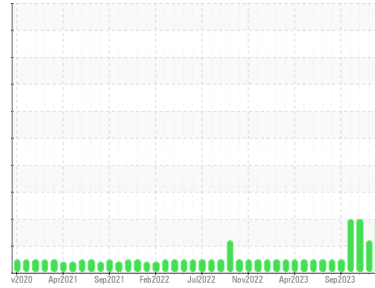




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
SSC
 Machine Id
NIRO 3 (S/N 005)
 Component
Transmission (Manual)
 Fluid
DTE 10-150 (15 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the fluid.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0005224	USP239561	USP239564
Sample Date	Client Info		03 Jan 2024	05 Dec 2023	10 Nov 2023
Machine Age	hrs	Client Info	695	1	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ATTENTION	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	2	0	0
Chromium	ppm	ASTM D5185m	>5	<1	0	0
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>7	0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	0
Lead	ppm	ASTM D5185m	>45	6	3	0
Copper	ppm	ASTM D5185m	>225	2	<1	0
Tin	ppm	ASTM D5185m	>10	3	2	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		2	2	<1
Calcium	ppm	ASTM D5185m		71	78	45
Phosphorus	ppm	ASTM D5185m		148	142	111
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		1044	991	911

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>125	3	5	7
Sodium	ppm	ASTM D5185m		0	<1	<1
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water	%	ASTM D6304	>0.1	0.002	0.001	0.008
ppm Water	ppm	ASTM D6304	>1000	21	10	85.4

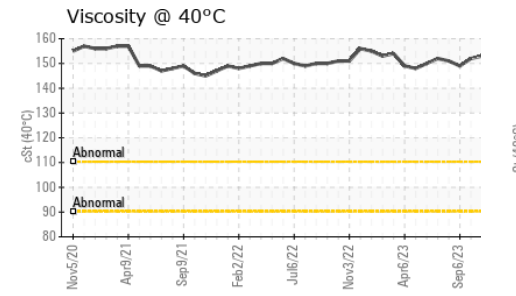
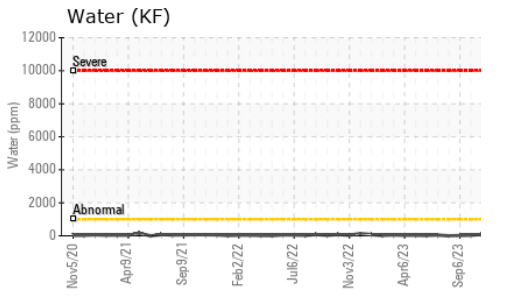
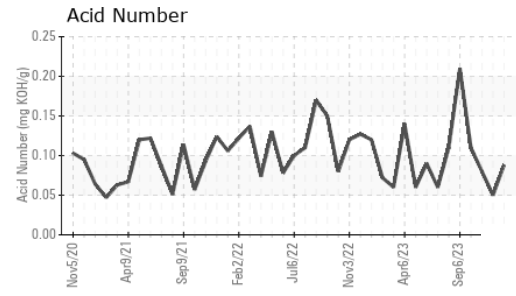
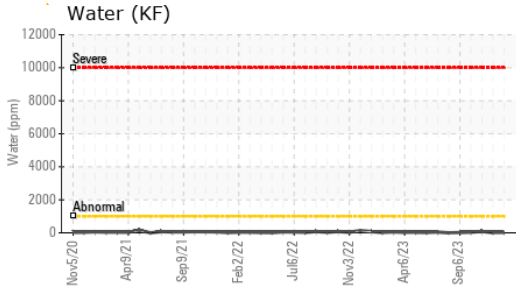
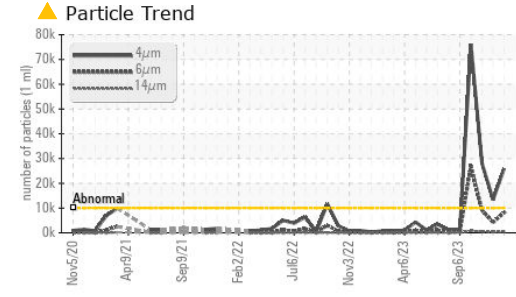
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 25899	▲ 13316	▲ 28115
Particles >6µm	ASTM D7647	>2500	▲ 8071	▲ 4166	▲ 9140
Particles >14µm	ASTM D7647	>320	▲ 410	313	▲ 510
Particles >21µm	ASTM D7647	>80	▲ 117	81	▲ 114
Particles >38µm	ASTM D7647	>20	5	0	3
Particles >71µm	ASTM D7647	>4	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 22/20/16	▲ 21/19/15	▲ 22/20/16

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045		0.088	0.05	0.08

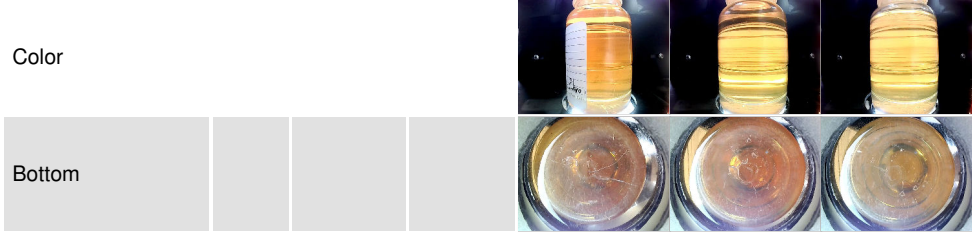
OIL ANALYSIS REPORT



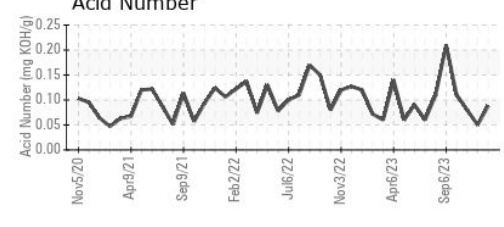
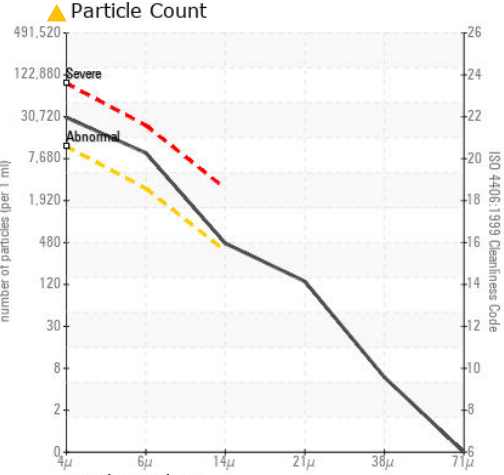
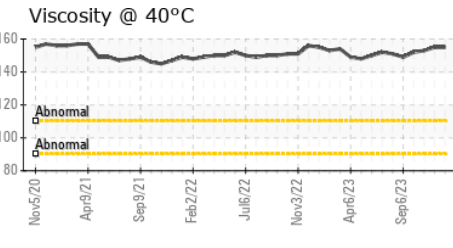
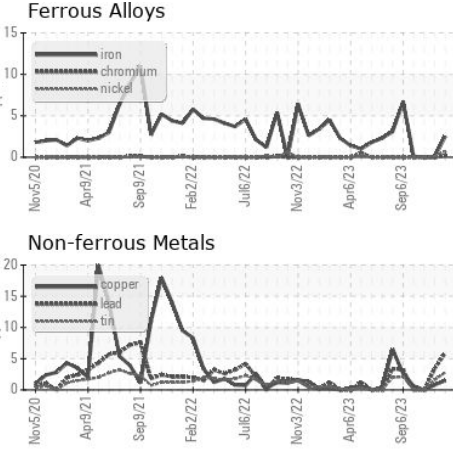
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	155	155	153

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0005224 **Received** : 08 Jan 2024
Lab Number : 06054951 **Diagnosed** : 10 Jan 2024
Unique Number : 10820900 **Diagnostician** : Doug Bogart
Test Package : IND 2

EMPIRICAL FOODS INC. - BPIISOUPRO - EMPSOUPRO
 S. SIOUX CITY, NE
 US
 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)