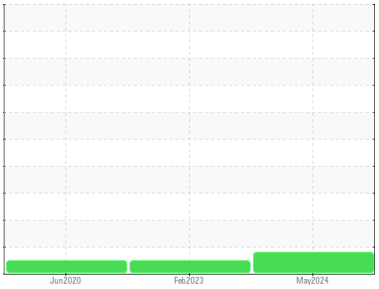
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
[618586]
Machine Id
MARION 8050 DL3124 (S/N 23187)
Component
Front Hoist
Fluid
BELRAY 1000 GL (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
The aluminum level is abnormal. All component wear rates are normal. All other 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		**BRI006993**	BRM001756	BRM000796
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	NORMAL

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	**64**	73	124
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>20	**<1**	<1	1
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	▲ **106**	2	5
Lead	ppm	ASTM D5185m	>20	**5**	2	0
Copper	ppm	ASTM D5185m	>20	**26**	41	74
Tin	ppm	ASTM D5185m	>20	**1**	<1	0
Antimony	ppm	ASTM D5185m		**---**	---	1003
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

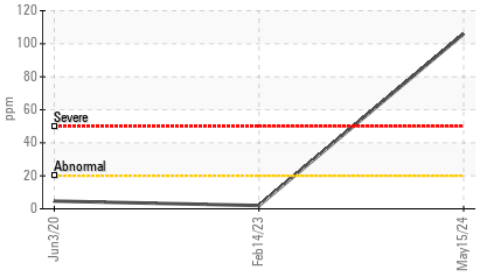
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**13**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**459**	49	49
Manganese	ppm	ASTM D5185m		**1**	<1	1
Magnesium	ppm	ASTM D5185m		**2**	<1	2
Calcium	ppm	ASTM D5185m		**9**	12	11
Phosphorus	ppm	ASTM D5185m		**395**	276	189
Zinc	ppm	ASTM D5185m		**63**	19	29
Sulfur	ppm	ASTM D5185m		**7473**	6091	9041

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**36**	44	43
Sodium	ppm	ASTM D5185m		**3**	1	<1
Potassium	ppm	ASTM D5185m	>20	**4**	0	13

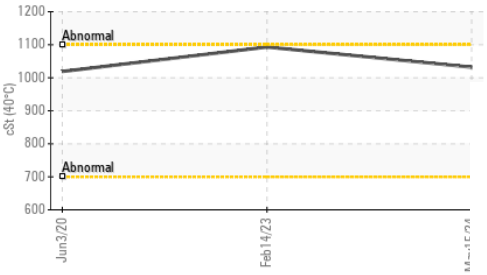
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

Aluminum (ppm)



Viscosity @ 40°C

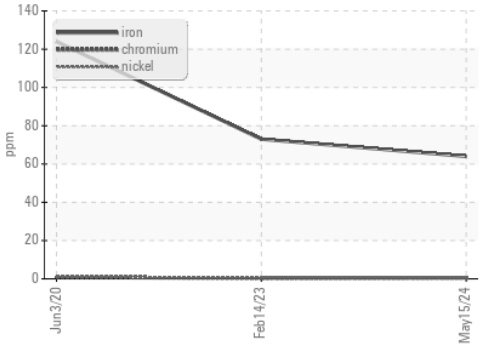


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**1032.**	1093	1019

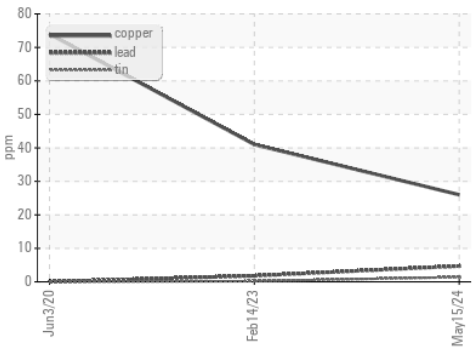
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

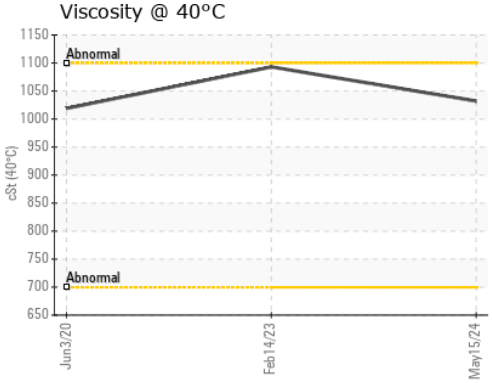
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : BRI006993
Lab Number : 06207013
Unique Number : 11074474
Test Package : IND 1

Received : 11 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 18 Jun 2024 - Angela Borella

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)

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