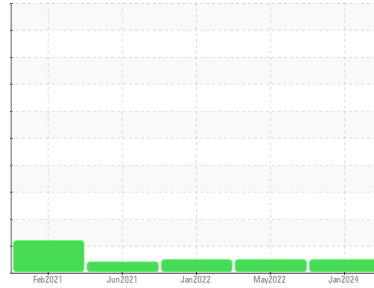




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**X-Ray Line 2 Marlen HPU**  
 Component  
**Hydraulic System**  
 Fluid  
**ESSO NUTO H ISO 68 (--- GAL)**

## 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			<b>USP0004840</b>	USP235790	USPM21279
Sample Date	Client Info			<b>17 Jan 2024</b>	01 May 2022	05 Jan 2022
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>0</b>	4	<1
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>20	<b>2</b>	11	2
Tin	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	5	<b>0</b>	<1	2
Calcium	ppm	ASTM D5185m	50	<b>41</b>	34	55
Phosphorus	ppm	ASTM D5185m	330	<b>328</b>	331	346
Zinc	ppm	ASTM D5185m	420	<b>416</b>	386	433
Sulfur	ppm	ASTM D5185m	3100	<b>4024</b>	4322	4566

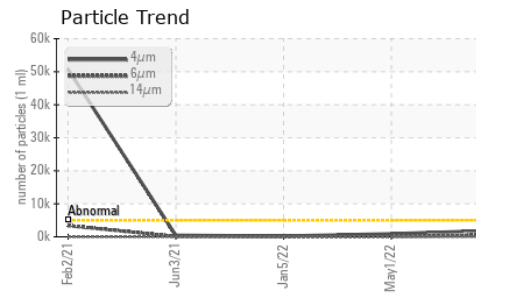
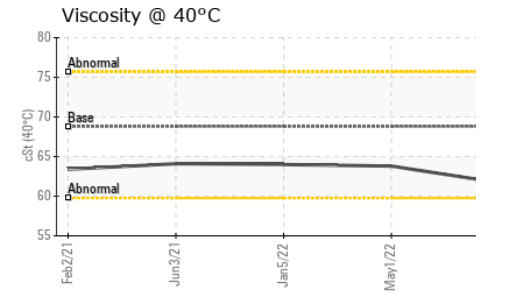
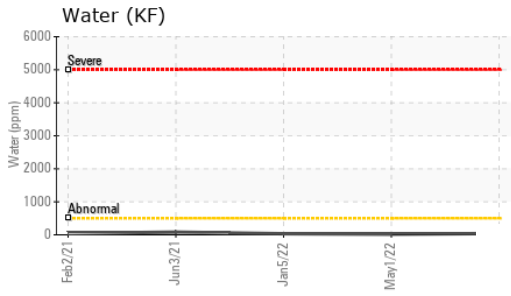
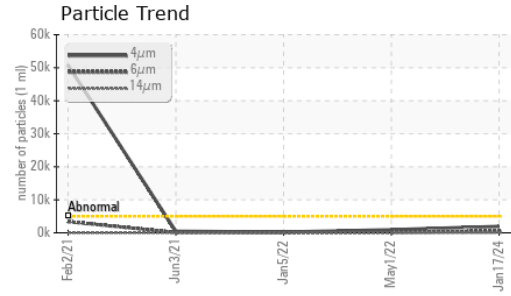
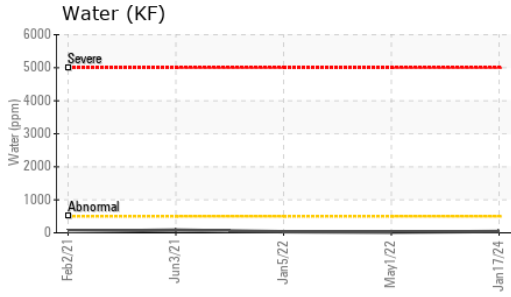
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	0
Water	%	ASTM D6304	>0.05	<b>0.004</b>	0.002	0.003
ppm Water	ppm	ASTM D6304	>500	<b>41</b>	18.6	33.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>1939</b>	929	218
Particles >6µm		ASTM D7647	>1300	<b>418</b>	203	50
Particles >14µm		ASTM D7647	>160	<b>39</b>	12	5
Particles >21µm		ASTM D7647	>40	<b>12</b>	2	1
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/16/12</b>	17/15/11	15/13/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.40	<b>0.26</b>	0.27	0.326



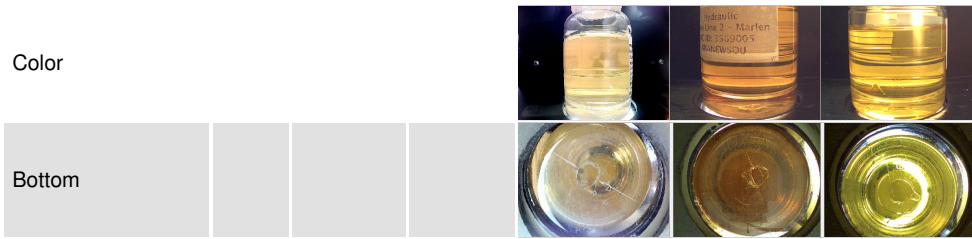
# OIL ANALYSIS REPORT



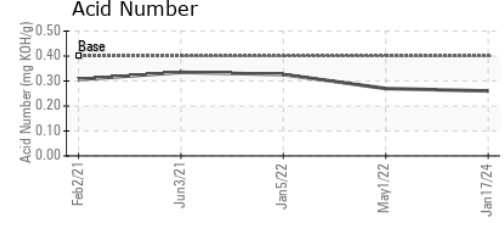
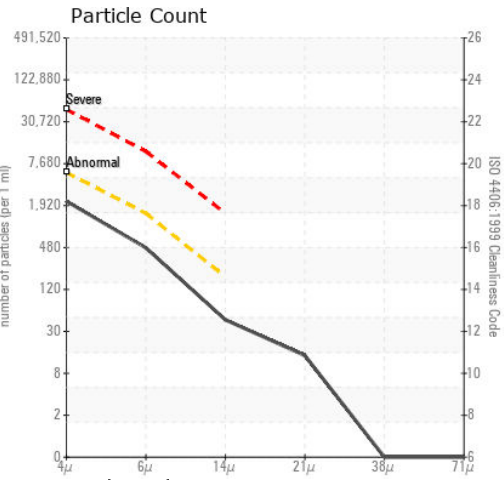
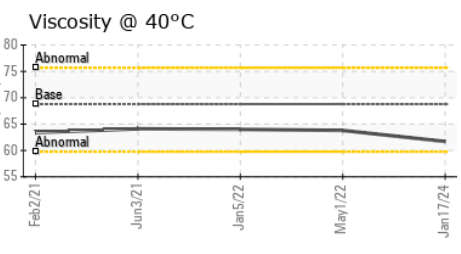
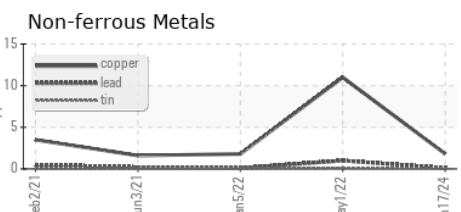
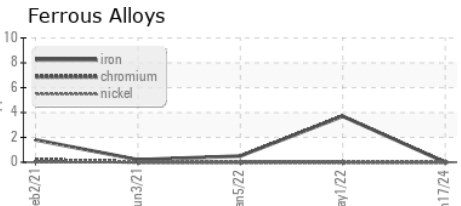
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	68.8	61.7	63.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0004840 **Received** : 18 Jan 2024  
**Lab Number** : 06064398 **Diagnosed** : 22 Jan 2024  
**Unique Number** : 10835780 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**KraftHeinz - Newberry - Plant 8335**  
 3704 LOUIS RICH DR  
 NEWBERRY, SC  
 US 29108  
 Contact:

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)

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