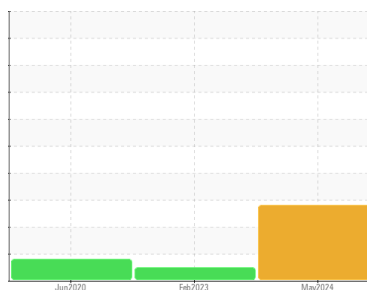




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area
[618586]
 Machine Id
MARION 8050 DL3124 (S/N 23187)
 Component
Rear Hoist
 Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil viscosity is higher than normal. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			BRI006998	BRM001738	BRM000792
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				ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	86	68	40
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>20	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 92	4	4
Lead	ppm	ASTM D5185m	>20	5	2	3
Copper	ppm	ASTM D5185m	>20	60	87	▲ 116
Tin	ppm	ASTM D5185m	>20	1	0	0
Antimony	ppm	ASTM D5185m		---	---	253
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

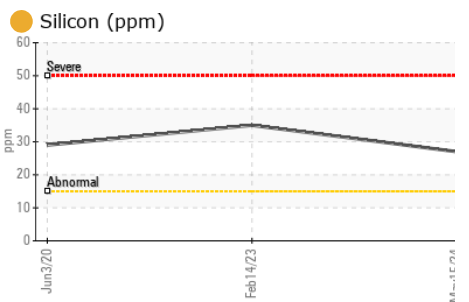
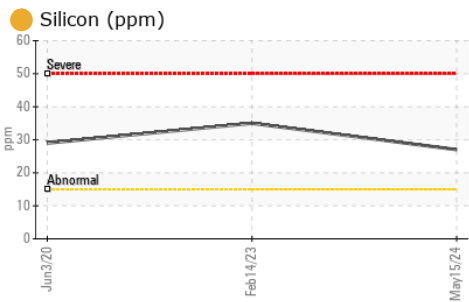
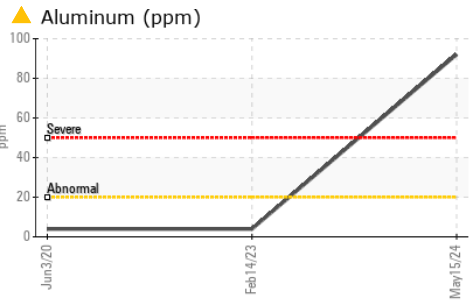
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		14	2	2
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		455	34	22
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		<1	0	<1
Calcium	ppm	ASTM D5185m		7	6	2
Phosphorus	ppm	ASTM D5185m		305	202	90
Zinc	ppm	ASTM D5185m		58	19	31
Sulfur	ppm	ASTM D5185m		6718	7350	5737

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	● 27	35	29
Sodium	ppm	ASTM D5185m		3	1	<1
Potassium	ppm	ASTM D5185m	>20	5	0	6

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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	LIGHT
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	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG



OIL ANALYSIS REPORT

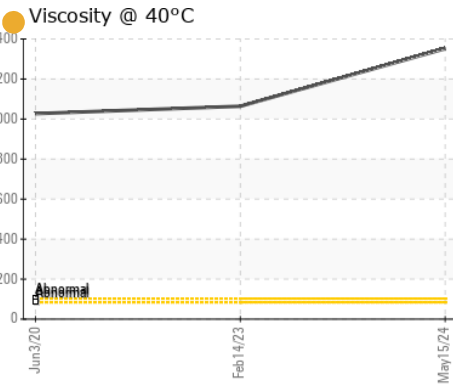
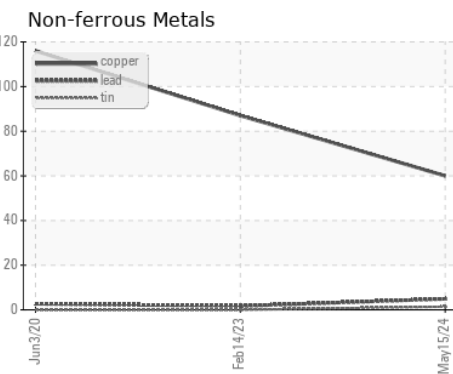
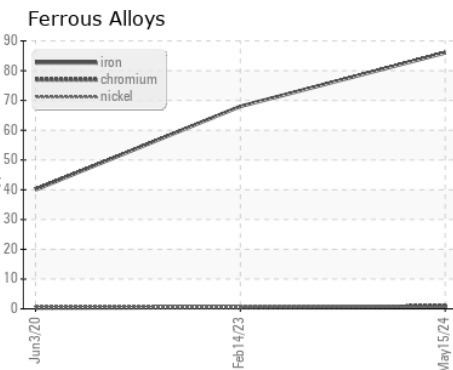


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	● 1352.	1064	1027

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. : BRI006998 **Received** : 11 Jun 2024
Lab Number : 06207011 **Tested** : 17 Jun 2024
Unique Number : 11074472 **Diagnosed** : 18 Jun 2024 - Angela Borella
Test Package : IND 1

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)