



CONSTRUCTION EQUIPMENT

CATERPILLAR 966H A6D01734 - DIESEL ENGINE



Sample No: VCP442885
Oil Type: MOBIL DELVAC 1300 SUPER15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP442885	VCP341190	VCP366577	VCP383683
Sample Date	07 Feb 2024	07 Jun 2023	13 Feb 2023	30 Nov 2022
Machine Hours	15934	15734	15492	15249
Oil Hours	200	250	243	250
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	NORMAL	MARGINAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.4	▲ 12.4	■ 13.0	▲ 12.2
Base Number (BN)	mg KOH/g	■ 9.5	■ 9.8	■ 9.7	■ 11.2
Oxidation (PA)	%	80	79	61	85

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.2	■ 0.3	■ 0.2	■ 0.2
Nitration (PA)	%	55	60	64	64
Sulfation (PA)	%	60	62	53	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	▲ 2.0
Silicon	ppm	■ 3	■ 4	■ 3	■ 5
Sodium	ppm	■ <1	■ 2	■ 2	■ 3
Potassium	ppm	■ 3	■ 1	■ 0	■ <1



WEAR METALS

Iron	ppm	■ 5	■ 7	■ 6	■ 6
Copper	ppm	■ 2	■ 3	■ 3	■ 4
Lead	ppm	■ 0	■ <1	■ <1	■ 1
Tin	ppm	■ 0	■ <1	■ <1	■ <1
Aluminum	ppm	■ 1	■ 0	■ <1	■ 1
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 45	■ 43	■ 60	■ 46
Nickel	ppm	■ 0	■ <1	■ 0	■ <1
Titanium	ppm	■ <1	■ 0	■ 0	■ 0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ 0	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1509	■ 1535	■ 1105	■ 1522
Magnesium	ppm	■ 516	■ 565	■ 937	■ 553
Zinc	ppm	■ 897	■ 941	■ 1229	■ 900
Phosphorus	ppm	■ 749	■ 764	■ 974	■ 727
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 60	■ 42	■ 8	■ 44

Depot: MARDIC
Unique No: 10874471
Signed: Don Baldrige
Report Date: 14 Feb 2024



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GRAPHS

