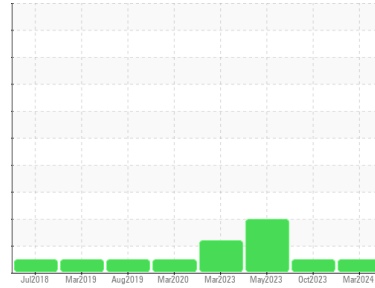




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**FRAC**  
Machine Id  
**VAMECO CLV 111 P001**  
Component  
**Hydraulic System**  
Fluid  
**HYDRAULIC OIL FG ISO 46 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) HYDRAULIC OIL FG ISO 46. Please confirm.

NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### 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>WC0888248</b>	WC0865399	WC0820225
Sample Date	Client Info			<b>11 Mar 2024</b>	07 Oct 2023	16 May 2023
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	SEVERE

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>&lt;1</b>	3	12
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	5	<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185m	12	<b>&lt;1</b>	2	<1
Phosphorus	ppm	ASTM D5185m	400	<b>579</b>	584	603
Zinc	ppm	ASTM D5185m	12	<b>&lt;1</b>	0	0
Sulfur	ppm	ASTM D5185m	650	<b>636</b>	518	644

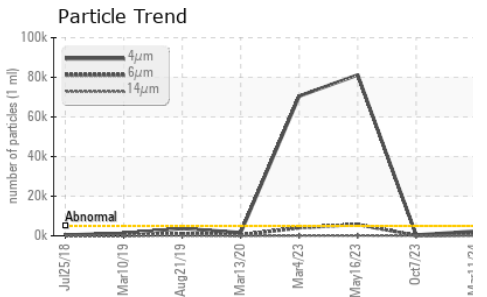
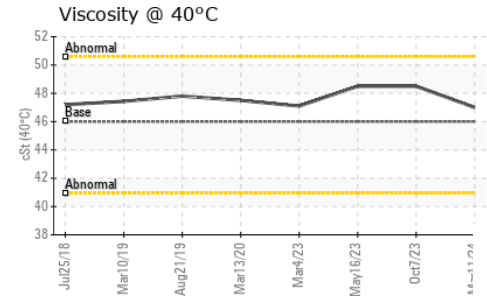
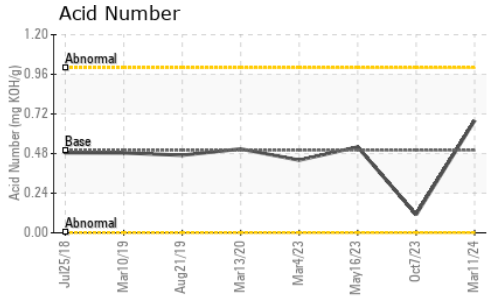
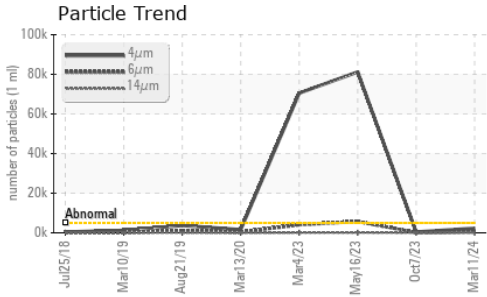
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>1</b>	1	<1
Sodium	ppm	ASTM D5185m		<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>2332</b>	425	▲ 81187
Particles >6µm		ASTM D7647	>1300	<b>632</b>	122	▲ 5740
Particles >14µm		ASTM D7647	>160	<b>54</b>	12	99
Particles >21µm		ASTM D7647	>40	<b>13</b>	3	22
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/16/13</b>	16/14/11	▲ 24/20/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.50	<b>0.68</b>	0.11	0.52



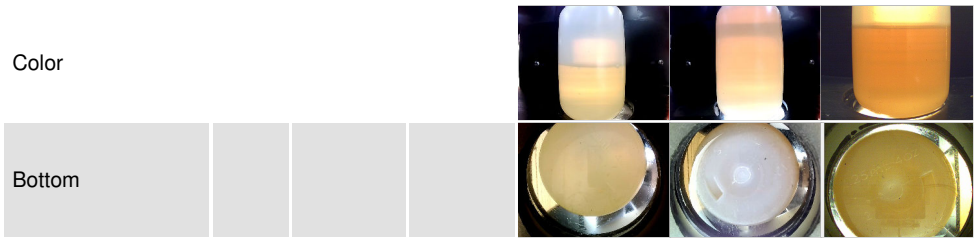
# OIL ANALYSIS REPORT



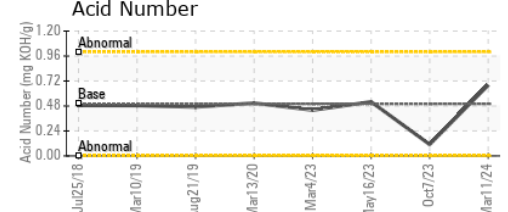
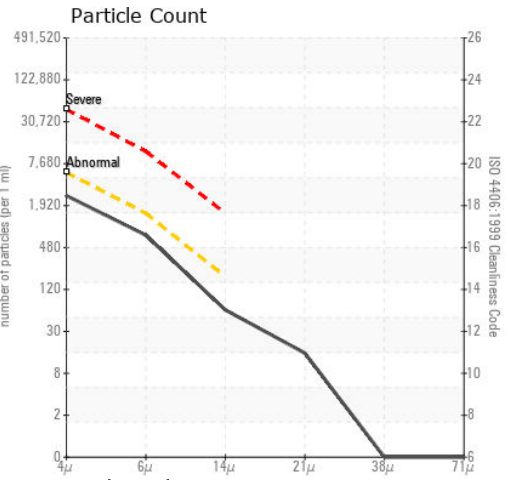
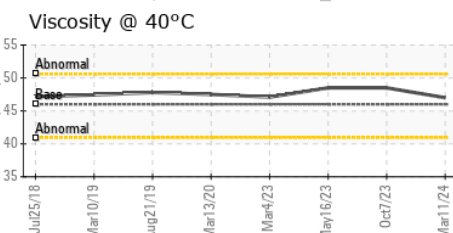
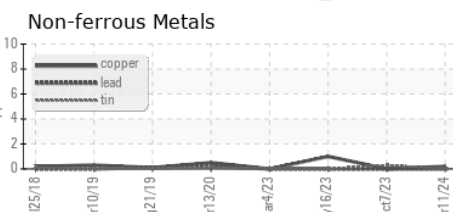
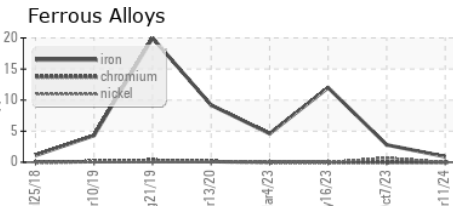
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 46	47.0	48.5	48.5

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0888248  
**Lab Number** : 06134852  
**Unique Number** : 10954317  
**Test Package** : IND 2  
**Received** : 01 Apr 2024  
**Tested** : 02 Apr 2024  
**Diagnosed** : 02 Apr 2024 - Wes Davis

**TAKEDA**  
 305-505 BAXALTA PARKWAY  
 SOCIAL CIRCLE, GA  
 US 30025  
 Contact: BRANDON INMAN  
 BRANDON.INMAN@SHIRE.COM  
 T:  
 F:

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)