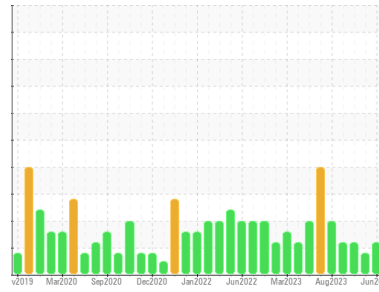


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id

VILTER VILTER

Component

Screw Compressor

Fluid

TULCO LUBSOIL LPG WI 100 (150 GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

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

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		TO606219750	TO60000926	TO60000932
Sample Date	Client Info		19 Jun 2024	03 Apr 2024	10 Jan 2024
Machine Age	wks	Client Info	0	0	0
Oil Age	wks	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ATTENTION	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >60	0	<1	1
Chromium	ppm	ASTM D5185m >4	0	<1	<1
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >5	0	6	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >30	0	<1	0
Tin	ppm	ASTM D5185m >15	0	<1	1
Vanadium	ppm	ASTM D5185m	0	1	<1
Cadmium	ppm	ASTM D5185m	0	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 0	<1	<1	0
Calcium	ppm	ASTM D5185m	0	4	0
Phosphorus	ppm	ASTM D5185m 0	19	18	2
Zinc	ppm	ASTM D5185m 0	0	1	0
Sulfur	ppm	ASTM D5185m 0	2219	0	793

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	29	0	20
Sodium	ppm	ASTM D5185m	0	17	0
Potassium	ppm	ASTM D5185m >20	3	4	<1
Water	%	ASTM D6304 >2.26	0.875	0.281	0.185
ppm Water	ppm	ASTM D6304 >22600	8753	2816	1859

FLUID CLEANLINESS

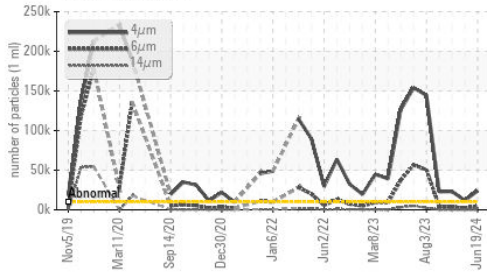
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 23895	● 11853	▲ 23050
Particles >6µm	ASTM D7647	>2500	● 4683	2125	● 3924
Particles >14µm	ASTM D7647	>320	138	176	163
Particles >21µm	ASTM D7647	>80	12	48	33
Particles >38µm	ASTM D7647	>20	2	2	1
Particles >71µm	ASTM D7647	>4	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 22/19/14	● 21/18/15	▲ 22/19/15

FLUID DEGRADATION

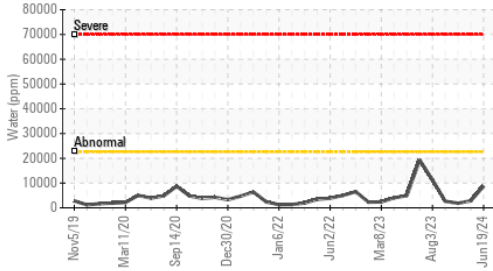
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.83	1.15	0.39

OIL ANALYSIS REPORT

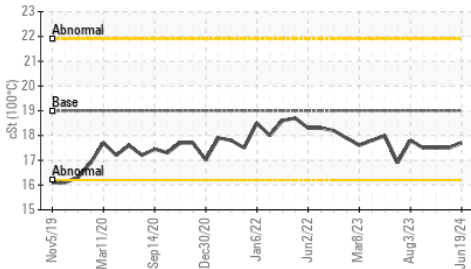
Particle Trend



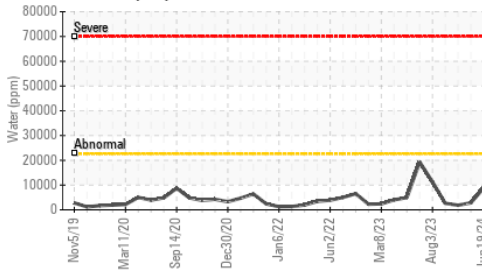
Water (KF)



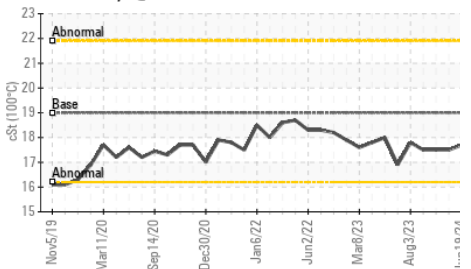
Viscosity @ 100°C



Water (KF)



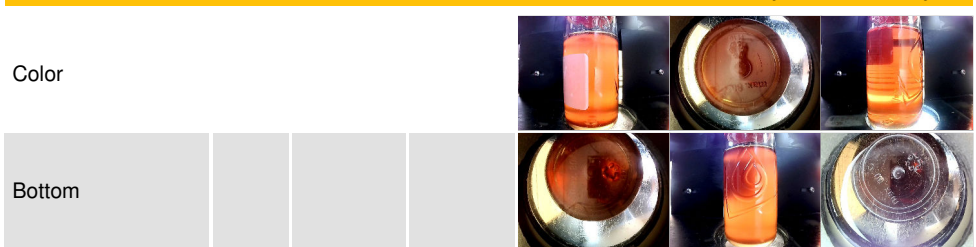
Viscosity @ 100°C



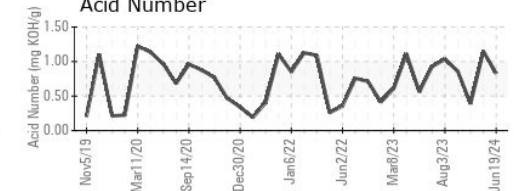
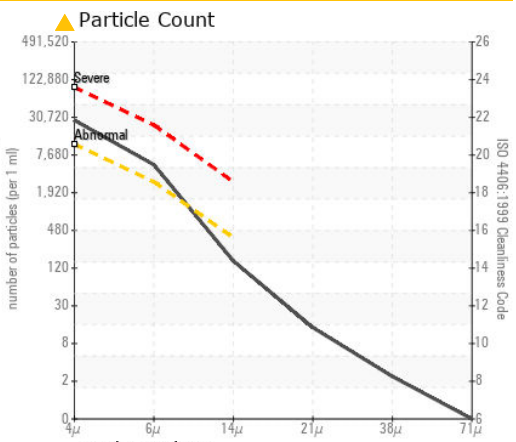
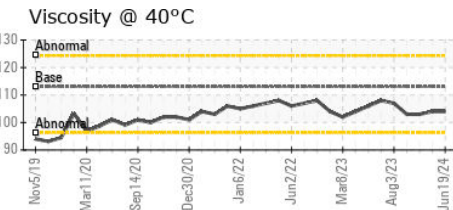
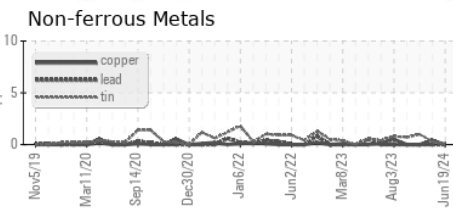
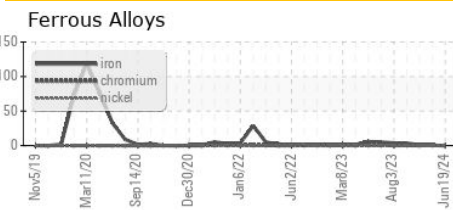
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	113	104	103
Visc @ 100°C	cSt	ASTM D445	19	17.5	17.5
Viscosity Index (VI)	Scale	ASTM D2270	189	185	187

SAMPLE IMAGES



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO606219750
Lab Number : 06219750
Unique Number : 11097947
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Doug Bogart

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:

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)