



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
SUE KOSSOW
Machine Id
[SUE KOSSOW] 001 641018-1
Component
Port Main Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (44 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0068030	MW0068046	MW0058401
Sample Date		Client Info		21 Jun 2024	27 Feb 2024	06 Jan 2024
Machine Age	hrs	Client Info		26890	29002	26674
Oil Age	hrs	Client Info		595	695	355
Filter Age	hrs	Client Info		595	695	355
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	4	8	2
Chromium	ppm	ASTM D5185m	>8	0	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	2	3
Lead	ppm	ASTM D5185m	>18	0	4	<1
Copper	ppm	ASTM D5185m	>80	<1	<1	0
Tin	ppm	ASTM D5185m	>14	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

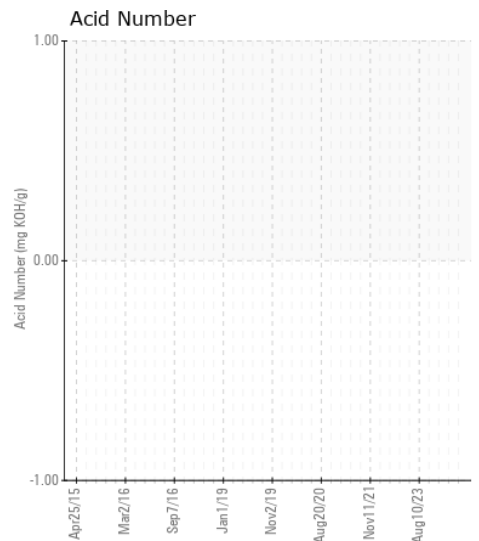
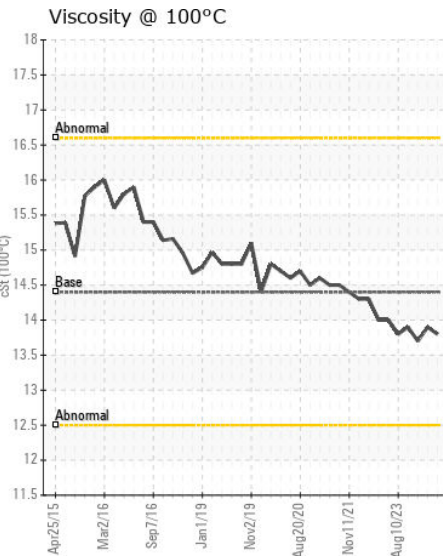
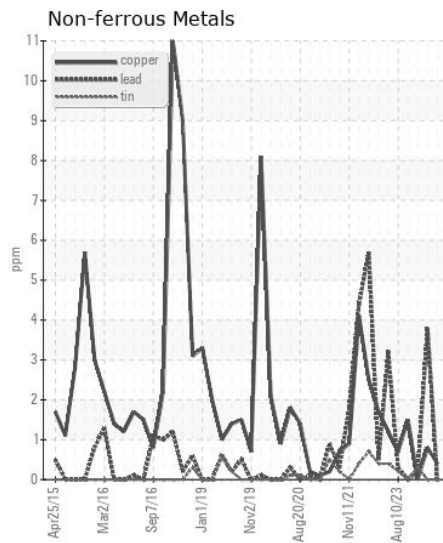
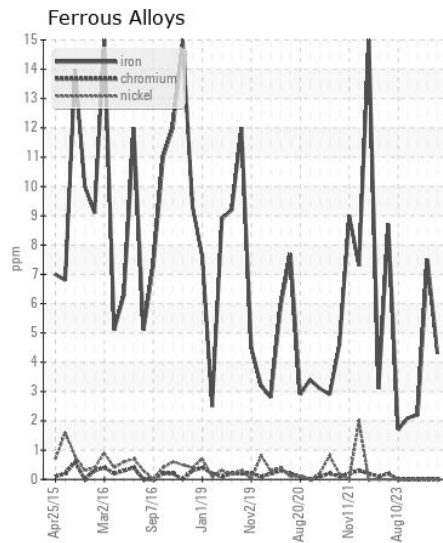
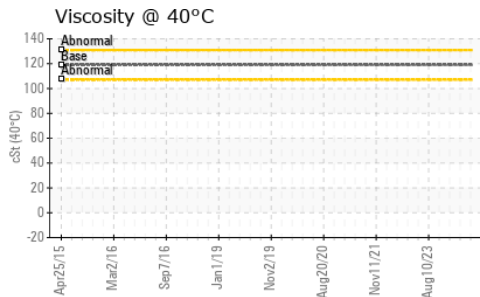
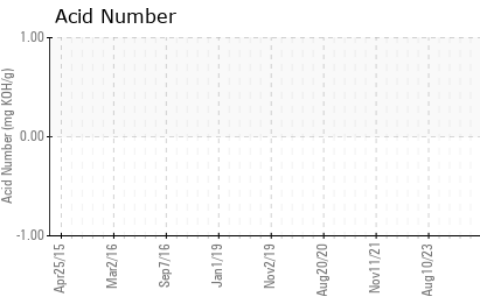
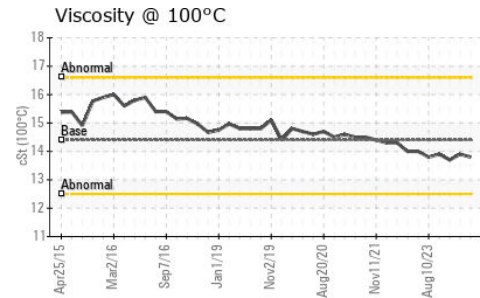
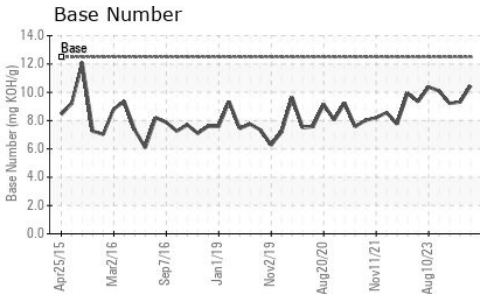
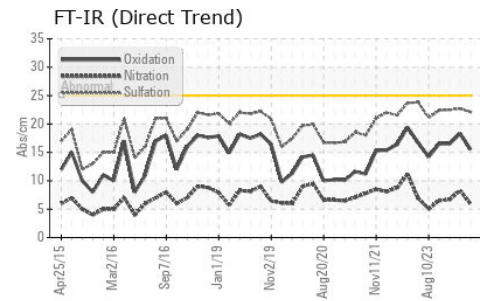
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	5	5	5
Potassium	ppm	ASTM D5185m	>20	0	0	<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		0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.9	8.3	6.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.7	22.5
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	>75	1	<1	0
Boron	ppm	ASTM D5185m	151	320	310	335
Barium	ppm	ASTM D5185m	0.4	<1	0	0
Molybdenum	ppm	ASTM D5185m	250	123	122	119
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	0	641	675	650
Calcium	ppm	ASTM D5185m	2046	1719	1706	1491
Phosphorus	ppm	ASTM D5185m	1043	744	707	718
Zinc	ppm	ASTM D5185m	943	848	857	809
Sulfur	ppm	ASTM D5185m	5012	3000	2661	2460
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	18.3	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	10.46	9.31	9.22
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.9	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0068030 **Received** : 01 Jul 2024
Lab Number : 06225348 **Tested** : 03 Jul 2024
Unique Number : 11103545 **Diagnosed** : 03 Jul 2024 - Don Baldridge
Test Package : MAR 2 (Additional Tests: KV40, TAN Man)

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003

Contact: CHARLES COPELAND
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

T: (270)415-4467

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

F: (615)695-3697

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)