



Machine Id
HAL PANNELL (S/N RG-6081A303563)
Component
Port Genset
Fluid
CHEVRON DELO 710 LE (7 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0062357	MW0066524	MW0047886
Sample Date		Client Info		16 Mar 2024	17 Jan 2024	05 Nov 2023
Machine Age	hrs	Client Info		0	1361	298
Oil Age	hrs	Client Info		0	583	298
Filter Age	hrs	Client Info		0	583	0
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	28	33	19
Chromium	ppm	ASTM D5185m	>4	2	3	1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	5	1	2
Lead	ppm	ASTM D5185m	>17	0	<1	0
Copper	ppm	ASTM D5185m	>70	1	7	20
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
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.

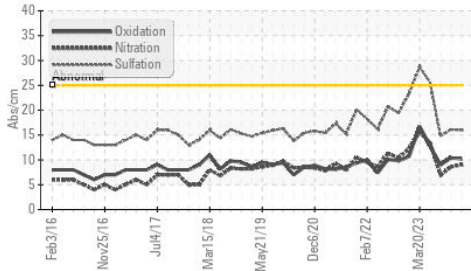
Silicon	ppm	ASTM D5185m	>25	8	12	17
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.3	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.6	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.0	16.1	14.8
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

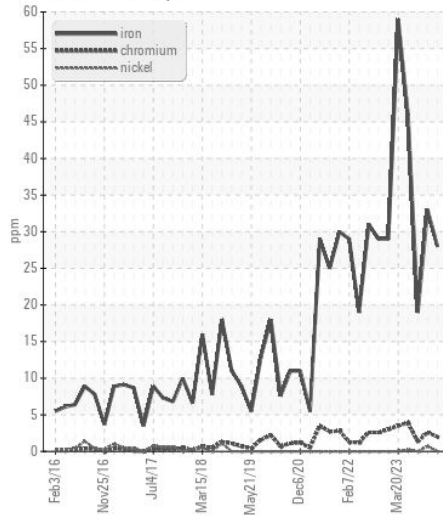
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	0	2
Boron	ppm	ASTM D5185m		52	45	44
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		68	48	41
Manganese	ppm	ASTM D5185m		0	2	3
Magnesium	ppm	ASTM D5185m		18	29	64
Calcium	ppm	ASTM D5185m		5275	3545	2891
Phosphorus	ppm	ASTM D5185m		9	34	85
Zinc	ppm	ASTM D5185m	10	8	4	54
Sulfur	ppm	ASTM D5185m		3429	2400	2192
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.2	10.4	9.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.2	6.4	6.2	6.6
Visc @ 100°C	cSt	ASTM D445	15.5	14.1	14.1	14.0

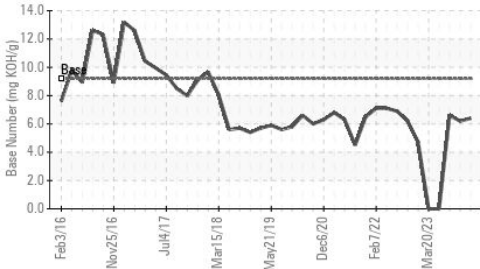
FT-IR (Direct Trend)



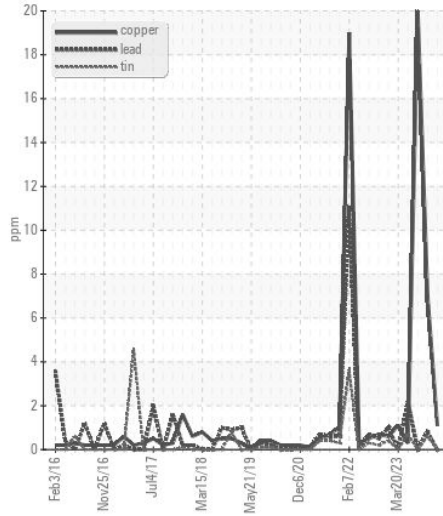
Ferrous Alloys



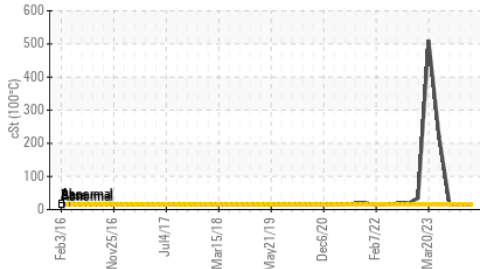
Base Number



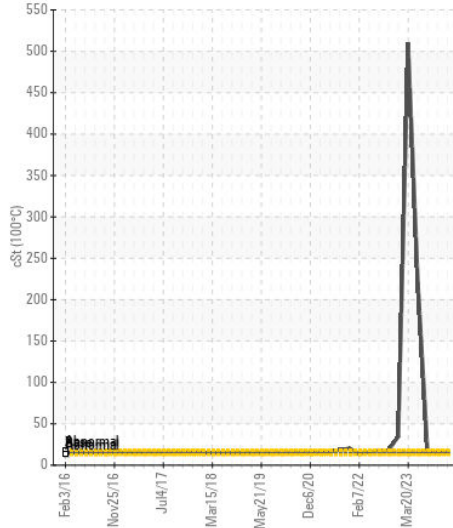
Non-ferrous Metals



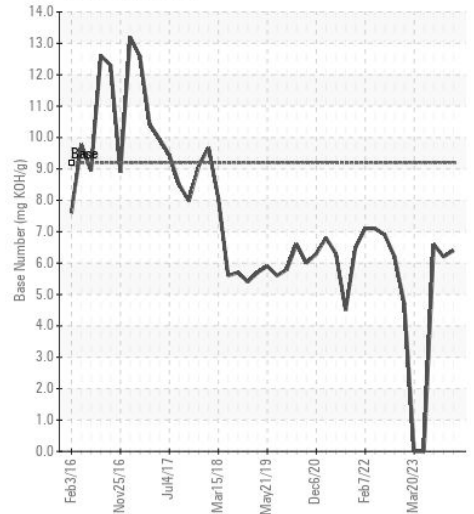
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : MW0062357

Lab Number : 06151814

Unique Number : 10981892

Test Package : MAR 2

Received : 17 Apr 2024

Tested : 18 Apr 2024

Diagnosed : 19 Apr 2024 - Don Baldrige

AMERICAN COMMERCIAL LINES

PO BOX 610, 1701 E. MARKET STREET

JEFFERSONVILLE, IN

US 47130

Contact: RONALD SCHNEIDER

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T:

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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