



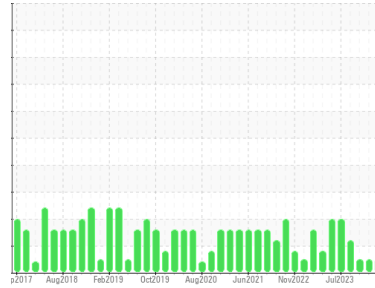
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
CATERPILLAR D10T 15105048 (S/N CCAT0D10THRJG01478)
 Component
Hydraulic System
 Fluid
ROYAL PURPLE SYNDRAULIC 46 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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		RP0036204	RP0036194	RP0033483
Sample Date	Client Info		19 Dec 2023	08 Nov 2023	05 Oct 2023
Machine Age	hrs	Client Info	70375	70115	69785
Oil Age	hrs	Client Info	590	330	1176
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	0
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	0	0	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >75	6	6	9
Tin	ppm	ASTM D5185m >10	0	0	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	0	0	1
Calcium	ppm	ASTM D5185m 150	45	35	51
Phosphorus	ppm	ASTM D5185m 670	287	298	316
Zinc	ppm	ASTM D5185m 800	393	369	380

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<1	1	2
Sodium	ppm	ASTM D5185m	4	5	6
Potassium	ppm	ASTM D5185m >20	0	0	0
Water	%	ASTM D6304 >0.1	0.013	0.010	0.008
ppm Water	ppm	ASTM D6304 >1000	131	107	89.4

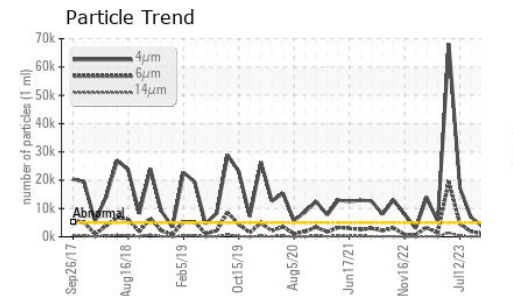
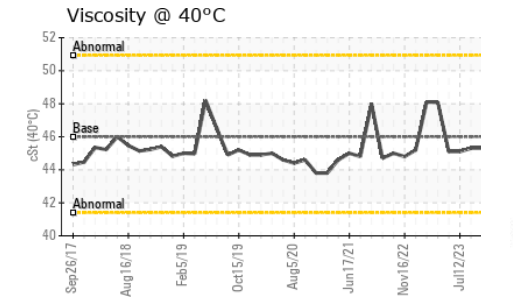
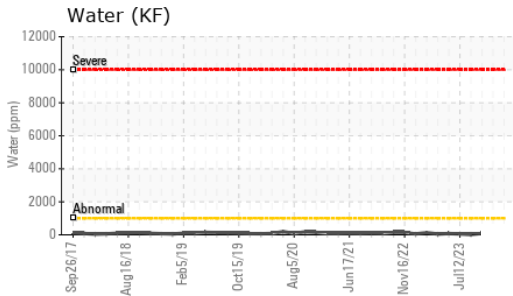
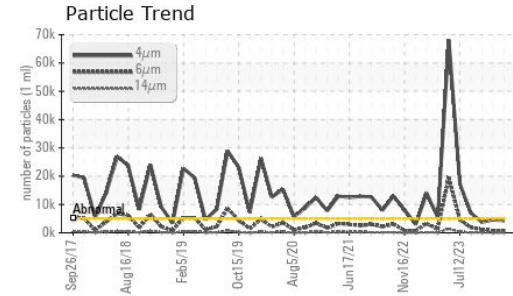
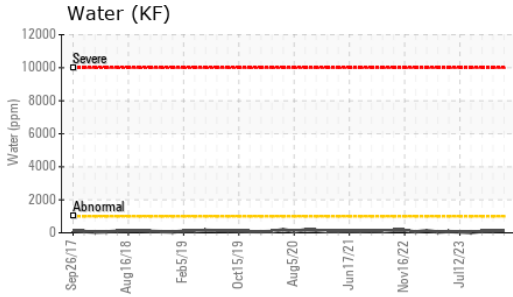
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	4301	4623	3719
Particles >6µm	ASTM D7647	>1300	707	692	1134
Particles >14µm	ASTM D7647	>160	49	50	105
Particles >21µm	ASTM D7647	>40	14	17	30
Particles >38µm	ASTM D7647	>10	1	1	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	19/17/13	19/17/13	19/17/14

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.45	0.40	0.41

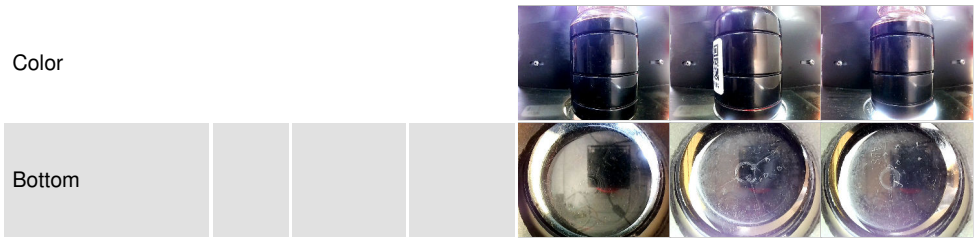
OIL ANALYSIS REPORT



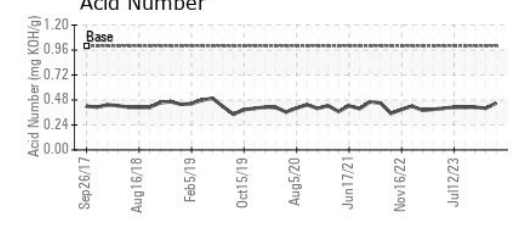
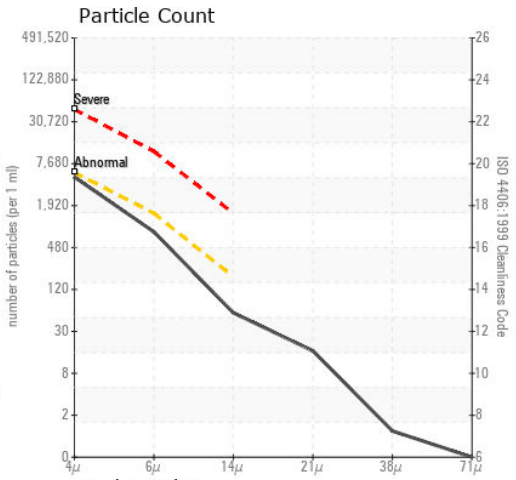
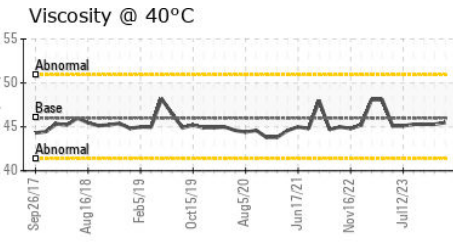
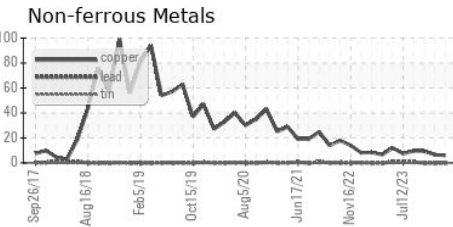
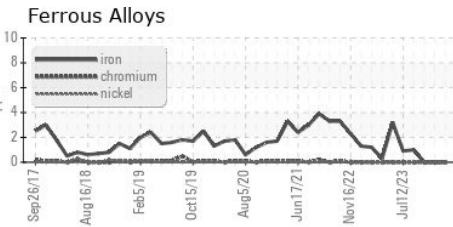
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	45.5	45.3

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0036204 **Recieved** : 09 Jan 2024
Lab Number : 06055372 **Diagnosed** : 10 Jan 2024
Unique Number : 10821321 **Diagnostician** : Don Baldrige
Test Package : IND 2

NRG TEXAS LLC
 3784 FM 39 SOUTH
 JEWETT, TX
 US 75846
 Contact: JURGEN THOMPSON
 JThompson@ecomaterial.com
 T: (903)626-9528
 F: (903)626-9772

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)