

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 Resident Engineer,
NESPAK – RHC (J.V).

Subject: **Testing of Materials**
Punjab Irrigation Department
Carrying Out Third Party Monitoring and Evaluation of M & R Works
Restoration of J-Head Spur at RD 167+000 of Link No. 1

Dear Sir,

It is with reference to your letter No. 4688/13/MAB/03/16 dated 26-07-2024.
Please find below the results for the tests conducted on the samples provided to this laboratory through your representative.

Boulder Sample

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

Specific Gravity (oven dried condition)	2.56
Specific Gravity (saturated surface dry condition)	2.58
Apparent Specific Gravity	2.62
Water Absorption (%)	0.78

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

Grading Used	Los Angeles Abrasion Value (%)
1	28.51

Aggregate Sample # 1

1. Sieve Analysis (ASTM C-136)

Sieve Size	1 ½"	1"	¾"	½"	3/8"	#4
%age Passing	100	81.67	52.35	26.29	7.49	0.75

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

Specific Gravity (oven dried condition)	2.67
Specific Gravity (saturated surface dry condition)	2.69
Apparent Specific Gravity	2.72
Water Absorption (%)	0.67

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

Grading Used	Los Angeles Abrasion Value (%)
A	25.91

Aggregate Sample # 2

1. Sieve Analysis (ASTM C-136)

Sieve Size	1"	¾"	½"	3/8"	#4
%age Passing	100	95.68	55.48	21.57	1.11

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

Specific Gravity (oven dried condition)	2.68
Specific Gravity (saturated surface dry condition)	2.70
Apparent Specific Gravity	2.73
Water Absorption (%)	0.75

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

Grading Used	Los Angeles Abrasion Value (%)
B	26.19

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.
3. While TEL-UET agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the analysis or test.
4. The party shall assume full responsibility for the ethical use of the results in the test reports and the TEL-UET shall be held free from any and all claims which may result from the use of such data by client or others.
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The Resident Engineer,
NESPAK – RHC (J.V).

Subject: **Testing of Material**
Punjab Irrigation Department
Carrying Out Third Party Monitoring and Evaluation of M & R Works
Restoration of J-Head Spur at RD 167+000 of Link No. 1

Dear Sir,

It is with reference to your letter No. 4688/13/MAB/03/17 dated 26-07-2024.
Please find below the results for the tests conducted on the sample (stone boulder) provided to this laboratory through your representative.

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

Specific Gravity (oven dried condition)	2.58
Specific Gravity (saturated surface dry condition)	2.60
Apparent Specific Gravity	2.63
Water Absorption (%)	0.69

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

Grading Used	Los Angeles Abrasion Value (%)
1	28.47

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

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Date:-----

The Resident Engineer,
NESPAK – RHC (J.V).

Subject: **Testing of Material**
Punjab Irrigation Department
Carrying Out Third Party Monitoring and Evaluation of M & R Works
Restoration of J-Head Spur at RD 180+000 of Link No. 1

Dear Sir,

It is with reference to your letter No. 4688/13/MAB/03/18 dated 26-07-2024.
Please find below the results for the tests conducted on the sample (stone boulder) provided to this laboratory through your representative.

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

Specific Gravity (oven dried condition)	2.48
Specific Gravity (saturated surface dry condition)	2.52
Apparent Specific Gravity	2.57
Water Absorption (%)	1.30

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

Grading Used	Los Angeles Abrasion Value (%)
1	31.43

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

Best Regards,

Director
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Date:-----

The Resident Engineer,
NESPAK – RHC (J.V).

Subject: **Testing of Material**
Punjab Irrigation Department
Carrying Out Third Party Monitoring and Evaluation of M & R Works
Emergent Restoration of u/s Solid Stud Portion of Guide Wall Head Spur at
RD 138+000 of Link No. 1 Damaged During Flood 2024

Dear Sir,

It is with reference to your letter No. 4688/13/MAB/03/19 dated 31-07-2024.
Please find below the results for the tests conducted on the sample (stone boulder) provided to this laboratory through your representative.

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

Specific Gravity (oven dried condition)	2.57
Specific Gravity (saturated surface dry condition)	2.61
Apparent Specific Gravity	2.66
Water Absorption (%)	1.25

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

Grading Used	Los Angeles Abrasion Value (%)
1	29.19

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

Best Regards,

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