



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
BLDG 24 STEERING LAB
Machine Id
10381944 MHIL HPU
Component
Hydraulic System
Fluid
MOBIL DTE 25 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0859308	WCI2321271	WCI2264805
Sample Date		Client Info		11 Jan 2024	07 Jun 2018	11 Mar 2015
Machine Age	hrs	Client Info		5308	2186	921
Oil Age	hrs	Client Info		5308	2186	921
Filter Age	hrs	Client Info		2000	830	2
Oil Changed		Client Info		Filtered	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>20	0	1	<1
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>20	<1	2	1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	0	<1
Lead	ppm	ASTM D5185m	>20	0	0	3
Copper	ppm	ASTM D5185m	>20	23	6	3
Tin	ppm	ASTM D5185m	>20	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

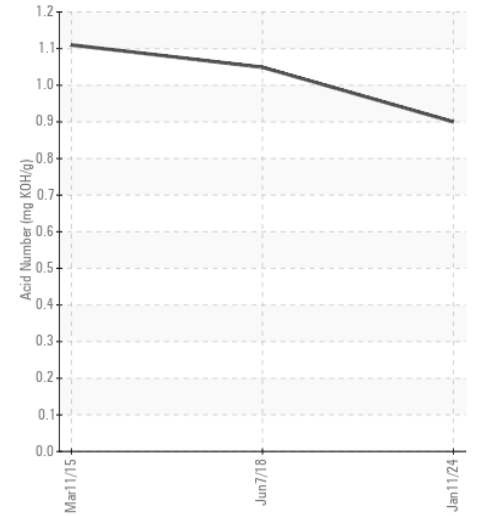
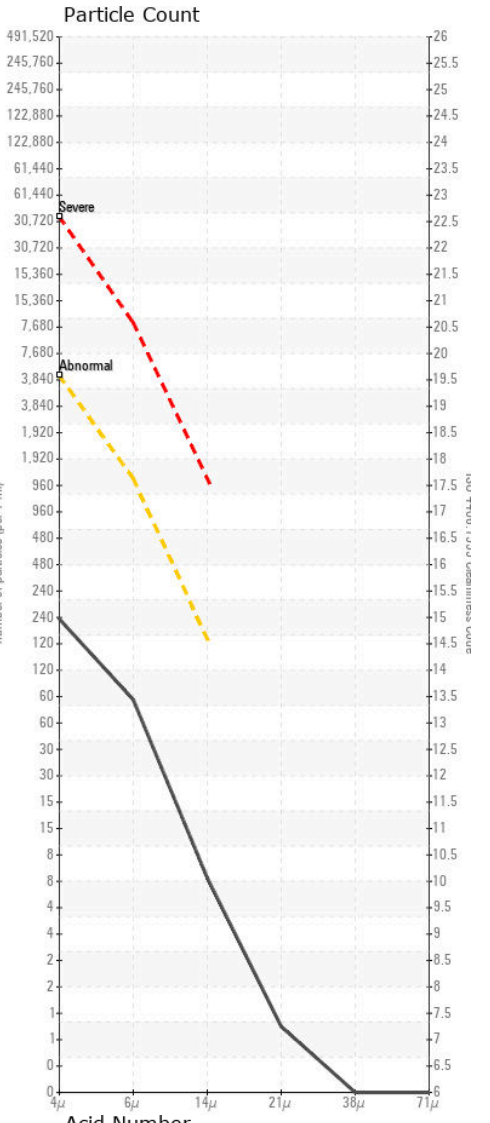
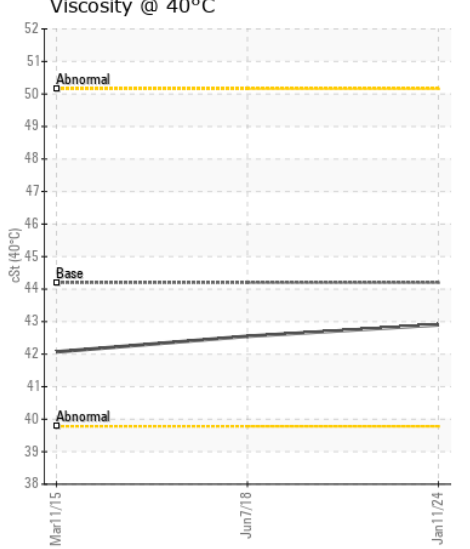
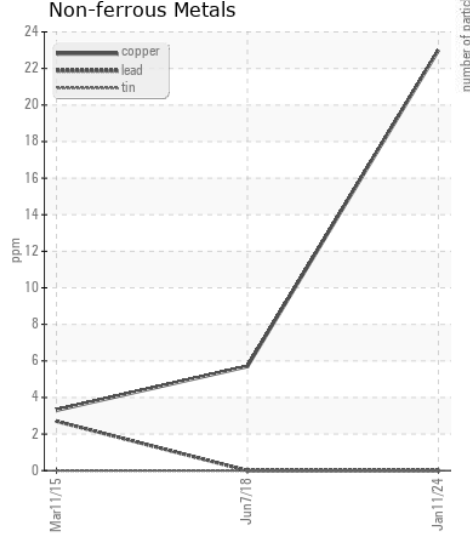
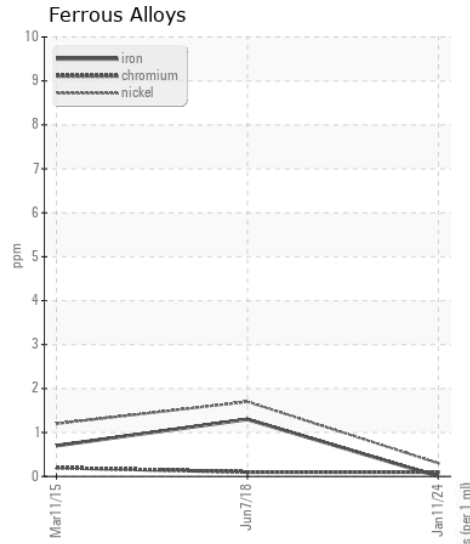
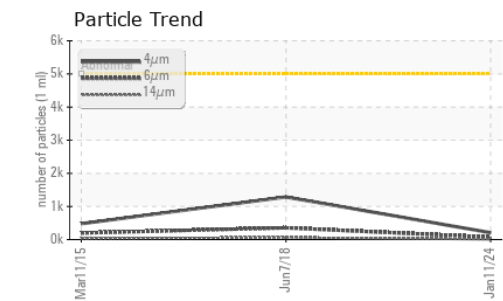
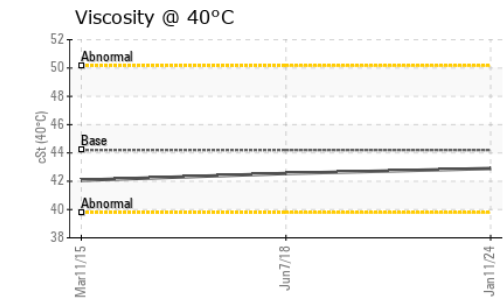
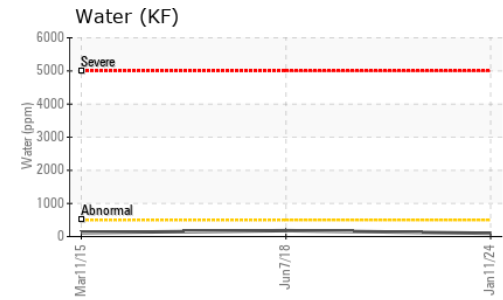
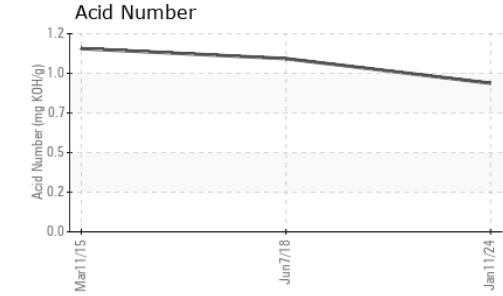
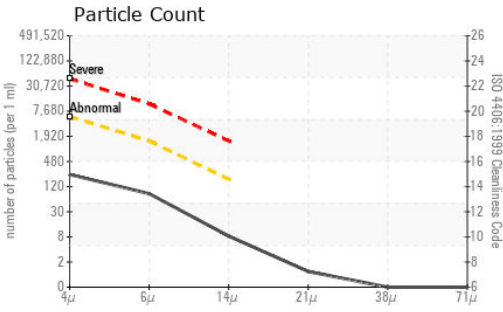
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	1	2	2
Potassium	ppm	ASTM D5185m	>20	1	0	2
Water	%	ASTM D6304	>0.05	0.009	0.018	0.012
ppm Water	ppm	ASTM D6304	>500	99	180	120
Particles >4µm		ASTM D7647	>5000	207	1287	480
Particles >6µm		ASTM D7647	>1300	72	355	198
Particles >14µm		ASTM D7647	>160	7	62	34
Particles >21µm		ASTM D7647	>40	1	27	13
Particles >38µm		ASTM D7647	>10	0	3	3
Particles >71µm		ASTM D7647	>3	0	3	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	15/13/10	17/16/13	16/15/12
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	>0.05	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	3	1
Boron	ppm	ASTM D5185m		0	<1	<1
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	2
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		2	7	0
Calcium	ppm	ASTM D5185m		104	147	147
Phosphorus	ppm	ASTM D5185m		409	666	490
Zinc	ppm	ASTM D5185m		558	741	796
Sulfur	ppm	ASTM D5185m		3459	4299	4682
Acid Number (AN)	mg KOH/g	ASTM D8045		0.90	1.049	1.11
Visc @ 40°C	cSt	ASTM D445	44.2	42.9	42.55	42.07



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0859308
Lab Number : 06089556
Unique Number : 10877001
Test Package : PLANT

Received : 14 Feb 2024
Tested : 15 Feb 2024
Diagnosed : 16 Feb 2024 - Don Baldrige

GENERAL MOTORS - MILFORD PROVING GROUND
 3300 GENERAL MOTORS RD, BUILDING 94
 MILFORD, MI
 US 48380
 Contact: NICHOLAS PALM
 nicholas.palm@gm.com
 T: (248)496-1702
 F:

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)