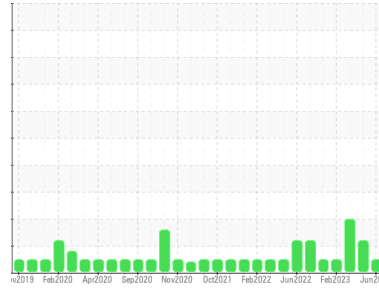


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**WHITE**

Component  
**Reciprocating Compressor**

Fluid  
**TULCO LUBSOIL IND MP R&O 150 (--- 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>TO60000935</b>	TO60000275	TO60000274
Sample Date	Client Info			<b>02 Jun 2023</b>	21 Apr 2023	08 Mar 2023
Machine Age	wks	Client Info		<b>0</b>	0	0
Oil Age	wks	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	0
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m	>50	<b>2</b>	3	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

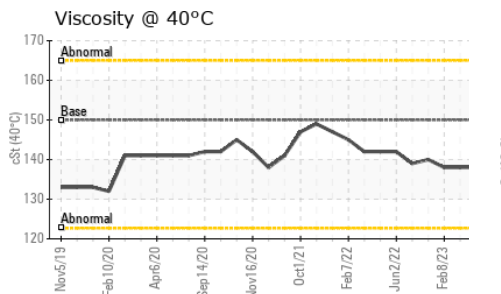
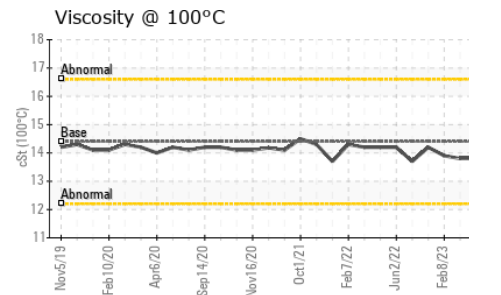
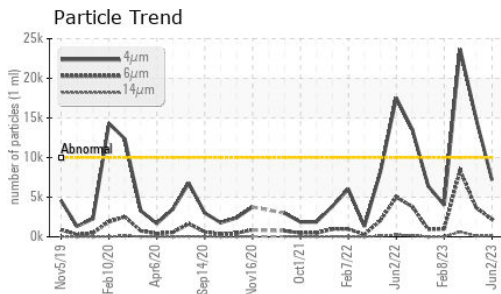
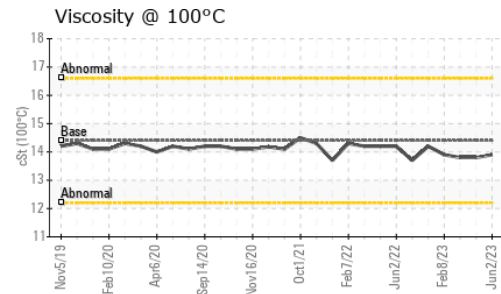
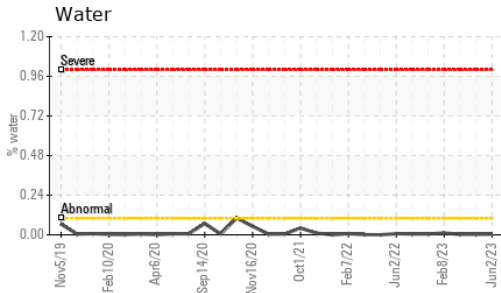
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	0	<b>0</b>	1	1
Calcium	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Phosphorus	ppm	ASTM D5185m	0	<b>34</b>	27	32
Zinc	ppm	ASTM D5185m	0	<b>0</b>	15	20
Sulfur	ppm	ASTM D5185m	2400	<b>2931</b>	2010	2671

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	6	8
Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Water	%	ASTM D6304	>0.1	<b>0.004</b>	0.003	0.003
ppm Water	ppm	ASTM D6304	>1000	<b>46.5</b>	37.6	36.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>7155</b>	▲ 14901	▲ 23688
Particles >6µm		ASTM D7647	>2500	<b>2197</b>	▲ 3689	▲ 8386
Particles >14µm		ASTM D7647	>320	<b>130</b>	78	▲ 624
Particles >21µm		ASTM D7647	>80	<b>20</b>	4	▲ 104
Particles >38µm		ASTM D7647	>20	<b>0</b>	1	1
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>20/18/14</b>	▲ 21/19/13	▲ 22/20/16

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.09</b>	0.111	0.11

# OIL ANALYSIS REPORT

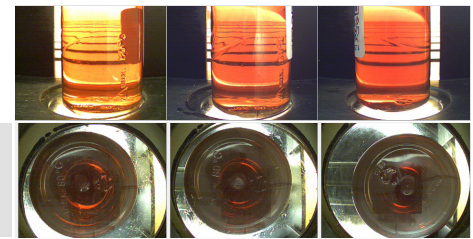


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	150	139	138
Visc @ 100°C	cSt	ASTM D445	14.4	13.9	13.8
Viscosity Index (VI)	Scale	ASTM D2270	92	96	95

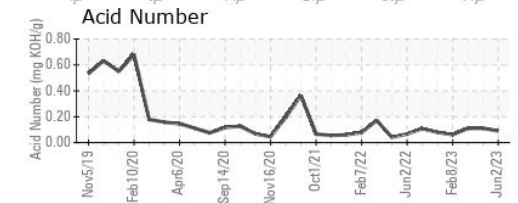
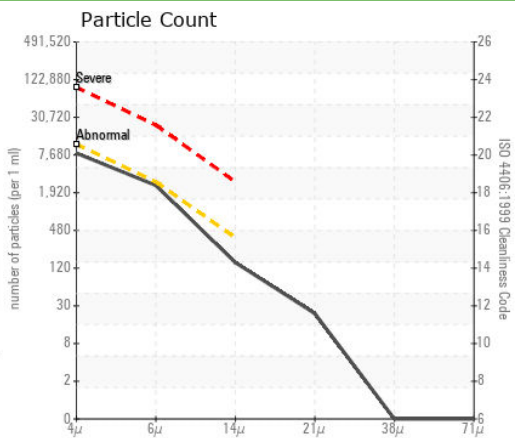
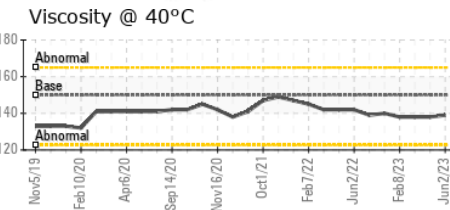
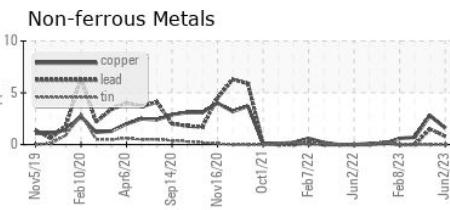
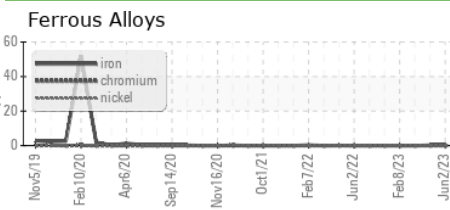
SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color



Bottom

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO60000935 **Received** : 19 Jun 2023  
**Lab Number** : 05877455 **Diagnosed** : 20 Jun 2023  
**Unique Number** : 10522558 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

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)

**CAMBRIAN ENERGY-SOUTH TEX FT. SMITH TREATERS**  
 5950 COMMERCE RD  
 FORT SMITH, AR  
 US 72916  
 Contact: DUSTIN FRY  
 dustin@morrowenergy.com  
 T: (479)221-7571  
 F: