



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DURALENE ZFH AW 46

Component
New (Unused) Oil

Fluid
{not provided} (--- LTR)

RECOMMENDATION

This is a baseline read-out on the submitted sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0033600	DC0035580	DC0031239
Sample Date		Client Info		26 Jun 2024	07 May 2024	29 Feb 2024
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

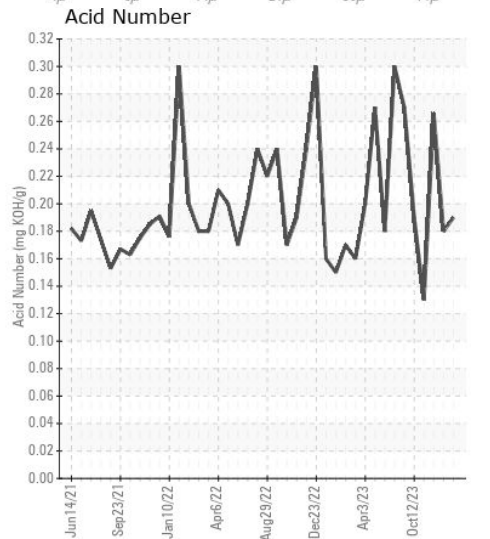
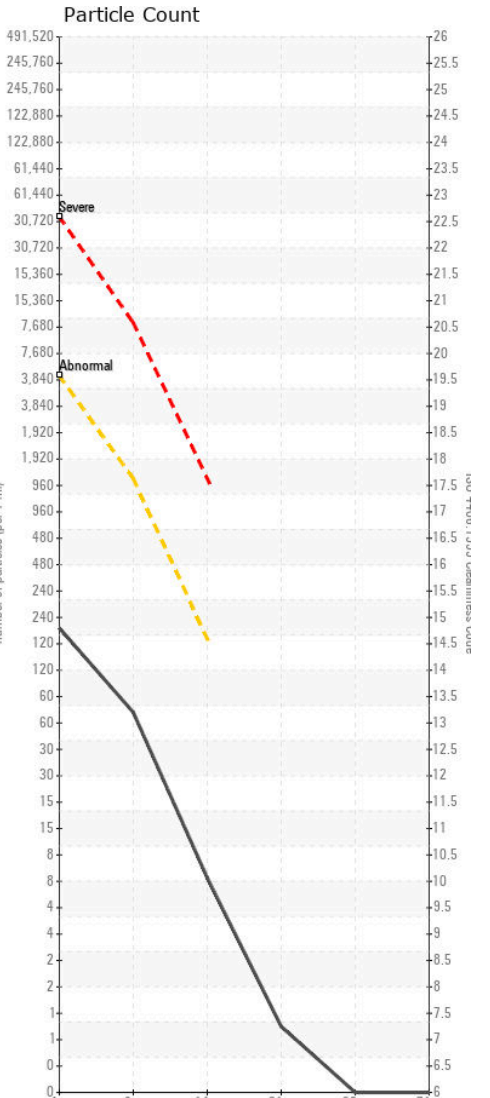
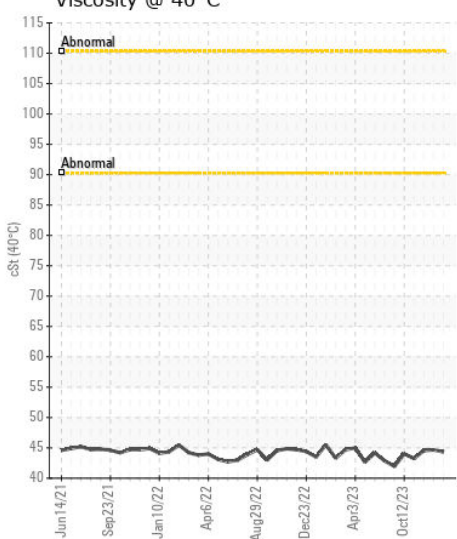
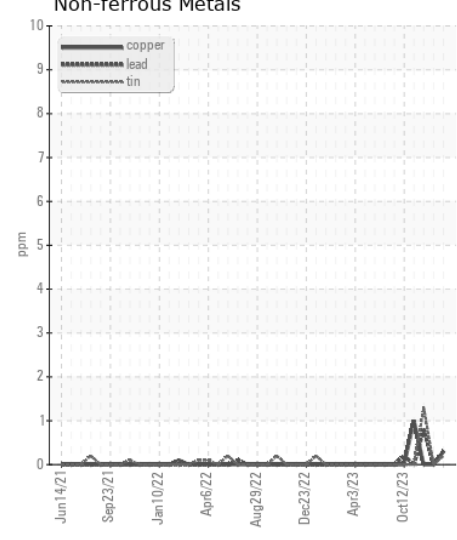
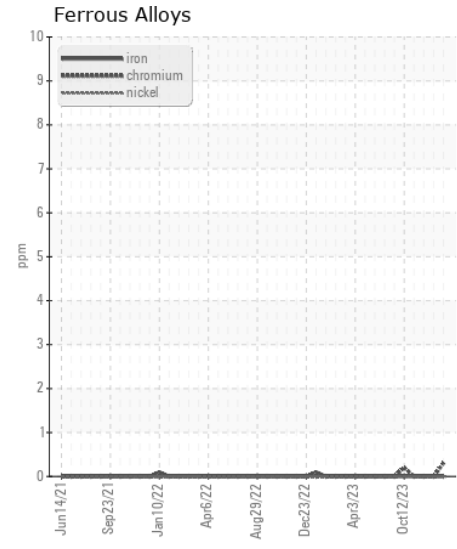
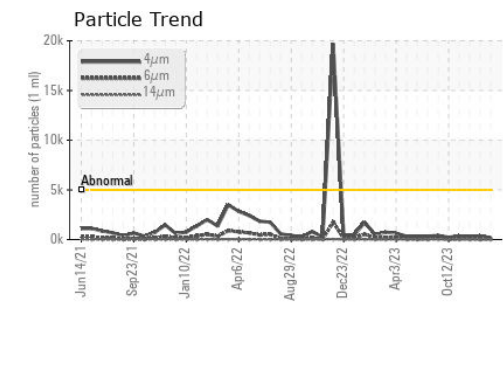
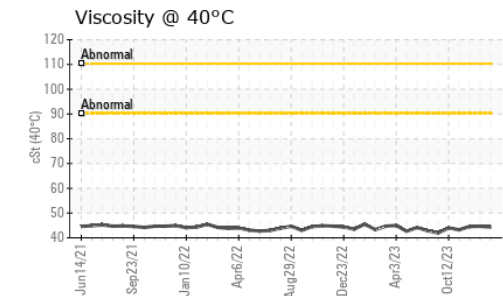
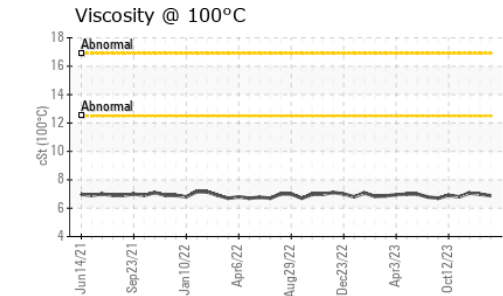
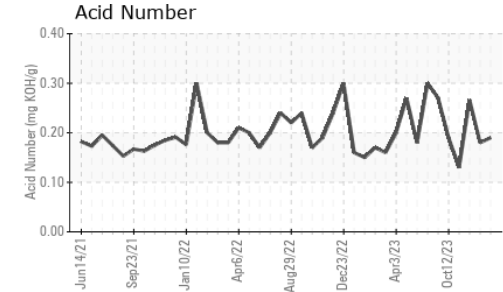
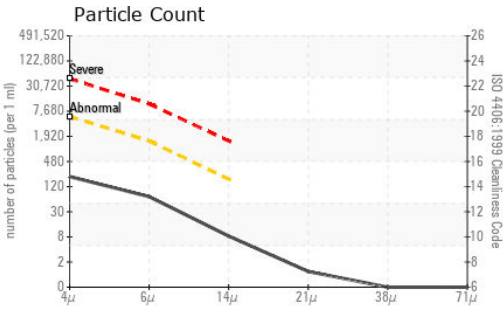
Iron	ppm	ASTM D5185m		0	0	0
Chromium	ppm	ASTM D5185m		<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		3	0	0
Lead	ppm	ASTM D5185m		<1	0	<1
Copper	ppm	ASTM D5185m		<1	0	0
Tin	ppm	ASTM D5185m		<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Silicon	ppm	ASTM D5185m		0	0	<1
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	184	358	340
Particles >6µm		ASTM D7647	>1300	61	55	103
Particles >14µm		ASTM D7647	>160	7	1	9
Particles >21µm		ASTM D7647	>40	1	1	2
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	15/13/10	16/13/7	16/14/10
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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		NEG	NEG	NEG

FLUID CONDITION

Sodium	ppm	ASTM D5185m		0	<1	<1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		9	0	0
Calcium	ppm	ASTM D5185m		7	24	0
Phosphorus	ppm	ASTM D5185m		175	190	175
Zinc	ppm	ASTM D5185m		20	<1	0
Sulfur	ppm	ASTM D5185m		5670	7014	5758
Acid Number (AN)	mg KOH/g	ASTM D8045		0.19	0.18	0.266
Visc @ 40°C	cSt	ASTM D445		44.33	44.67	44.55
Visc @ 100°C	cSt	ASTM D445		6.88	6.98	7.06
Viscosity Index (VI)	Scale	ASTM D2270		111	113	117



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0033600 **Received** : 10 Jul 2024
Lab Number : 06232673 **Tested** : 12 Jul 2024
Unique Number : 11116166 **Diagnosed** : 12 Jul 2024 - Angela Borella
Test Package : MOB 2 (Additional Tests: FT-IR, KV100, PrtCount, VI)

THE UNITED OIL COMPANY - OPERATIONS
 4405 E. BALTIMORE ST
 BALTIMORE, MD
 US 21224
 Contact: MICHELLE HORNING

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) T: F: (410)327-7695