



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
AW 46
Component
New (Unused) Oil
Fluid
{not provided} (--- QTS)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0035588	DC0031212	DC0031237
Sample Date		Client Info		07 Mar 2024	06 Mar 2024	27 Feb 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	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	ABNORMAL	ATTENTION

WEAR

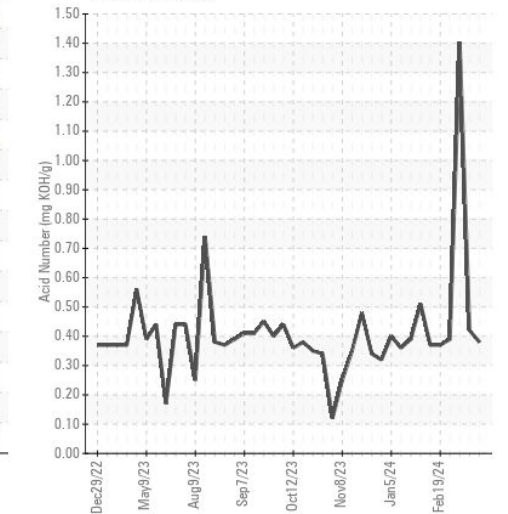
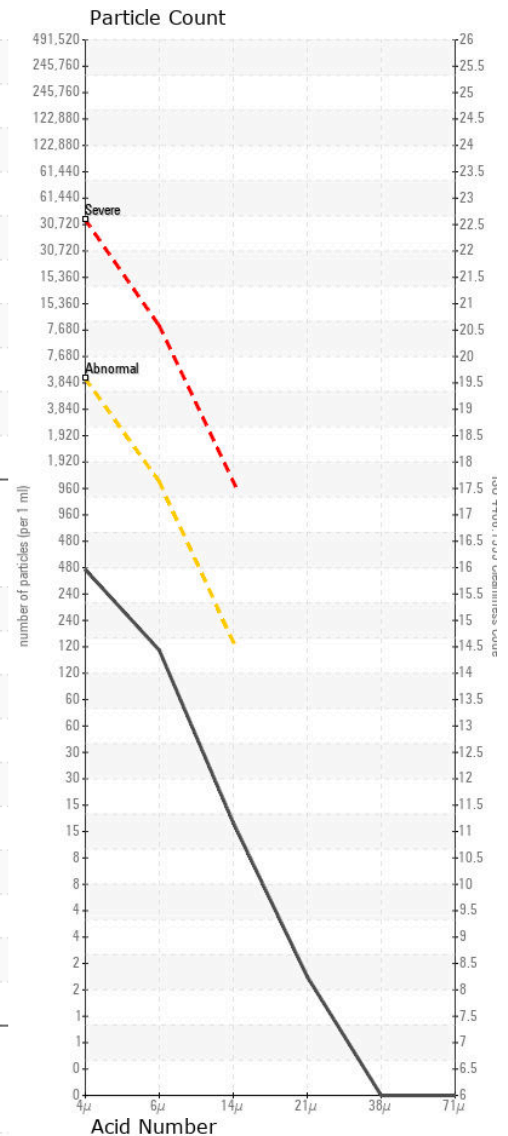
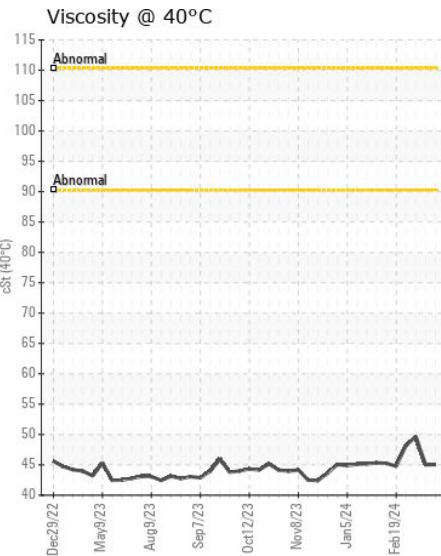
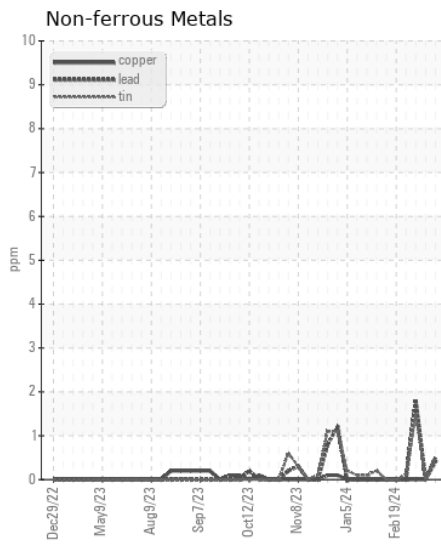
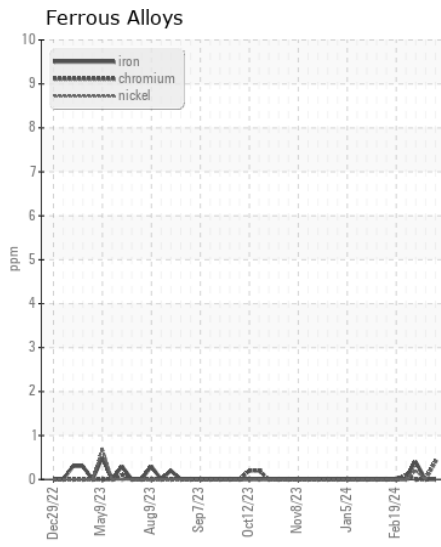
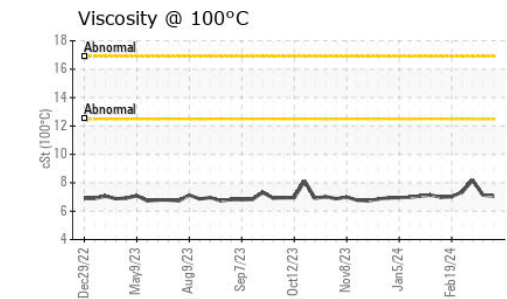
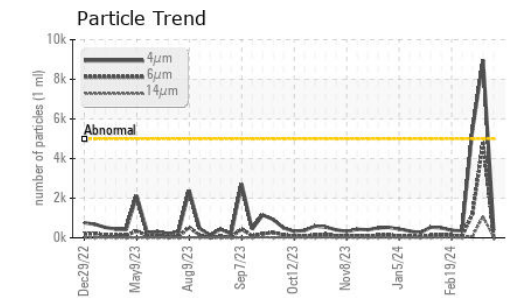
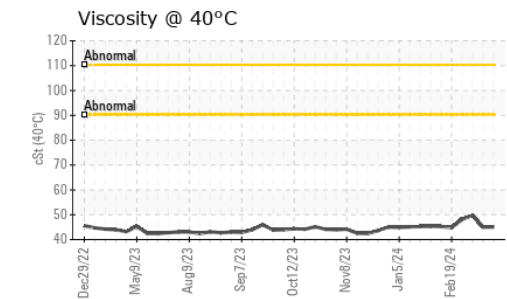
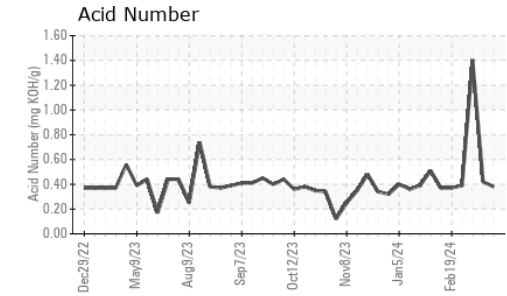
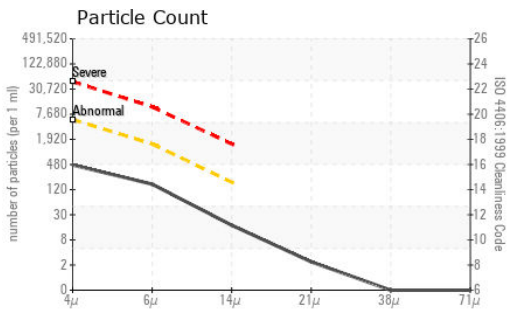
Iron	ppm	ASTM D5185m		0	0	<1
Chromium	ppm	ASTM D5185m		<1	0	0
Nickel	ppm	ASTM D5185m		<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		2	0	<1
Lead	ppm	ASTM D5185m		<1	0	2
Copper	ppm	ASTM D5185m		<1	0	0
Tin	ppm	ASTM D5185m		<1	0	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Silicon	ppm	ASTM D5185m		<1	<1	5
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	411	▲ 8962	● 5484
Particles >6µm		ASTM D7647	>1300	143	▲ 4824	1204
Particles >14µm		ASTM D7647	>160	15	▲ 1081	86
Particles >21µm		ASTM D7647	>40	2	▲ 316	10
Particles >38µm		ASTM D7647	>10	0	2	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/14/11	▲ 20/19/17	● 20/17/14
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		NEG	NEG	NEG

FLUID CONDITION

Sodium	ppm	ASTM D5185m		<1	1	0
Boron	ppm	ASTM D5185m		0	0	43
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		97	79	72
Calcium	ppm	ASTM D5185m		79	70	1595
Phosphorus	ppm	ASTM D5185m		272	301	731
Zinc	ppm	ASTM D5185m		396	373	899
Sulfur	ppm	ASTM D5185m		5722	6325	5100
Acid Number (AN)	mg KOH/g	ASTM D8045		0.38	0.42	1.403
Visc @ 40°C	cSt	ASTM D445		45.05	45.02	49.69
Visc @ 100°C	cSt	ASTM D445		7.06	7.13	8.18
Viscosity Index (VI)	Scale	ASTM D2270		115	118	137



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0035588
Lab Number : 06124446
Unique Number : 10938597
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, VI)

Received : 20 Mar 2024
Tested : 25 Mar 2024
Diagnosed : 25 Mar 2024 - Jonathan Hester

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)

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