sodium	ppm	ASTM D5185m		<b>2</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	1	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---
Free Water	scalar	*Visual		<b>NEG</b>	NEG	---



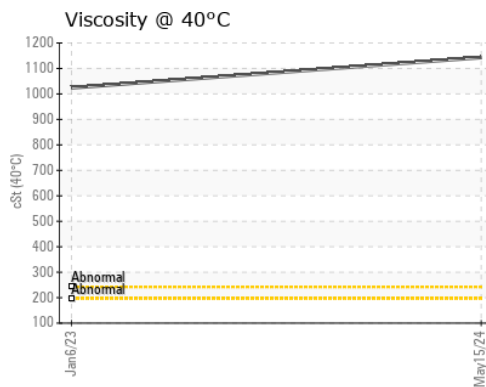
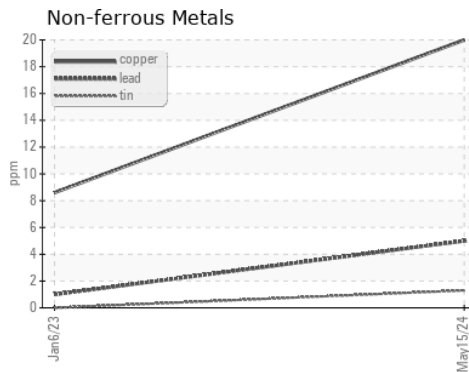
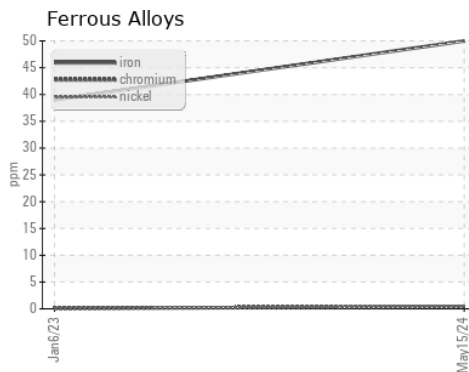
# OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	<b>1143</b>	1024	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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.** : BRI001880  
**Lab Number** : 06207000  
**Unique Number** : 11074461  
**Test Package** : IND 1

**Received** : 11 Jun 2024  
**Tested** : 13 Jun 2024  
**Diagnosed** : 13 Jun 2024 - Don Baldrige

**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: