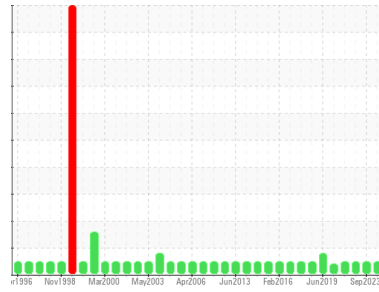




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**CP-SCOTTS-02**  
 Component  
**Hydraulic System**  
 Fluid  
**ESSO NUTO H ISO 46 (492 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is 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>WC0864959</b>	WC0739309	WC0567378	
Sample Date	Client Info	<b>10 Jun 2024</b>	26 Sep 2023	10 May 2022	
Machine Age	hrs	Client Info	<b>48265</b>	45462	0
Oil Age	hrs	Client Info	<b>0</b>	0	39050
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >20	<b>&lt;1</b>	2	2
Chromium	ppm ASTM D5185(m) >20	<b>0</b>	<1	0
Nickel	ppm ASTM D5185(m) >20	<b>0</b>	0	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185(m) >20	<b>0</b>	0	<1
Lead	ppm ASTM D5185(m) >20	<b>0</b>	1	<1
Copper	ppm ASTM D5185(m) >20	<b>2</b>	10	9
Tin	ppm ASTM D5185(m) >20	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	<b>0</b>	<1	<1
Barium	ppm ASTM D5185(m) 0	<b>0</b>	<1	0
Molybdenum	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m) 5	<b>&lt;1</b>	<1	0
Calcium	ppm ASTM D5185(m) 50	<b>50</b>	42	42
Phosphorus	ppm ASTM D5185(m) 330	<b>341</b>	372	374
Zinc	ppm ASTM D5185(m) 410	<b>417</b>	371	453
Sulfur	ppm ASTM D5185(m) 2700	<b>5213</b>	5014	5172
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

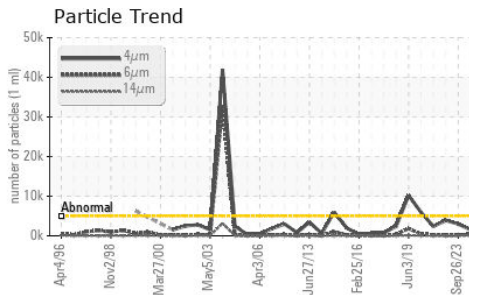
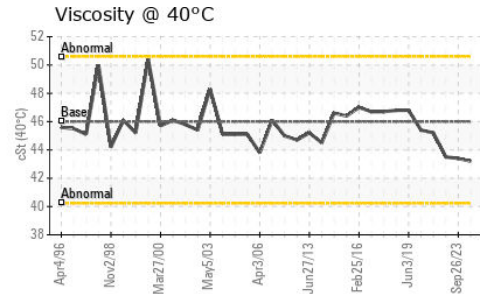
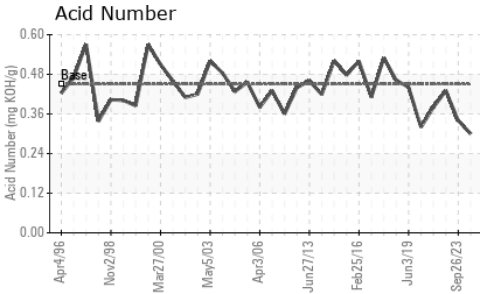
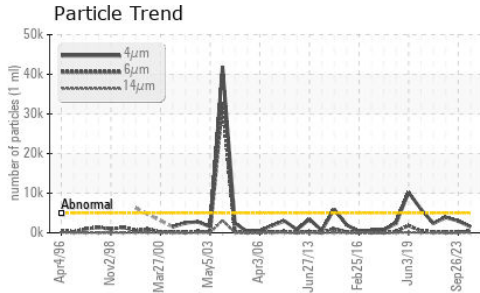
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>&lt;1</b>	5	3
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	0
Potassium	ppm ASTM D5185(m) >20	<b>0</b>	<1	0

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>1521</b>	2984	3890
Particles >6µm	ASTM D7647 >1300	<b>320</b>	258	110
Particles >14µm	ASTM D7647 >160	<b>23</b>	6	6
Particles >21µm	ASTM D7647 >40	<b>5</b>	1	1
Particles >38µm	ASTM D7647 >10	<b>0</b>	1	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>18/15/12</b>	19/15/10	19/14/10



# OIL ANALYSIS REPORT

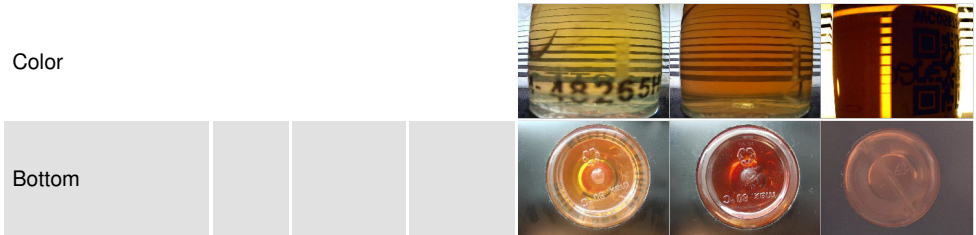


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.45	<b>0.30</b>	0.34	0.43

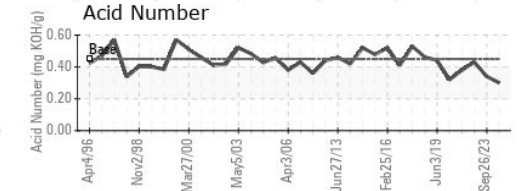
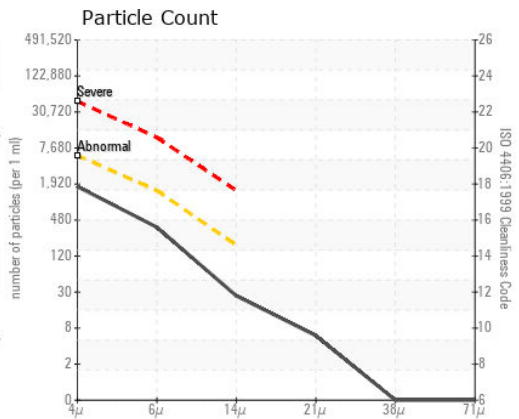
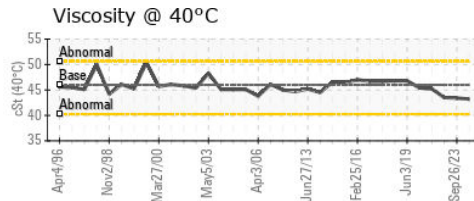
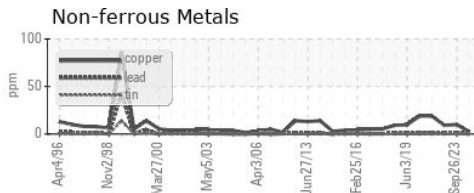
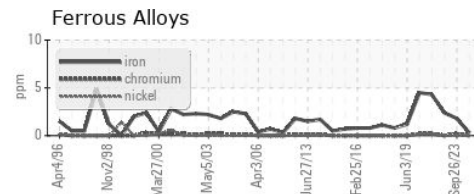
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	46	<b>43.2</b>	43.4	43.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
 Sample No. : WC0864959  
 Lab Number : 02641989  
 Unique Number : 5799528  
 Test Package : IND 2

Received : 14 Jun 2024  
 Tested : 17 Jun 2024  
 Diagnosed : 17 Jun 2024 - Wes Davis

**FREUDENBERG NOK**  
 65 SPRUCE STREET  
 TILLSONBURG, ON  
 CA N4G 4G7  
 Contact: Joe Ostrowercha  
 jmo@fnst.com  
 T: (519)983-1271  
 F: (519)842-8770

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.