

## **PROBLEM SUMMARY**

Sample Rating Trend

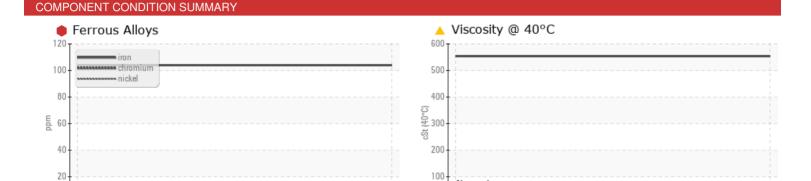


**VISUAL METAL** 

# NOT GIVEN USP0003030 (S/N NO INFO ON SIF/BOTTLE)

**Hydraulic System** 

**NOT GIVEN (--- GAL)** 



## RECOMMENDATION

Nov1/23

We advise that you inspect for the source(s) of wear. We were unable to perform a particle count due to metal particles present in this sample.

PROBLEMATIC TEST RESULTS							
Sample Status				SEVERE			
Iron	ppm	ASTM D5185m	>20	<b>104</b>			
White Metal	scalar	*Visual	NONE	MODER			
Visc @ 40°C	cSt	ASTM D445		<u> </u>			

Customer Id: FARMONIL Sample No.: USP0003030 Lab Number: 05996739 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

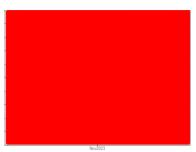
RECOMMENDED ACTIONS					
Action	Status	Date	Done By	Description	
Inspect Wear Source			?	We advise that you inspect for the source(s) of wear.	
Alert			?	We were unable to perform a particle count due to metal particles present in this sample.	

## HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

Sample Rating Trend



## **VISUAL METAL**



## NOT GIVEN USP0003030 (S/N NO INFO ON SIF/BOTTLE)

**Hydraulic System** 

**NOT GIVEN (--- GAL)** 

DIA		

## Recommendation

We advise that you inspect for the source(s) of wear. We were unable to perform a particle count due to metal particles present in this sample.

The iron level is abnormal. Moderate concentration of visible metal present.

## Contamination

No other contaminants were detected in the oil.

## Fluid Condition

The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid. Appears to be gear oil.

SAMPLE INFORMATION         method         limit/base         current         history1         history2           Sample Number         Client Info         USP0003030					Nov2023			
Sample Date   Client Info   O1 Nov 2023         Machine Age   hrs   Client Info   O         Oil Age   hrs   Client Info   O         Oil Changed   Client Info   N/A         Sample Status   SEVERE         WEAR METALS   method   limit/base   current   history1   history2     Iron   ppm   ASTM D5185m   >20   <1         Nickel   ppm   ASTM D5185m   >20   <1         Nickel   ppm   ASTM D5185m   >20   <1         Nickel   ppm   ASTM D5185m   >20   <1         Nith	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status <td a="" company="" of="" rows="" td="" the="" the<=""><td>Sample Number</td><td></td><td>Client Info</td><td></td><td>USP0003030</td><td></td><td></td></td>	<td>Sample Number</td> <td></td> <td>Client Info</td> <td></td> <td>USP0003030</td> <td></td> <td></td>	Sample Number		Client Info		USP0003030		
Oil Age         hrs         Client Info         0	Sample Date		Client Info		01 Nov 2023			
Oil Changed Sample Status         Client Info         N/A             WEAR METALS         method         limit/base         current         history1         history2           Irron         ppm         ASTM D5185m         >20         104             Chromium         ppm         ASTM D5185m         >20         <1	Machine Age	hrs	Client Info		0			
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         104             Chromium         ppm         ASTM D5185m         >20         <1	Oil Age	hrs	Client Info		0			
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         104             Chromium         ppm         ASTM D5185m         >20         <1	Oil Changed		Client Info		N/A			
Iron	Sample Status				SEVERE			
Chromium         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >20         0             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         20         <1	WEAR METALS		method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>20	<b>104</b>			
Titanium	Chromium	ppm	ASTM D5185m	>20	<1			
Silver	Nickel	ppm	ASTM D5185m	>20	0			
Aluminum	Titanium	ppm	ASTM D5185m		0			
Lead	Silver	ppm	ASTM D5185m		0			
Copper         ppm         ASTM D5185m         >20         2             Tin         ppm         ASTM D5185m         >20         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         1             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         <1	Aluminum	ppm	ASTM D5185m	>20	<1			
Tin         ppm         ASTM D5185m         >20         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         3             Calcium         ppm         ASTM D5185m         220             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         >15         3        <	Lead	ppm	ASTM D5185m	>20	0			
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         1             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1	Copper	ppm	ASTM D5185m	>20	2			
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         1             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1	Tin	ppm	ASTM D5185m	>20	0			
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         1             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1	Vanadium	ppm	ASTM D5185m		0			
Boron   ppm   ASTM D5185m   1	Cadmium	ppm	ASTM D5185m		0			
Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         3             Calcium         ppm         ASTM D5185m         220             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         3             Calcium         ppm         ASTM D5185m         220             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0              Potassium         ppm         ASTM D6304         >0.05         0.006             Water         %         ASTM D6304         >500         60.0	Boron	ppm	ASTM D5185m		1			
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         220             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm         ASTM D6304         >500         60.0	Barium	ppm	ASTM D5185m		0			
Magnesium         ppm         ASTM D5185m         <1             Calcium         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         220             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D6304         >0.05         0.006             water         %         ASTM D6304         >500         60.0	Molybdenum	ppm	ASTM D5185m		0			
Calcium         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         220             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2            Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Manganese	ppm	ASTM D5185m		<1			
Phosphorus         ppm         ASTM D5185m         220             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2            Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Magnesium	ppm	ASTM D5185m		<1			
Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Calcium	ppm	ASTM D5185m		3			
Sulfur         ppm         ASTM D5185m         10609             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Phosphorus	ppm	ASTM D5185m		220			
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Zinc	ppm	ASTM D5185m		0			
Silicon         ppm         ASTM D5185m         >15         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Sulfur	ppm	ASTM D5185m		10609			
Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	CONTAMINANTS	;	method	limit/base	current	history1	history2	
Potassium         ppm         ASTM D5185m         >20         2             Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm         ASTM D6304         >500         60.0	Silicon	ppm	ASTM D5185m	>15	3			
Water         %         ASTM D6304         >0.05         0.006             ppm Water         ppm ASTM D6304         >500         60.0	Sodium	ppm	ASTM D5185m		0			
ppm Water ppm ASTM D6304 >500 <b>60.0</b>	Potassium	ppm	ASTM D5185m	>20	2			
pp to the state of	Water	%	ASTM D6304	>0.05	0.006			
FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	60.0			
	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2	

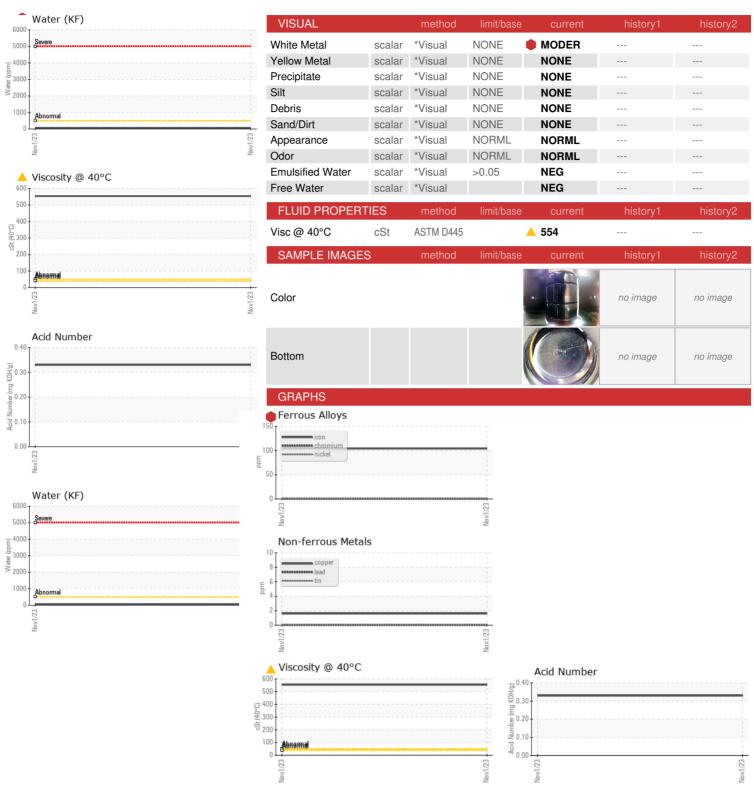
0.33

Acid Number (AN)

mg KOH/g ASTM D8045



## **OIL ANALYSIS REPORT**





Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : USP0003030

: 05996739 : 10725099 Test Package : IND 2

Received Diagnosed

: 06 Nov 2023 Diagnostician : Doug Bogart

: 02 Nov 2023

**FARMLAND FOODS INC - SMITHFIELD** 

MONMOUTH, IL US

Contact:

T: 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)