



CONSTRUCTION EQUIPMENT

A10932 ALPHA VOLVO EC160E 314175 - DIESEL ENGINE



Sample No: VCP416349
Oil Type: MOBIL 15W40
Job No: A10932 ALPHA



SAMPLE INFORMATION

Sample Number	VCP416349	VCP425986	VCP399924	VCP365742
Sample Date	16 Aug 2023	07 Jun 2023	02 Mar 2023	01 Dec 2022
Machine Hours	5360	4935	4350	3841
Oil Hours	500	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	ATTENTION

HOFFMAN EQUIPMENT - LIONVILLE
 120 GORDON DRIVE
 LIONVILLE, PA
 US 19341
 Contact: JIM FEHR
 jim.fehr@hoffmanequip.com
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OIL CONDITION

Visc @ 100°C	cSt	12.0	12.0	12.3	12.4
Base Number (BN)	mg KOH/g	5.8	5.8	9.5	6.7
Oxidation (PA)	%	43	55	86	86

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

Soot %	%	0.2	0.2	0.2	0.3
Nitration (PA)	%	60	72	67	78
Sulfation (PA)	%	47	53	63	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	4.2	2.8	3.7
Silicon	ppm	4	3	6	9
Sodium	ppm	0	2	3	1
Potassium	ppm	2	0	0	3



WEAR METALS

Iron	ppm	11	14	15	8
Copper	ppm	1	1	<1	1
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	8	4	11	3
Chromium	ppm	<1	<1	1	<1
Molybdenum	ppm	12	15	36	46
Nickel	ppm	2	0	0	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	2	0	0	0
Manganese	ppm	<1	<1	1	<1
Vanadium	ppm	<1	0	<1	<1



ADDITIVES

Calcium	ppm	2114	2034	1674	1871
Magnesium	ppm	106	185	450	555
Zinc	ppm	1050	963	1111	987
Phosphorus	ppm	845	812	875	780
Barium	ppm	0	0	0	0
Boron	ppm	3	4	33	43

Depot: VOLVO8879
Unique No: 10617819
Signed: Don Baldrige
Report Date: 25 Aug 2023

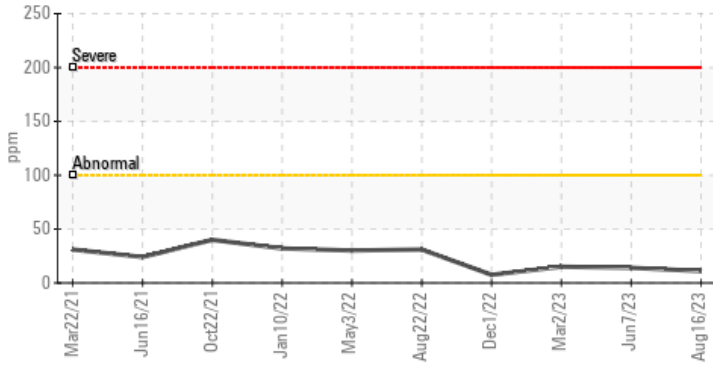


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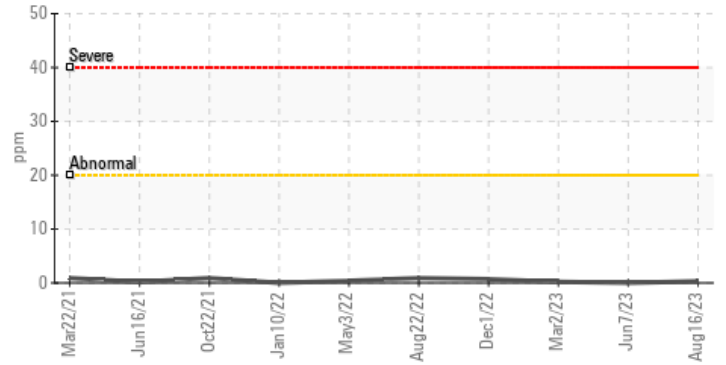


GRAPHS

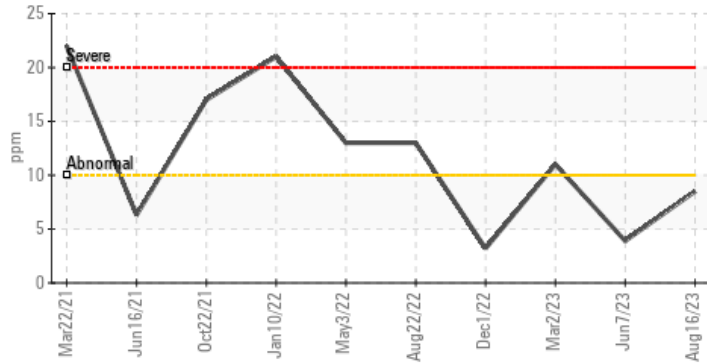
Iron (ppm)



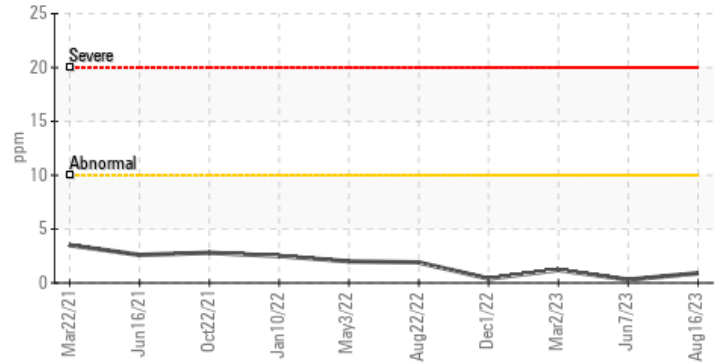
Lead (ppm)



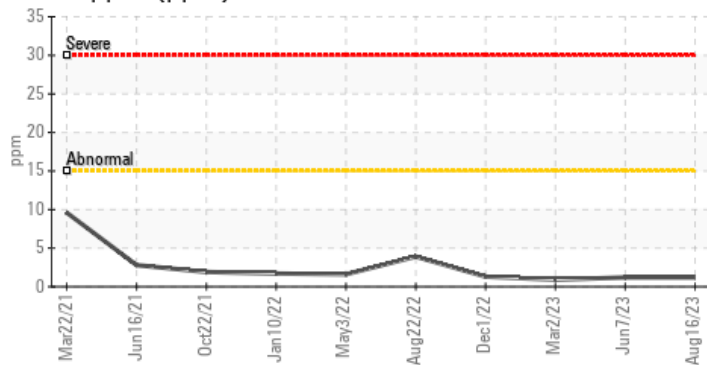
Aluminum (ppm)



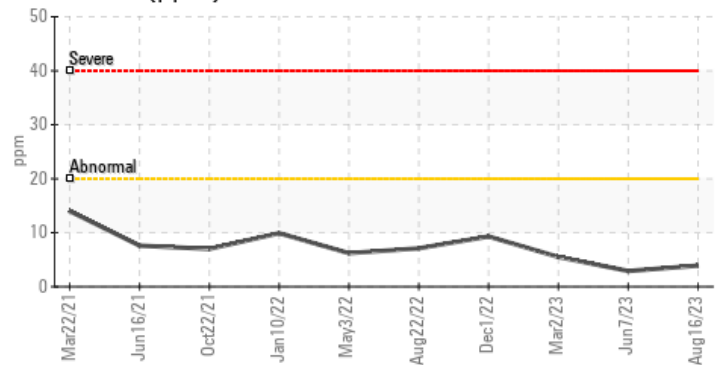
Chromium (ppm)



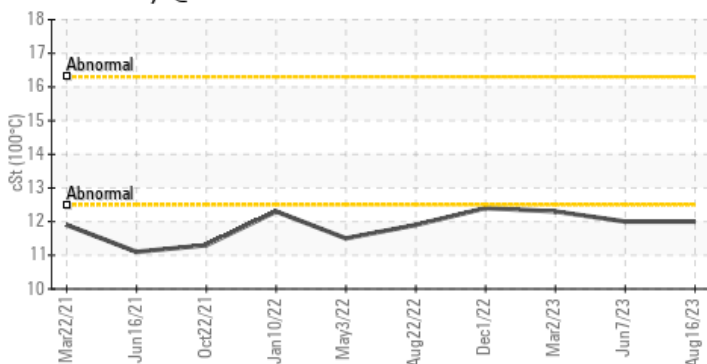
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

