

Transportation Engineering Laboratory (TEL)

Department of Civil Engineering (CED)

UNIVERSITY OF ENGINEERING & TECHNOLOGY (UET)

LAHORE – 54890 (PAKISTAN)



Phone: 092-42-9929202 Cable: UNIVENGTECH Fax: 092-42-9922566

Ref.:-----

Date:-----

The Executive Engineer,
Highway Division,
Sargodha.

Subject: **Testing of Asphalt Concrete Cores (AWC)**
Restoration/Improvement of Road from Ratto Kala Rajbha to Bhera Dhori
Road via Abadi Muhammad Ka Thatti Noor I/C Chak 6 ML and 7 ML
Links, Length 19.5 km District Sargodha

Dear Sir,

It is with reference to your letter No. 2179/C dated 04-06-2025.
Please find below the results for the tests conducted on asphalt concrete cores provided to
this laboratory on 18-06-2025 through your representative.

BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):

Core	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
1	6.050	10.500	2.43
2	6.060	10.500	2.42
3	6.060	10.500	2.42

BITUMEN EXTRACTION TEST: (Cores)

Core No. 1

Bitumen Extraction Value (ASTM D-2172)	4.22%							
Gradation Analysis								
Sieve No.	1"	3/4"	1/2"	3/8"	#4	#8	#50	#200
% Passing	100	94.01	65.99	51.99	40.00	24.00	9.01	4.01

Core No. 2

Bitumen Extraction Value (ASTM D-2172)	4.23%							
Gradation Analysis								
Sieve No.	1"	3/4"	1/2"	3/8"	#4	#8	#50	#200
% Passing	100	95.00	65.00	52.99	39.01	25.09	10.10	3.55

Core No. 3

Bitumen Extraction Value (ASTM D-2172)							4.22%		
Gradation Analysis									
<i>Sieve No.</i>	1"	¾"	½"	3/8"	#4	#8	#50	#200	
<i>% Passing</i>	100	92.66	63.09	51.80	40.89	21.83	8.87	3.96	

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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Date:-----

The Executive Engineer,
Highway Division,
Sargodha.

Subject: **Testing of Asphalt Concrete Cores (AWC)**
Restoration/Improvement of Road from Queen Chowk to Sargodha Bypass
via Pull 47 and 49 Tail, Length 8.25 km in District Sargodha

Dear Sir,

It is with reference to your letter No. 2175/C dated 04-06-2025.
Please find below the results for the tests conducted on asphalt concrete cores provided to
this laboratory on 18-06-2025 through your representative.

BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):

Core	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
1	5.920	10.500	2.42
2	6.710	10.500	2.42
3	5.790	10.500	2.42

BITUMEN EXTRACTION TEST: (Cores)

Core No. 1

Bitumen Extraction Value (ASTM D-2172)	4.23%							
Gradation Analysis								
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	95.00	67.01	55.00	41.00	21.99	6.99	3.29

Core No. 2

Bitumen Extraction Value (ASTM D-2172)	4.22%							
Gradation Analysis								
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	96.00	65.99	55.97	41.99	22.98	7.98	3.78

Core No. 3

Bitumen Extraction Value (ASTM D-2172)							4.23%	
Gradation Analysis								
<i>Sieve No.</i>	1"	3/4"	1/2"	3/8"	#4	#8	#50	#200
<i>% Passing</i>	100	94.00	67.00	51.05	37.04	25.04	11.04	3.14

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Date:-----

The Executive Engineer,
Highway Division,
Sargodha.

Subject: **Testing of Asphalt Concrete Cores (AWC)**
Restoration/Improvement of Road from Miani Mian Da Banna Road at
Allahabad to Main Da Bana Station I/C Jagatpur via Graveyard Gulabpur,
Kanna, Dhopsari School Colony, Azafi Abadi I/C Links etc., Length 18.75 km,
District Sargodha

Dear Sir,

It is with reference to your letter No. 2177/C dated 04-06-2025.
Please find below the results for the tests conducted on asphalt concrete cores provided to
this laboratory on 18-06-2025 through your representative.

BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):

Core	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
1	5.800	10.500	2.42
2	5.910	10.500	2.41
3	6.000	10.500	2.42

BITUMEN EXTRACTION TEST: (Cores)

Core No. 1

Bitumen Extraction Value (ASTM D-2172)							4.22%		
Gradation Analysis									
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200	
% Passing	100	93.31	67.03	57.05	38.56	23.08	9.08	4.10	

Core No. 2

Bitumen Extraction Value (ASTM D-2172)							4.22%		
Gradation Analysis									
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200	
% Passing	100	92.00	64.00	53.00	42.21	23.99	9.99	3.99	

Core No. 3

Bitumen Extraction Value (ASTM D-2172)							4.22%	
Gradation Analysis								
<i>Sieve No.</i>	1"	3/4"	1/2"	3/8"	#4	#8	#50	#200
<i>% Passing</i>	100	95.00	68.00	50.00	40.01	23.00	10.01	4.51

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Date:-----

Mr. Noor Ul Amin
Deputy General Manager,
JK Sugar Mills (Pvt.) Limited.

Subject: **Testing of Sub-base and Base Materials**

Dear Sir,

It is with reference to your letter No. JKSM/Adm/240 dated 17-07-2025.

Please find below the results for the tests conducted on the aggregate samples provided to this laboratory through your representative.

Sub-base Material

1. Sieve Analysis (ASTM C-136)

Sieve Size	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	80.12	14.61	0.19	0	0	0

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

Grading Used	Los Angeles Abrasion Value (%)
A	25.28

Base Material

1. Sieve Analysis (ASTM C-136)

Sieve Size	3"	2 1/2"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	72.85	8.45	0.03	0	0	0	0	0

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

Grading Used	Los Angeles Abrasion Value (%)
1	24.62

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