



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
ALS HVI 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		DC0033597	DC0033911	DC0035570
Sample Date		Client Info		20 Jun 2024	23 May 2024	17 Apr 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

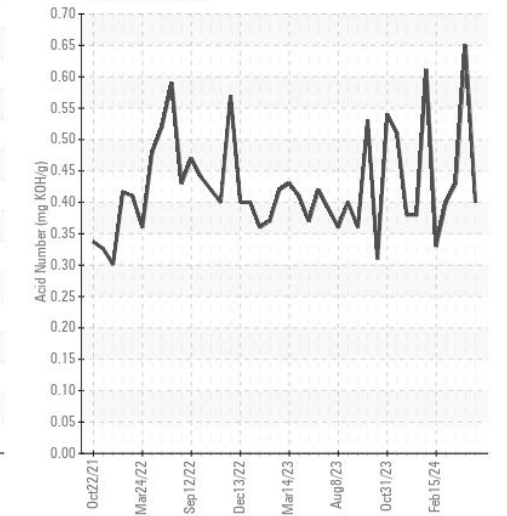
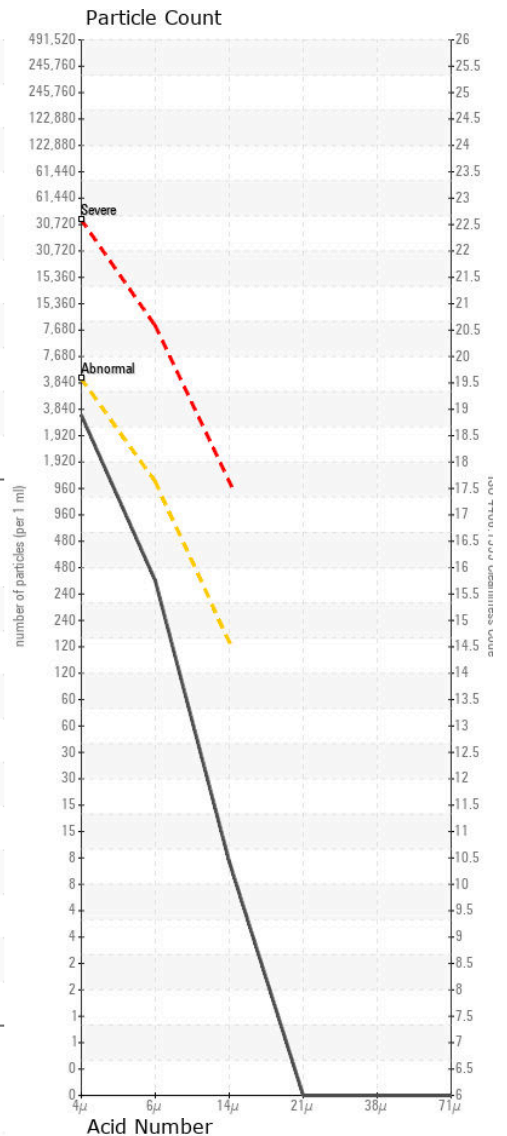
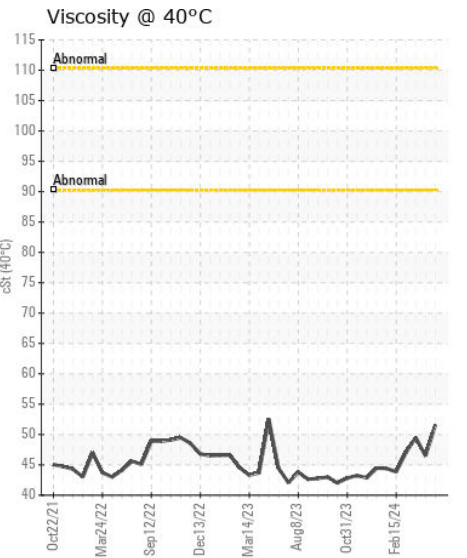
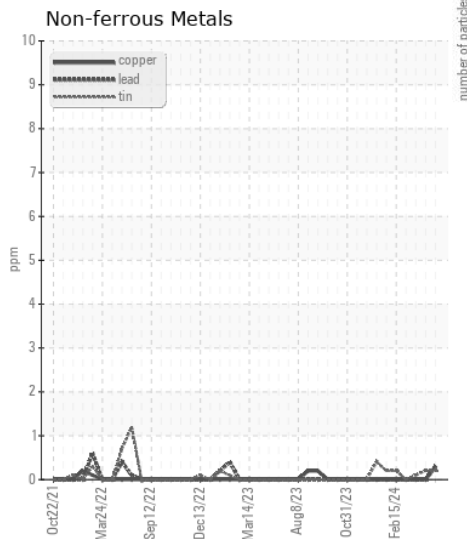
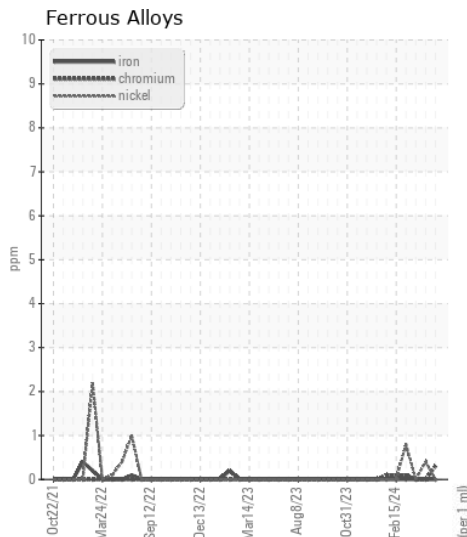
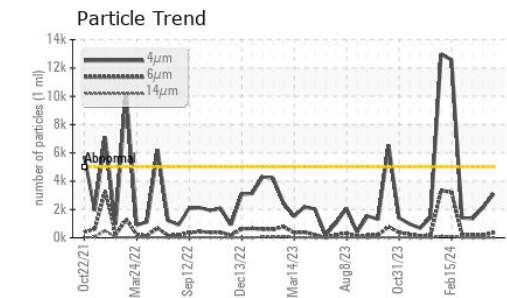
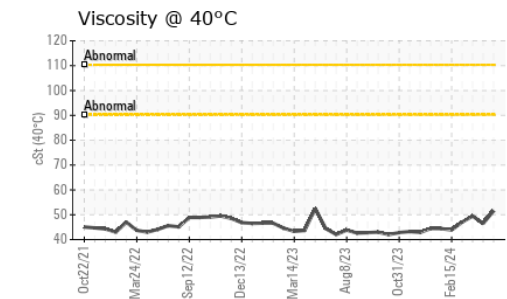
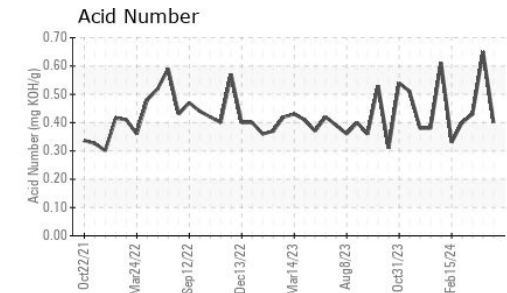
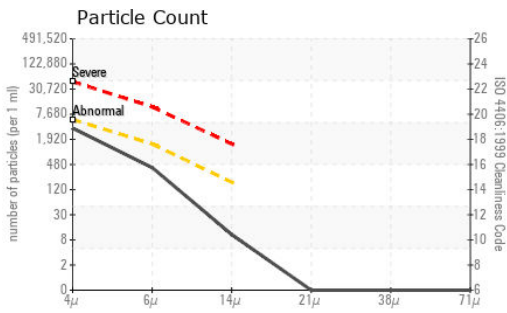
Iron	ppm	ASTM D5185m		0	0	0
Chromium	ppm	ASTM D5185m		<1	0	0
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m		3	0	0
Lead	ppm	ASTM D5185m		<1	0	0
Copper	ppm	ASTM D5185m		<1	0	0
Tin	ppm	ASTM D5185m		<1	<1	<1
Vanadium	ppm	ASTM D5185m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

CONTAMINATION

Silicon	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	3106	2142	1355
Particles >6µm		ASTM D7647	>1300	356	189	167
Particles >14µm		ASTM D7647	>160	9	3	13
Particles >21µm		ASTM D7647	>40	0	1	5
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/16/10	18/15/9	18/15/11
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		0	<1	0
Boron	ppm	ASTM D5185m		0	0	1
Barium	ppm	ASTM D5185m		0	0	1
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		2	1	16
Calcium	ppm	ASTM D5185m		72	99	111
Phosphorus	ppm	ASTM D5185m		409	314	317
Zinc	ppm	ASTM D5185m		557	423	406
Sulfur	ppm	ASTM D5185m		1497	1654	1066
Acid Number (AN)	mg KOH/g	ASTM D8045		0.40	0.65	0.43
Visc @ 40°C	cSt	ASTM D445		51.57	46.47	49.48
Visc @ 100°C	cSt	ASTM D445		8.73	7.96	8.5
Viscosity Index (VI)	Scale	ASTM D2270		147	142	148



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0033597
Lab Number : 06232670
Unique Number : 11116163
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, 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