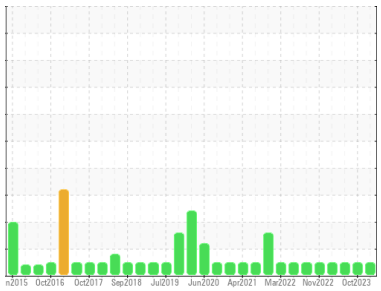
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
TYSROGCNQ LINE 6 (S/N XA 0686)
Component
Hydraulic System
Fluid
HOUGHTON HOUGHTON SAFE 419 (--- 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 pH level of this fluid is within the acceptable limits at 7.0. The condition of the oil is acceptable for service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP0011442**	USP0003204	USP250344
Sample Date		Client Info		**07 May 2024**	15 Oct 2023	12 Jul 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**69**	---	58
Iron	ppm	ASTM D5185m	>20	**<1**	0	0
Chromium	ppm	ASTM D5185m	>20	**<1**	0	<1
Nickel	ppm	ASTM D5185m	>20	**<1**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**1**	<1	<1
Lead	ppm	ASTM D5185m	>20	**0**	0	<1
Copper	ppm	ASTM D5185m	>20	**<1**	<1	0
Tin	ppm	ASTM D5185m	>20	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**1**	0	<1
Cadmium	ppm	ASTM D5185m		**<1**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	2	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	<1
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m		**1**	0	5
Calcium	ppm	ASTM D5185m		**2**	0	0
Phosphorus	ppm	ASTM D5185m		**2**	0	3
Zinc	ppm	ASTM D5185m		**<1**	0	0
Sulfur	ppm	ASTM D5185m		**0**	0	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	0	<1
Sodium	ppm	ASTM D5185m		**17**	0	<1
Potassium	ppm	ASTM D5185m	>20	**6**	5	4
Water	%	ASTM D6304	>44	**39.3**	38.9	41.2
ppm Water	ppm	ASTM D6304		**393000**	389000	412000

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**1227**	1122	574
Particles >6µm		ASTM D7647	>2500	**668**	611	313
Particles >14µm		ASTM D7647	>320	**114**	104	53
Particles >21µm		ASTM D7647	>80	**38**	35	18
Particles >38µm		ASTM D7647	>20	**6**	5	3
Particles >71µm		ASTM D7647	>4	**1**	1	0
Oil Cleanliness		ISO 4406 (c)	>--/18/15	**17/17/14**	17/16/14	16/15/13

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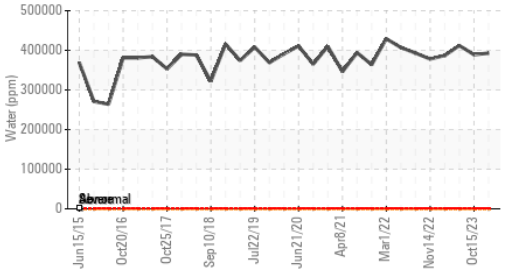
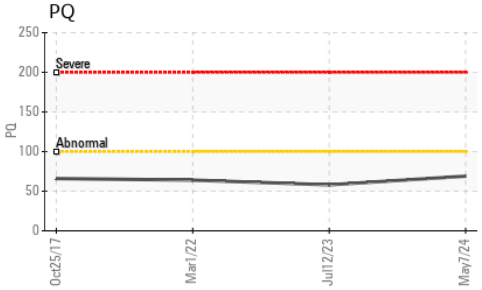
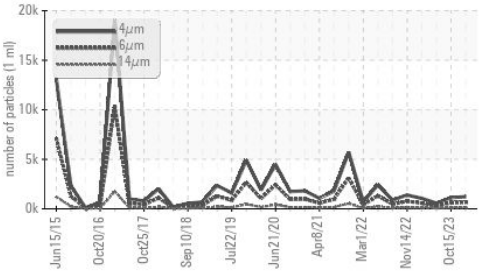
Water (KF)



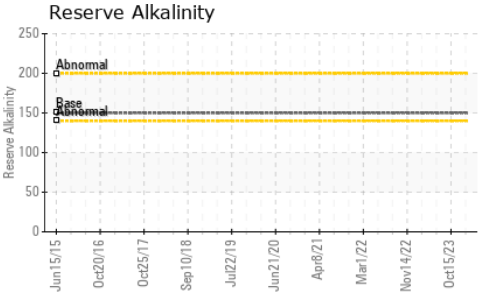
PQ



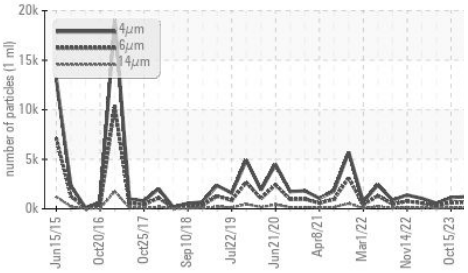
Particle Trend



Reserve Alkalinity



Particle Trend



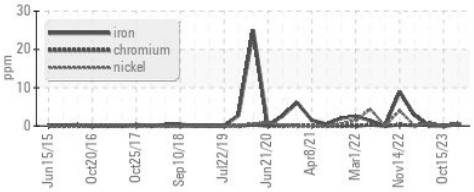
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>44	**0.2%**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287		**7.00**	7.00	7.00
Visc @ 40°C	cSt	ASTM D445	43.0	**49.0**	49.0	47.9

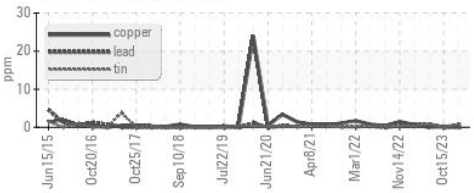
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

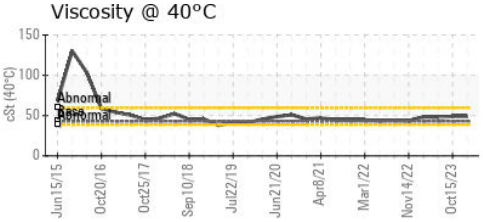
Ferrous Alloys



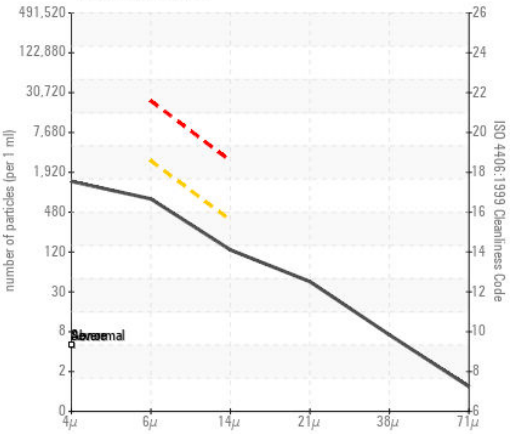
Non-ferrous Metals



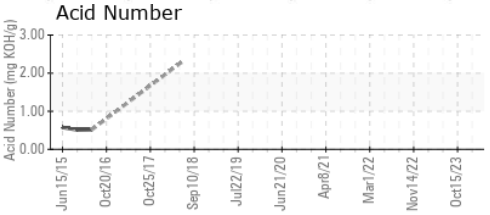
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0011442
Lab Number : 06178812
Unique Number : 11030138
Test Package : IND 2 (Additional Tests: pH, PQ, ReserveAlk)

Received : 14 May 2024
Tested : 21 May 2024
Diagnosed : 21 May 2024 - Doug Bogart

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)

TYSON CNQ -ROGERS-USP

ROGERS, AR
US
Contact: SERVICE MANAGER

T:
F: