



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Area

RIVER EAGLE

Machine Id

REA

Component

Starboard Main Engine

Fluid

CHEVRON DELO 400 MULTIGRADE 15W40 (39 GAL)

RECOMMENDATION

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0063942	MW0063862	MW0054604
Sample Date		Client Info		18 Jun 2024	02 May 2024	15 Mar 2024
Machine Age	hrs	Client Info		5115	4276	3443
Oil Age	hrs	Client Info		839	833	923
Filter Age	hrs	Client Info		839	833	923
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	SEVERE	NORMAL

WEAR

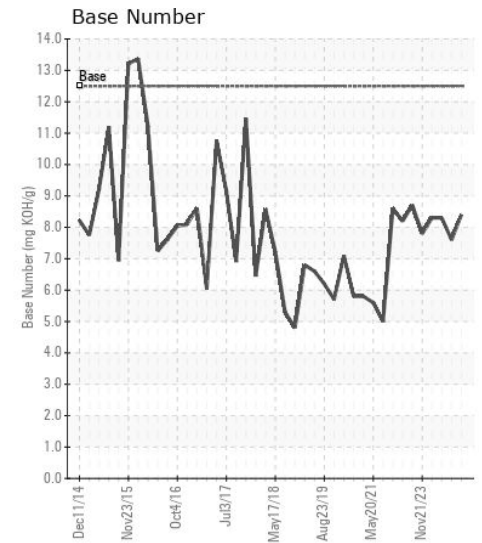
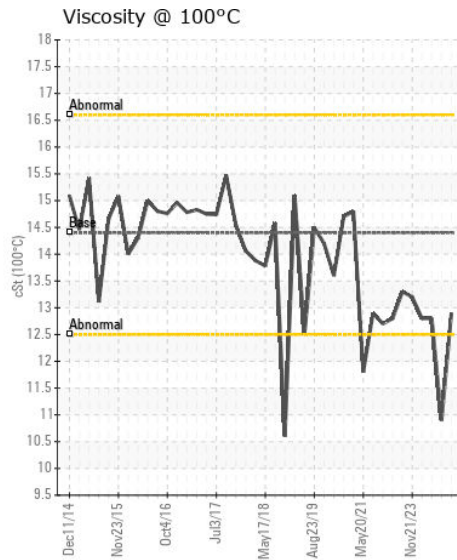
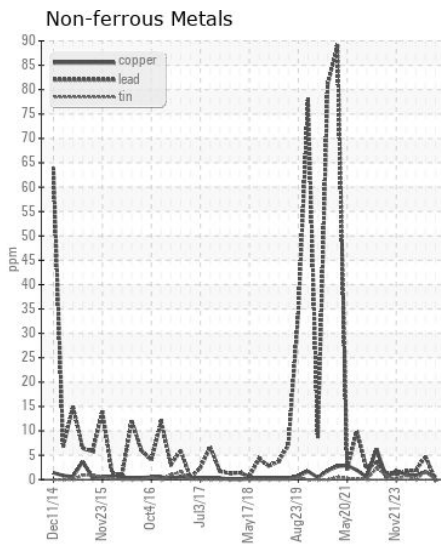
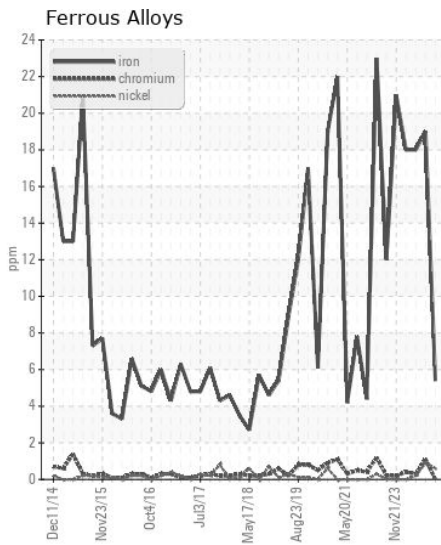
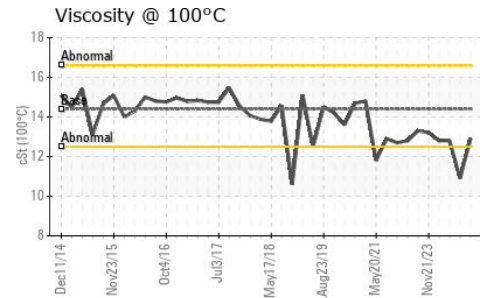
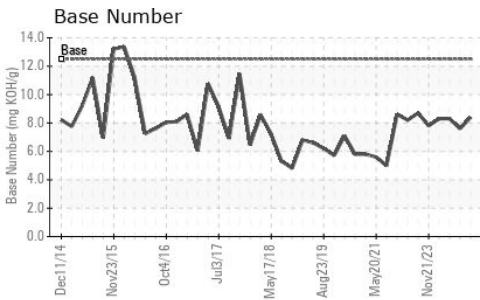
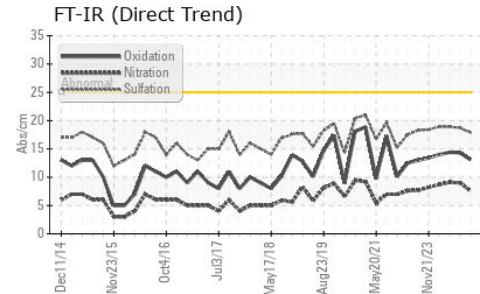
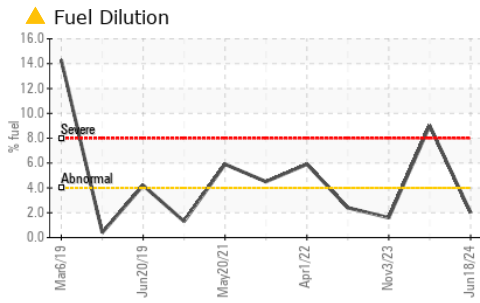
Iron	ppm	ASTM D5185m	>75	5	19	18
Chromium	ppm	ASTM D5185m	>8	0	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>3	14	16	16
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	1
Lead	ppm	ASTM D5185m	>18	0	5	2
Copper	ppm	ASTM D5185m	>80	<1	2	<1
Tin	ppm	ASTM D5185m	>14	0	2	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Silicon	ppm	ASTM D5185m	>20	5	9	5
Potassium	ppm	ASTM D5185m	>20	3	5	<1
Fuel	%	ASTM D3524	>4.0	▲ 2.0	▲ 9.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.6	9.0	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	18.7	18.9
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

Sodium	ppm	ASTM D5185m	>75	3	<1	2
Boron	ppm	ASTM D5185m	151	99	100	79
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	41	43	28
Manganese	ppm	ASTM D5185m		1	1	<1
Magnesium	ppm	ASTM D5185m	0	813	806	795
Calcium	ppm	ASTM D5185m	2046	1561	1606	1638
Phosphorus	ppm	ASTM D5185m	1043	791	777	783
Zinc	ppm	ASTM D5185m	943	887	925	870
Sulfur	ppm	ASTM D5185m	5012	3871	3753	3714
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	14.3	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.4	7.6	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	12.9	▲ 10.9	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0063942
Lab Number : 06219434
Unique Number : 11097631
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)