



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**BIG DIPPER**

Component  
**2 Hoist**

Fluid  
**GEAR OIL ISO 320 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0057221</b>	MW0065031	MW0052310
Sample Date		Client Info		<b>21 May 2024</b>	01 Feb 2024	11 Jul 2023
Machine Age	hrs	Client Info		<b>0</b>	17601	16329
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>171	<b>122</b>	▲ 192	114
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>7	<b>0</b>	3	<1
Lead	ppm	ASTM D5185m	>87	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m	>95	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

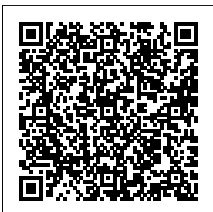
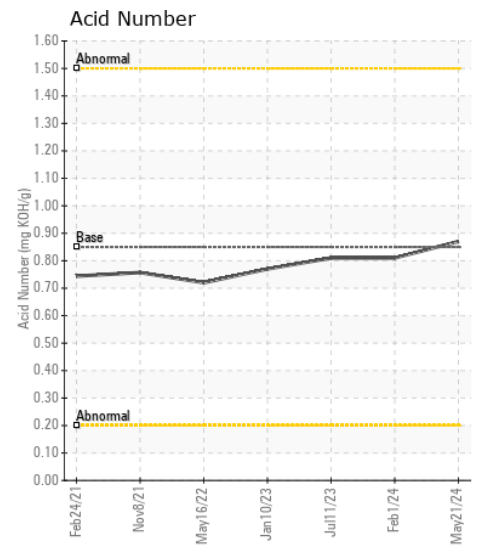
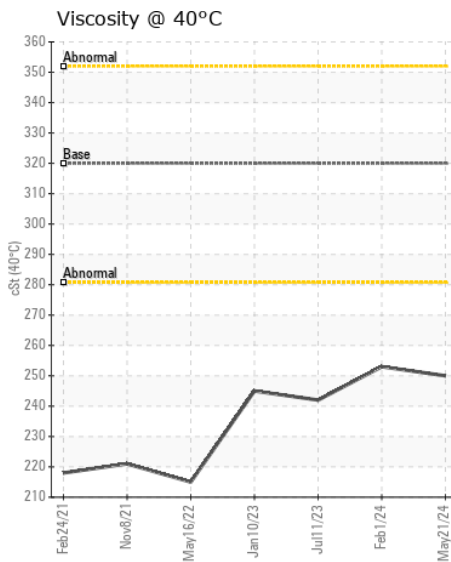
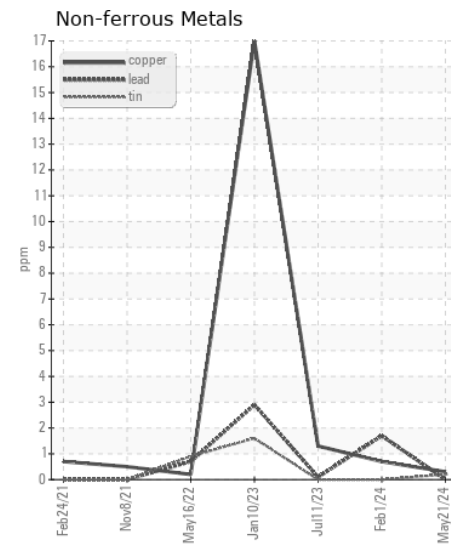
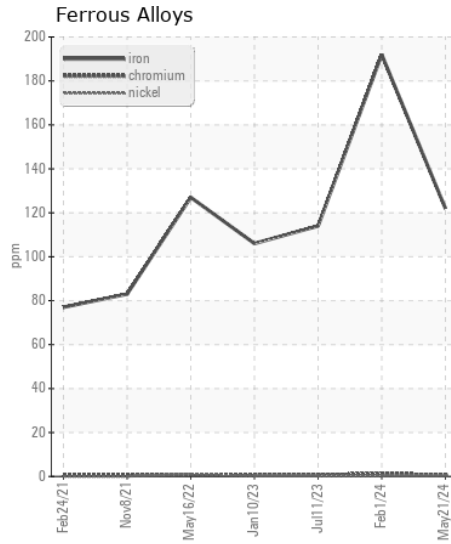
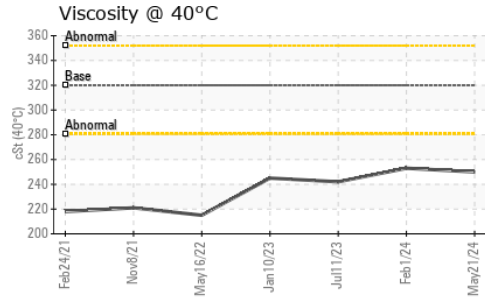
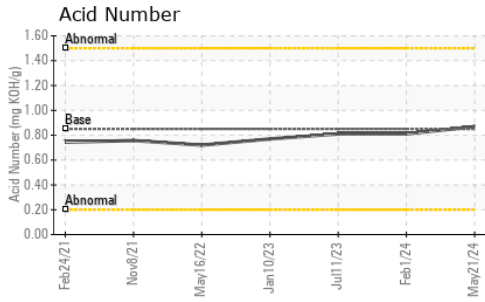
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>32	<b>&lt;1</b>	2	<1
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	<1
Water		WC Method	>0.05	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	1
Boron	ppm	ASTM D5185m	50	<b>21</b>	25	21
Barium	ppm	ASTM D5185m	15	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	15	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>1</b>	1	1
Magnesium	ppm	ASTM D5185m	50	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	50	<b>0</b>	8	0
Phosphorus	ppm	ASTM D5185m	350	<b>327</b>	364	329
Zinc	ppm	ASTM D5185m	100	<b>&lt;1</b>	12	2
Sulfur	ppm	ASTM D5185m	12500	<b>16907</b>	15887	16593
Acid Number (AN)	mg KOH/g	ASTM D8045	0.85	<b>0.87</b>	0.81	0.81
Visc @ 40°C	cSt	ASTM D445	320	<b>250</b>	253	242



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0057221  
**Lab Number** : 06214914  
**Unique Number** : 11087778  
**Test Package** : MAR 2

**Received** : 19 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Sean Felton

**AMERICAN RIVER TRANSPORTATION CO.**  
 P.O. BOX 2889  
 ST. LOUIS, MO  
 US 63111  
 Contact: BRIAN GRIEWING  
 brian.griewing@adm.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)

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