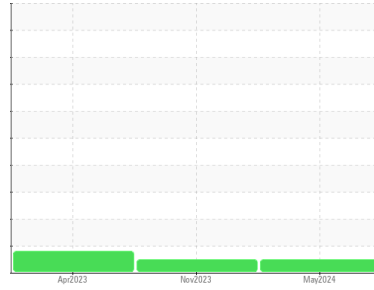




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**088-19 WC-44 (S/N 188729)**  
 Component  
**Hydraulic System**  
 Fluid  
**CHEVRON RANDO HD 46 (69 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>PH0003033</b>	PH0002264	PH0000599
Sample Date	Client Info			<b>31 May 2024</b>	21 Nov 2023	25 Apr 2023
Machine Age	hrs	Client Info		<b>3756</b>	1573	9909
Oil Age	hrs	Client Info		<b>3756</b>	1573	9909
Oil Changed	Client Info			<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

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 D5185m	>20	<b>0</b>	<1	2
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>20	<b>7</b>	6	▲ 23
Tin	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

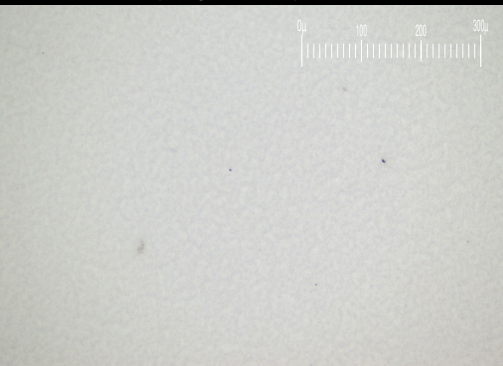
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	1
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	1	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	2	10
Calcium	ppm	ASTM D5185m		<b>47</b>	48	69
Phosphorus	ppm	ASTM D5185m		<b>331</b>	326	321
Zinc	ppm	ASTM D5185m		<b>420</b>	403	365
Sulfur	ppm	ASTM D5185m		<b>938</b>	816	826

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	2	<1
Sodium	ppm	ASTM D5185m		<b>2</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	<b>210</b>	1052	550
Particles >6µm		ASTM D7647	>640	<b>79</b>	291	104
Particles >14µm		ASTM D7647	>160	<b>12</b>	12	8
Particles >21µm		ASTM D7647	>40	<b>2</b>	2	3
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)	>18/16/14	<b>15/13/11</b>	17/15/11	16/14/10

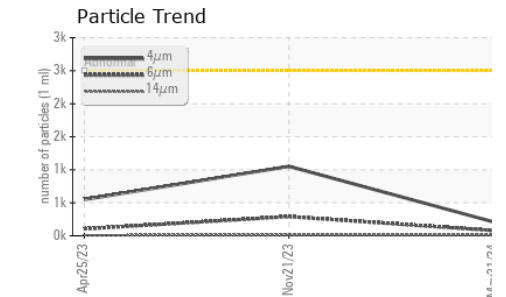
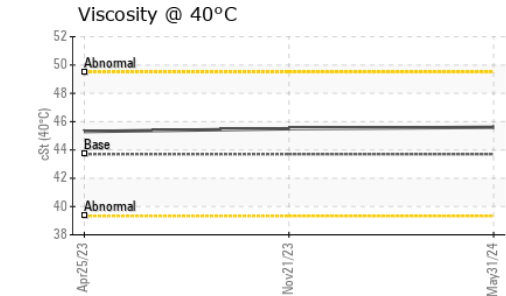
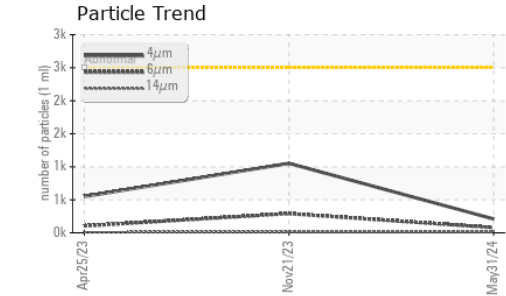
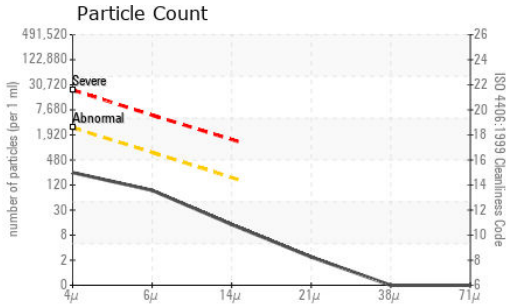
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.28</b>	0.26	0.27

Particle Filter (Magn: 200 x)





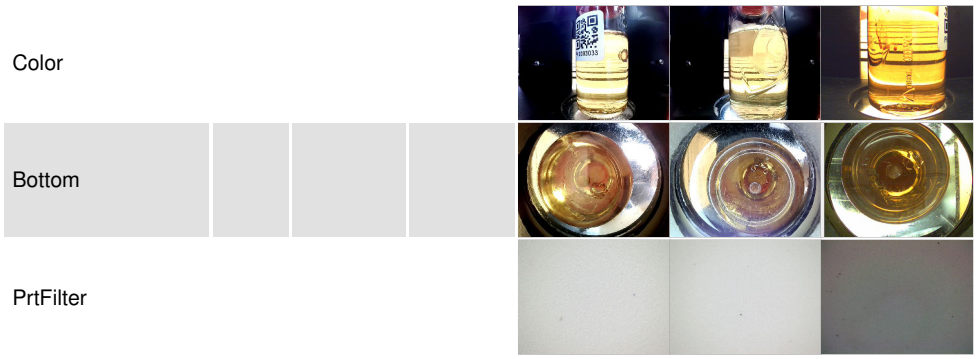
# OIL ANALYSIS REPORT



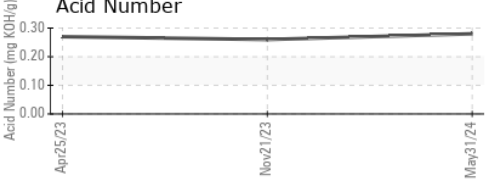
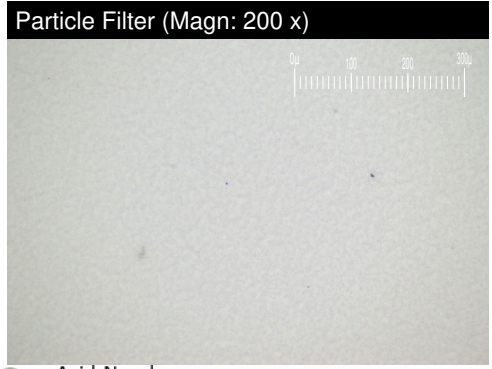
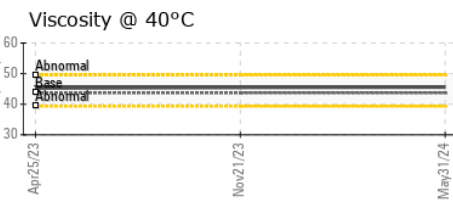
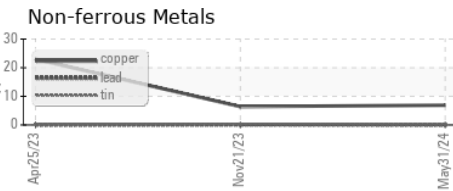
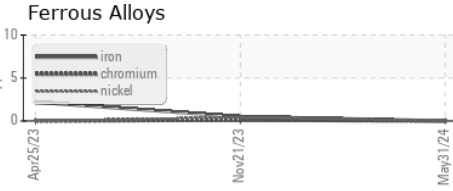
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	43.7	<b>45.6</b>	45.5	45.3

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PH0003033      **Received** : 10 Jun 2024  
**Lab Number** : **06204572**      **Tested** : 13 Jun 2024  
**Unique Number** : 11072033      **Diagnosed** : 13 Jun 2024 - Jonathan Hester  
**Test Package** : PLANT ( Additional Tests: PrtFilter )

**SMC LTD**  
 3250 BRICKWAY BLVD  
 SANTA ROSA, CA  
 US 95403  
 Contact: SUSAN BENNETT  
 susan.bennett@smcltd.com

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)