



CONSTRUCTION EQUIPMENT

VOLVO EC145EL 314052 - DIESEL ENGINE



Sample No: VCP408283
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP408283	VCP359401	VCP344385	---
Sample Date	01 Jun 2023	03 May 2022	29 Oct 2021	---
Machine Hours	2501	1470	1001	---
Oil Hours	0	500	500	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: ROBERT TURNER
rturner@ripatampa.com
T:
F:



OIL CONDITION

Visc @ 100°C	cSt	12.8	13.2	12.7	---
Base Number (BN)	mg KOH/g	11.0	12.1	---	---
Oxidation (PA)	%	85	87	76	---

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 suitable for further service.



CONTAMINATION

Soot %	%	0.5	0.4	0.4	---
Nitration (PA)	%	70	72	66	---
Sulfation (PA)	%	63	65	60	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	7	8	11	---
Sodium	ppm	3	3	3	---
Potassium	ppm	0	4	0	---



WEAR METALS

Iron	ppm	17	28	71	---
Copper	ppm	2	2	4	---
Lead	ppm	0	2	1	---
Tin	ppm	<1	1	2	---
Aluminum	ppm	6	7	12	---
Chromium	ppm	<1	2	3	---
Molybdenum	ppm	43	37	49	---
Nickel	ppm	<1	1	2	---
Titanium	ppm	0	7	<1	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	1	---
Vanadium	ppm	<1	<1	0	---



ADDITIVES

Calcium	ppm	1663	1818	1635	---
Magnesium	ppm	517	527	638	---
Zinc	ppm	1085	1104	1195	---
Phosphorus	ppm	890	945	997	---
Barium	ppm	0	0	0	---
Boron	ppm	35	48	27	---

Depot: RIPTAM
Unique No: 10551690
Signed: Wes Davis
Report Date: 12 Jul 2023



CONSTRUCTION EQUIPMENT



GRAPHS

