



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**CDA**  
Machine Id  
**CDA**  
Component  
**Steering**  
Fluid  
**CHEVRON RANDO HD 68 (300 GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0050802</b>	MW0050783	MW0054971
Sample Date		Client Info		<b>28 Jan 2024</b>	27 Oct 2023	14 Aug 2023
Machine Age	hrs	Client Info		<b>26617</b>	24385	23336
Oil Age	hrs	Client Info		<b>26617</b>	24385	23336
Filter Age	hrs	Client Info		<b>0</b>	24385	23336
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Sample Status				<b>ABNORMAL</b>	ATTENTION	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>5</b>	<1	5
Chromium	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	2	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

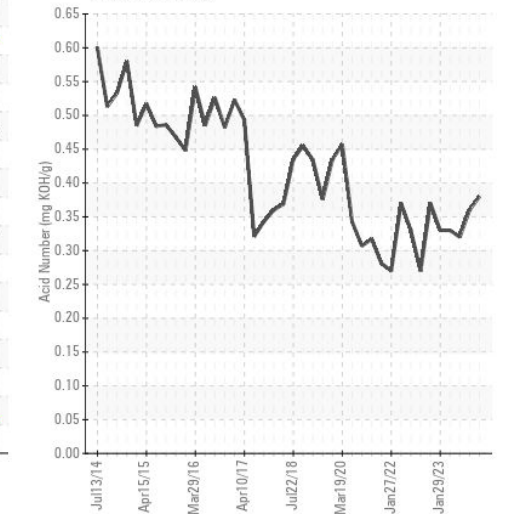
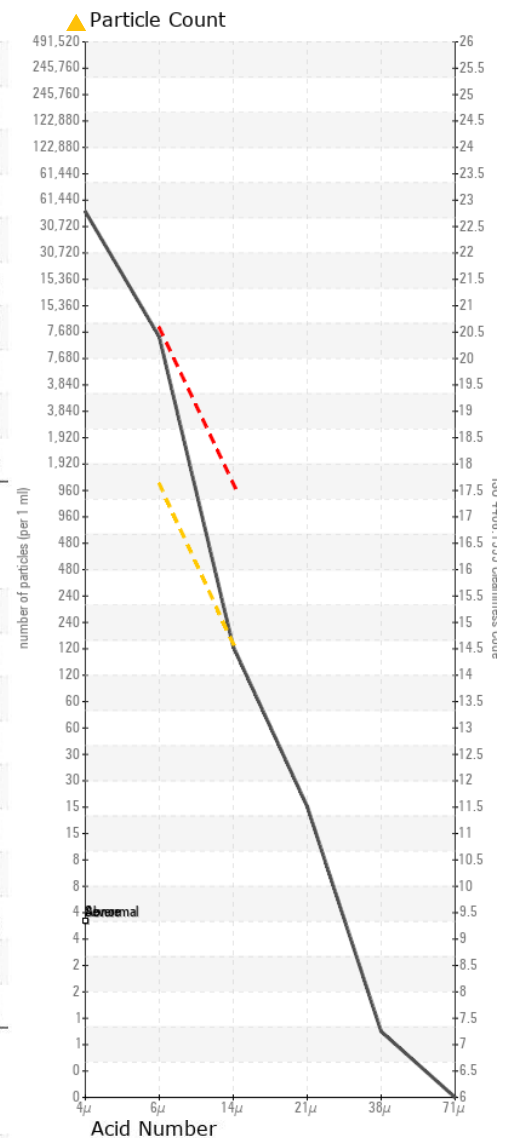
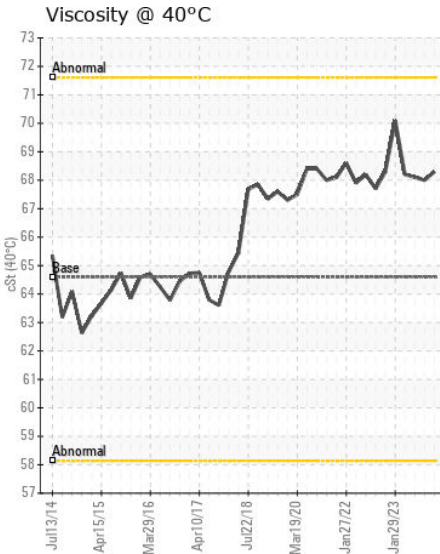
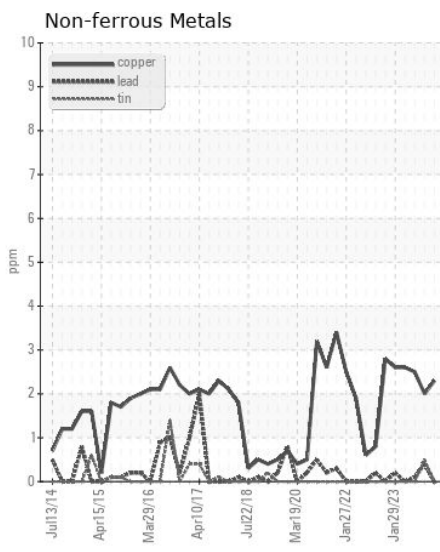
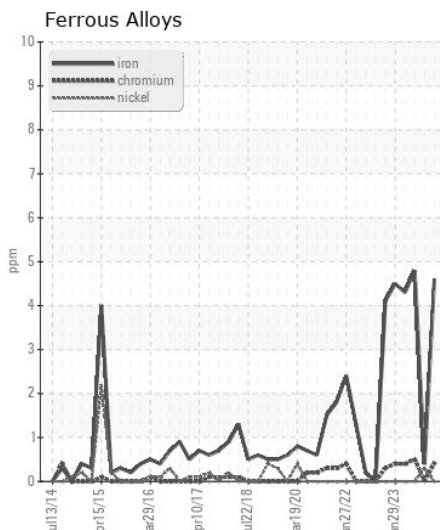
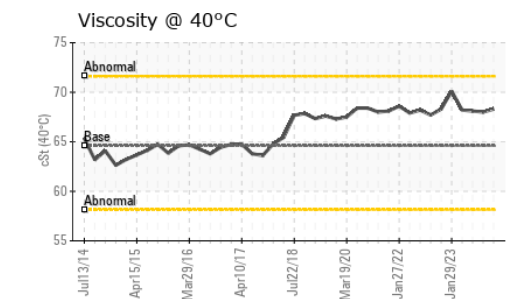
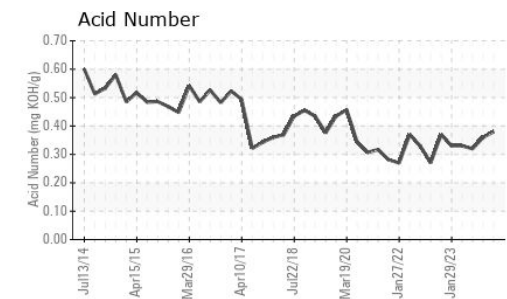
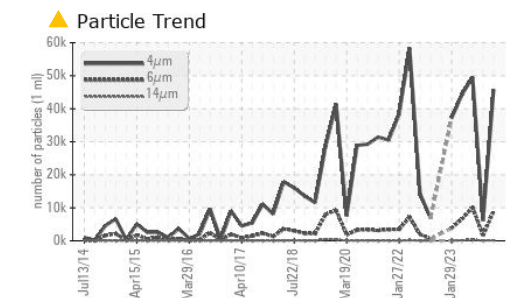
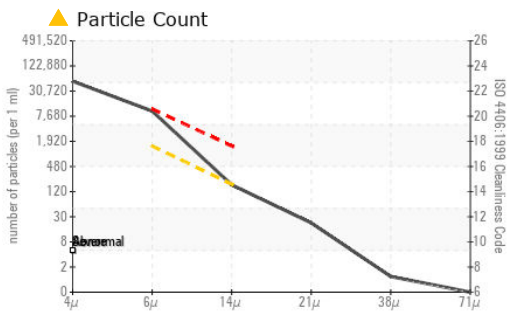
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>45760</b>	6130	49542
Particles >6µm		ASTM D7647	>1300	<b>8875</b>	1558	10176
Particles >14µm		ASTM D7647	>160	<b>154</b>	88	248
Particles >21µm		ASTM D7647	>40	<b>19</b>	18	32
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>-/17/14	<b>23/20/14</b>	20/18/14	23/21/15
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
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	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>44</b>	42	39
Phosphorus	ppm	ASTM D5185m		<b>311</b>	280	325
Zinc	ppm	ASTM D5185m		<b>344</b>	405	387
Sulfur	ppm	ASTM D5185m		<b>722</b>	793	732
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.38</b>	0.36	0.32
Visc @ 40°C	cSt	ASTM D445	64.6	<b>68.3</b>	68.0	68.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0050802 **Received** : 01 Mar 2024  
**Lab Number** : 06106007 **Tested** : 04 Mar 2024  
**Unique Number** : 10909504 **Diagnosed** : 05 Mar 2024 - Don Baldrige  
**Test Package** : MAR 2 ( Additional Tests: PrtCount )

**AMERICAN RIVER TRANSPORTATION CO.**  
P.O. BOX 2889  
ST. LOUIS, MO  
US 63111  
Contact: BRIAN GRIEWING  
brian.griewing@adm.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)

T:  
F: (314)481-5278