

PROBLEM SUMMARY

Sample Rating Trend

DIRT



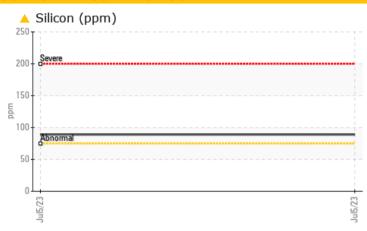
VOLVO VNR64T640 26639

Component

Rear Differential

GEAR OIL SAE 75W90 (--- QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	
Silicon	ppm	ASTM D5185m	>75	A 89	
Debris	scalar	*Visual	NONE	MODER	

Customer Id: PERLEWNC Sample No.: PCA0099023 Lab Number: 05894080 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@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
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

DIRT

VOLVO VNR64T640 26639

Rear Differential

GEAR OIL SAE 75W90 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material. Moderate concentration of visible dirt/debris present in the oil.

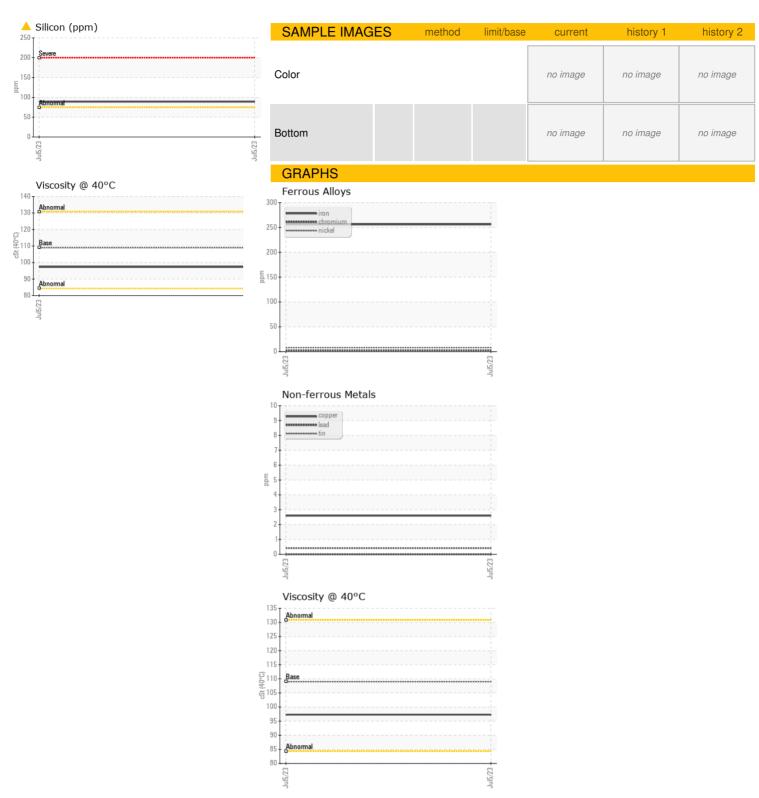
Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION method limit/base current history 1 history 2 Sample Number Client Info PCA0099023					Jul2023		
Sample Number Client Info PCA0099023 Sample Date Client Info 05 Jul 2023 Machine Age mls Client Info 434627 Oil Age mls Client Info 434627 Oil Changed Client Info Changed Sample Status ABNORMAL WEAR METALS method limit/base current history Iron ppm ASTM D5185m >500 256 Chromium ppm ASTM D5185m >10 2 Nickel ppm ASTM D5185m >10 8 Silver ppm ASTM D5185m <1 Aluminum ppm ASTM D5185m >25 1 Lead ppm ASTM D5185m >10 3 Capper ppm	CAMPLE INCOR	NANTIONI		11 11 11			111
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history 1	history 2
Machine Age mls Client Info 434627 Oil Age mls Client Info 434627 Oil Changed Client Info Changed Sample Status ABNORMAL WEAR METALS Iron ppm ASTM D5185m >500 256 Iron ppm ASTM D5185m >10 8 Chromium ppm ASTM D5185m >10 8 Nickel ppm ASTM D5185m >10 8 Titanium ppm ASTM D5185m >10 8 Silver ppm ASTM D5185m >25 1 Aluminum ppm ASTM D5185m >25 1 Lead ppm ASTM D5185m >10 <1	Sample Number		Client Info		PCA0099023		
Oil Age mls Client Info 434627 Oil Changed Client Info Changed Sample Status method limit/base current history WEAR METALS method limit/base current history Iron ppm ASTM D5185m >500 256 Chromium ppm ASTM D5185m >10 2 Nickel ppm ASTM D5185m >10 8 Silver ppm ASTM D5185m <1 Aluminum ppm ASTM D5185m >25 1 Aluminum ppm ASTM D5185m >25 0 Lead ppm ASTM D5185m >10 3 Vanadium ppm ASTM D5185m >10 <1 Vanadiu	Sample Date		Client Info		05 Jul 2023		
Oil Changed Sample Status Client Info Changed ABNORMAL WEAR METALS method limit/base current history 1 history Iron ppm ASTM D5185m >500 256 Chromium ppm ASTM D5185m >10 2 Nickel ppm ASTM D5185m >10 8 Silver ppm ASTM D5185m >1 Aluminum ppm ASTM D5185m >25 1 Lead ppm ASTM D5185m >25 0	Machine Age	mls	Client Info		434627		
Sample Status	Oil Age	mls	Client Info		434627		
WEAR METALS	Oil Changed		Client Info		Changed		
Iron	Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >10 2 Nickel ppm ASTM D5185m >10 8 Titanium ppm ASTM D5185m <1 Silver ppm ASTM D5185m <25 1 Aluminum ppm ASTM D5185m >25 0 Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 Boron ppm ASTM D5185m 400 228 Barium ppm ASTM D5185m 12 <1	WEAR METAL	.S	method	limit/base	current	history 1	history 2
Nickel ppm ASTM D5185m >10 8 Titanium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>500	256		
Titanium ppm ASTM D5185m <1 Silver ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>10	2		
Silver ppm ASTM D5185m <1 Aluminum ppm ASTM D5185m >25 1 Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >100 3 Tin ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADD1TIVES method limit/base current history 1 history Boron ppm ASTM D5185m 400 228 Boron ppm ASTM D5185m 12 <1 Barium ppm ASTM D5185m 12 <1 <th< td=""><td>Nickel</td><td>ppm</td><td>ASTM D5185m</td><td>>10</td><td>8</td><td></td><td></td></th<>	Nickel	ppm	ASTM D5185m	>10	8		
Aluminum ppm ASTM D5185m >25 1 Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >10 <1	Titanium	ppm	ASTM D5185m		<1		
Lead ppm ASTM D5185m >25 0 Copper ppm ASTM D5185m >100 3 Tin ppm ASTM D5185m >10 <1	Silver	ppm	ASTM D5185m		<1		
Copper ppm ASTM D5185m >100 3 Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>25	1		
Copper ppm ASTM D5185m >100 3 Tin ppm ASTM D5185m >10 <1	Lead	ppm	ASTM D5185m	>25	0		
Tin ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 history Boron ppm ASTM D5185m 400 228 Barium ppm ASTM D5185m 200 4 Molybdenum ppm ASTM D5185m 12 <1 Manganese ppm ASTM D5185m 12 <1 Magnesium ppm ASTM D5185m 150 37 Calcium ppm ASTM D5185m 150 37 Phosphorus ppm ASTM D5185m 125 34 Sulfur ppm ASTM D5185m 225 34 <	Copper		ASTM D5185m	>100	3		
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 history Boron ppm ASTM D5185m 400 228 Barium ppm ASTM D5185m 200 4 Molybdenum ppm ASTM D5185m 12 <1 Manganese ppm ASTM D5185m 12 <1 Magnesium ppm ASTM D5185m 12 <1 Calcium ppm ASTM D5185m 150 37 Phosphorus ppm ASTM D5185m 125 34 Zinc ppm ASTM D5185m 22500 22464 Sulfur ppm ASTM D5185m >75 89 <th< td=""><td></td><td></td><td></td><td></td><td><1</td><td></td><td></td></th<>					<1		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 history Boron ppm ASTM D5185m 400 228 Barium ppm ASTM D5185m 200 4 Molybdenum ppm ASTM D5185m 12 <1							
ADDITIVES method limit/base current history 1 history Boron ppm ASTM D5185m 400 228 Barium ppm ASTM D5185m 200 4 Molybdenum ppm ASTM D5185m 12 <1							
Boron ppm ASTM D5185m 400 228 Barium ppm ASTM D5185m 200 4 Molybdenum ppm ASTM D5185m 12 <1	ADDITIVES	1-1-	method	limit/hase	current	history 1	history 2
Barium ppm ASTM D5185m 200 4 Molybdenum ppm ASTM D5185m 12 <1		0.00					
Molybdenum ppm ASTM D5185m 12 <1 Manganese ppm ASTM D5185m 8 Magnesium ppm ASTM D5185m 12 <1							
Manganese ppm ASTM D5185m 8 Magnesium ppm ASTM D5185m 12 <1							
Magnesium ppm ASTM D5185m 12 <1 Calcium ppm ASTM D5185m 150 37 Phosphorus ppm ASTM D5185m 1650 1392 Zinc ppm ASTM D5185m 125 34 Sulfur ppm ASTM D5185m 22500 22464 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >75 ▲ 89 Sodium ppm ASTM D5185m >5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE<	-			12			
Calcium ppm ASTM D5185m 150 37 Phosphorus ppm ASTM D5185m 1650 1392 Zinc ppm ASTM D5185m 125 34 Sulfur ppm ASTM D5185m 22500 22464 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >75 ▲ 89 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE	-			10	_		
Phosphorus ppm ASTM D5185m 1650 1392 Zinc ppm ASTM D5185m 125 34 Sulfur ppm ASTM D5185m 22500 22464 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >75 ▲ 89 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE	-			. –			
Zinc ppm ASTM D5185m 125 34 Sulfur ppm ASTM D5185m 22500 22464 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >75 ▲ 89 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE							
Sulfur ppm ASTM D5185m 22500 22464 CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >75 ■ 89 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE							
CONTAMINANTS method limit/base current history 1 history Silicon ppm ASTM D5185m >75 ▲ 89 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE	-						
Silicon ppm ASTM D5185m >75 ▲ 89 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE					22464		
Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE		ITS				history 1	history 2
Potassium ppm ASTM D5185m >20 5 VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE				>75			
VISUAL method limit/base current history 1 history White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE		ppm			5		
White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE	Potassium	ppm	ASTM D5185m	>20	5		
Yellow Metal scalar *Visual NONE NONE	VISUAL		method	limit/base	current	history 1	history 2
	White Metal	scalar		NONE	NONE		
Precipitate scalar *Visual NONE NONE	Yellow Metal	scalar	*Visual	NONE	NONE		
recipitate scalar visual recive	Precipitate	scalar	*Visual	NONE	NONE		
Silt scalar *Visual NONE NONE	Silt	scalar	*Visual	NONE	NONE		
Debris scalar *Visual NONE ▲ MODER	Debris	scalar	*Visual	NONE	▲ MODER		
Sand/Dirt scalar *Visual NONE NONE	Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance scalar *Visual NORML NORML	Appearance	scalar	*Visual	NORML	NORML		
Odor scalar *Visual NORML NORML	Odor	scalar	*Visual	NORML	NORML		
Emulsified Water scalar *Visual >.2 NEG	Emulsified Water	scalar	*Visual	>.2	NEG		
Free Water scalar *Visual NEG	Free Water	scalar	*Visual		NEG		
FLUID PROPERTIES method limit/base current history 1 history	FLUID PROPE	RTIES	method	limit/base	current	history 1	history 2



OIL ANALYSIS REPORT





Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10549890 Test Package : FLEET

: PCA0099023 : 05894080

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

: 10 Jul 2023 : 12 Jul 2023 Diagnostician : Angela Borella 210 GRIFFINS QUARTER RD LEWISTON, NC US 27849 Contact: NELSON WALLACE nelson.wallace2@perdue.com

PERDUE FARMS - Lewiston

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)

T:

F: