



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
COVINGTON
Component
Port Genset
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0069953	MW0069925	MW0062685
Sample Date		Client Info		04 Jul 2024	13 May 2024	26 Mar 2024
Machine Age	hrs	Client Info		6364	5890	5390
Oil Age	hrs	Client Info		500	500	433
Filter Age	hrs	Client Info		500	500	433
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	5	3
Chromium	ppm	ASTM D5185m	>4	0	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		14	15	14
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	1	<1	<1
Lead	ppm	ASTM D5185m	>17	▲ 18	0	0
Copper	ppm	ASTM D5185m	>70	3	<1	0
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<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.

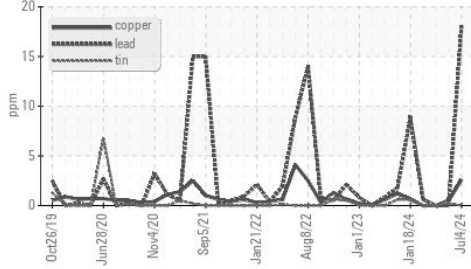
Silicon	ppm	ASTM D5185m	>25	3	4	4
Potassium	ppm	ASTM D5185m	>20	1	0	1
Fuel		WC Method	>4.0	<1.0	0.2	▲ 5.4
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.9	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	17.9	18.2
Silt	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

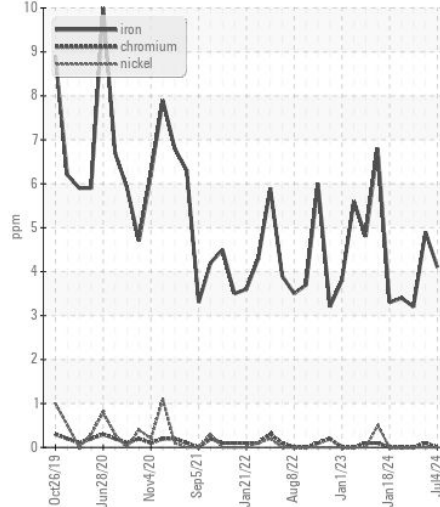
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	1	3
Boron	ppm	ASTM D5185m	151	66	95	82
Barium	ppm	ASTM D5185m	0.4	0	0	0
Molybdenum	ppm	ASTM D5185m	250	31	35	32
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	0	690	747	645
Calcium	ppm	ASTM D5185m	2046	1605	1566	1462
Phosphorus	ppm	ASTM D5185m	1043	752	754	670
Zinc	ppm	ASTM D5185m	943	837	843	723
Sulfur	ppm	ASTM D5185m	5012	3475	3607	3171
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	13.4	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	8.4	7.7	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	12.5	12.1	▲ 11.6

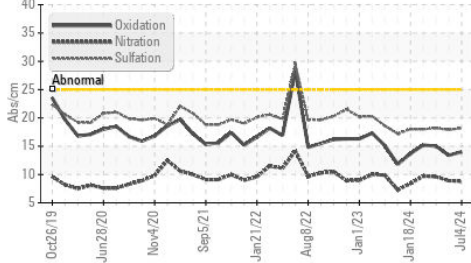
▲ Non-ferrous Metals



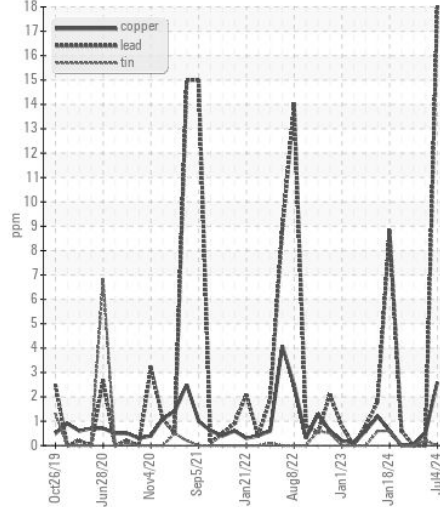
Ferrous Alloys



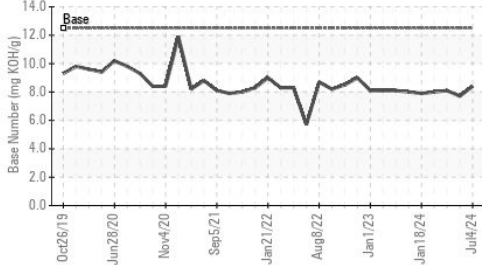
FT-IR (Direct Trend)



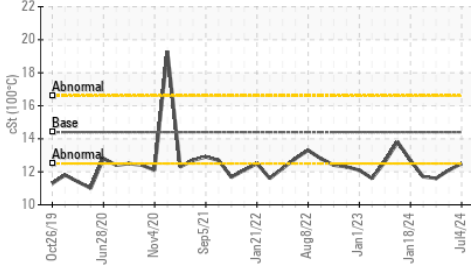
▲ Non-ferrous Metals



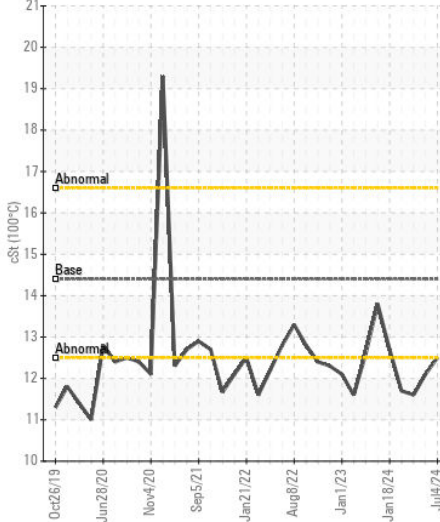
Base Number



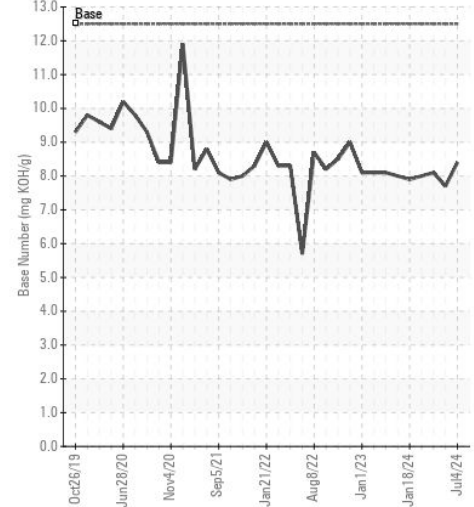
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : MW0069953

Lab Number : 06234307

Unique Number : 11123141

Test Package : MAR 2

Received : 11 Jul 2024

Tested : 12 Jul 2024

Diagnosed : 14 Jul 2024 - Don Baldridge

C & B MARINE

50 E RIVERCENTER BLVD, SUITE 1180

COVINGTON, KY

US 41011

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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)