# **Transportation Engineering Laboratory (TEL)**

Department of Civil Engineering (CED)

# **UNIVERSITY OF ENGINEERING & TECHNOLOGY (UET)**



The Resident Engineer, ESS-I-AAR Consultants.

**Testing of Coarse Aggregate** Subject:

Construction of Dual Carriageway from Sheikh Fazal to Chichawatni,

Length 24.15 km in District Sahiwal (Group-II from km No. 36 to 47.29 = 11.29 km)

Dear Sir,

It is with reference to your letter No. 826 dated 15-05-2024.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 05-08-2024 through your representative.

### 1. Specific Gravity & Water Absorption (ASTM C-127)

Specific Gravity (oven dried condition)	2.71
Specific Gravity (saturated surface dry condition)	2.73
Apparent Specific Gravity	2.75
Water Absorption (%)	0.59

## 2. Sodium Sulphate Soundness (ASTM C-88)

Sieve Size	Weight of	Weight of	Percentage	Weighted
	Fraction	Fraction	Passing	Percentage
	Before Test.	After Test.	Designated Sieve	Loss.
$1" + \frac{3}{4}"$	(gm)	(gm)	After Test.	
	1503.3	1486.6	1.11	0.86
			Total = 0.86%	

### 3. Los Angeles Abrasion Value Test (ASTM C-131/535)

Grading Used	Los Angeles Abrasion Value
	(%)
A	20.98

If you have further query, please do not hesitate to contact the undersigned.

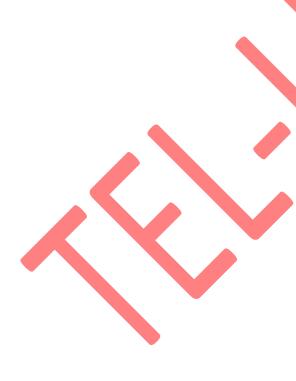
Best Regards,

### Director

Transportation Engineering Laboratory

#### Note:

- 1. This test report is based solely on the particular sample(s) supplied by the client and should not be reproduced in parts.
- 2. Sampling has not been performed by Transportation Engineering Laboratory (TEL), UET and TEL-UET does not accept the responsibility that the sample(s) supplied is/are truly representative sample(s) of any batch or stock or entire project.
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LAHORE - 54890 (PAKISTAN)



Phone: 092-42-9929202	Cable: UNIVENGTECH	Fax: 092-42-9922566	
Ref		Date:	
The Executive Engineer PW	D		

Subject:

Bhimber.

Highways Division,

### **Testing of Asphalt Concrete (Bitumen Extraction Test)**

- 1. Construction, Improvement & Reconditioning of Link Road Dongi Chappri Saryala, Length 1.85 km, LA-5 Barnala, District Bhimber
- Construction, Improvement & Reconditioning of Link Road Khizra, Length 0.73 km, LA-5 Barnala, District Bhimber
- 3. Improvement & Reconditioning of Link Road Watala to Patoian, Length 0.40 km, LA-5 Barnala, District Bhimber

Dear Sir,

It is with reference to your letter No. 1476 dated 07-08-2024.

Please find below the results for the test conducted on the three samples provided to this laboratory on 27-08-2024 through your representative.

### **BITUMEN EXTRACTION TEST (ASTM D-2172):**

Sample	Bitumen Extraction Value (%)
1. Sample 1.85 km	4.51
2. Sample 0.73 km	4.51
3. Sample 0.40 km	4.51

If you have further query, please do not hesitate to contact the undersigned.

Best Regards,

#### Note

- Director
- Transportation Engineering Laboratory
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