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:----------

Mr. Ahsan Safdar
Assistant Resident Engineer,
NESPAK,
Lahore.

Subject: **Testing of Crushed Material (in Beds of Sewer)**
Construction of Disposal Station and Sewer Line from Purana Kahna to Sua-E-Asal Drain, Lahore

Dear Sir,

It is with reference to your letter No. 4671/AS/01/224 dated 28-02-2024.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 23-01-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	1”	¾”	½”	3/8”	#4
%age Passing	100	100	31.97	5.38	0

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

Specific Gravity (oven dried condition)	2.80
Specific Gravity (saturated surface dry condition)	2.81
Apparent Specific Gravity	2.84
Water Absorption (%)	0.49

3. **Sodium Sulphate Soundness (ASTM C-88)**

Sieve Size	Weight of Fraction Before Test. (gm)	Weight of Fraction After Test. (gm)	Percentage Passing Designated Sieve After Test.	Weighted Percentage Loss.
$1/2" + 3/8"$	1009.3	997.2	1.20	1.14
	Total = 1.14%			

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

Grading Used	Los Angeles Abrasion Value (%)
B	16.47

5. Flakiness & Elongation Index (BS 812: Part 105)

Sieve Size		Individual Flakiness Index (%)	Weighted Flakiness Index (%)	Individual Elongation Index (%)	Weighted Elongation Index (%)
Passing (in.)	Retained (in.)				
$^{3}/_{4}$	$^{1}/_{2}$	6.34	4.31	9.46	6.43
$^{1}/_{2}$	$^{3}/_{8}$	5.86	1.56	13.82	3.68
$^{3}/_{8}$	$^{1}/_{4}$	7.89	0.42	21.99	1.18
		Flakiness Index = 6.29%		**Elongation Index = 11.29%**	

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Ahsan Safdar
Assistant Resident Engineer,
NESPAK,
Lahore.

Subject: **Testing of Coarse & FineAggregates**
Construction of Disposal Station and Sewer Line from Purana Kahna to Sua-E-Asal Drain, Lahore

Dear Sir,

It is with reference to your letter No. 4671/AS/254 dated 08-08-2024.
Please find below the results for the tests conducted on the aggregate samples provided to this laboratory on 23-01-2025 through your representative.

Coarse Aggregate (Sargodha Crush)

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	¾”	½”	3/8”	#4
%age Passing	100	38.53	5.18	0

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

Specific Gravity (oven dried condition)	2.85
Specific Gravity (saturated surface dry condition)	2.86
Apparent Specific Gravity	2.88
Water Absorption (%)	0.36

3. **Sodium Sulphate Soundness (ASTM C-88)**

Sieve Size	Weight of Fraction Before Test. (gm)	Weight of Fraction After Test. (gm)	Percentage Passing Designated Sieve After Test.	Weighted Percentage Loss.
$1/2" + 3/8"$	1003.3	994.3	0.90	0.85
	Total = 0.85%			

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

Grading Used	Los Angeles Abrasion Value (%)
B	15.74

5. **Flakiness & Elongation Index (BS 812: Part 105)**

Sieve Size		Individual Flakiness Index (%)	Weighted Flakiness Index (%)	Individual Elongation Index (%)	Weighted Elongation Index (%)
Passing (in.)	Retained (in.)				
$^{3}/_{4}$	$^{1}/_{2}$	6.12	3.76	10.76	6.61
$^{1}/_{2}$	$^{3}/_{8}$	7.54	2.51	12.37	4.13
$^{3}/_{8}$	$^{1}/_{4}$	4.99	0.26	19.55	1.01
		Flakiness Index = 6.53%		**Elongation Index = 11.75%**	

Fine Aggregate (Harrow Sand)

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	½"	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	98.91	95.23	90.64	80.00	64.15	26.34	5.54	1.05

2. **Percentage of Fines (ASTM D-1140)** ***Wet Sieving***

Silt and Clay (%)	1.45

3. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	2.39

4. **Specific Gravity & Water Absorption (ASTM C-128)**

Specific Gravity (OD)	2.69
Specific Gravity (SSD)	2.71
Apparent Specific Gravity	2.75
Water Absorption (%)	0.79

5. **Organic Impurities (ASTM C-40)**

Organic Impurities	Nil

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Ahsan Safdar
Assistant Resident Engineer,
NESPAK,
Lahore.

Subject: **Testing of Sub-base Material**
Construction of Disposal Station and Sewer Line from Purana Kahna to Sua-E-Asal Drain, Lahore

Dear Sir,

It is with reference to your letter No. 4671/AS/01/268 dated 25-10-2024.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 23-01-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	1 ½"	1"	¾"	½"	3/8"	#4
%age Passing	100	82.45	65.35	52.52	44.73	37.70

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

Specific Gravity (oven dried condition)	2.66
Specific Gravity (saturated surface dry condition)	2.68
Apparent Specific Gravity	2.72
Water Absorption (%)	0.85

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

Grading Used	**Los Angeles Abrasion Value (%)**
A	26.80

4. Flakiness & Elongation Index (BS 812: Part 105)

Sieve Size		Individual Flakiness Index (%)	Weighted Flakiness Index (%)	Individual Elongation Index (%)	Weighted Elongation Index (%)
Passing (in.)	Retained (in.)				
1 ½	1	8.98	2.53	14.81	4.17
1	3/4	10.91	2.99	17.09	4.69
3/4	1/2	12.17	2.51	19.09	3.93
1/2	3/8	13.86	1.73	22.45	2.81
3/8	1/4	14.20	1.60	16.62	1.88
		Flakiness Index = 11.36%		**Elongation Index = 17.48%**	

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Ahsan Safdar
Assistant Resident Engineer,
NESPAK,
Lahore.

Subject: **<u>Testing of Backfill Material</u> (Sand)**
Construction of Disposal Station and Sewer Line from Purana Kahna to Sua-E-Asal Drain, Lahore

Dear Sir,

It is with reference to your letter No. 4671/AS/01/270 dated 26-10-2024.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 23-01-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.71	99.35	98.77	97.23	82.51	8.62	1.87

2. **Percentage of Silt and Clay (ASTM D-1140)** ***Wet Sieving***

Silt and Clay (%)	2.86

3. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	1.14

4. **Specific Gravity & Water Absorption (ASTM C-128)**

Specific Gravity (OD)	2.65
Specific Gravity (SSD)	2.67
Apparent Specific Gravity	2.72
Water Absorption (%)	0.91

5. **Organic Impurities (ASTM C-40)**

Organic Impurities	Nil

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Abid Azim
Resident Engineer,
NESPAK,
Ravi Zone.

Subject: **Testing of Sand**
Rehabilitation/Improvement of Streets, Pavements, Sewerage/Drainage
UC-13, 15 & 16, Ravi Zone, MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/77 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	98.05	97.80	97.49	97.22	90.35	3.99	0.57

2. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	1.15

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Abid Azim
Resident Engineer,
NESPAK,
Ravi Zone.

Subject: **Testing of Sand**
Rehabilitation/Improvement of Streets, Pavements, Sewerage/Drainage
UC-01 & 02, Ravi Zone, MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/78 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	98.76	98.43	98.17	97.75	91.22	4.39	0.66

2. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	1.11

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Abid Azim
Resident Engineer,
NESPAK,
Ravi Zone.

Subject: **Testing of Sand**
Rehabilitation/Improvement of Streets, Pavements, Sewerage/Drainage
UC-01, Ravi Zone, MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/79 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	98.65	98.25	97.87	97.36	90.24	5.05	0.88

2. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	1.13

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Abid Azim
Resident Engineer,
NESPAK,
Ravi Zone.

Subject: **Testing of Sand**
Rehabilitation/Improvement of Streets, Pavements, Sewerage/Drainage
UC-29 & 30, Ravi Zone, MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/80 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.39	99.02	98.53	97.93	90.11	5.72	0.90

2. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	1.09

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Abid Azim
Resident Engineer,
NESPAK,
Ravi Zone.

Subject: **Testing of Sand**
Rehabilitation/Improvement of Road
UC-30, Ravi Zone, MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/81 dated 20-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 04-02-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	100	99.61	99.28	98.39	90.83	5.16	0.63

2. **Fineness Modulus (ASTM C-142)**

Fineness Modulus (%)	1.07

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Jawad Qayyum Khan
Resident Engineer,
NESPAK, Jauharabad.

Subject: **Testing of Sub-base Material**
Dualization of Sargodha Khushab Mianwali Road
(Group-I from km 206.94 to 211.50 = 4.56 km)

Dear Sir,

It is with reference to your letter No. RE/4376-E/JQK/4a/555 dated 11-02-2025. Please find below the results for the tests conducted on the sub-base sample provided to this laboratory on 17-02-2025 through your representative.

1. **Sodium Sulphate Soundness (ASTM C-88)**

Sieve Size	Weight of Fraction Before Test (gm)	Weight of Fraction After Test (gm)	Percentage Passing Designated Sieve After Test	Weighted Percentage Loss
1" + ¾"	1504.3	1484.3	1.33	0.47
	Total = 0.47%			

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

Grading Used	Los Angeles Abrasion Value (%)
A	27.15

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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:----------

Mr. Jawad Qayyum Khan
Resident Engineer,
NESPAK, Jauharabad.

Subject: **Testing of Water Bound Macadam Material**
Dualization of Sargodha Khushab Mianwali Road
(Group-I from km 206.94 to 211.50 = 4.56 km)

Dear Sir,

It is with reference to your letter No. RE/4376-E/JQK/4a/556 dated 11-02-2025.
Please find below the results for the tests conducted on the WBM sample provided to this laboratory on 17-02-2025 through your representative.

1. **Sieve Analysis (ASTM C-136)**

Sieve Size	3”	2 ½”	2”	1 ½”	1”	¾”	½”	3/8”	#4
%age Passing	100	66.49	14.12	0	0	0	0	0	0

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

Specific Gravity (oven dried condition)	2.63
Specific Gravity (saturated surface dry condition)	2.65
Apparent Specific Gravity	2.68
Water Absorption (%)	0.73

3. **Sodium Sulphate Soundness (ASTM C-88)**

Sieve Size	Weight of Fraction Before Test (gm)	Weight of Fraction After Test (gm)	Percentage Passing Designated Sieve After Test	Weighted Percentage Loss
2” + 1 ½”	5004.3	4983.2	0.42	0.28
	Total = 0.28%			

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

Grading Used	**Los Angeles Abrasion Value (%)**
1	20.50

5. Flakiness Index (BS 812: Part 105)

Sieve Size		Individual Flakiness Index (%)	Weighted Flakiness Index (%)
Passing (in.)	Retained (in.)		
3	2 ½	7.98	2.68
2 ½	2	8.10	4.24
2	1 ½	7.03	0.99
		Flakiness Index = 7.91%	

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.
5. This test report shall not be reproduced wholly or in parts unless negotiated.