



CONSTRUCTION EQUIPMENT

CATERPILLAR D8T JKPZ03752 - DIESEL ENGINE



Sample No: VCP441741
Oil Type: CAT DEO ULS 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP441741	VCP432419	VCP431637	VCP404567
Sample Date	07 Feb 2024	23 Jan 2024	15 Jan 2024	19 Dec 2023
Machine Hours	0	0	0	10487
Oil Hours	0	30	25	459
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	SEVERE	SEVERE

COVANTA ENERGY
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OIL CONDITION

Visc @ 100°C	cSt	13.0	13.4	15.8	14.5
Base Number (BN)	mg KOH/g	7.4	10.5	10.6	15.3
Oxidation (PA)	%	44	68	40	51



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0	0.2
Nitration (PA)	%	43	42	53	74
Sulfation (PA)	%	44	57	44	48
Glycol	%	NEG	NEG	0.10	0.20
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	7	7	21
Sodium	ppm	5	24	140	200
Potassium	ppm	20	122	671	1211



WEAR METALS

Iron	ppm	3	4	7	27
Copper	ppm	20	119	566	445
Lead	ppm	0	1	8	14
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	<1	<1	2	2
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	34	46	103	212
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	1
Vanadium	ppm	0	0	<1	<1



ADDITIVES

Calcium	ppm	1583	1630	1987	1657
Magnesium	ppm	408	408	96	192
Zinc	ppm	1070	1136	1098	1046
Phosphorus	ppm	882	874	955	877
Barium	ppm	0	0	<1	0
Boron	ppm	48	48	9	22

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. 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.

Depot: COVWES
Unique No: 10884423
Signed: Don Baldrige
Report Date: 19 Feb 2024



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GRAPHS

