



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LOUISIANA HERITAGE
Component
Port Genset
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (4 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0052230	MW0052128	MW0042775
Sample Date		Client Info		23 May 2024	13 Mar 2024	03 Jan 2024
Machine Age	hrs	Client Info		53837	52929	52009
Oil Age	hrs	Client Info		1705	821	1955
Filter Age	hrs	Client Info		1705	821	1955
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	6	13
Chromium	ppm	ASTM D5185m	>4	0	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		13	13	13
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	<1	1	2
Lead	ppm	ASTM D5185m	>17	0	<1	2
Copper	ppm	ASTM D5185m	>70	0	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

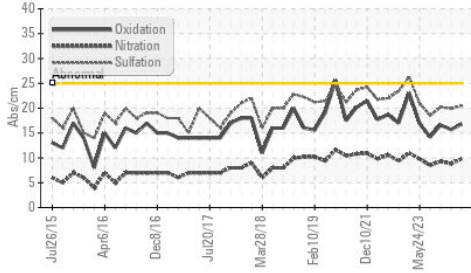
Silicon	ppm	ASTM D5185m	>25	4	6	12
Potassium	ppm	ASTM D5185m	>20	2	4	3
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.8	8.8	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	19.9	20.2
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

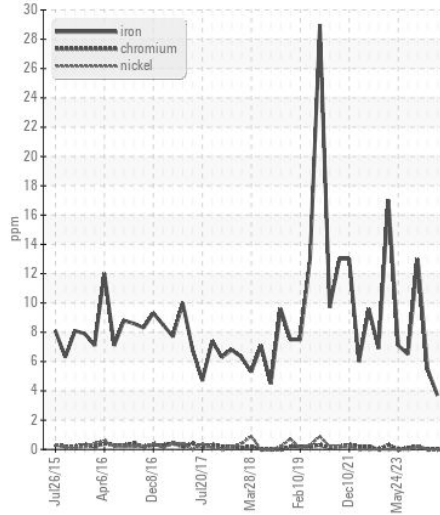
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		7	9	7
Boron	ppm	ASTM D5185m	151	54	60	56
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	27	28	33
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	0	660	661	734
Calcium	ppm	ASTM D5185m	2046	1558	1690	1864
Phosphorus	ppm	ASTM D5185m	1043	720	741	843
Zinc	ppm	ASTM D5185m	943	845	858	1033
Sulfur	ppm	ASTM D5185m	5012	3378	3727	3700
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	15.7	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	7.1	7.3	7.2
Visc @ 100°C	cSt	ASTM D445	14.4	14.0	14.2	14.3

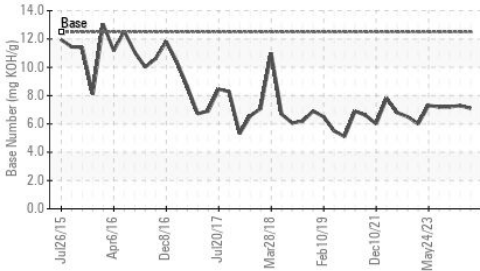
FT-IR (Direct Trend)



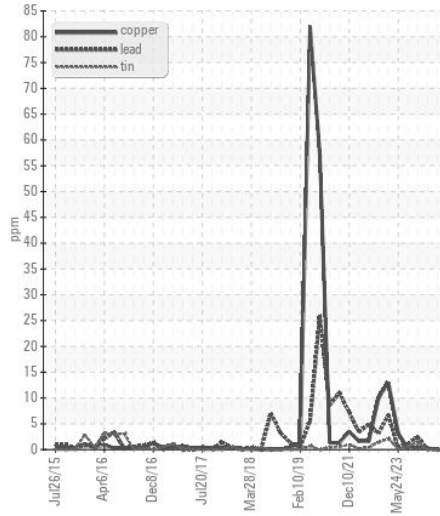
Ferrous Alloys



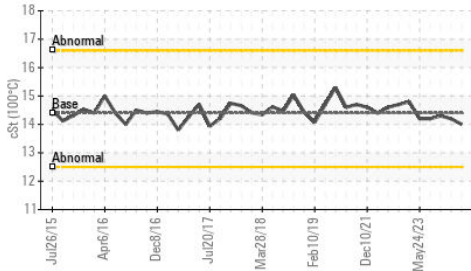
Base Number



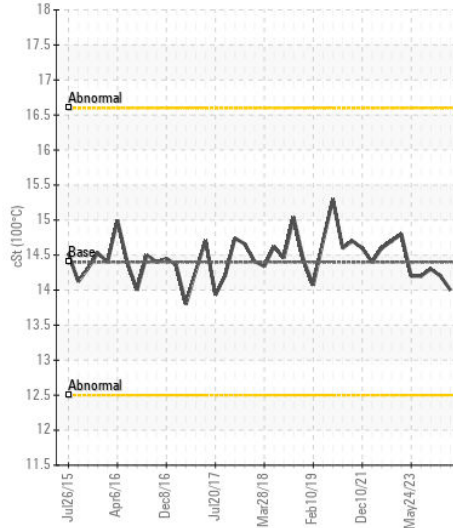
Non-ferrous Metals



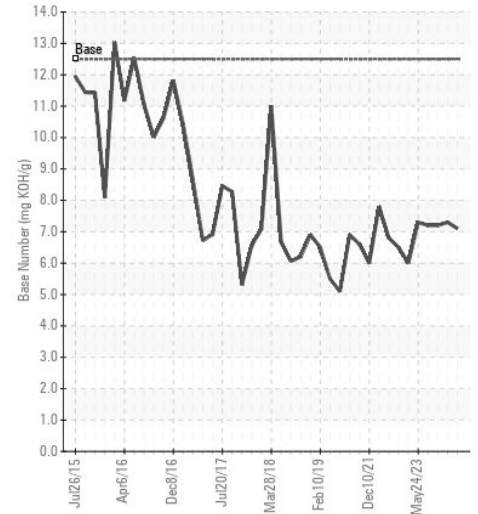
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0052230

Lab Number : 06195226

Unique Number : 11057349

Test Package : MAR 2

Received : 30 May 2024

Tested : 31 May 2024

Diagnosed : 31 May 2024 - Angela Borella

AMERICAN RIVER TRANSPORTATION CO.

P.O. BOX 2889

ST. LOUIS, MO

US 63111

Contact: BRIAN GRIEWING

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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)