



Page: Case Study – Engine Oil 15W40

Oil Analysis - Engine Oil 15W40 CI-4

SGS DIAGNOSIS REMARKS

Based on analysis results, there is no abnormal physical properties, wear, contamination noticed. The oil is fit for further use. the results in the next sample.

Customer Contact	Equipment Information		
Company Name: GLS Green Tech Pte Ltd Address: No. 15A Tuas Avenue 16, Jari Huang Business Centre, SINGAPORE 639605	Description: CHYE JOO CONSTRUCTION PTE LTD Order No: 12612990 Ref. ID / Fleet No: 12612990 System Details: INSTALLED IN TRIPPER TRUCK (JD 77288) Product Name: IDEMTSU DIESEL CH-15W40 Additional Details: OPERATION LOCATION: MANDON TO TUAS		

Sample Information	1	2	3
Lab Order Number	L143547	12012990	12010787
Date Received	15/6/2017	7/8/2017	4/10/2017
Date Tested	19/6/2017	11/8/2017	9/10/2017
Date Reported	19/6/2017	11/8/2017	9/10/2017
Fuel Used	-	-	-
Equipment Life (months)	2	2	2
Oil Life (months)	0	0	0
Oil Added (L)	-	-	-
Sampling Date	14/6/2017	4/8/2017	3/10/2017
Lubricant Condition	Normal	Normal	Normal

Physical Properties	1	2	3
Viscosity 40°C mm2/s	96.34	97.69	94.21
Viscosity 100°C mm2/s	13.79	13.34	13.66
Viscosity Index	148	136	148
Total Base Number mg/Kg	11.76	11.32	10.58
Water by Cracks	<+0.05	<+0.05	<+0.05
Water content % W	0.052	0.094	0.062
Flash point °C	>180.0	>180.0	>180.0
Contamination Index (CI) %	0.7	0.7	0.7
Moist of Dispersion (M/D)	36	36	36

Wear / Contaminants	1	2	3
Iron ppm	13	21	8
Lead ppm	<+1	<+1	<+1
Copper ppm	5	8	5
Chromium ppm	<+1	<+1	<+1
Aluminum ppm	3	5	8
Nickel ppm	<+1	<+1	<+1
Silver ppm	5	<+1	<+1
Tin ppm	3	11	8
Silicon ppm	9	7	11
Boron ppm	525	488	348
Sodium ppm	4	3	4
Phosphorus ppm	1152	1277	990
Zinc ppm	1412	1533	1120
Calcium ppm	4268	4437	3462
Barium ppm	<+1	<+1	<+1
Magnesium ppm	14	16	14
Vanadium ppm	<+1	<+1	<+1
Molybdenum ppm	57	60	44

Element Analysis, ppm	1	2	3
Iron ppm	13	21	8
Lead ppm	<+1	<+1	<+1
Copper ppm	5	8	5
Chromium ppm	<+1	<+1	<+1
Aluminum ppm	3	5	8
Nickel ppm	<+1	<+1	<+1
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Additives	1	2	3
P %	~1000	~1000	~1000
Zn %	~1000	~1000	~1000
Ca %	~1000	~1000	~1000

SGS DIAGNOSIS REMARKS

Based on analysis results, there is no abnormal physical properties, wear, contamination noticed. The oil is fit for further use. Please submit sample as per schedule. We will review the results in the next sample.

Application: Volvo FMX Tripper Truck - Engine
Filtration Solution: FS200



GLW Oil Purifier Pte. Ltd.

Lubricant Condition **Normal** **Normal** **Normal**

Oil is Fit for further use after 3 times extension of Oil change interval.
- From 2 months to 6 months Oil change interval