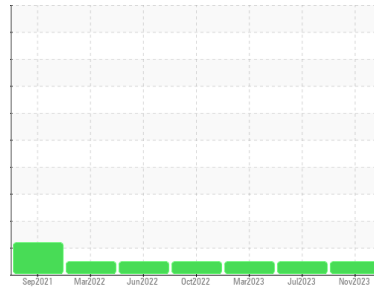




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
PARALLAM HANDLING

Component
Hydraulic System

Fluid
ESSO NUTO H ISO 46 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	USP0003085	USP0000862	USP219387
Sample Date	Client Info	01 Nov 2023	31 Jul 2023	28 Mar 2023
Machine Age	hrs Client Info	0	0	0
Oil Age	hrs Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	0	2	2
Chromium	ppm ASTM D5185m >20	0	0	0
Nickel	ppm ASTM D5185m >20	0	0	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >20	0	<1	0
Lead	ppm ASTM D5185m >20	0	0	0
Copper	ppm ASTM D5185m >20	3	2	3
Tin	ppm ASTM D5185m >20	0	0	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	0	0	0
Barium	ppm ASTM D5185m 0	0	<1	0
Molybdenum	ppm ASTM D5185m 0	0	<1	<1
Manganese	ppm ASTM D5185m	0	0	0
Magnesium	ppm ASTM D5185m 5	0	3	3
Calcium	ppm ASTM D5185m 50	51	60	65
Phosphorus	ppm ASTM D5185m 330	306	334	399
Zinc	ppm ASTM D5185m 410	382	428	482
Sulfur	ppm ASTM D5185m 2700	4847	5362	6253

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	0	0	2
Sodium	ppm ASTM D5185m	0	0	0
Potassium	ppm ASTM D5185m >20	0	0	0
Water	% ASTM D6304 >0.05	0.005	0.002	0.005
ppm Water	ppm ASTM D6304 >500	54.4	19.2	55.5

FLUID CLEANLINESS

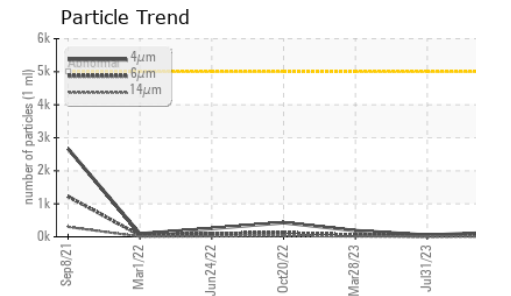
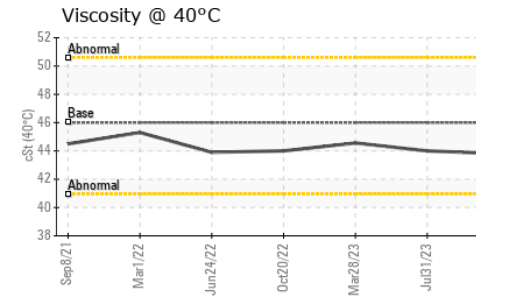
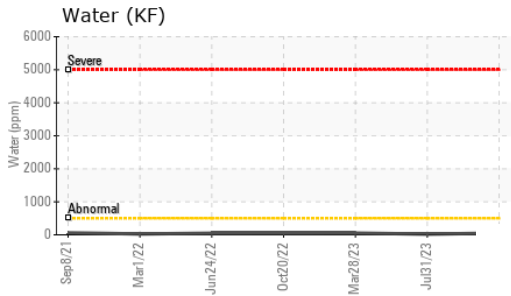
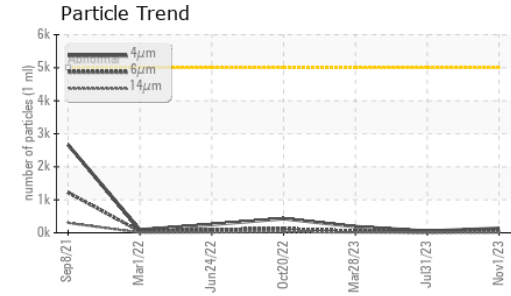
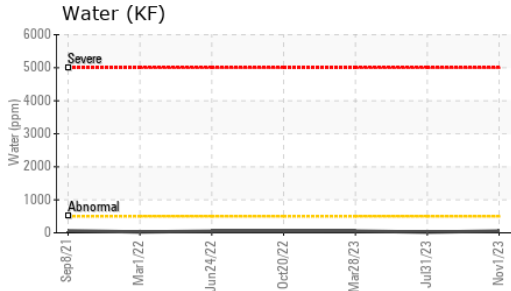
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	135	52	187
Particles >6µm	ASTM D7647 >1300	55	22	53
Particles >14µm	ASTM D7647 >160	7	4	11
Particles >21µm	ASTM D7647 >40	3	1	4
Particles >38µm	ASTM D7647 >10	0	0	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	14/13/10	13/12/9	15/13/11

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.45	0.34	0.34	0.37



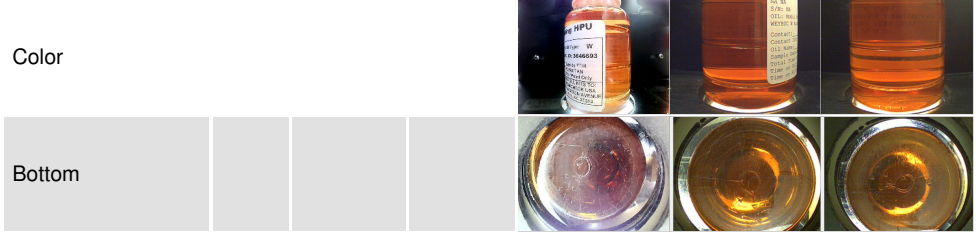
OIL ANALYSIS REPORT



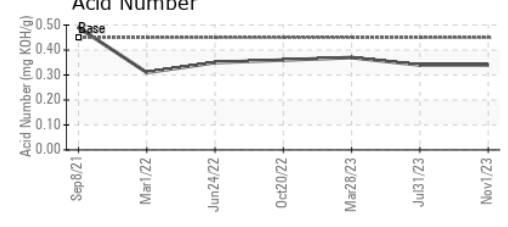
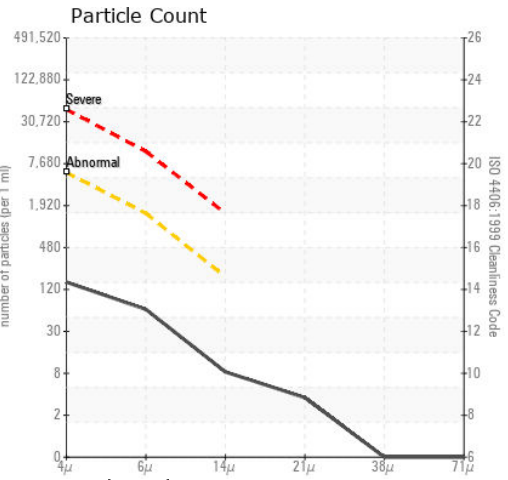
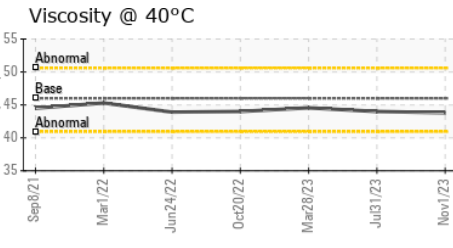
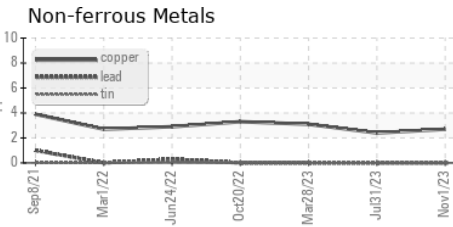
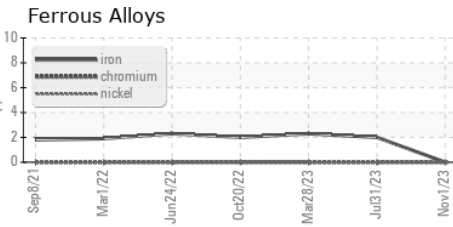
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	43.8	44.0	44.56

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0003085 **Received** : 06 Nov 2023
Lab Number : 05999070 **Diagnosed** : 07 Nov 2023
Unique Number : 10727430 **Diagnostician** : Doug Bogart
Test Package : IND 2

WEYERHAEUSER
 100 TJM DR
 BUCKHANNON, WV
 US 26201
 Contact: ROBERT HOOVER
 robert.hoover@weyerhaeuser.com
 T: (304)473-5476
 F:

Certificate L2367
 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)