

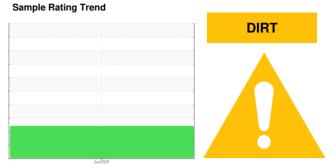
OIL ANALYSIS REPORT

MINING

ME-328 KOMATSU WA470-8 A49715

Diesel Engine

SHELL ROTELLA T 15W40 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

All component wear rates are normal.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

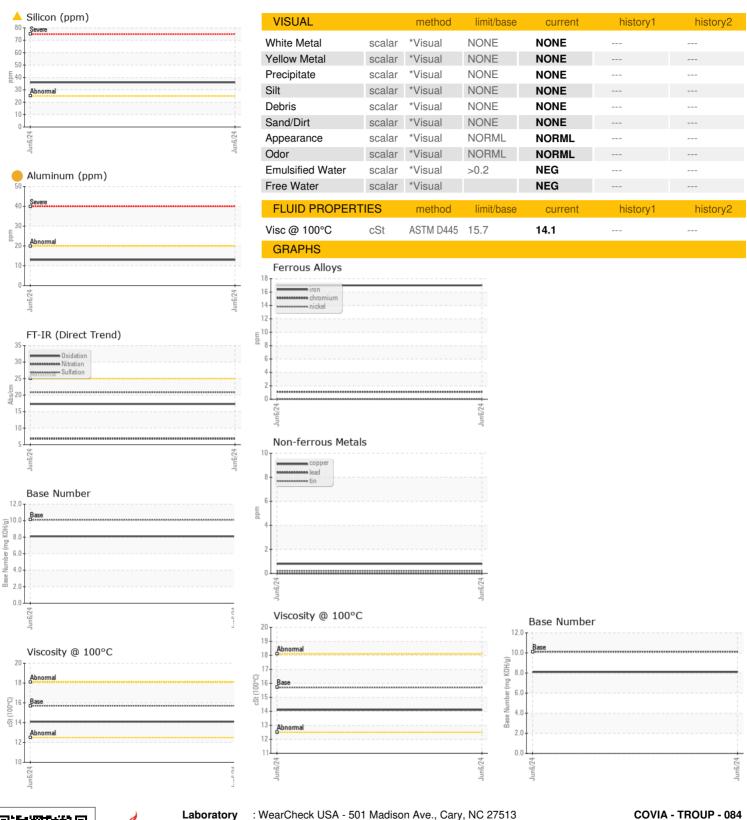
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

				Jun 2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0938481		
Sample Date		Client Info		06 Jun 2024		
Machine Age	hrs	Client Info		8020		
Oil Age	hrs	Client Info		150		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	17		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	<u> </u>		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	<1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	191		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m	1.2	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	24	14		
Calcium	ppm	ASTM D5185m	2292	2220		
Phosphorus	ppm	ASTM D5185m	1064	1011		
Zinc	ppm	ASTM D5185m	1160	1178		
Sulfur	ppm	ASTM D5185m	4996	4014		
CONTAMINANTS	8	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<u>▲</u> 36		
Sodium	ppm	ASTM D5185m		0		
Potassium	ppm	ASTM D5185m	>20	2		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.1		
Nitration	Abs/cm	*ASTM D7624	>20	6.8		
		*ASTM D7415	>30	20.8		
Sulfation	Abs/.1mm	ASTNI D7415	>00	20.0		
Sulfation FLUID DEGRADA		method	limit/base	current	history1	history2
Sulfation FLUID DEGRAD Oxidation					history1	history2



OIL ANALYSIS REPORT





Certificate 12367

Laboratory Sample No.

: WC0938481 Lab Number : 06202581 Unique Number : 11070042

Received **Tested** Diagnosed

: 07 Jun 2024 : 10 Jun 2024 Test Package : CONST (Additional Tests: TBN)

: 11 Jun 2024 - Sean Felton

US 75789 Contact: Forrest Howell forrest.howell@coviacorp.com T: (903)574-0693

23769 STATE HWY 110 NORTH

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)

TROUP, TX