



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[1163469]
 Machine Id
PROGRESSIVE HYDRAULI RTO HYDRAULICS (S/N 22511)

Component
Hydraulic System
 Fluid
MOBIL ATF D/M (80 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0882535	WC0832521	WC0741966
Sample Date		Client Info		25 Jan 2024	23 Jul 2023	26 Jan 2023
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		0	0	0
Filter Age	yrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	2	3	2
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	<1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	1	1
Lead	ppm	ASTM D5185m	>20	0	<1	0
Copper	ppm	ASTM D5185m	>20	21	23	21
Tin	ppm	ASTM D5185m	>20	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

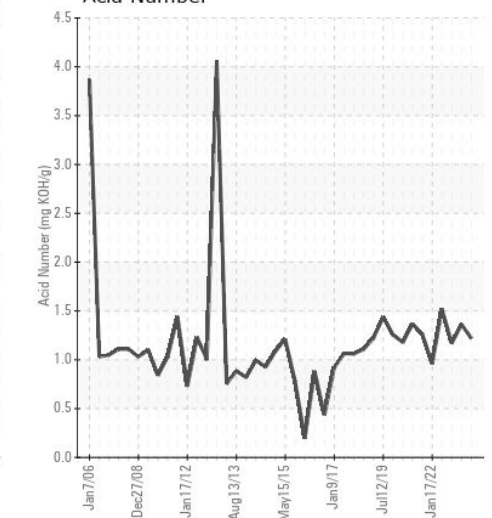
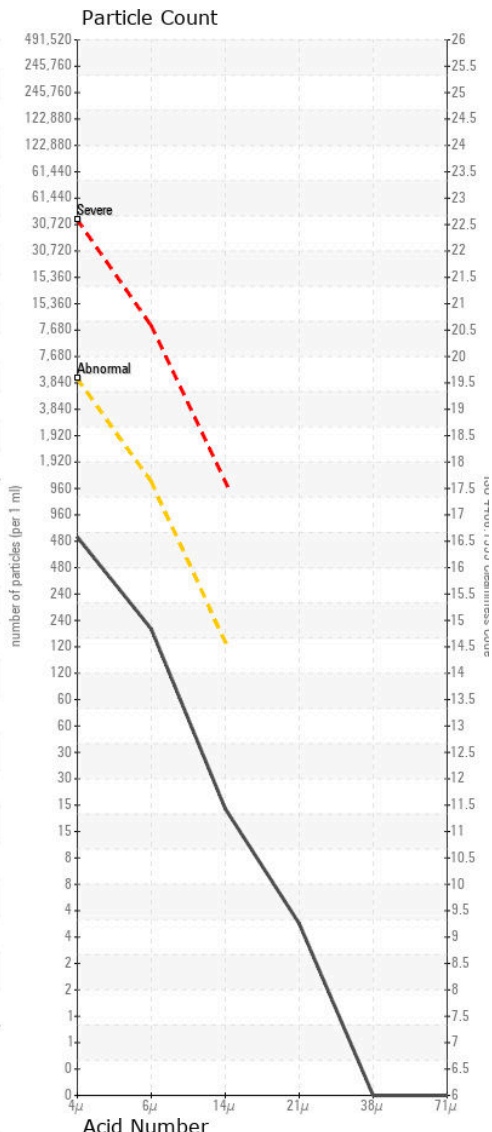
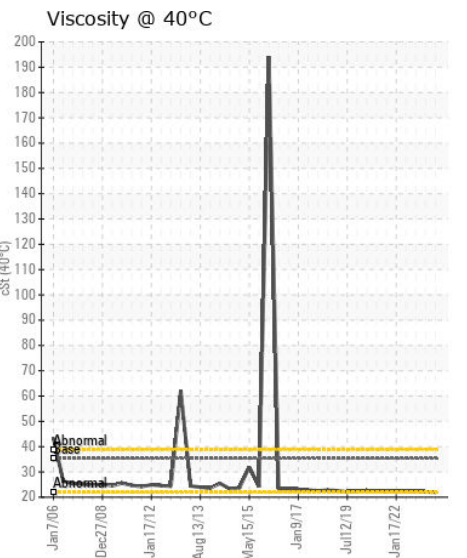
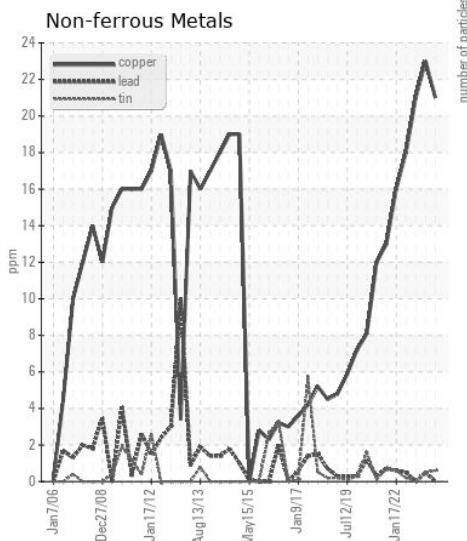
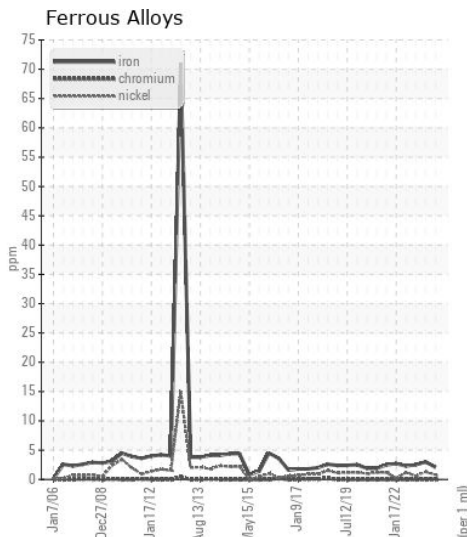
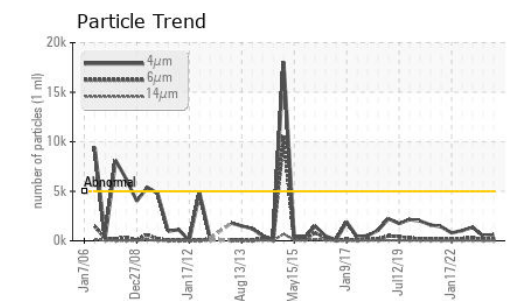
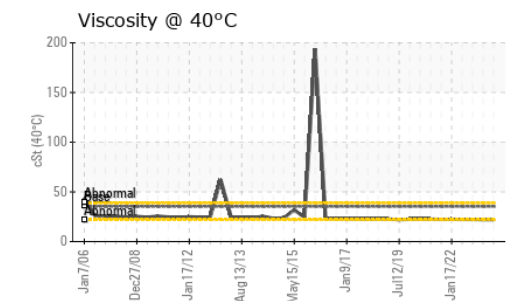
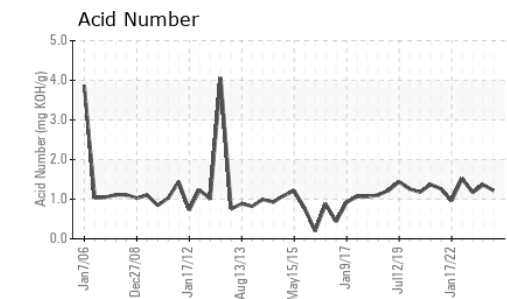
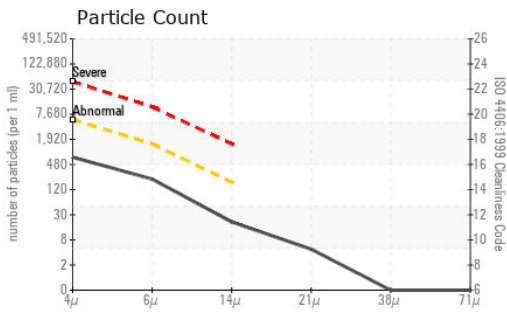
There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Silicon	ppm	ASTM D5185m	>15	2	2	2
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	630	485	1366
Particles >6µm		ASTM D7647	>1300	189	130	315
Particles >14µm		ASTM D7647	>160	18	15	26
Particles >21µm		ASTM D7647	>40	4	3	6
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/15/11	16/14/11	18/15/12
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		5	2	6
Boron	ppm	ASTM D5185m		88	112	105
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		<1	1	<1
Calcium	ppm	ASTM D5185m		172	205	195
Phosphorus	ppm	ASTM D5185m		339	368	356
Zinc	ppm	ASTM D5185m		13	25	17
Sulfur	ppm	ASTM D5185m		1385	1705	1749
Acid Number (AN)	mg KOH/g	ASTM D8045		1.22	1.36	1.17
Visc @ 40°C	cSt	ASTM D445	35.3	22.0	22.1	22.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0882535

Lab Number : 06075688

Unique Number : 10857779

Test Package : IND 2

Received : 31 Jan 2024

Tested : 01 Feb 2024

Diagnosed : 01 Feb 2024 - Don Baldrige

3M - BROOKINGS

PO BOX 5227

BROOKINGS, SD

US 57006

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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)