MAR II

WEAR CHECK Inland Marine Oil Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area
MARTY BASKERVILLE
Machine Id
[MARTY BASKERVILLE] 001 503208-1
Component
Port Main Engine
Fluid
CHEVRON DELO 710 LE (250 GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron level is abnormal. The tin level is abnormal. Bearing wear is indicated.

CONTAMINATION

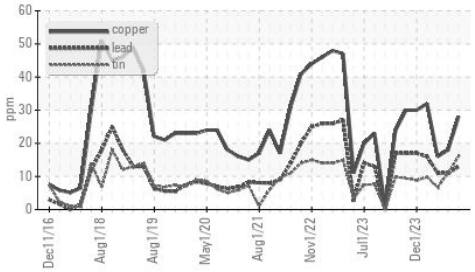
The high sodium (Na) level indicates the possible presence of salt water. Elemental level of silicon (Si) above normal indicating ingress of seal material.

FLUID CONDITION

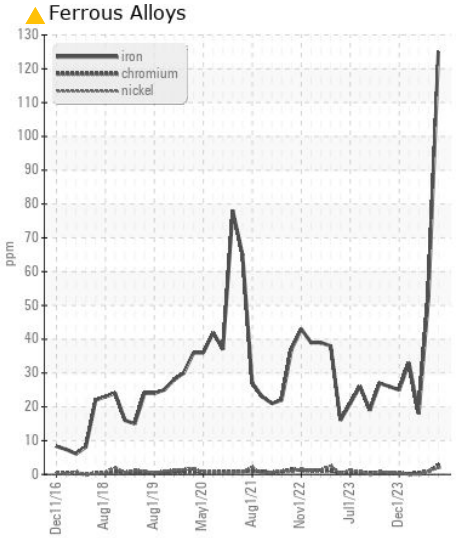
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0067843	MW0067836	MW0061316
Sample Date		Client Info		01 May 2024	01 Mar 2024	01 Feb 2024
Machine Age	hrs	Client Info		14864	13577	12867
Oil Age	hrs	Client Info		0	13577	12867
Filter Age	hrs	Client Info		400	164	229
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL
Iron	ppm	ASTM D5185m	>75	▲ 125	53	18
Chromium	ppm	ASTM D5185m	>8	3	1	<1
Nickel	ppm	ASTM D5185m	>2	2	1	0
Titanium	ppm	ASTM D5185m	>3	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	1	0	0
Aluminum	ppm	ASTM D5185m	>15	4	3	2
Lead	ppm	ASTM D5185m	>18	13	11	11
Copper	ppm	ASTM D5185m	>80	28	18	16
Tin	ppm	ASTM D5185m	>14	▲ 16	11	7
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	▲ 21	12	5
Potassium	ppm	ASTM D5185m	>20	4	3	1
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	>3	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.2	16.8	16.9
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
Sodium	ppm	ASTM D5185m	>75	● 109	● 92	2
Boron	ppm	ASTM D5185m		76	59	39
Barium	ppm	ASTM D5185m		1	1	0
Molybdenum	ppm	ASTM D5185m		73	47	43
Manganese	ppm	ASTM D5185m		5	2	2
Magnesium	ppm	ASTM D5185m		20	12	18
Calcium	ppm	ASTM D5185m		5483	3643	3147
Phosphorus	ppm	ASTM D5185m		26	8	17
Zinc	ppm	ASTM D5185m	10	13	7	15
Sulfur	ppm	ASTM D5185m		3854	2465	2079
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.2	10.0	10.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.2	9.73	9.76	8.71
Visc @ 100°C	cSt	ASTM D445	15.5	14.0	13.4	13.4

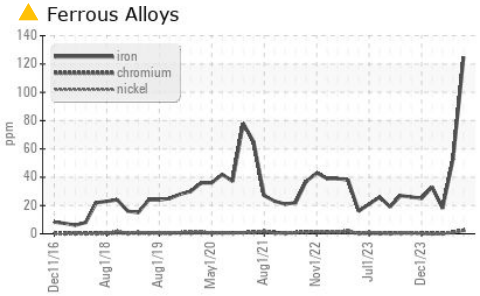
Non-ferrous Metals



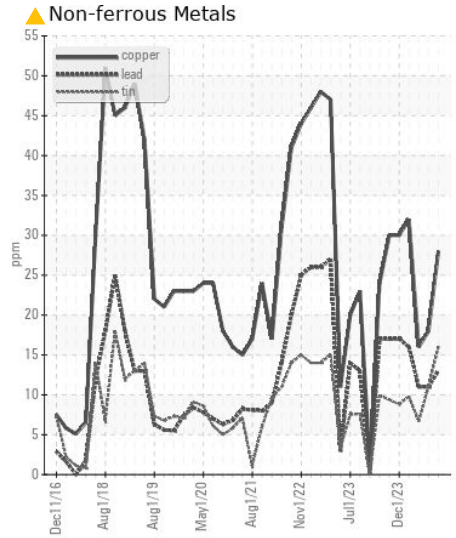
Ferrous Alloys



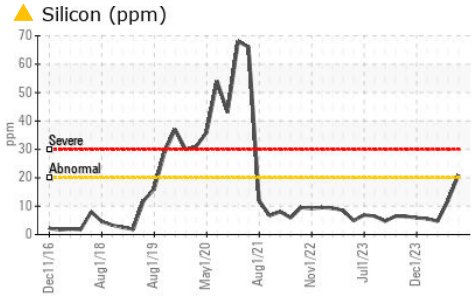
Ferrous Alloys



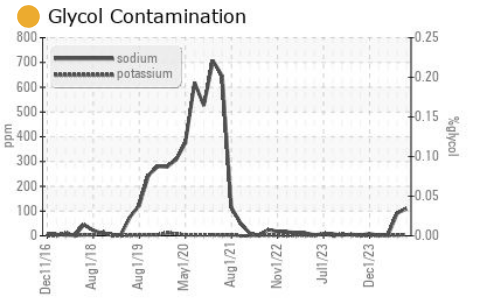
Non-ferrous Metals



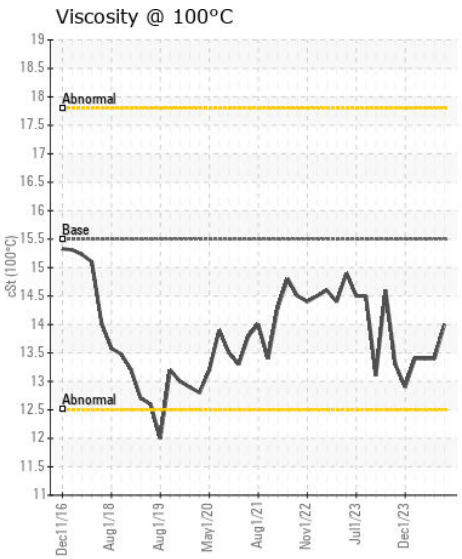
Silicon (ppm)



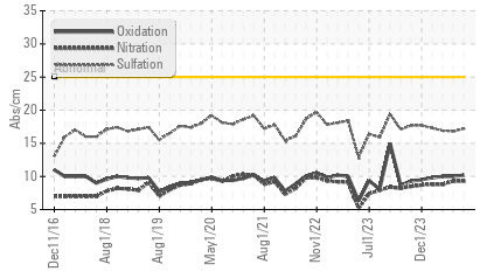
Glycol Contamination



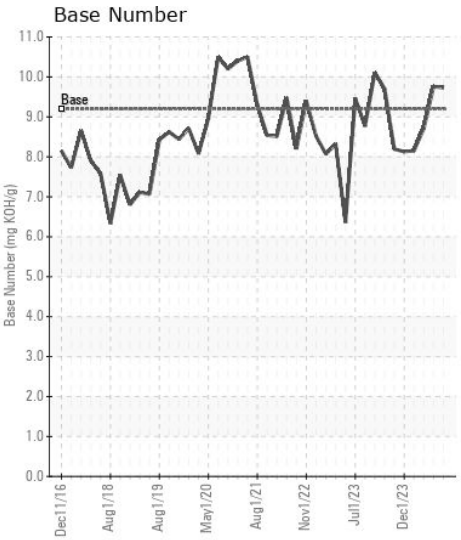
Viscosity @ 100°C



FT-IR (Direct Trend)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0067843
Lab Number : 06191233
Unique Number : 11047985
Test Package : MAR 2

Received : 24 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Angela Borella

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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