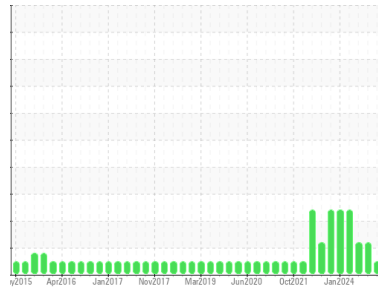




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
RIVER EAGLE

Machine Id
REA

Component
Port Main Engine

Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (39 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		MW0063941	MW0063836	MW0063845
Sample Date	Client Info		18 Jun 2024	02 May 2024	10 Apr 2024
Machine Age	hrs	Client Info	5004	4161	4010
Oil Age	hrs	Client Info	835	833	0
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			NORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >75	5	11	9
Chromium	ppm	ASTM D5185m >8	0	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	<1	<1
Titanium	ppm	ASTM D5185m >3	14	13	14
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >15	2	<1	<1
Lead	ppm	ASTM D5185m >18	<1	4	3
Copper	ppm	ASTM D5185m >80	<1	2	1
Tin	ppm	ASTM D5185m >14	0	2	1
Vanadium	ppm	ASTM D5185m	<1	<1	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 151	100	94	101
Barium	ppm	ASTM D5185m 0.4	0	0	0
Molybdenum	ppm	ASTM D5185m 250	40	36	36
Manganese	ppm	ASTM D5185m	<1	1	1
Magnesium	ppm	ASTM D5185m 0	791	647	664
Calcium	ppm	ASTM D5185m 2046	1535	1303	1336
Phosphorus	ppm	ASTM D5185m 1043	765	634	637
Zinc	ppm	ASTM D5185m 943	872	744	759
Sulfur	ppm	ASTM D5185m 5012	3814	3065	3148

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	5	7	5
Sodium	ppm	ASTM D5185m >75	3	0	0
Potassium	ppm	ASTM D5185m >20	3	4	4
Fuel	%	ASTM D3524 >4.0	0.8	▲ 5.2	▲ 3.9

INFRA-RED

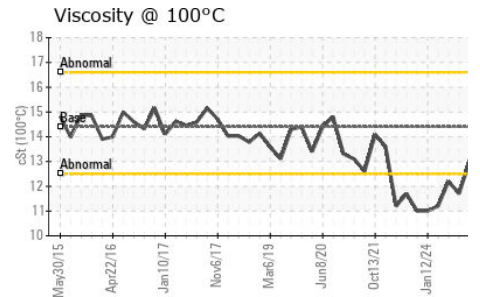
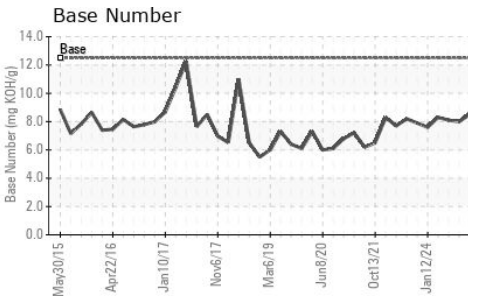
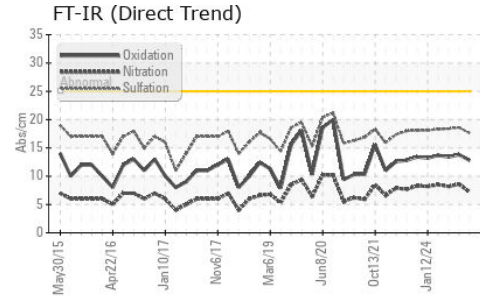
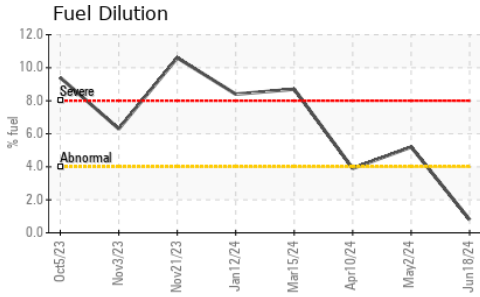
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	7.2	8.6	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.6	18.6	18.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.8	13.8	13.4
Base Number (BN)	mg KOH/g	ASTM D2896 12.5	8.5	8.0	8.1



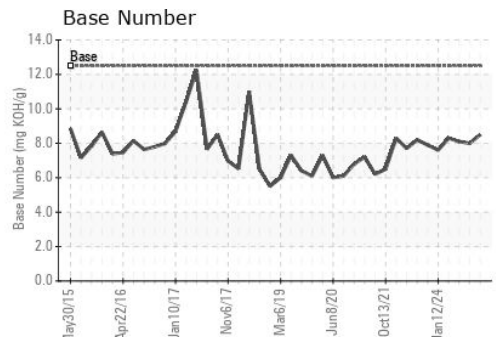
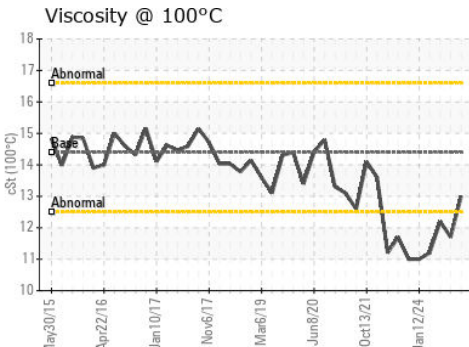
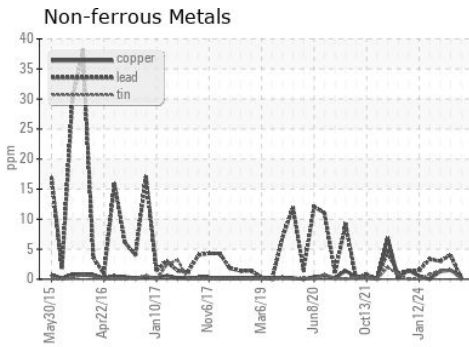
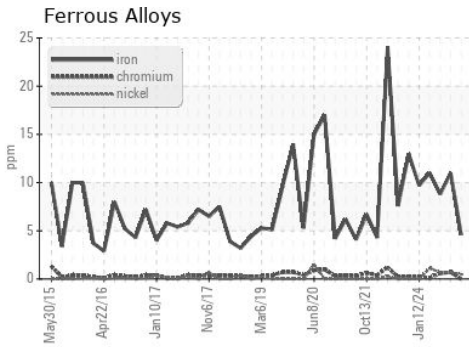
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	▲ 11.7 ▲ 12.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0063941 **Received** : 25 Jun 2024
Lab Number : 06219435 **Tested** : 27 Jun 2024
Unique Number : 11097632 **Diagnosed** : 27 Jun 2024 - Jonathan Hester
Test Package : MAR 2 (Additional Tests: PercentFuel)

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)

F: (314)481-5278