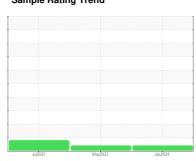


OIL ANALYSIS REPORT

Sample Rating Trend







STUFF LINE 1

Component

Hydraulic System

ESSO NUTO H ISO 68 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

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.

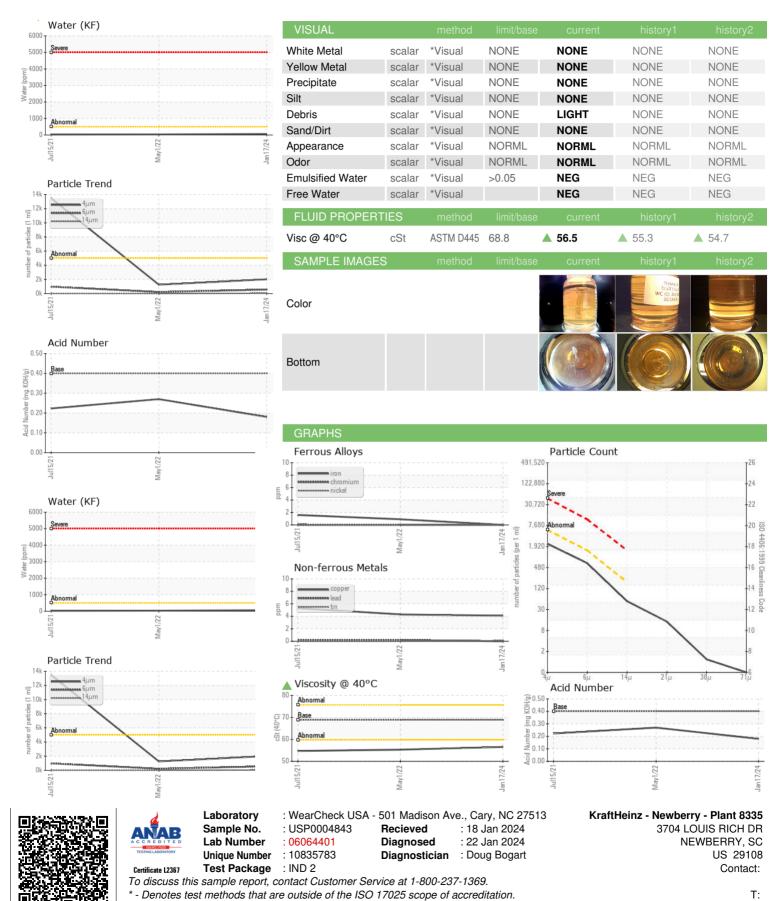
▲ Fluid Condition

The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

		Ju	2021	May2022 Jan20	24	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0004843	USP235783	USP225706
Sample Date		Client Info		17 Jan 2024	01 May 2022	15 Jul 2021
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				ATTENTION	ATTENTION	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	<1	2
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>20	4	4	5
Tin	ppm	ASTM D5185m	>20	<1	0	0
Antimony	ppm	ASTM D5185m				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	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	5	0	<1	<1
Calcium	ppm	ASTM D5185m	50	40	40	48
Phosphorus	ppm	ASTM D5185m	330	351	323	340
Zinc	ppm	ASTM D5185m	420	422	408	452
Sulfur	ppm	ASTM D5185m	3100	2983	2532	3567
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	1
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	0	<1	0
Water	%	ASTM D6304	>0.05	0.005	0.003	0.003
ppm Water	ppm	ASTM D6304	>500	60	34.3	26.7
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	2013	1253	▲ 13477
Particles >6µm		ASTM D7647		560	217	974
Particles >14μm		ASTM D7647	>160	46	13	19
Particles >21µm		ASTM D7647		12	2	2
Particles >38μm		ASTM D7647	>10	1	0	0
Particles >71µm		ASTM D7647		0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/16/13	17/15/11	<u>^</u> 21/17/11
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.40	0.18	0.27	0.223



OIL ANALYSIS REPORT



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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