



OIL ANALYSIS REPORT

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

Machine Id  
**HC-5 - RALPHS RIVERSIDE (S/N W0985XFMNTHGA03)**

Component  
**Refrigeration Compressor**

Fluid  
**CHEVRON CAPELLA OIL WF 68 (150 GAL)**

**RECOMMENDATION**

We recommend that you drain the oil and perform a filter service on this component if not already done. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>USP0007529</b>	USP250271	USP231642
Sample Date		Client Info		<b>20 Feb 2024</b>	05 Sep 2023	10 Aug 2022
Machine Age	hrs	Client Info		<b>26352</b>	25371	23593
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	N/A
Filter Changed		Client Info		<b>N/A</b>	Not Changd	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>8	<b>2</b>	<1	11
Chromium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

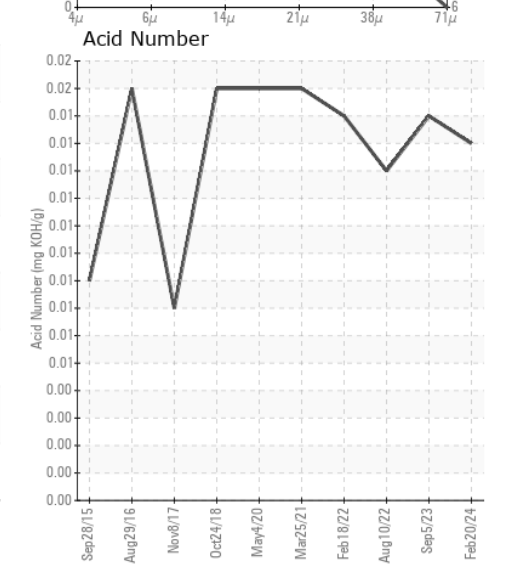
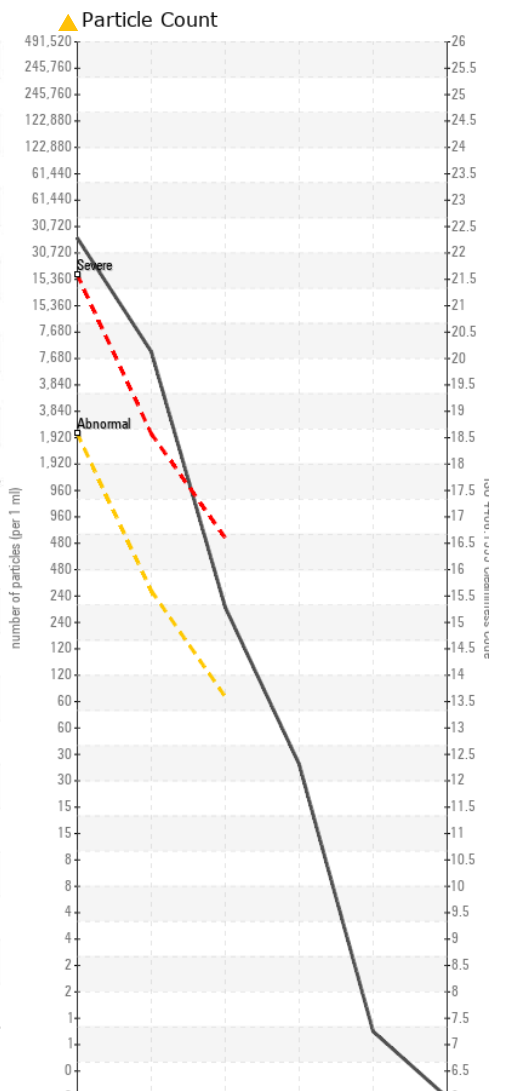
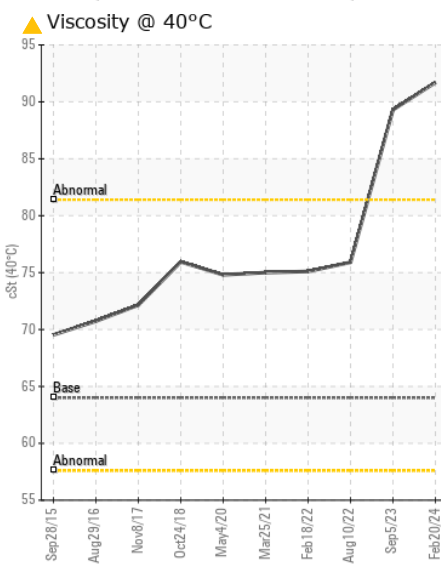
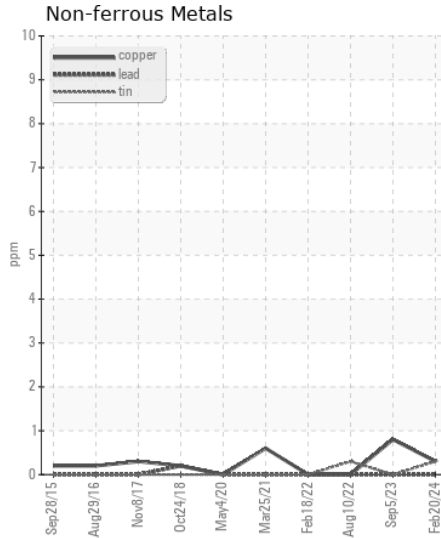
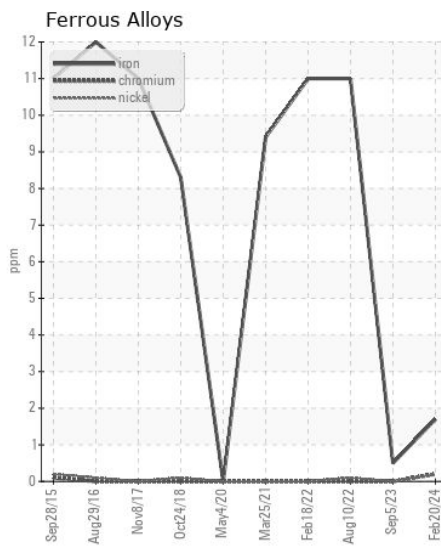
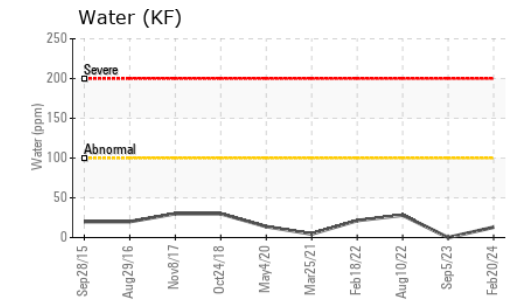
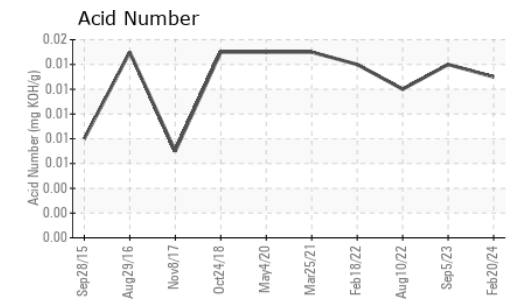
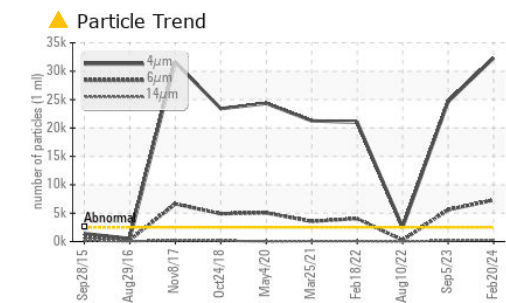
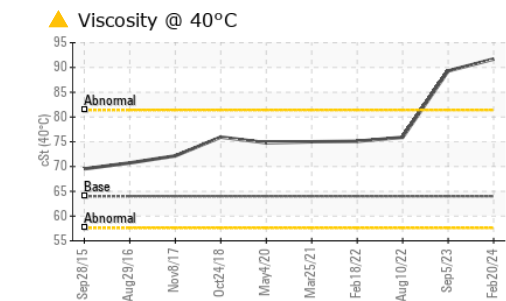
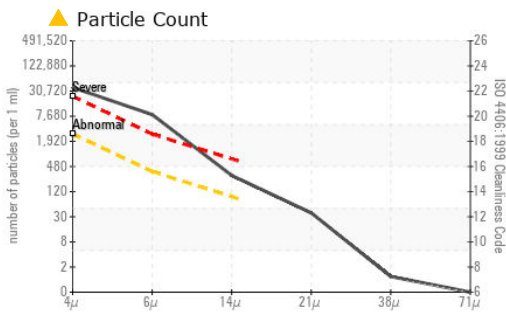
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	2	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304	>0.01	<b>0.001</b>	0.00	0.003
ppm Water	ppm	ASTM D6304	>100	<b>13</b>	0.00	28.1
Particles >4µm		ASTM D7647	>2500	<b>▲ 32322</b>	▲ 24634	2498
Particles >6µm		ASTM D7647	>320	<b>▲ 7319</b>	▲ 5599	232
Particles >14µm		ASTM D7647	>80	<b>▲ 258</b>	▲ 169	13
Particles >21µm		ASTM D7647	>20	<b>▲ 33</b>	▲ 23	5
Particles >38µm		ASTM D7647	>4	<b>1</b>	1	3
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>18/15/13	<b>▲ 22/20/15</b>	▲ 22/20/15	18/15/11
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	>0.01	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The oil viscosity is higher than normal. Confirmed. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>0</b>	<1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m		<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Zinc	ppm	ASTM D5185m		<b>&lt;1</b>	0	30
Sulfur	ppm	ASTM D5185m		<b>110</b>	207	1251
Acid Number (AN)	mg KOH/g	ASTM D974		<b>0.013</b>	0.014	0.012
Visc @ 40°C	cSt	ASTM D445	64.0	<b>▲ 91.7</b>	▲ 89.3	75.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0007529  
**Lab Number** : 06104375  
**Unique Number** : 10902605  
**Test Package** : IND 2  
**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Doug Bogart

**RACE ENGINEERING CORP**  
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Certificate L2367  
 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)