

DATA OF CONSTRUCTION MATERIALS

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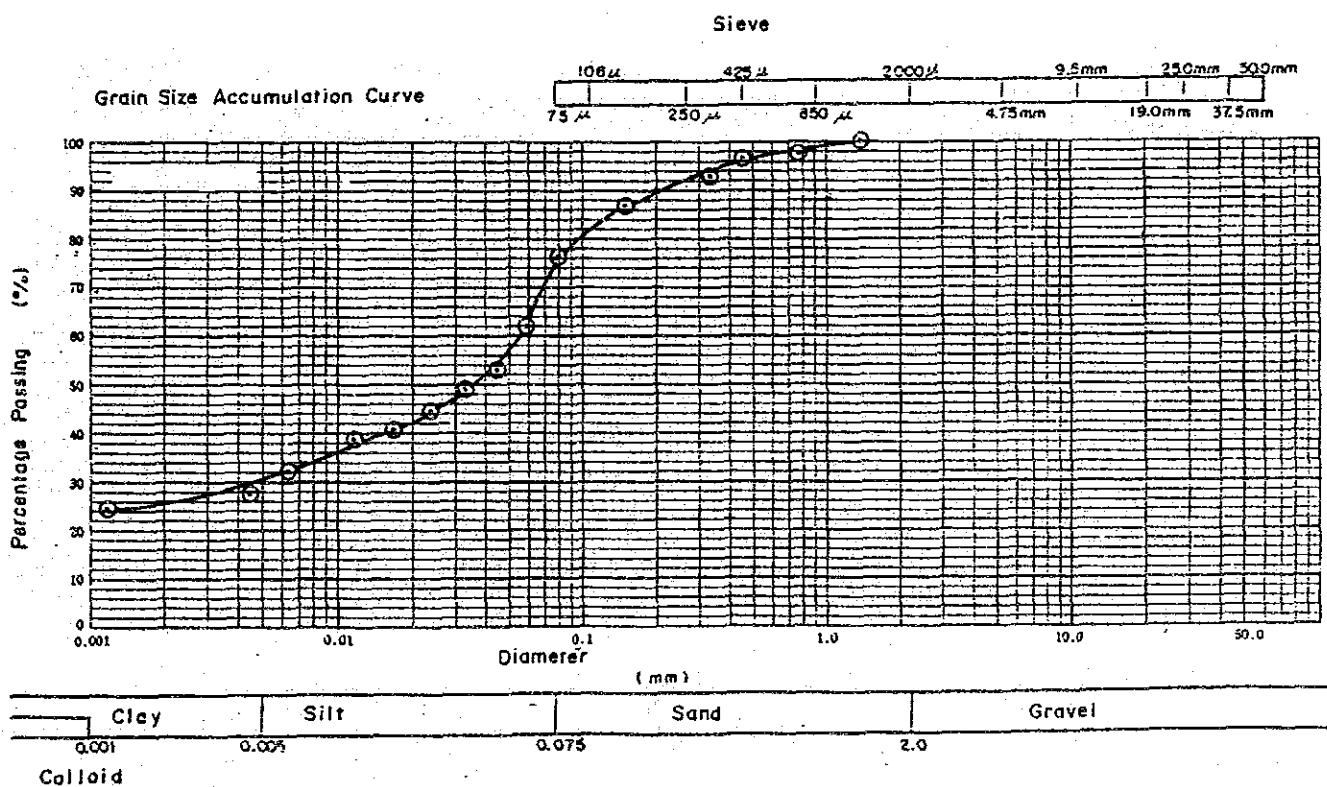
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ASTM D422-63	GRADATION ANALYSIS		FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	30-9-85
SAMPLE NO. & DEPTH	SP-3 (1.0 m m)	TESTED BY	DORA

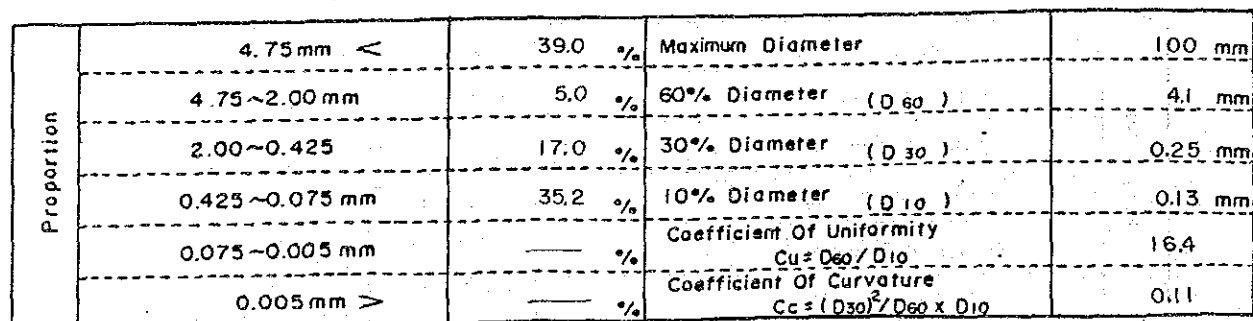
Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.84

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	97.2	93.0	85.0	75.8
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	59.0	43.0	37.5	30.0	27.0	26.0	25.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.2 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	2.8 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	21.4 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	45.8 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	30.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

Particle Size & Weight Percentage of Particles under the Size[illegible]

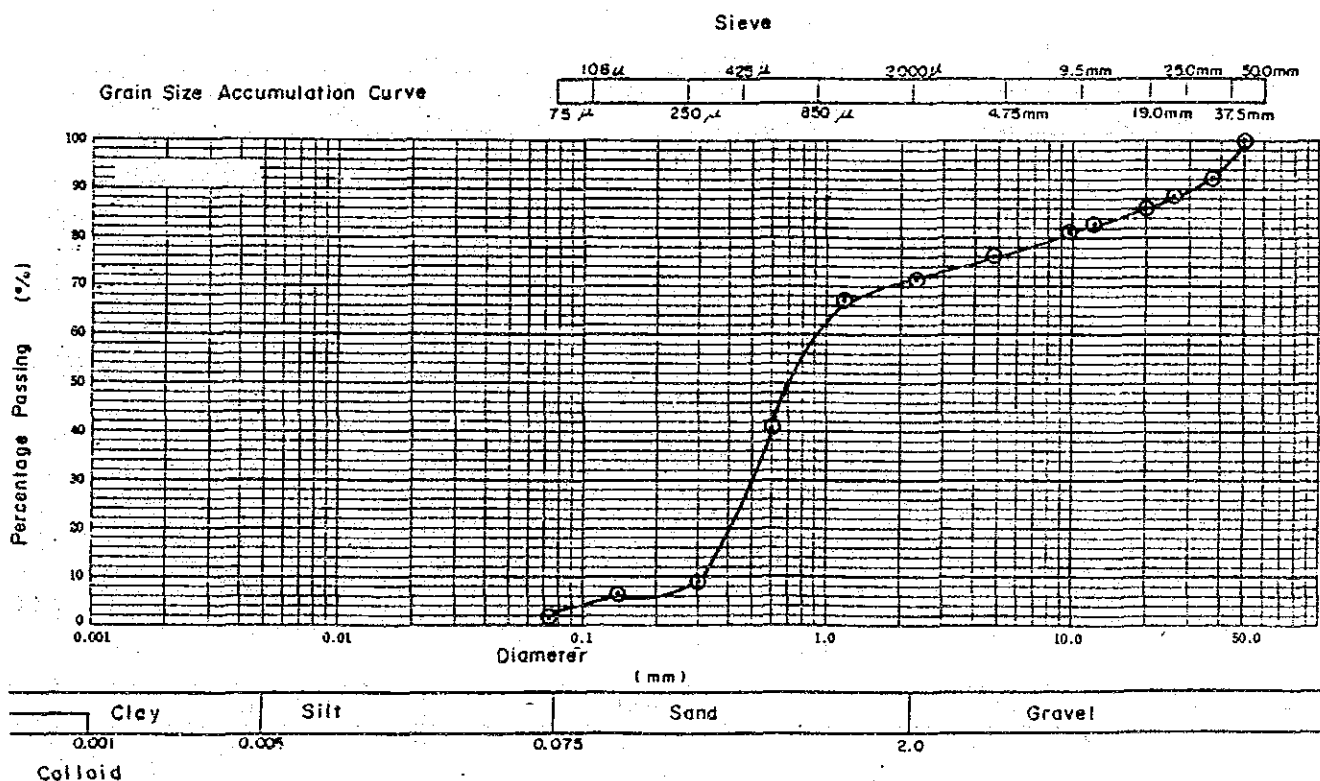
ASTM D422- 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT , PHASE III	DATE	AUG .16 . '85	
SAMPLE NO. & DEPTH	SP - 3 (4.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.42

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	92.0	89.4	86.2	80.6	76.6	70.5	58.0	20.0	8.0	5.0	1.9
Hydrometer	Grain Size (mm)												
	Total passing (%)												



Proportion	4.75 mm <	23.4 %	Maximum Diameter	50.0 mm
	4.75 ~ 2.00 mm	6.1 %	60% Diameter (D ₆₀)	0.9 mm
	2.00 ~ 0.425	50.5 %	30% Diameter (D ₃₀)	0.51 mm
	0.425 ~ 0.075 mm	18.1 %	10% Diameter (D ₁₀)	0.31 mm
	0.075 ~ 0.005 mm	— %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	2.90
	0.005 mm >	— %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	0.93

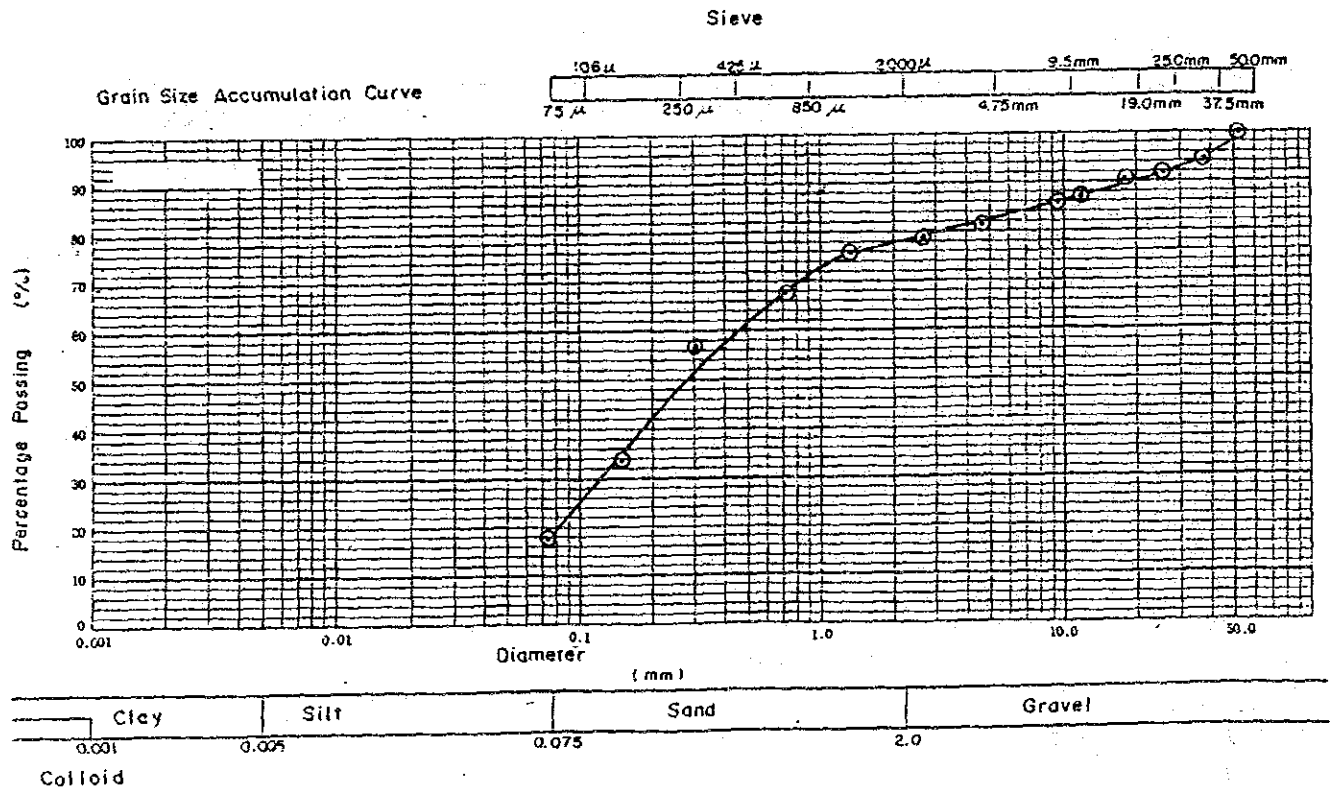
ASTM D422 - 63	GRADATION ANALYSIS		FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	AUG. 14 '85
SAMPLE NO. & DEPTH	SP-3 (5.0 m m)	TESTED BY	DORA

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

Gs 2.42

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	94.4	91.6	89.9	85.2	81.1	78.0	69.5	62.0	51.0	27.0	17.9
Hydrometer	Grain Size (mm)												
	Total passing (%)												



Proportion	4.75 mm <	18.5 %	Maximum Diameter	50 mm
	4.75 ~ 2.00 mm	3.1 %	60% Diameter (D_{60})	0.35 mm
	2.00 ~ 0.425	16.0 %	30% Diameter (D_{30})	0.13 mm
	0.425 ~ 0.075 mm	44.1 %	10% Diameter (D_{10})	(0.042) mm
	0.075 ~ 0.005 mm	— %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	(8.3)
	0.005 mm >	— %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	(1.15)

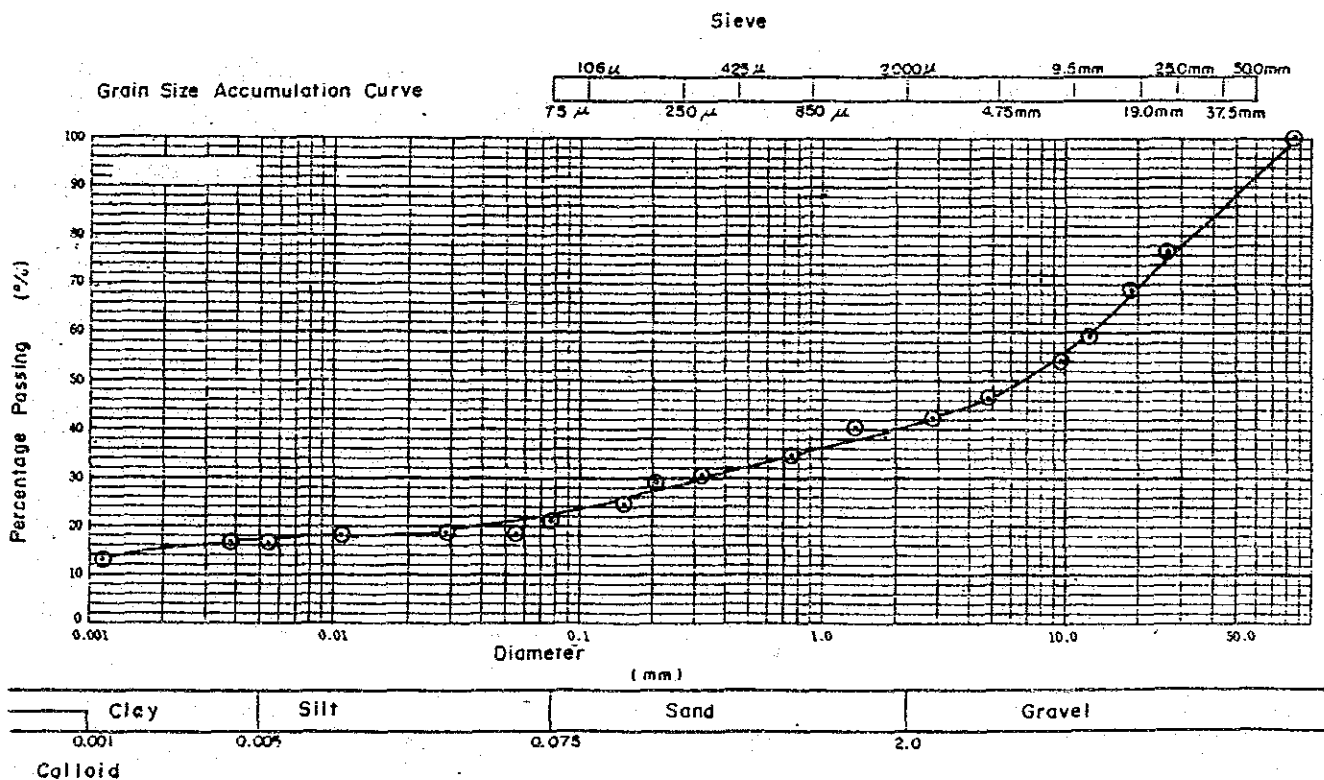
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	30 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 4 (1.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.84

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	90.0	84.0	76.0	68.9	54.3	47.0	41.5	36.0	32.0	29.5	23.5	22.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.002	0.001						
	Total passing (%)	19.5	18.5	18.5	18.0	15.5	13.0						



Proportion	4.75 mm <	47.0 %	Maximum Diameter	80.0 mm
	4.75 ~ 2.00 mm	5.5 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	9.5 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	10.0 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	4.0 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	18.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

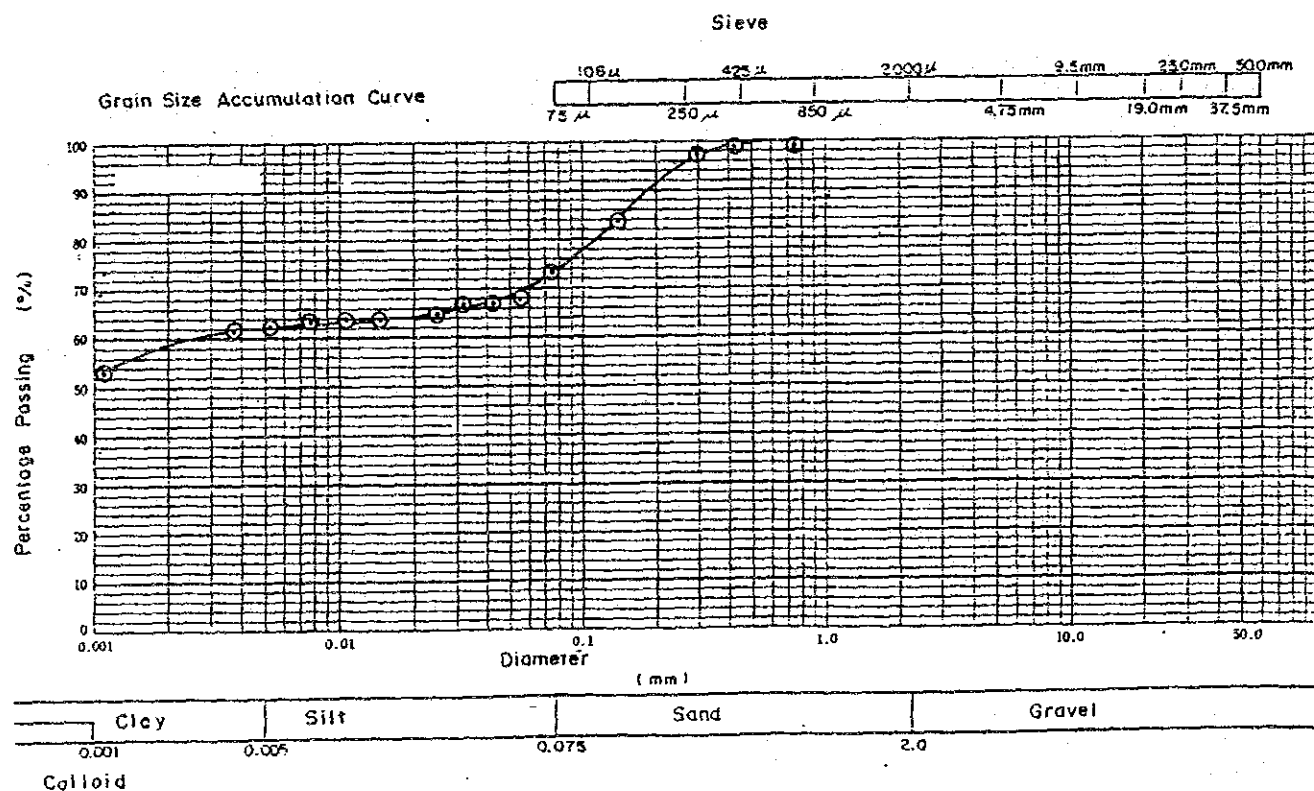
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	19 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 4 (3.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.86

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	95.0	78.5	72.6
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	66.5	64.0	63.5	62.0	61.0	59.0	52.0					



Proportion	4.75mm <	0 %	Maximum Diameter	0.85 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	1.2 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	26.2 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	10.6 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	62.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

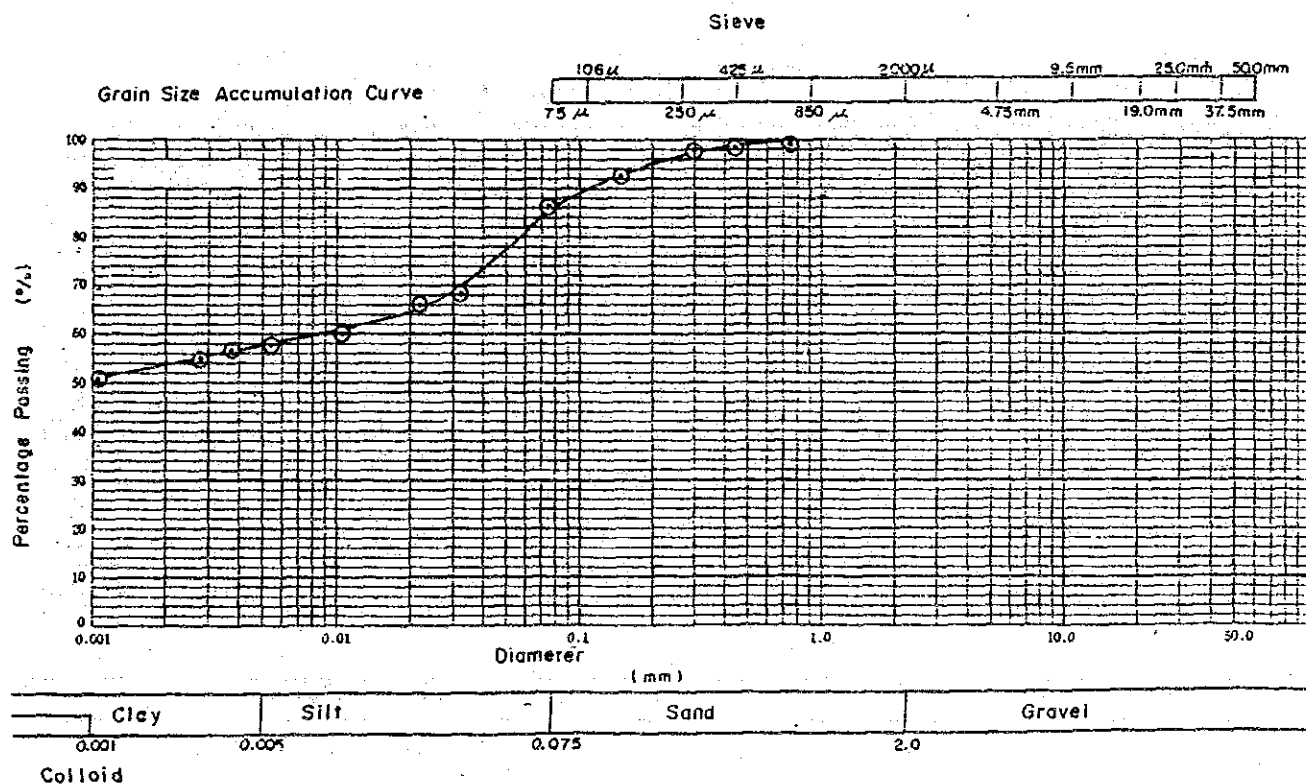
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	10 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 4 Mixed (2.0 m 5.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.83

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.1	97.0	90.5	86.5
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	78.0	66.0	60.5	58.0	55.5	53.0	51.0					



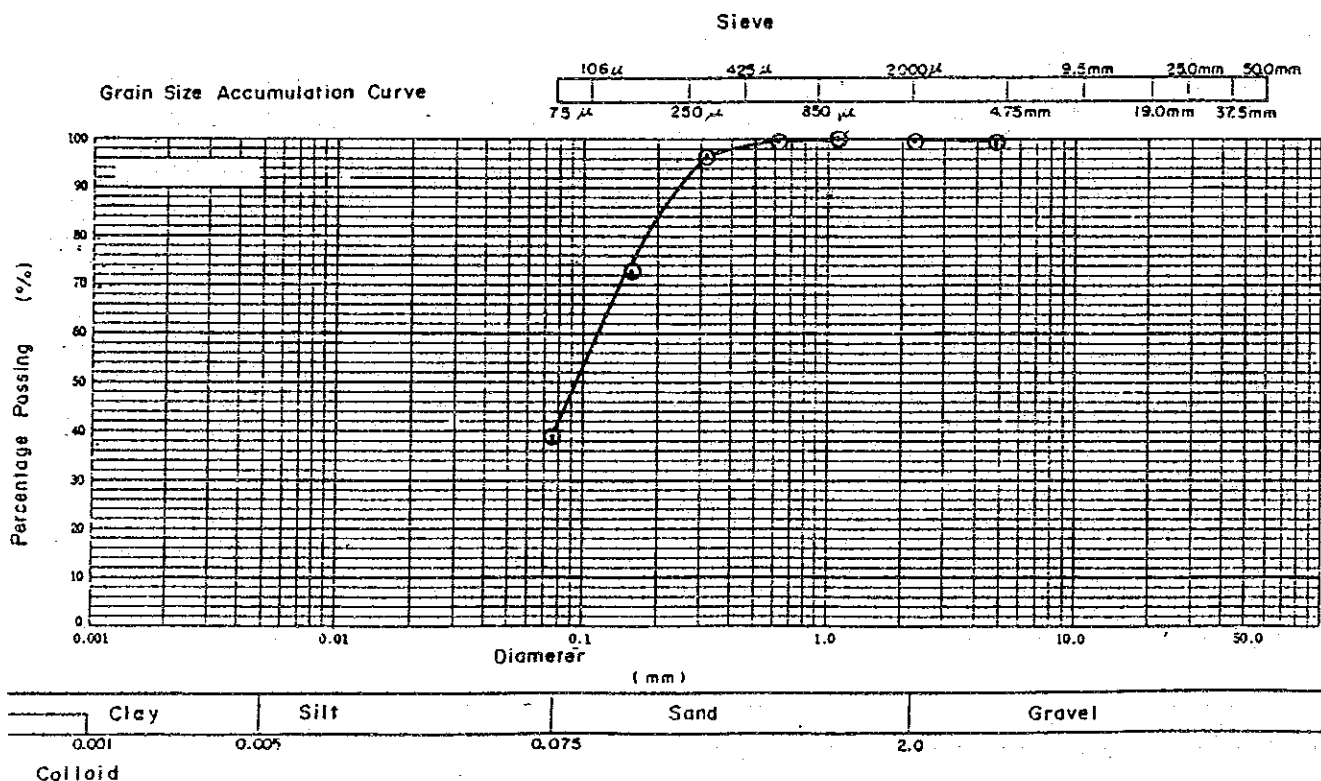
Proportion	4.75 mm <	0 %	Maximum Diameter	1.0 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	0.9 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	12.6 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	28.5 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	58.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE II	DATE	AUG. 22. '85	
SAMPLE NO. & DEPTH	SP - 5 (1.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.87

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)						100.0	100.0	99.5	99.0	93.0	57.0	39.8
Hydrometer	Grain Size (mm)												
	Total passing (%)												



Proportion	4.75 mm <	0 %	Maximum Diameter	4.75 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D_{60})	0.12 mm
	2.00 ~ 0.425	1.0 %	30% Diameter (D_{30})	(0.06) mm
	0.425 ~ 0.075 mm	59.2 %	10% Diameter (D_{10})	(0.042) mm
	0.075 ~ 0.005 mm	%	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	2.85
	0.005 mm >	%	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	0.71

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	19 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 5 (2.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

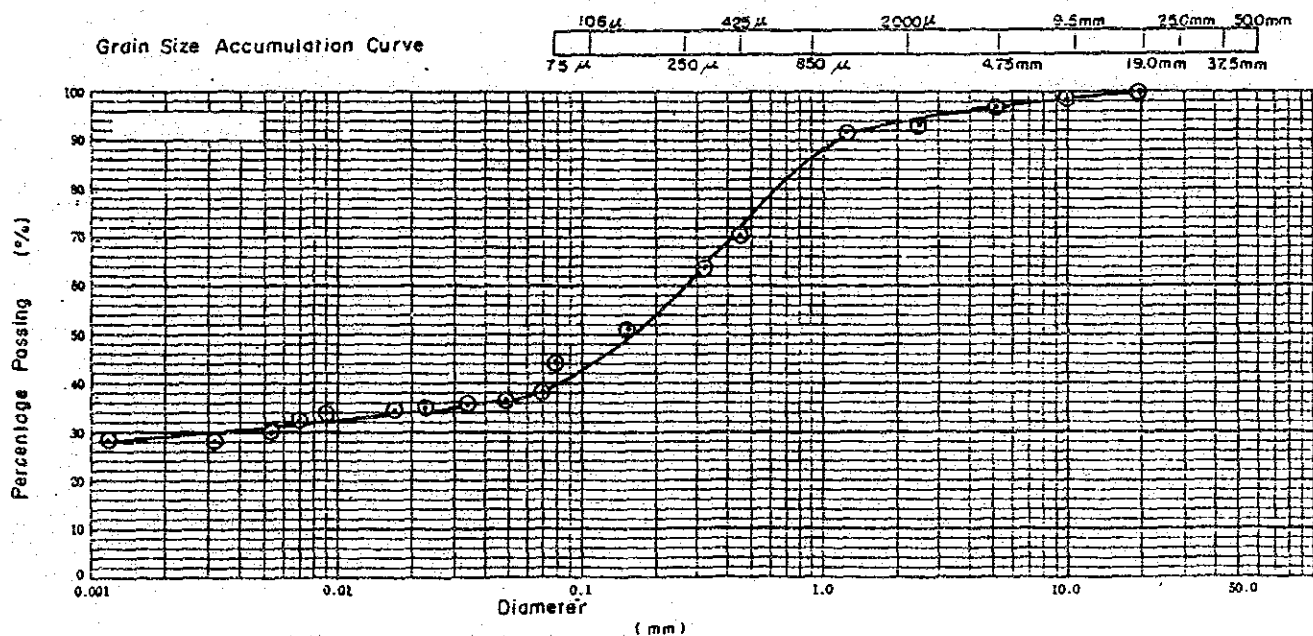
specific Gravity

G_s 2.74

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	98.6	96.3	93.0	84.5	70.5	60.0	44.0	40.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	37.0	34.5	33.5	29.5	28.5	28.5	28.0					

Sieve

Grain Size Accumulation Curve



Clay	Silt	Sand	Gravel
0.001	0.005	0.075	2.0
Colloid			

Proportion	4.75 mm <	3.7 %	Maximum Diameter	20.0 mm
	4.75 ~ 2.00 mm	3.3 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	22.5 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	30.5 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	10.5 %	Coefficient Of Uniformity C _u = D ₆₀ / D ₁₀	
	0.005 mm >	29.5 %	Coefficient Of Curvature C _c = (D ₃₀) ² / D ₆₀ x D ₁₀	

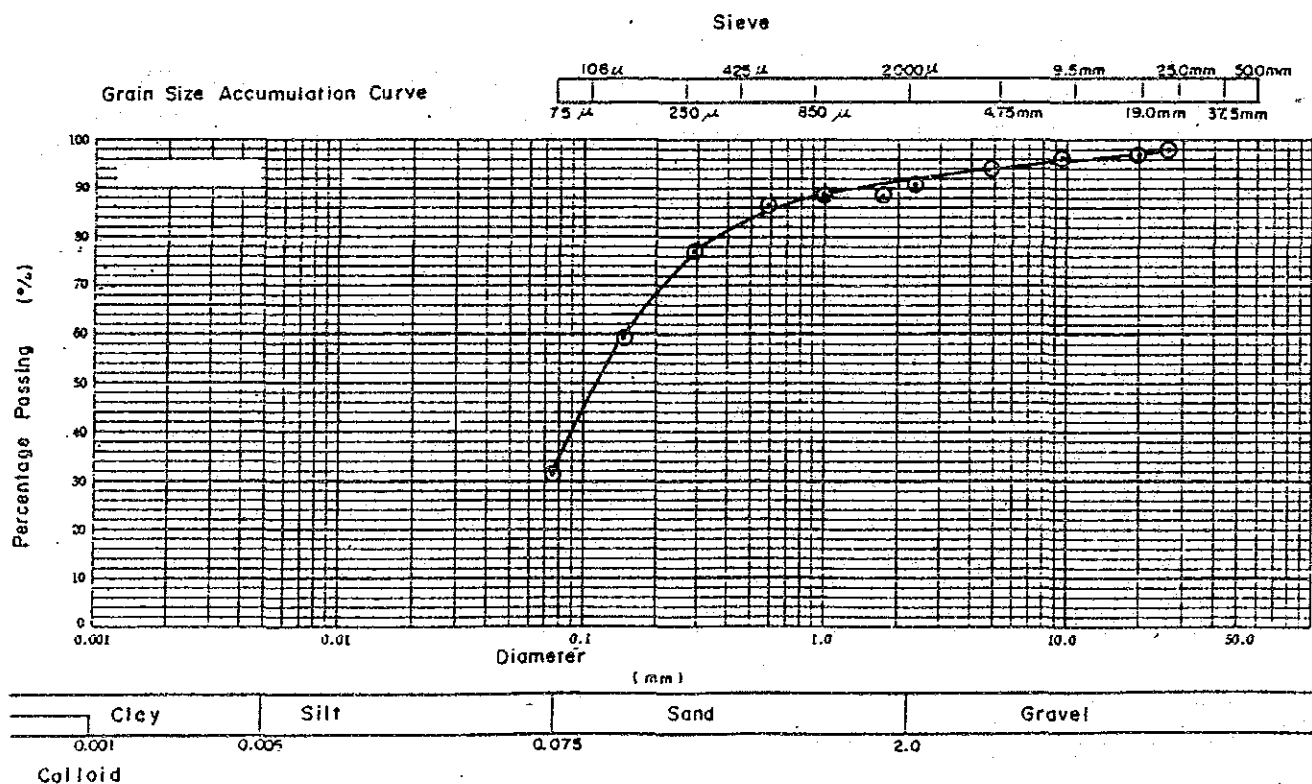
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	AUG . 16 , '85	
SAMPLE NO. & DEPTH	SP - 5 (3.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

Gs. 2.74

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	97.9	97.6	96.6	94.2	90.0	88.5	82.0	72.0	44.0	31.1
Hydrometer	Grain Size (mm)												
	Total passing (%)												



Proportion	4.75mm <	5.8 %	Maximum Diameter	37.5 mm
	4.75~2.00 mm	4.2 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	8.0 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	50.9 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	%	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	%	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

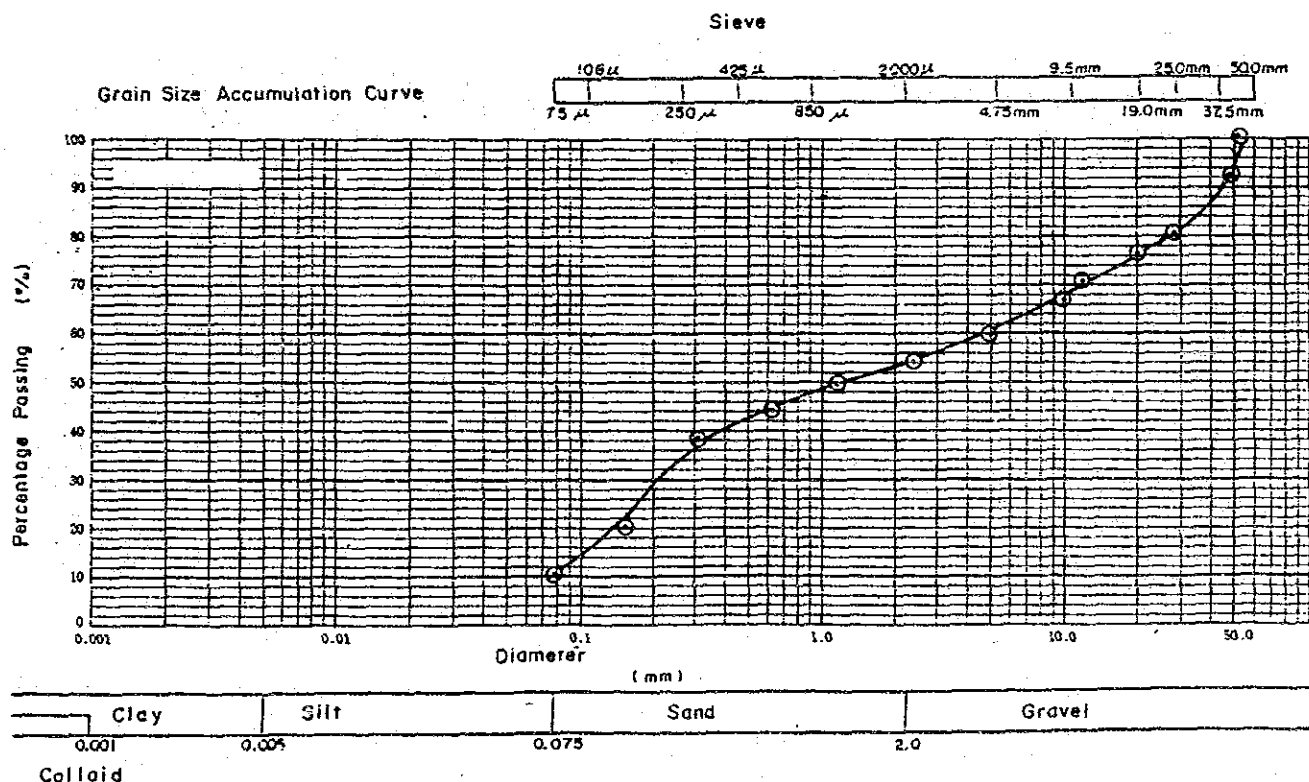
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	AUG. 16 '85	
SAMPLE NO. & DEPTH	SP - 5 (4.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.49

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	92.4	80.8	76.7	67.6	60.3	54.0	47.5	42.0	35.0	15.5	11.2
Hydrometer	Grain Size (mm)												
	Total passing (%)												



Proportion	4.75 mm <	39.7 %	Maximum Diameter	50.0 mm
	4.75 ~ 2.00 mm	6.3 %	60% Diameter (D ₆₀)	4.75 mm
	2.00 ~ 0.425	12.0 %	30% Diameter (D ₃₀)	0.2 mm
	0.425 ~ 0.075 mm	30.8 %	10% Diameter (D ₁₀)	0.07 mm
	0.075 ~ 0.005 mm	— %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	67.8
	0.005 mm >	— %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	0.1

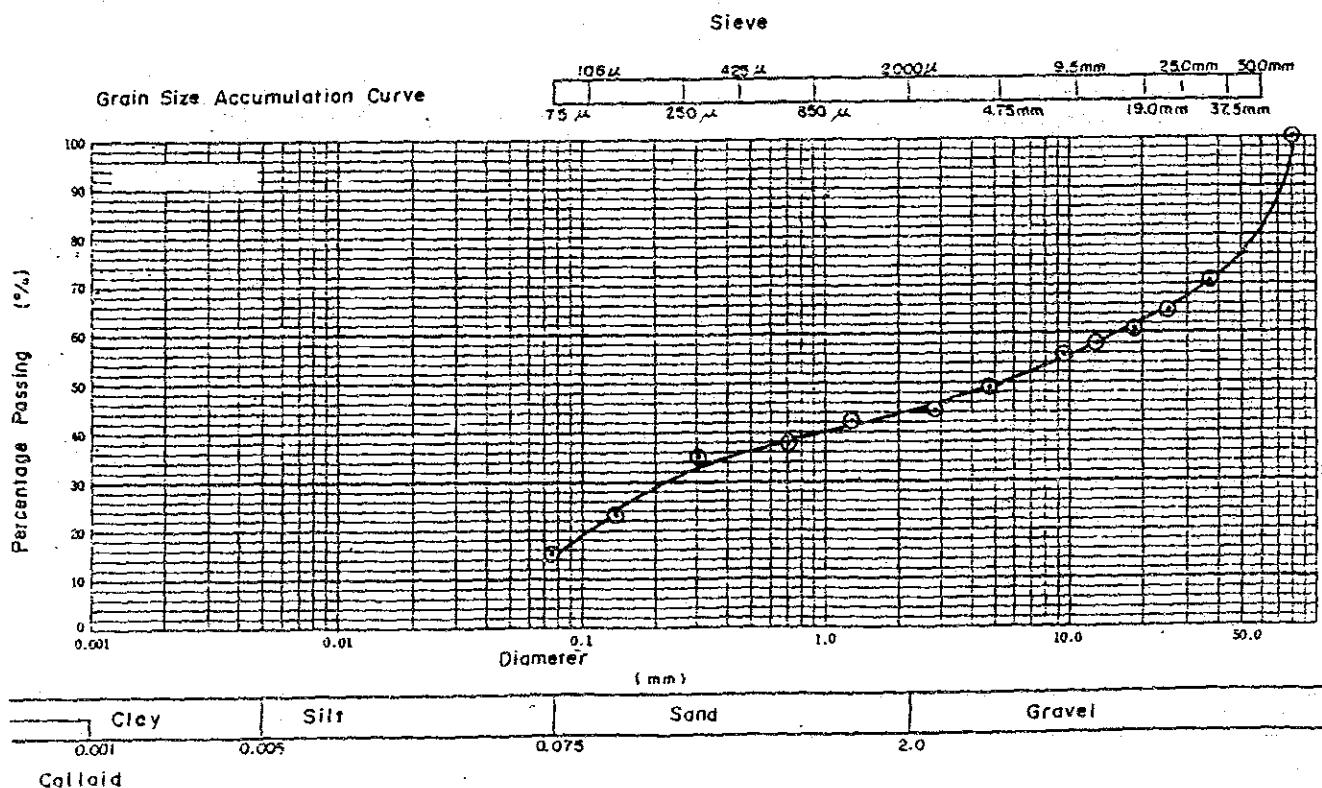
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	AUG 14 '85	
SAMPLE NO. & DEPTH	SP - 5 (5.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.49

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	79.0	70.5	64.8	61.6	55.6	49.5	43.0	39.5	37.0	32.0	18.0	15.8
Hydrometer	Grain Size (mm)												
	Total passing (%)												

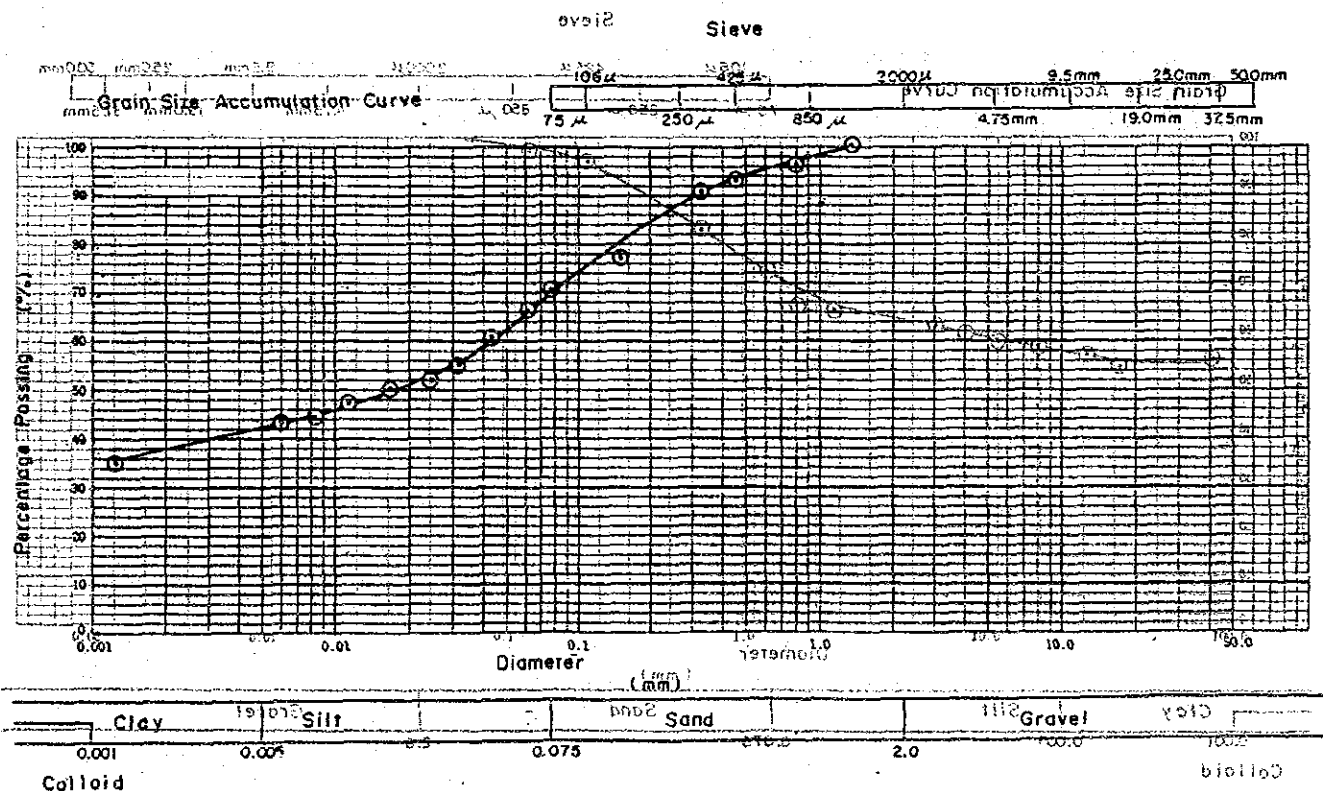


Proportion	4.75 mm <	50.5 %	Maximum Diameter	80 mm
	4.75 ~ 2.00 mm	6.0 %	60% Diameter (D_{60})	18 mm
	2.00 ~ 0.425	3.0 %	30% Diameter (D_{30})	0.205 mm
	0.425 ~ 0.075 mm	21.2 %	10% Diameter (D_{10})	(0.036) mm
	0.075 ~ 0.005 mm	— %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	(500)
	0.005 mm >	— %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	(0.06)

ASTM D422-63		GRADATION ANALYSIS		SSA D MT2A FOR REPORTING	
NAME OF PROJECT	DATE	TENOM PANGI PROJECT, PHASE III	DATE	3-10-85	NAME OF PROJECT
SAMPLE NO. & DEPTH	SP (m 6 m 1.00 m)	TESTED BY	DORA	SAMPLE NO. & DEPTH	

Particle Size & Weight Percentages of Particles under the Size

specific Gravity		Gs 2.72													
Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075		
Total Passing (%)		100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5	93.3	88.0	73.5	70.6		
Hydrometer	Grain Size (mm)	0.05	0.02	0.0075	0.0050	0.003	0.0020	0.001	0.00075	0.000425	0.00025	0.000106	0.000075		
Total passing (%)		64.0	51.0	47.0	42.5	40.0	38.0	34.0	0.50	0.20	0.10	0.05	0.03		



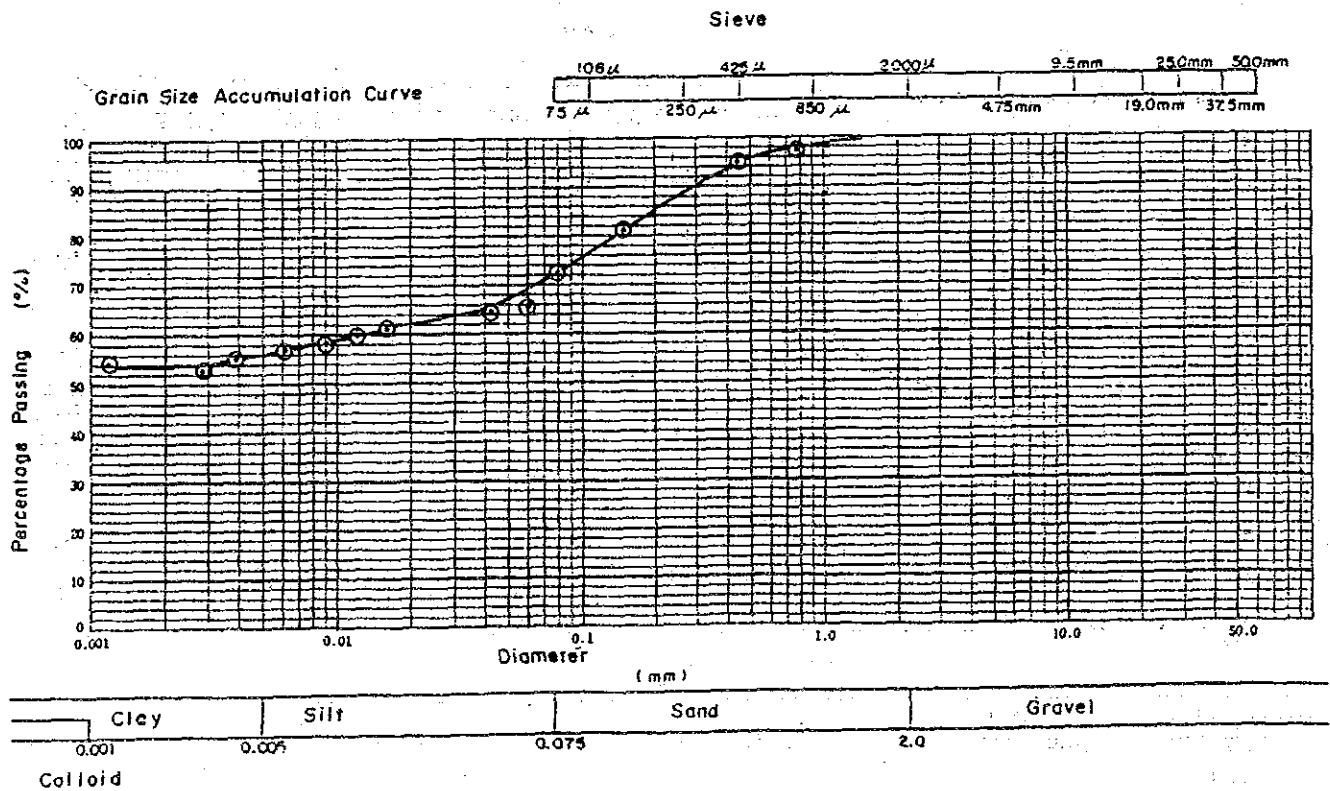
mm 0.075	Proportion	4.75 mm	Maximum Diameter	0.0 %	Maximum Diameter	1.2 mm
mm 0.075		4.75 - 2.00 mm	60% Diameter	0.0 %	60% Diameter	mm 0.075
mm 0.075		2.00 - 0.425 mm	30% Diameter	6.7 %	30% Diameter	mm 0.075
mm 0.075		0.425 - 0.075 mm	10% Diameter	22.7 %	10% Diameter	mm 0.075
mm 0.075		0.075 - 0.005 mm	Coefficient Of Uniformity	28.1 %	Cu = D ₆₀ / D ₁₀	
mm 0.075		0.005 - 0.00075 mm	Coefficient Of Curvature	42.5 %	Cc = (D ₃₀) ² / (D ₁₀ x D ₆₀)	

ASTM D 422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	15- 9 - 85	
SAMPLE NO. & DEPTH	S P - 6 (3.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity
Gs 2.86

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	95.3	89.0	78.0	72.2
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	65.0	62.0	59.0	54.5	53.0	52.0	51.0					



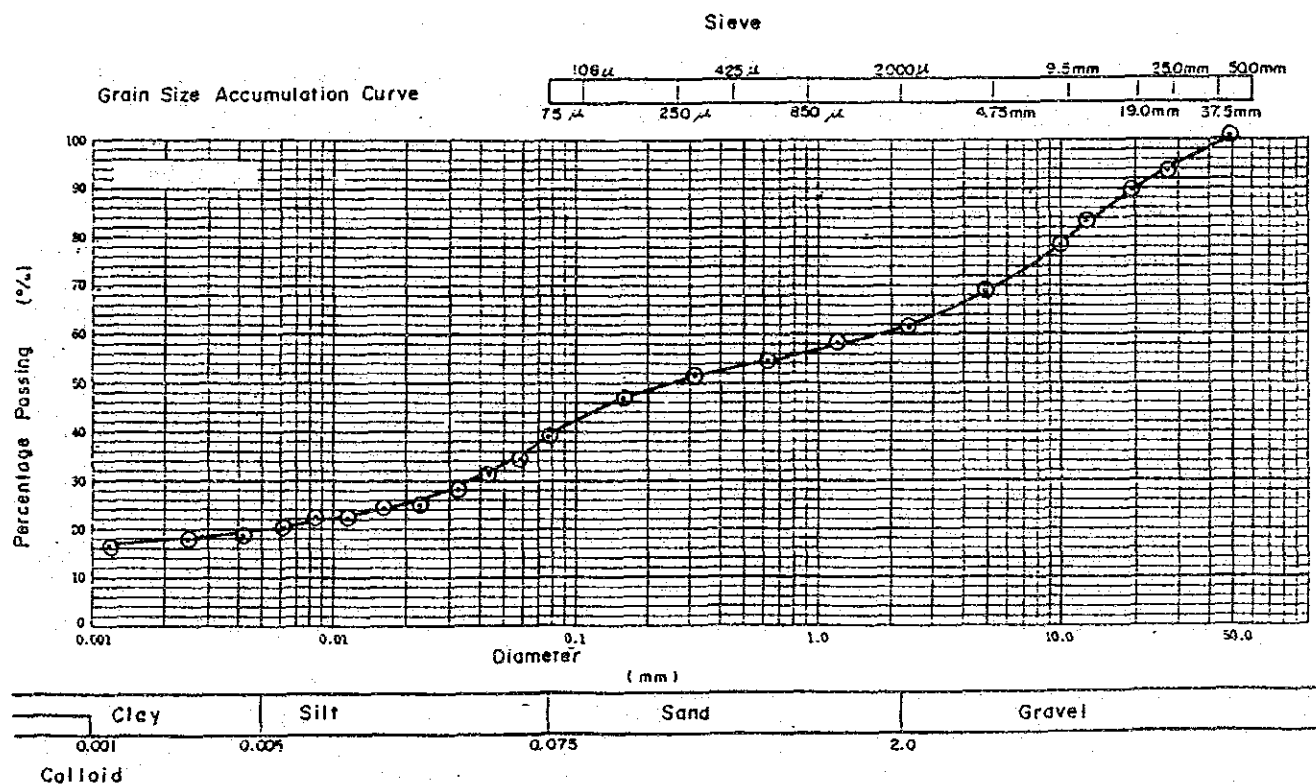
Proportion	4.75 mm <	0 %	Maximum Diameter	2.0 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	4.7 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	23.1 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	17.7 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	54.5 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

ASTM D422 - 63	GRADATION ANALYSIS		FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE II	DATE	5 - 10 - 85
SAMPLE NO. & DEPTH	SP - 6 (5.0 m m)	TESTED BY	DORA

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.84

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	93.9	90.0	78.6	68.9	61.0	59.0	54.0	51.0	44.0	39.7
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	34.0	25.0	22.5	20.0	19.0	18.0	16.5					



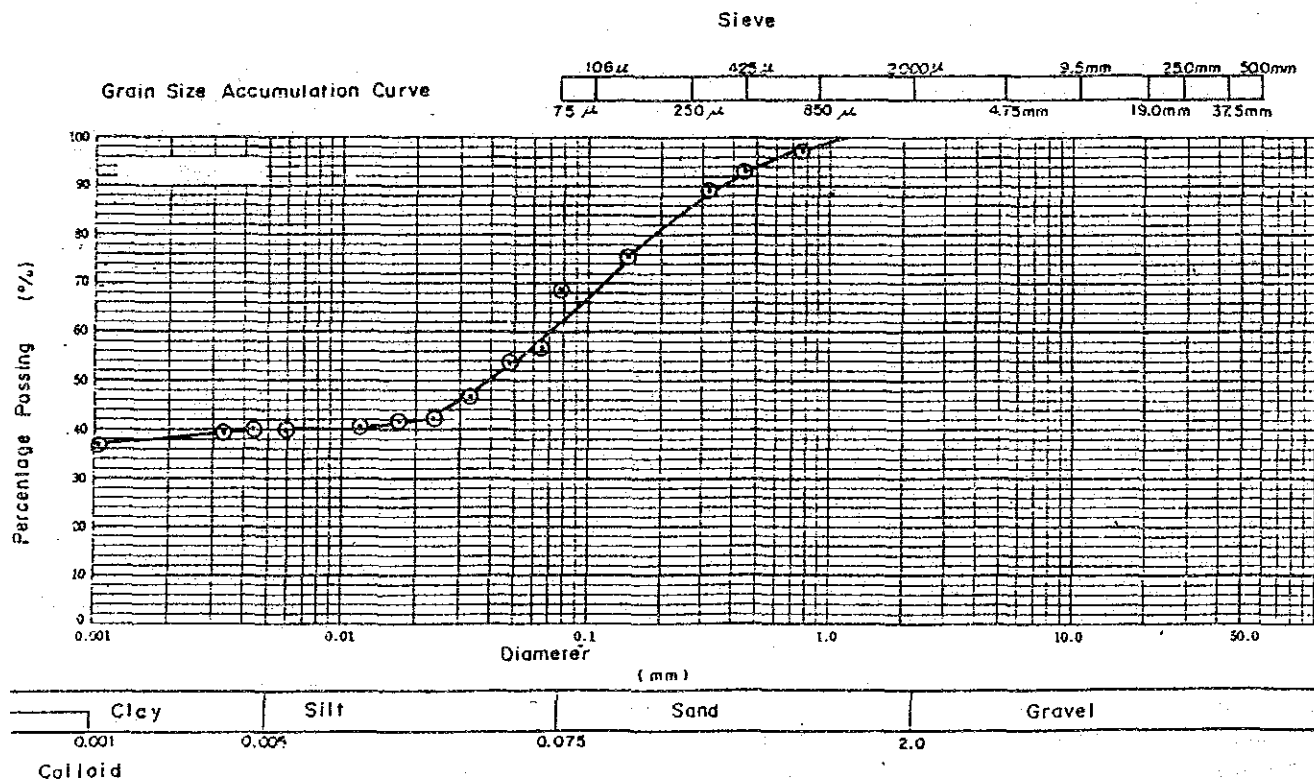
Proportion	4.75mm <	31.1 %	Maximum Diameter	50 mm
	4.75~2.00 mm	7.9 %	60% Diameter (D_{60})	mm
	2.00~0.425	7.0 %	30% Diameter (D_{30})	mm
	0.425~0.075 mm	14.3 %	10% Diameter (D_{10})	mm
	0.075~0.005 mm	19.7 %	Coefficient Of Uniformity $C_u = D_{60}/D_{10}$	
	0.005 mm >	20.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	7 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 6 Mixed (1.0 m 2.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity
Gs 2.86

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	93.7	85.0	71.0	65.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	56.0	42.5	41.0	40.0	39.5	38.0	37.0					



Proportion	4.75mm <	0 %	Maximum Diameter	1.0 mm
	4.75~2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	6.3 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	28.7 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	25.0 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	40.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	10 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 7 (1.0 m m)	TESTED BY	DORA	

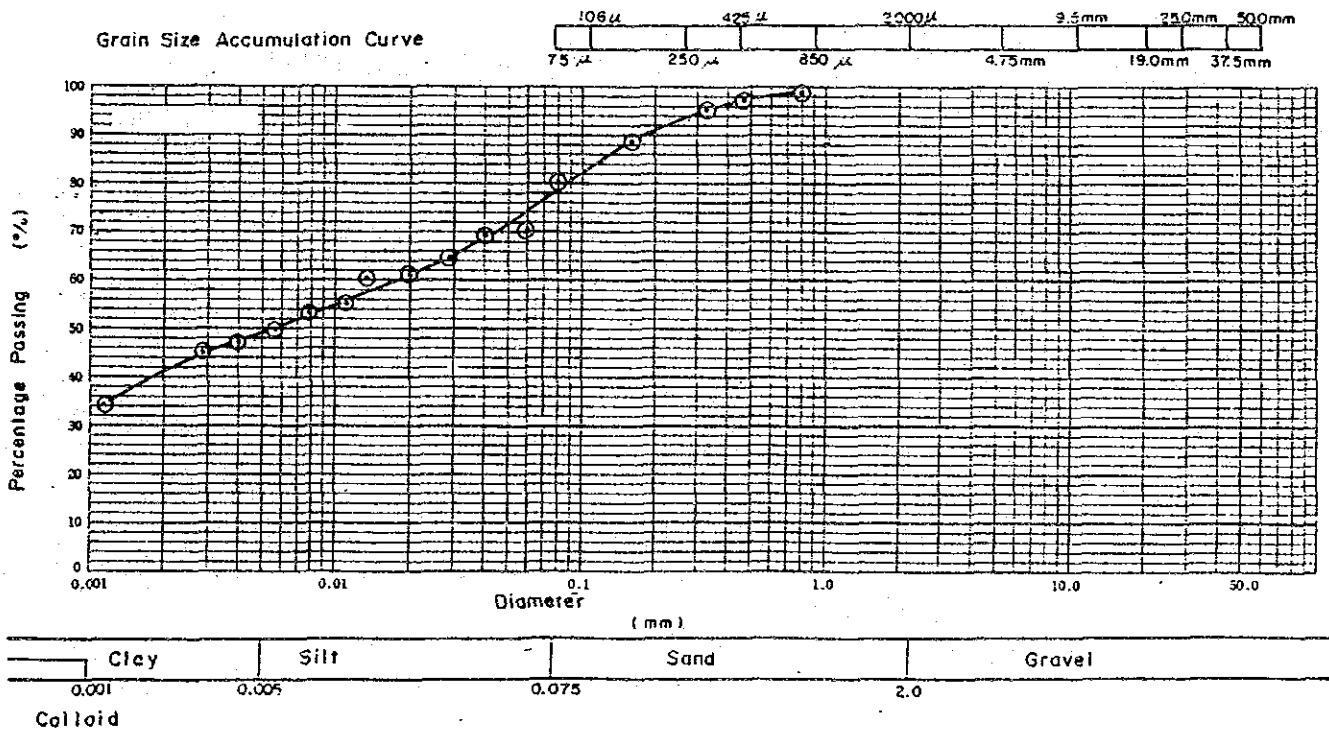
Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.86

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.6	93.0	85.0	80.3
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	73.0	61.0	54.5	50.5	45.5	41.0	32.0					

Sieve



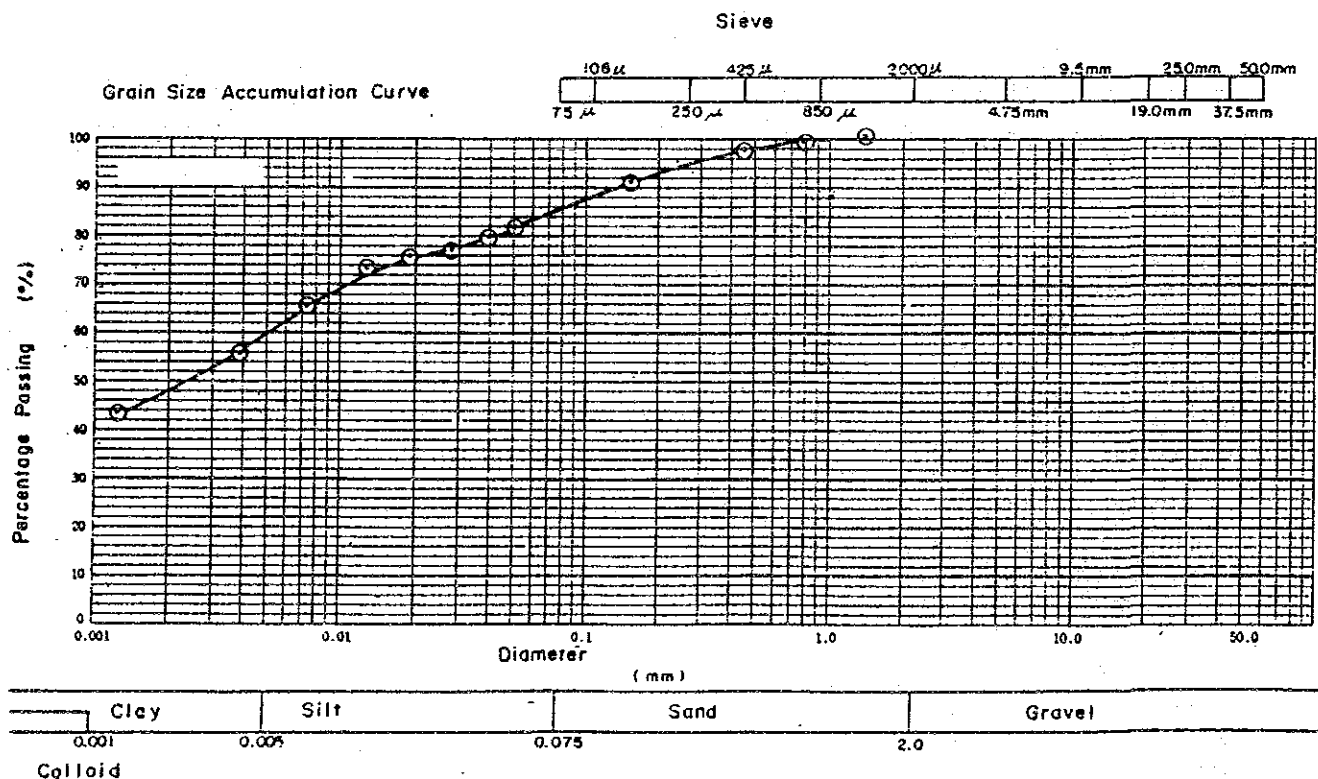
Proportion	4.75mm <	0 %	Maximum Diameter	0.85 mm
	4.75~2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	2.4 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	17.3 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	31.3 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	49.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	30 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 7 (3.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.81

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	97.8	95.0	89.5	86.9
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	82.0	76.0	70.0	59.0	53.0	48.5	42.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.2 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	2.2 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	10.9 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	27.9 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	59.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

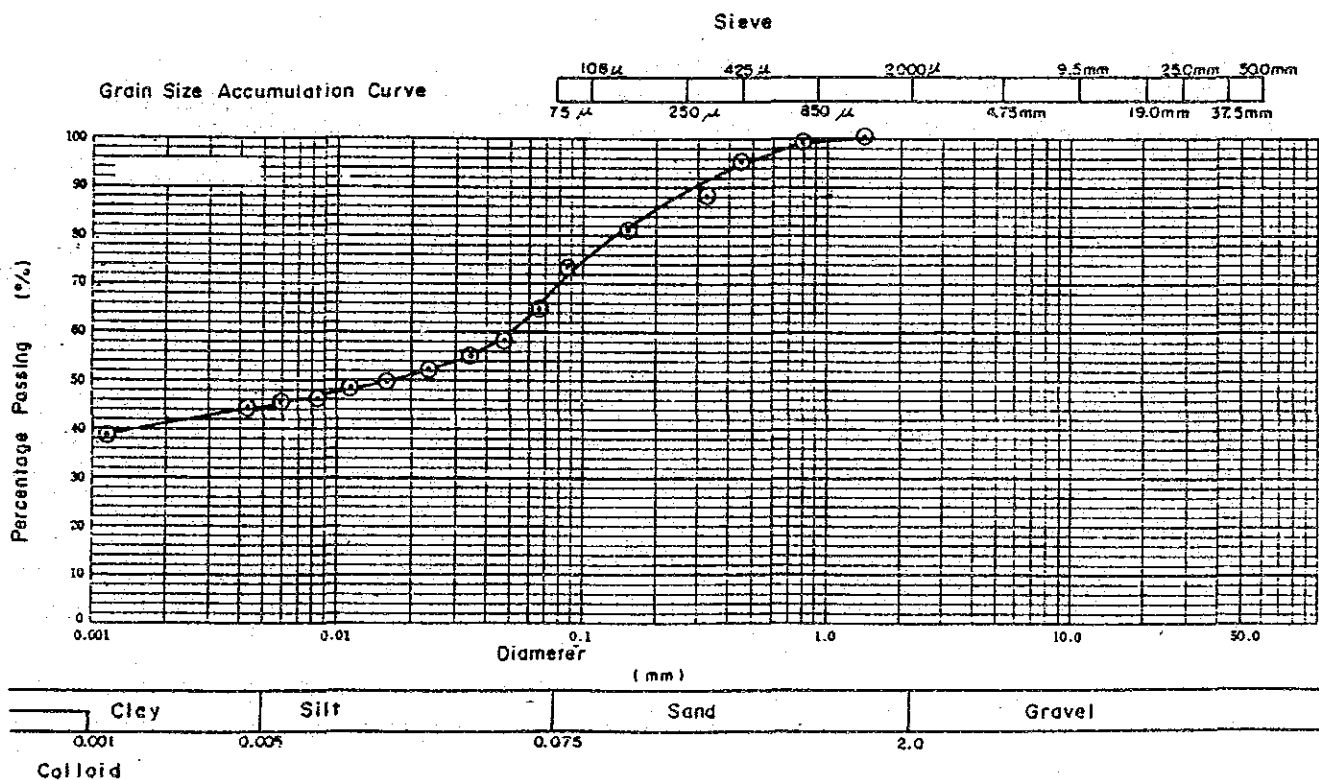
ASTM D422-63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	30 - 9 - 85	
SAMPLE NO. & DEPTH	SP-7 Mixed (2.0 m 5.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	96.0	86.0	78.0	72.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	60.0	52.0	48.0	45.0	43.0	41.0	38.0					



Proportion	4.75mm <	0 %	Maximum Diameter	1.2 mm
	4.75~2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	4.0 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	24.0 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	27.0 %	Coefficient Of Uniformity Cu = D ₆₀ /D ₁₀	
	0.005 mm >	45.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² /D ₆₀ x D ₁₀	

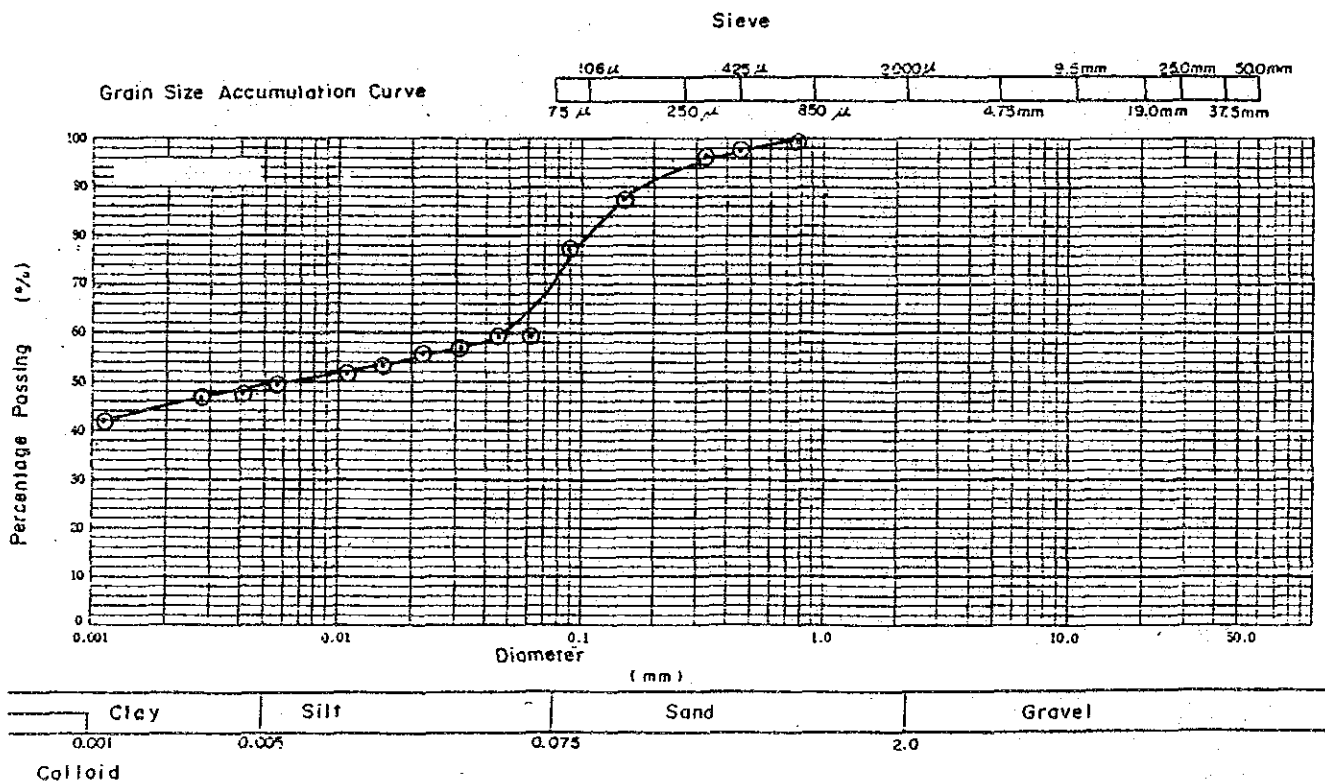
ASTM D422-63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	10 - 9 - 85	
SAMPLE NO. & DEPTH	SP - I (1.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.77

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	97.0	94.0	80.5	76.4
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	61.0	54.0	52.0	49.0	47.0	45.0	40.5					



Proportion	4.75 mm <	0 %	Maximum Diameter	2.00 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	3.0 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	20.6 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	27.4 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	49.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

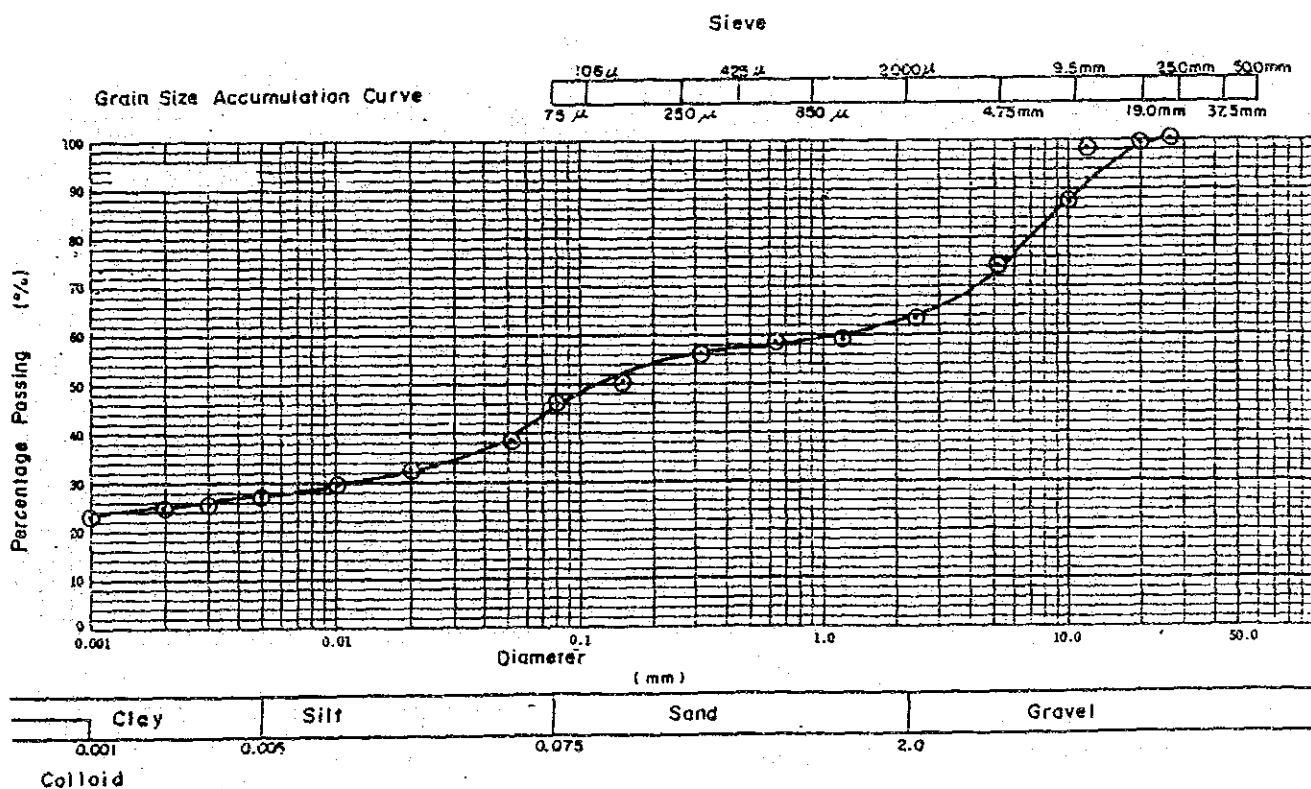
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	7 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 1 (2.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	98.5	86.7	74.1	62.0	59.0	57.5	55.5	48.5	45.6
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	38.3	32.7	30.7	27.8	26.1	25.4	23.8					



Proportion	4.75 mm <	25.9 %	Maximum Diameter	25.0 mm
	4.75 ~ 2.00 mm	12.1 %	60% Diameter (D ₆₀)	1.3 mm
	2.00 ~ 0.425	4.5 %	30% Diameter (D ₃₀)	0.0085 mm
	0.425 ~ 0.075 mm	11.9 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	17.8 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	27.8 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

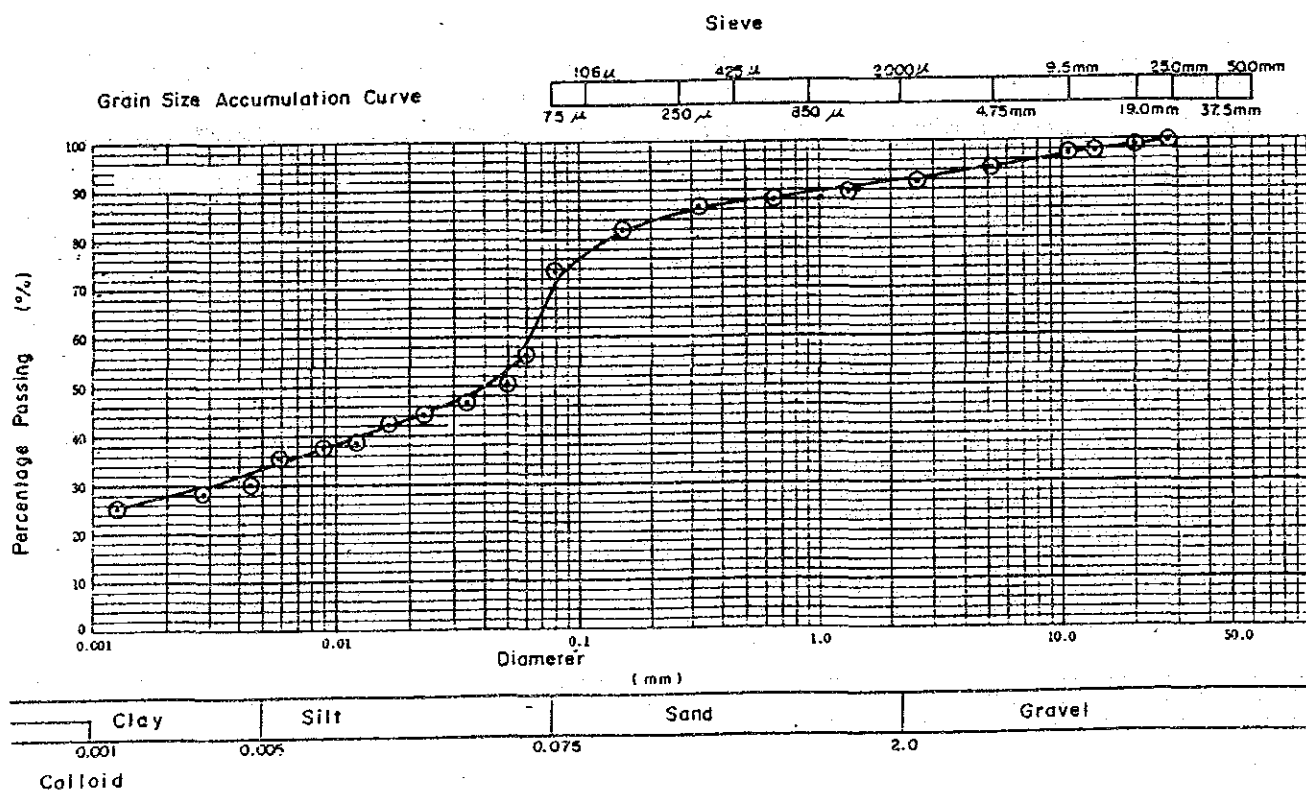
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	5-10-85	
SAMPLE NO. & DEPTH	SP - 1 (3.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.77

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	99.2	97.9	95.0	92.0	89.5	88.0	87.0	78.5	74.8
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	54.0	44.5	39.5	32.5	30.0	28.0	25.0					



Proportion	4.75mm <	5.0 %	Maximum Diameter	25.0 mm
	4.75~2.00 mm	3.0 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	4.0 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	13.2 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	42.3 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	32.5 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

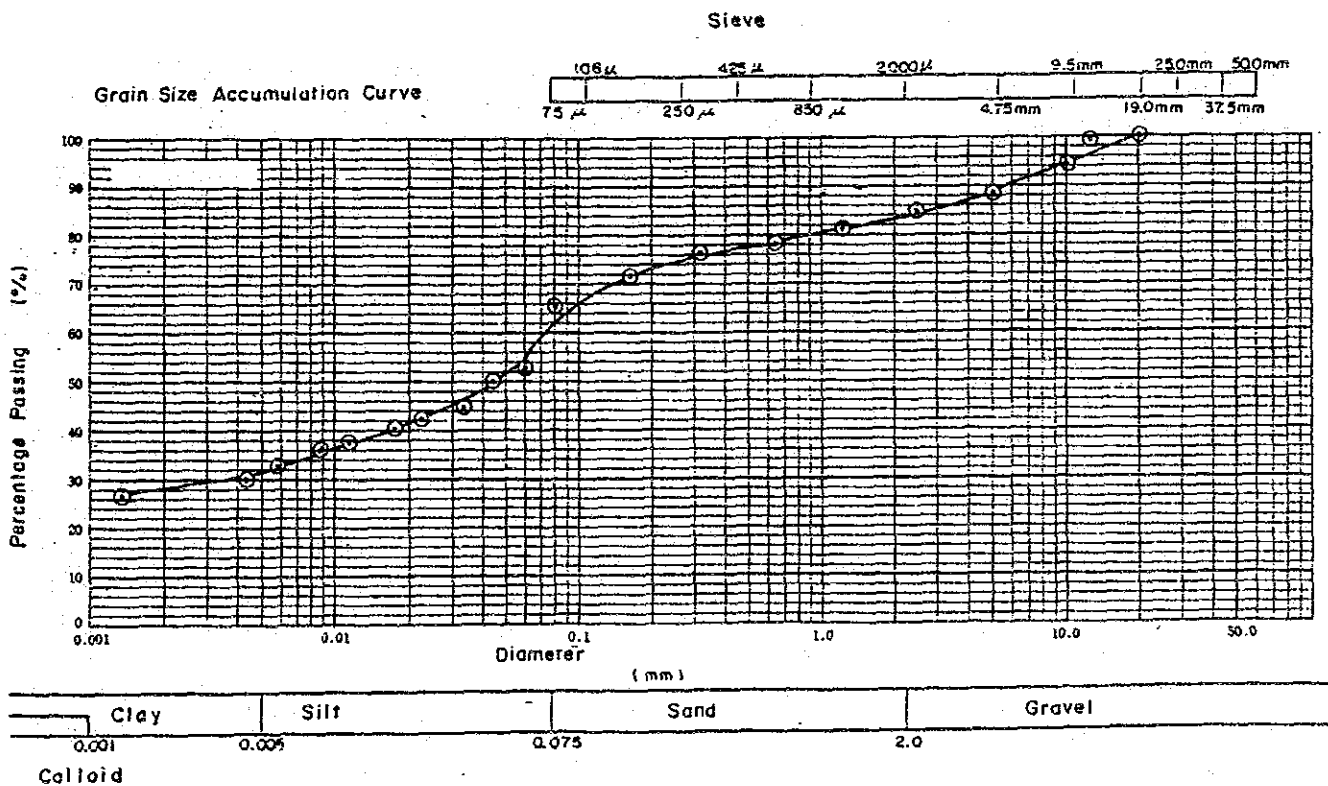
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT , PHASE III	DATE	3 - 10 - 85	
SAMPLE NO. & DEPTH	SP - I (4.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.83

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	94.5	89.2	84.0	80.0	77.5	75.0	69.0	66.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	55.0	42.0	38.0	32.5	30.0	29.0	27.0					



Proportion	4.75mm <	10.8 %	Maximum Diameter	19.0 mm
	4.75~2.00 mm	5.2 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	6.5 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	11.5 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	33.5 %	Coefficient Of Uniformity Cu = D ₆₀ /D ₁₀	
	0.005 mm >	32.5 %	Coefficient Of Curvature Cc = (D ₃₀) ² /D ₆₀ x D ₁₀	

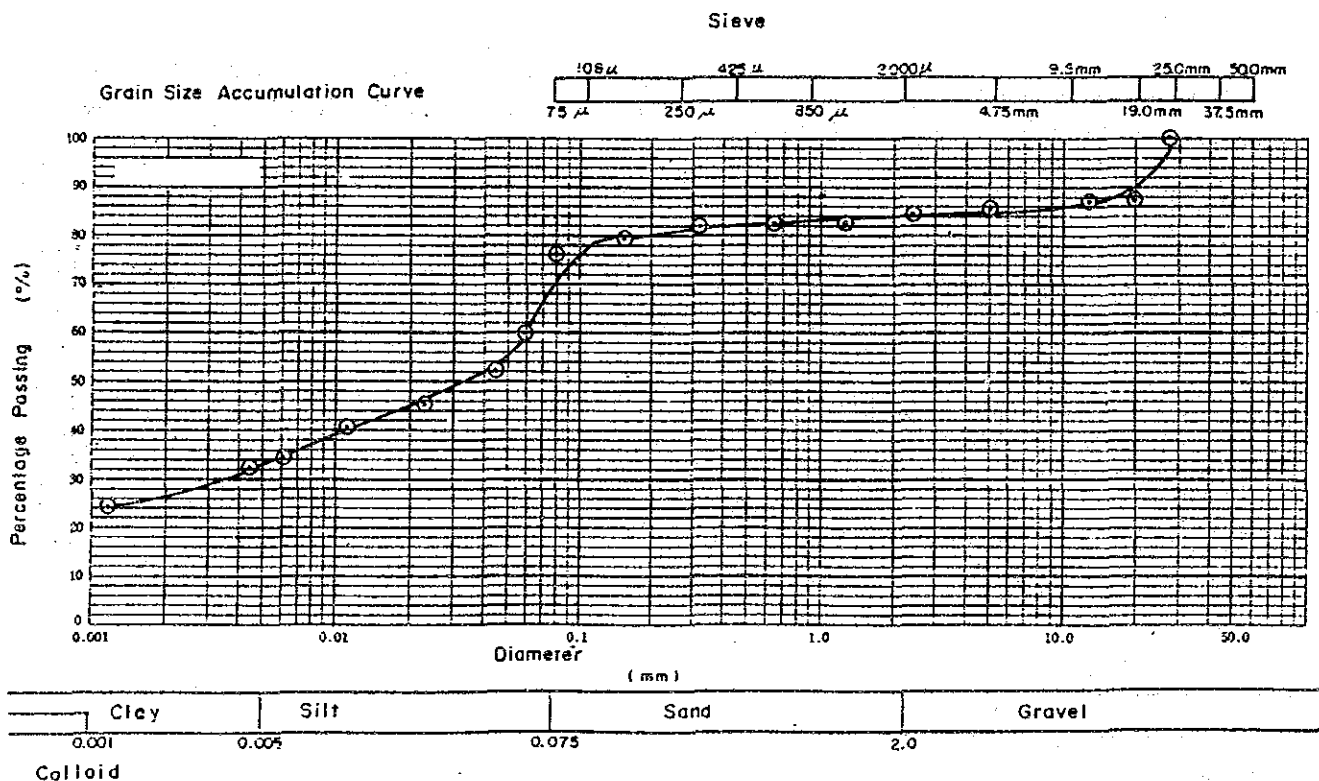
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	3 - 10 - 85	
SAMPLE NO. & DEPTH	SP - 1 (5.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.87

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	89.0	86.5	85.7	84.0	83.0	82.5	81.0	78.0	76.2
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	58.0	45.0	40.0	34.0	31.0	28.5	24.0					



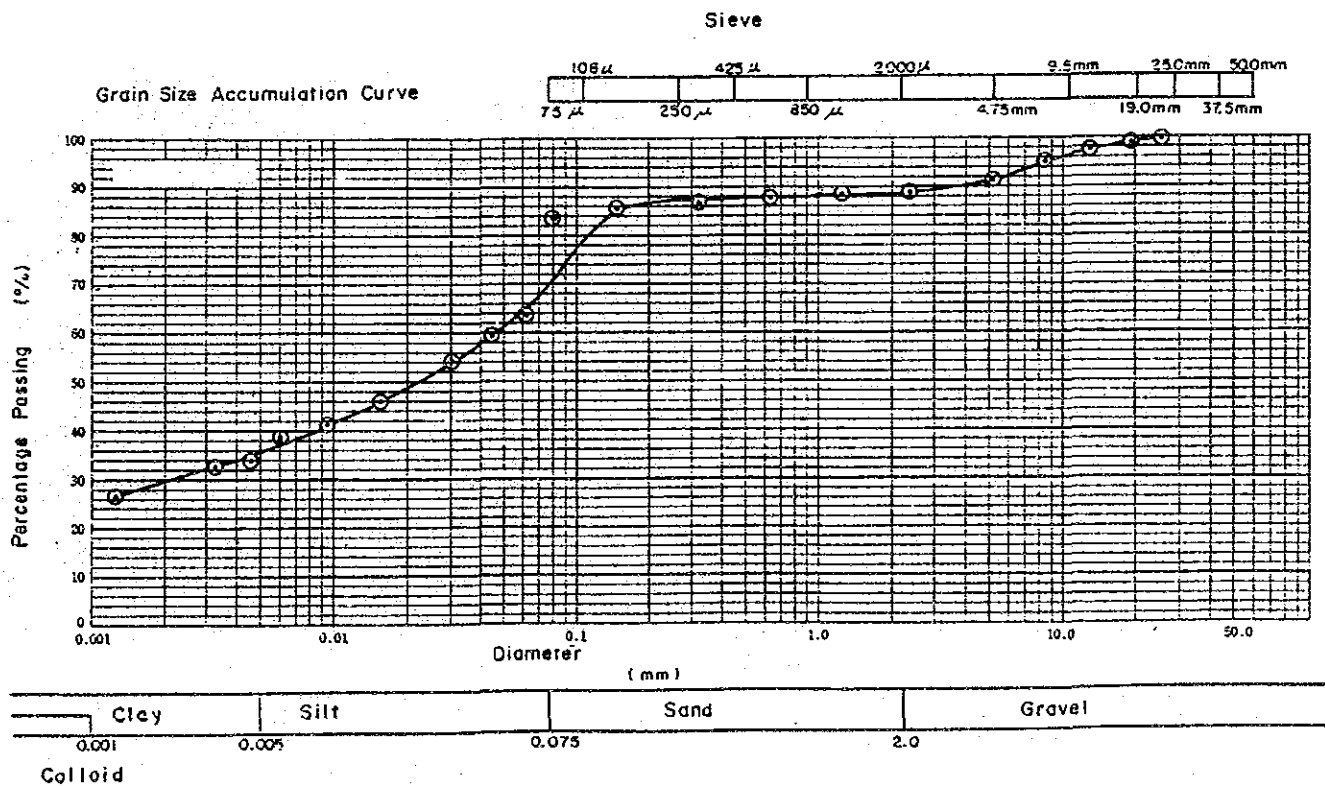
Proportion	4.75 mm <	4.3 %	Maximum Diameter	25.0 mm
	4.75 ~ 2.00 mm	1.7 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	1.5 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	6.3 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	42.2 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	34.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE II	DATE	17 - 10 - 85	
SAMPLE NO. & DEPTH	SP - 1 Mixed (3.0 m ~ 5.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	99.3	95.6	91.7	89.6	87.0	86.0	85.0	82.0	77.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	63.0	49.0	43.0	37.0	34.0	31.0	27.0					



Proportion	4.75 mm <	8.3 %	Maximum Diameter	mm
	4.75 ~ 2.00 mm	2.1 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	3.6 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	9.0 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	40.0 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	37.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

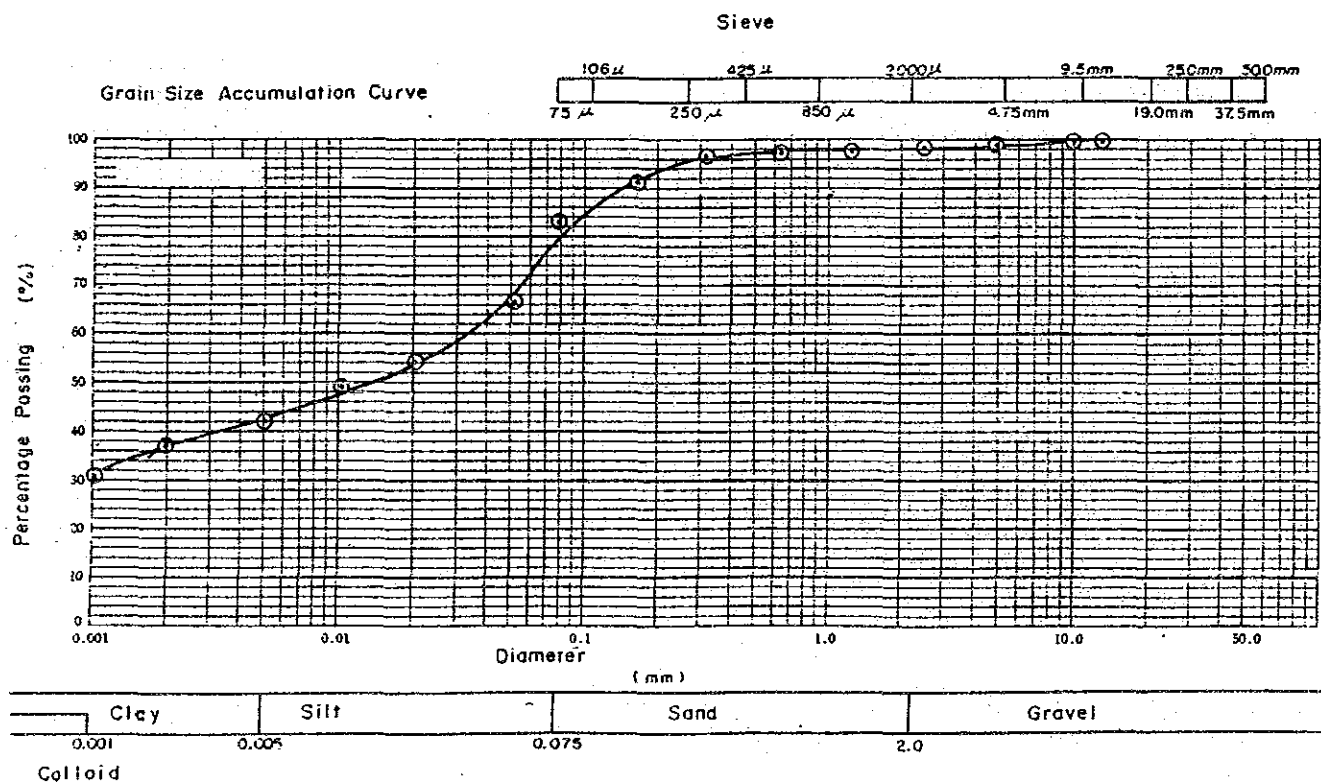
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT PHASE III	DATE	12 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 2 (1.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	99.7	99.1	98.0	97.5	97.0	95.5	87.0	83.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	64.5	55.3	49.4	42.5	40.0	37.5	31.6					



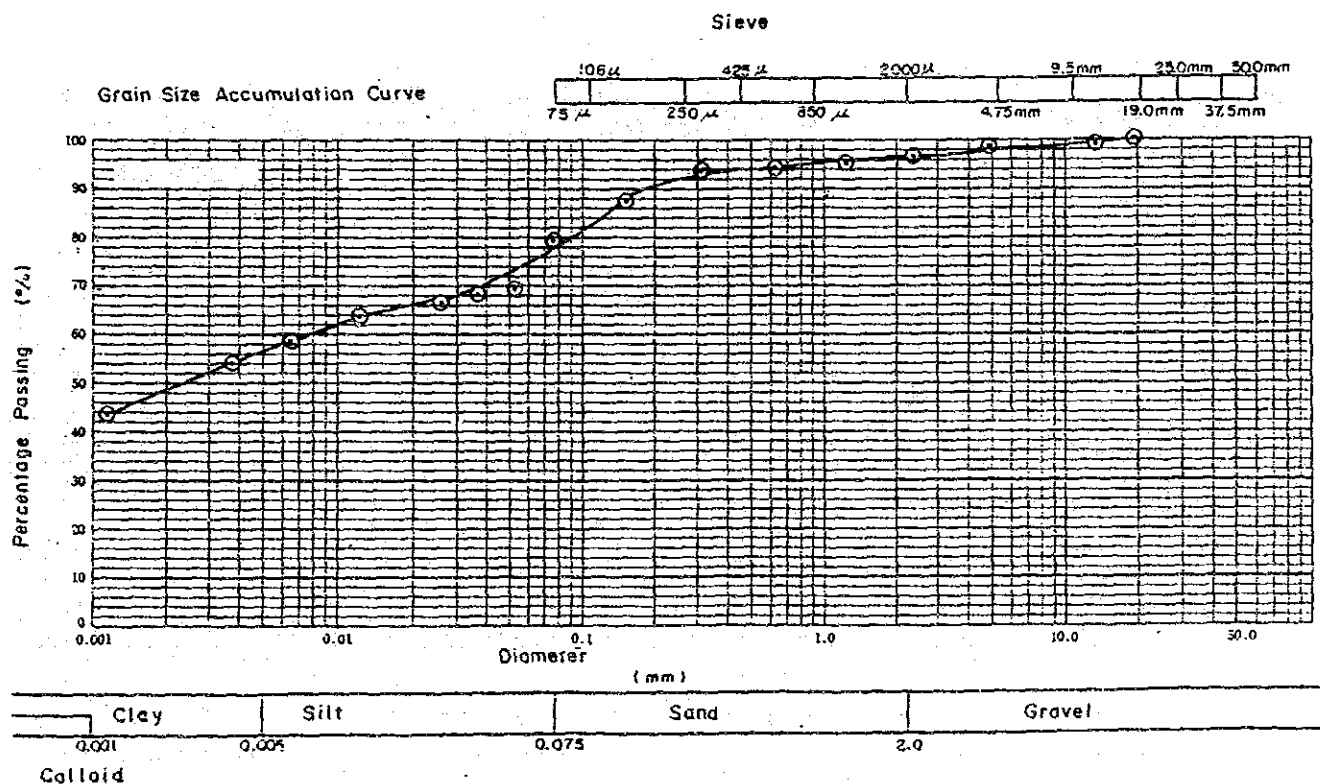
Proportion	4.75mm <	0.9 %	Maximum Diameter	12.5 mm
	4.75~2.00 mm	1.1 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	1.0 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	14.0 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	40.5 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	42.5 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS		FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	30 - 9 - 85
SAMPLE NO. & DEPTH	SP - 2 (2.0 m m)	TESTED BY	DORA

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.84

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	98.5	97.8	96.0	94.5	93.5	92.0	83.0	79.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	72.0	65.0	62.0	55.5	50.5	47.0	42.0					



Proportion	4.75 mm <	2.2 %	Maximum Diameter	19.0 mm
	4.75 ~ 2.00 mm	1.8 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	2.5 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	14.5 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	23.5 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	55.5 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	30 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 2 (3.0 m m)	TESTED BY	DORA	

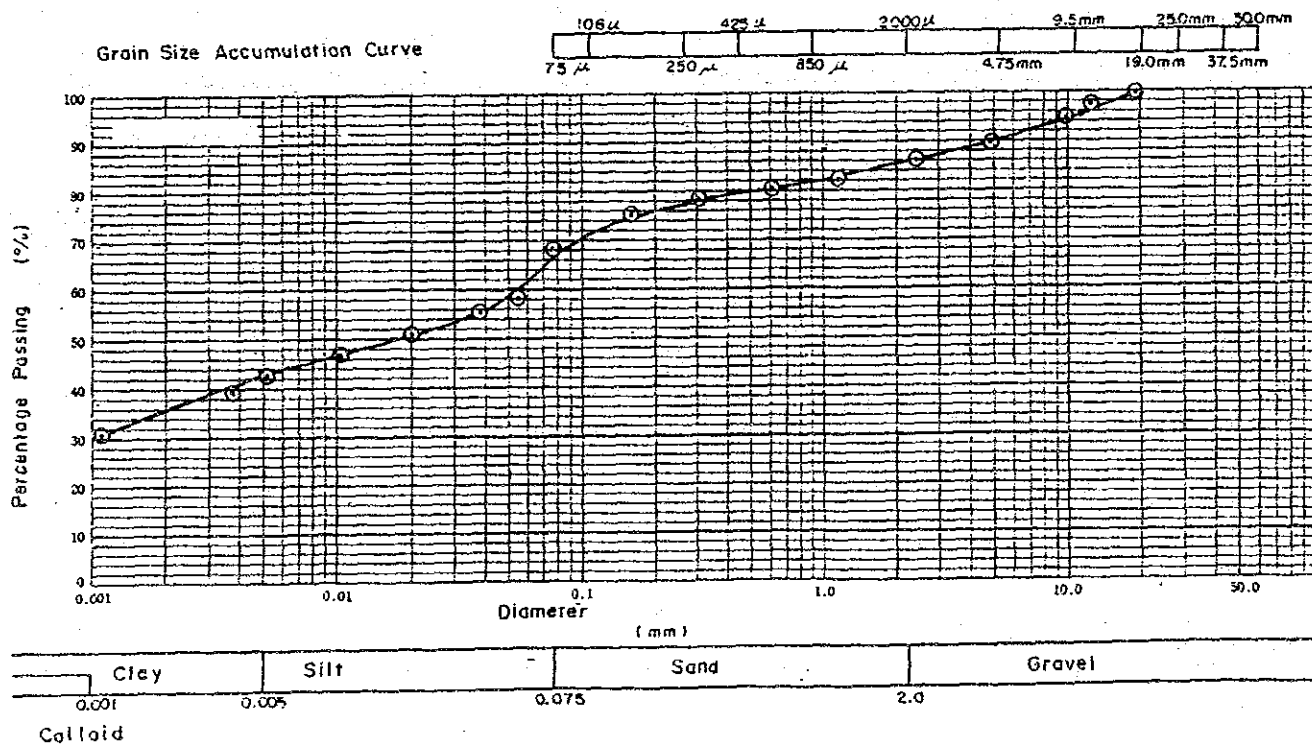
Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.84

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	95.0	90.4	85.0	81.5	79.5	78.0	72.0	67.7
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	60.0	51.0	46.5	41.0	37.5	32.5	30.0					

Sieve



Proportion	4.75 mm <	9.6 %	Maximum Diameter	19.0 mm
	4.75 ~ 2.00 mm	5.4 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	5.5 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	11.8 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	26.7 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	41.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

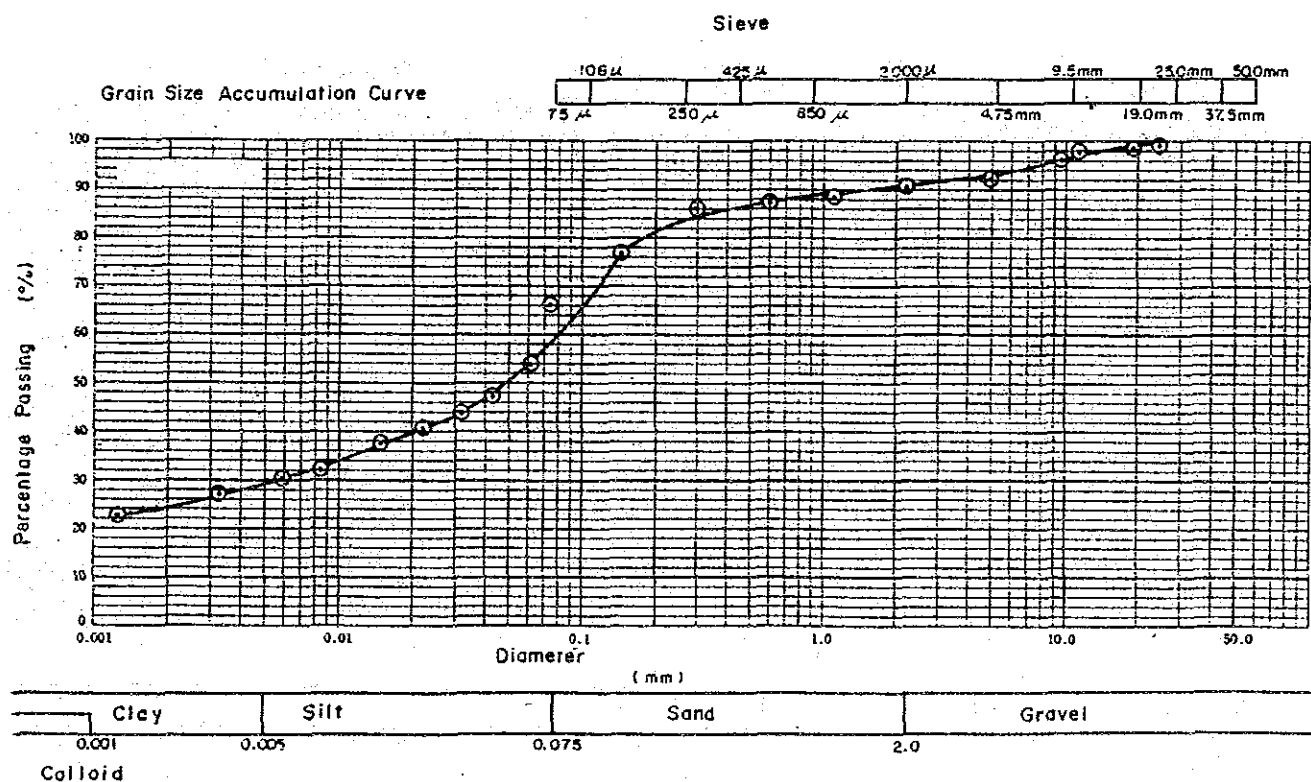
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	18 - 10 - 85	
SAMPLE NO. & DEPTH	SP - 2 Mixed (1.0 m ~ 3.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.83

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	99.2	96.2	92.6	90.0	88.5	86.5	83.5	71.0	62.0
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	50.0	41.0	35.0	30.5	28.0	26.0	22.5					



Proportion	4.75mm <	7.4 %	Maximum Diameter	mm
	4.75 ~ 2.00 mm	2.6 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	3.5 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	24.5 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	31.5 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	30.5 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

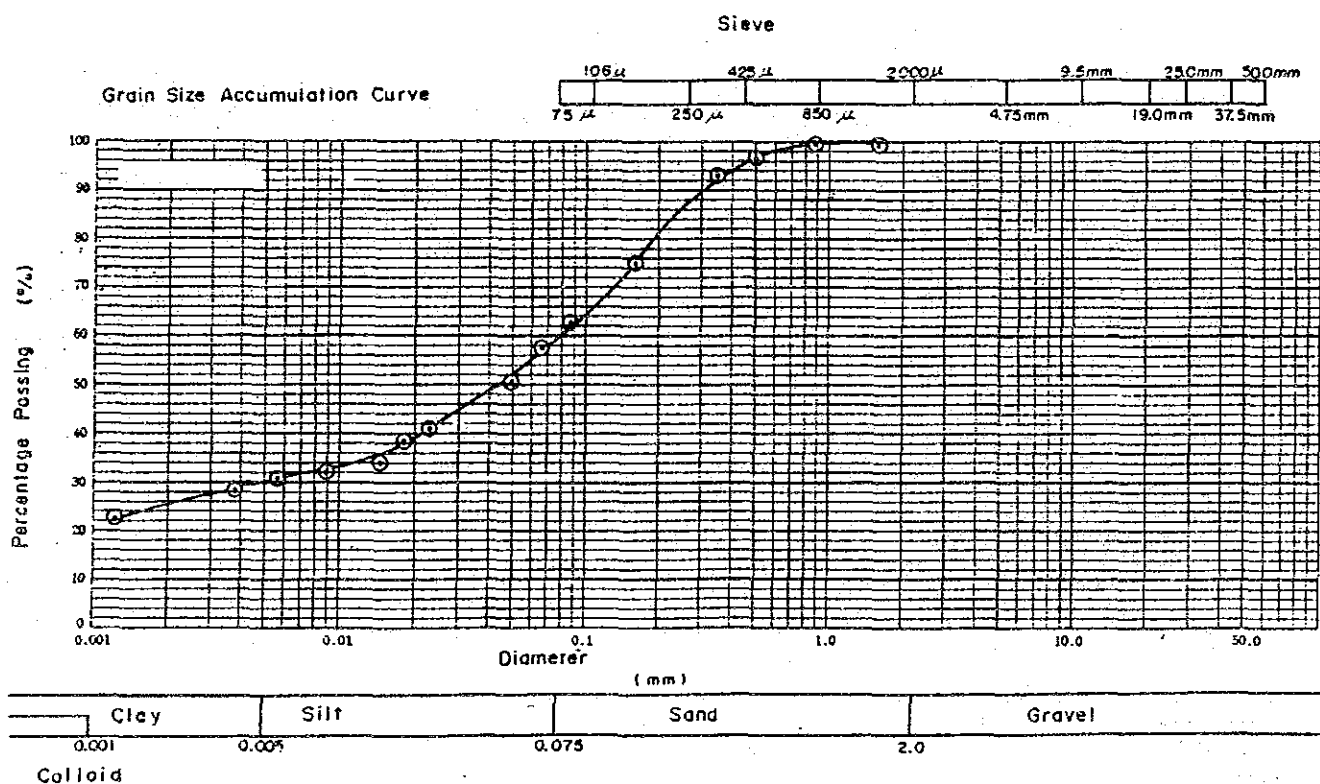
ASTM D422-63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	5-10-85	
SAMPLE NO. & DEPTH	TEMPORARY ROAD (m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.87

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	96.8	90.0	70.0	63.5
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.002	0.001						
	Total passing (%)	55.0	38.5	33.0	30.5	26.0	22.0						



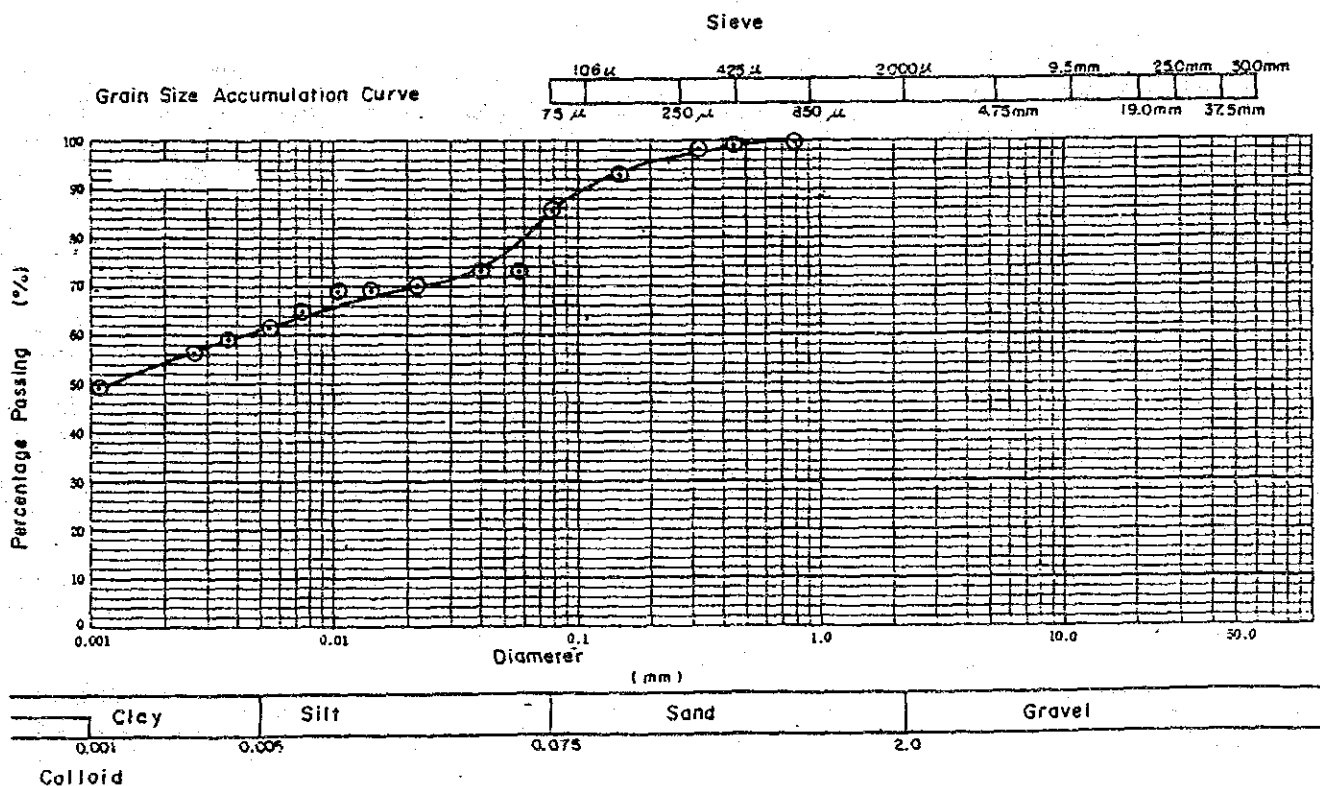
Proportion	4.75mm <	0 %	Maximum Diameter	1.2 mm
	4.75~2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	3.2 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	33.3 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	33.0 %	Coefficient Of Uniformity Cu = D ₆₀ /D ₁₀	
	0.005 mm >	30.5 %	Coefficient Of Curvature Cc = (D ₃₀) ² /D ₆₀ x D ₁₀	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	21 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 8 (1.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.76

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.6	97.0	90.0	85.4
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	77.0	70.0	68.0	61.0	57.5	54.5	49.0					



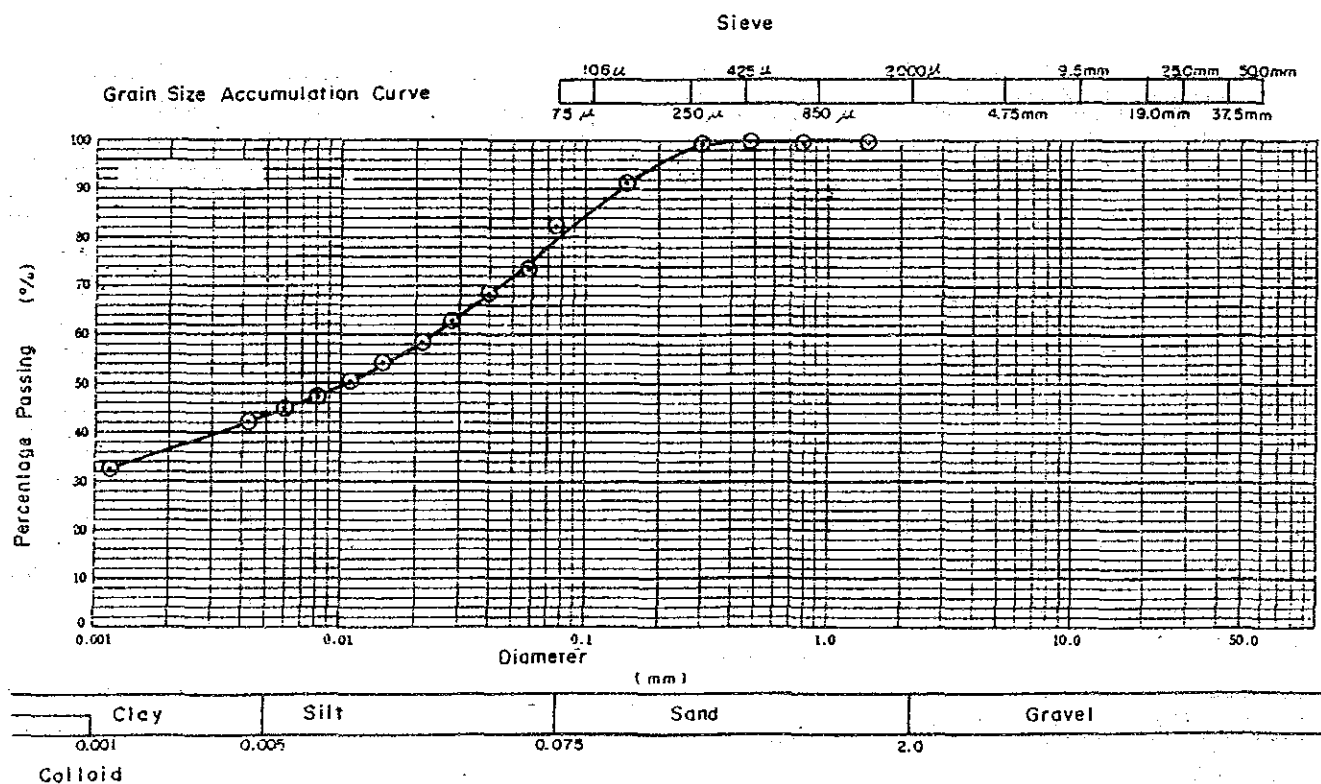
Proportion	4.75 mm <	0 %	Maximum Diameter	0.85 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	1.4 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	13.2 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	24.4 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	61.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	9 - 10 - 85	
SAMPLE NO. & DEPTH	SP - 8 (3.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity
Gs 2.80

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	98.0	88.0	82.9
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	73.0	59.0	50.5	44.5	40.0	37.0	32.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	0.85 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	0.3 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	16.8 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	38.4 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	44.5 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

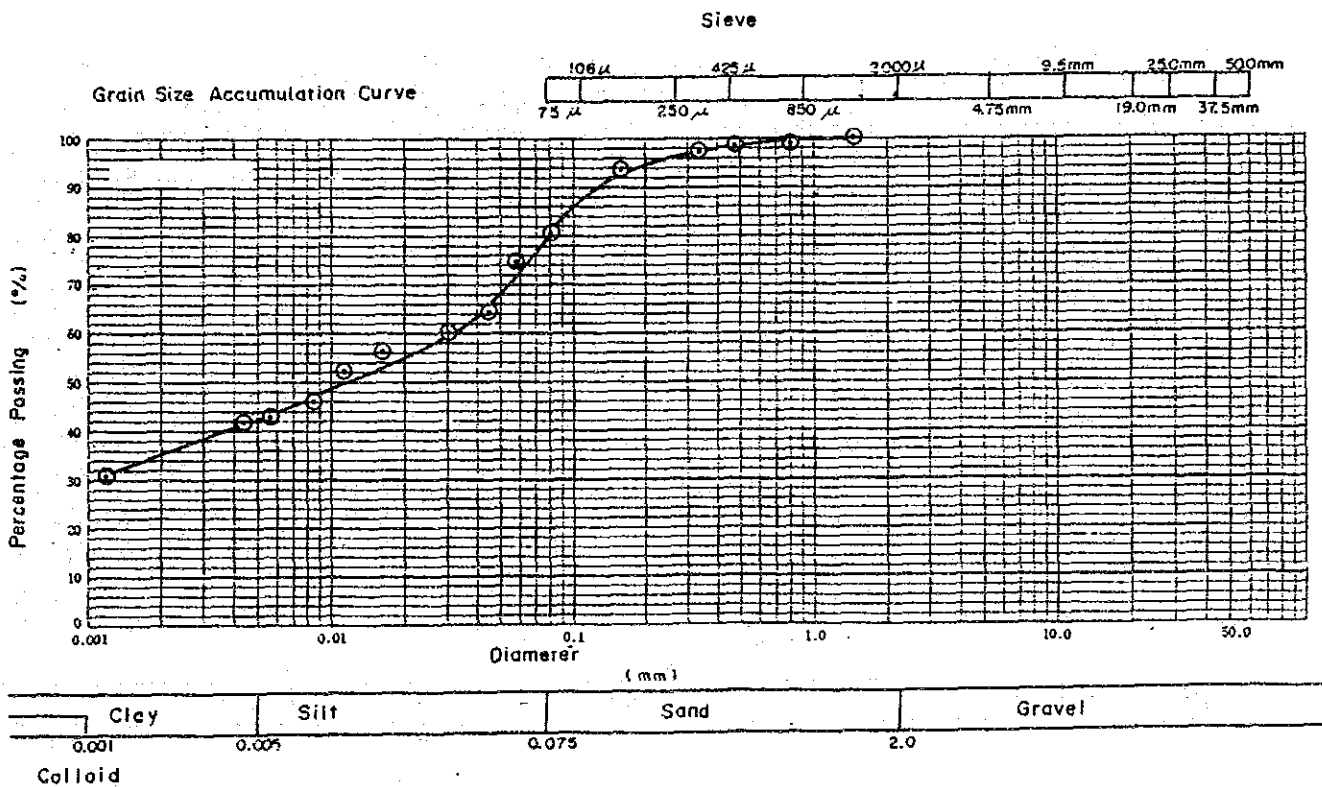
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASL III	DATE	3 - 10 - 85	
SAMPLE NO. & DEPTH	SP - 8 Mixed (2.0 m 5.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.84

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	98.8	96.5	88.0	80.8
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	70.0	59.0	51.0	44.0	39.5	36.5	31.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.2 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	1.2 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	18.0 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	36.8 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	44.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

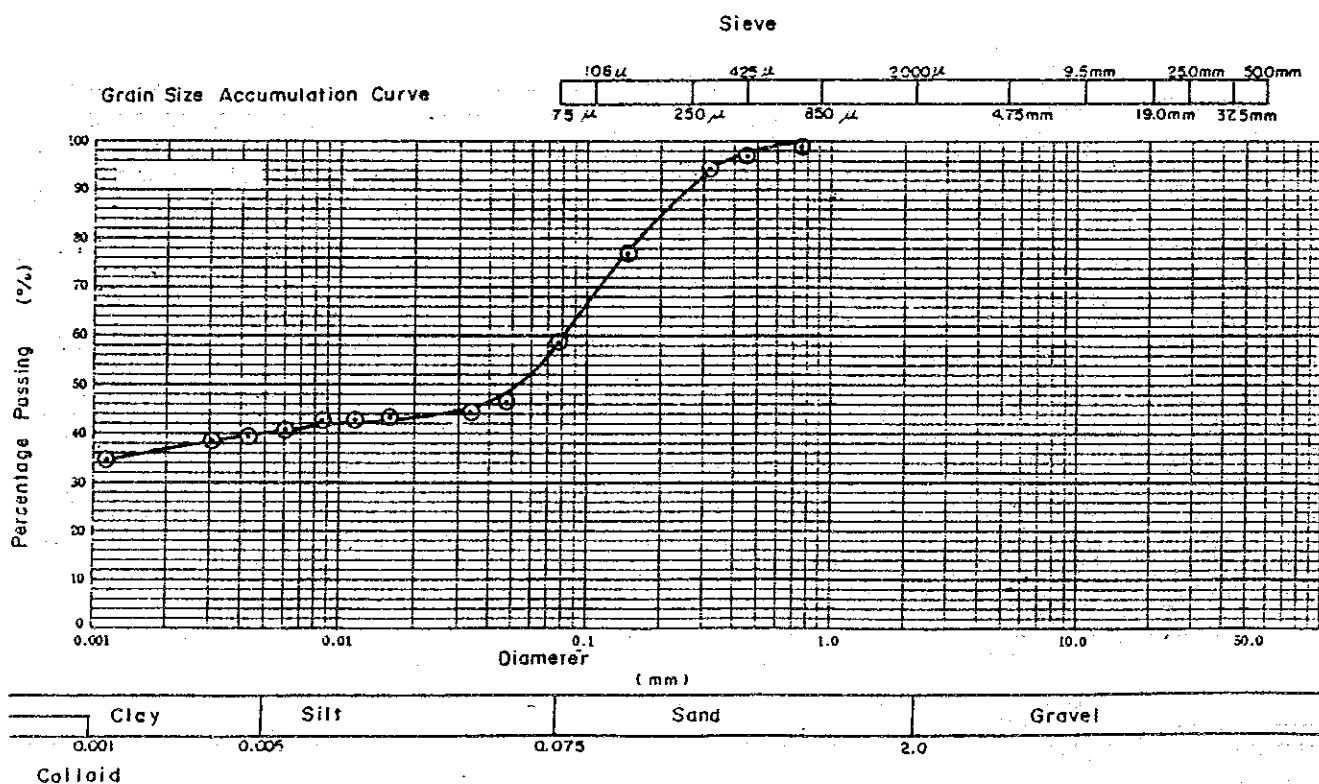
ASTM D 422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT PHASE III	DATE	21 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 9 (1.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	97.3	92.0	68.0	59.3
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	48.0	44.0	42.5	41.0	39.5	36.5	35.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	2.00 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	2.7 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	38.0 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	18.3 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	41.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

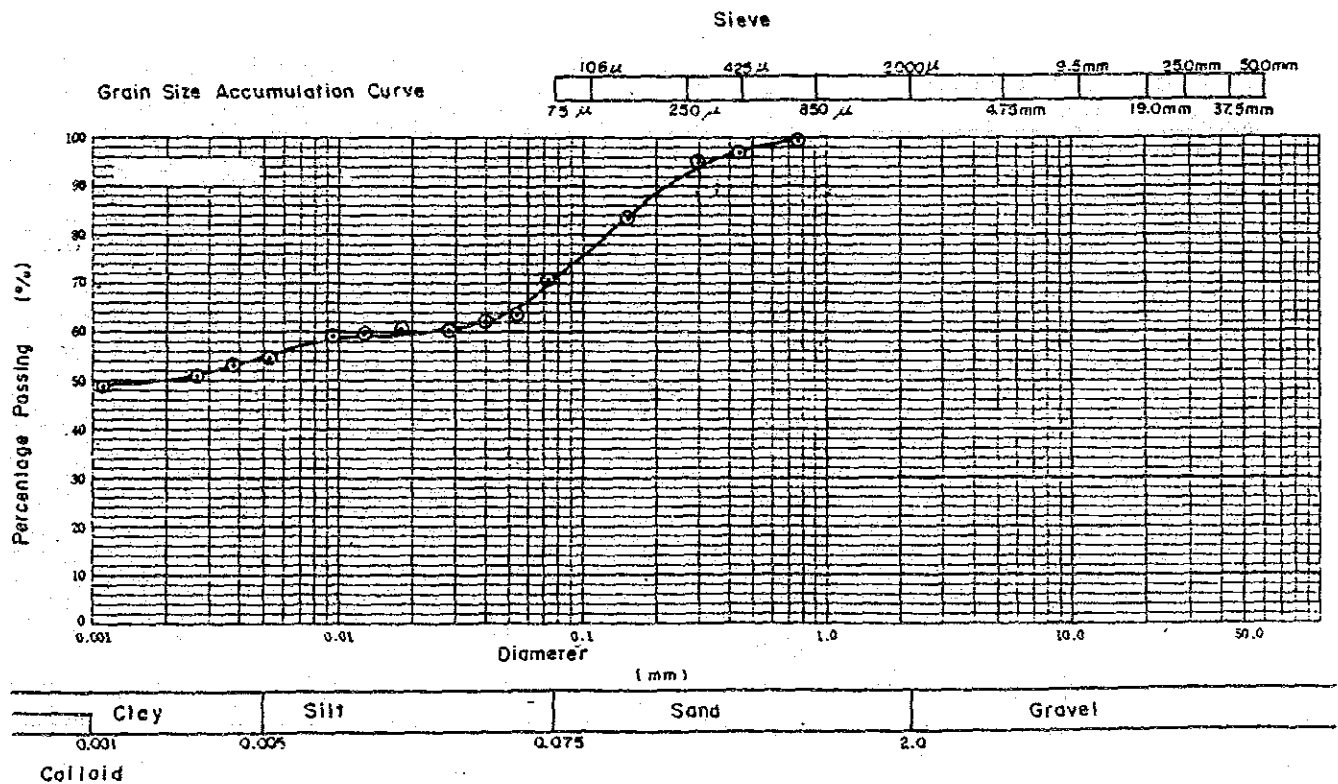
ASTM D422- 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	21 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 9 (4.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	97.5	92.5	78.0	71.7
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	63.0	60.0	59.0	55.0	52.5	51.0	49.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.0 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	2.5 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	25.8 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	16.7 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	55.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	21 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 10 (2.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

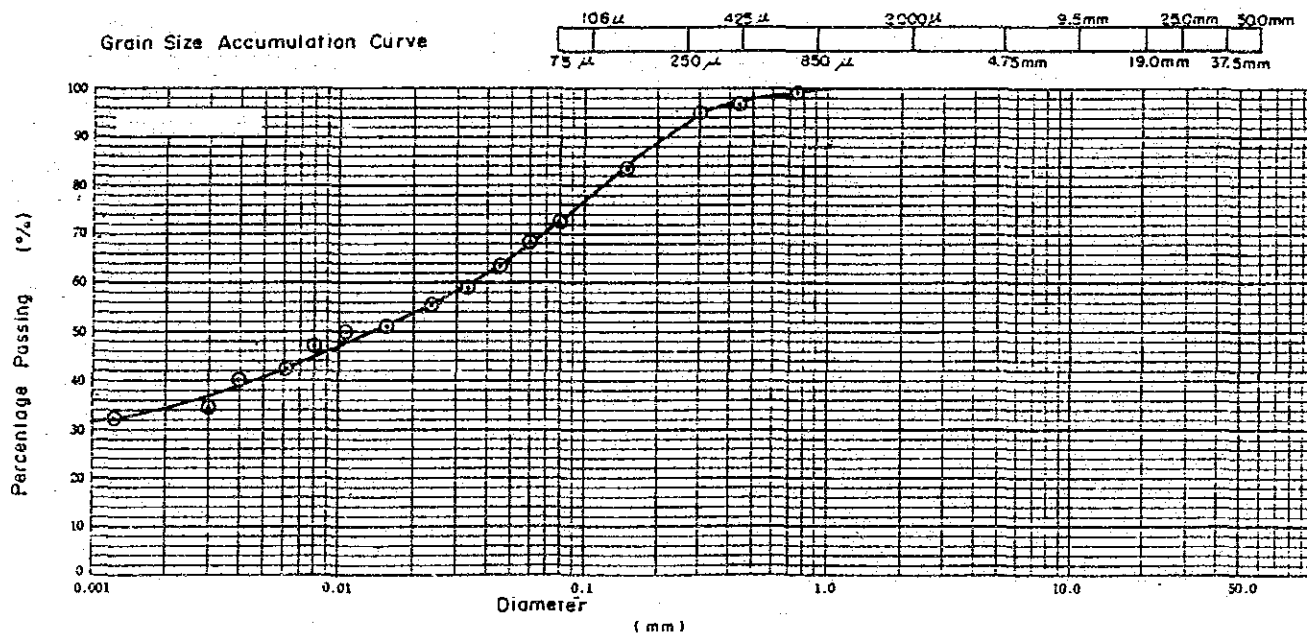
specific Gravity

G_s _____

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	97.2	92.5	79.0	72.2
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	67.0	54.5	49.0	42.0	35.5	33.5	32.5					

Sieve

Grain Size Accumulation Curve



Clay	Silt	Sand	Gravel
0.001	0.005	0.075	2.0
Colloid			

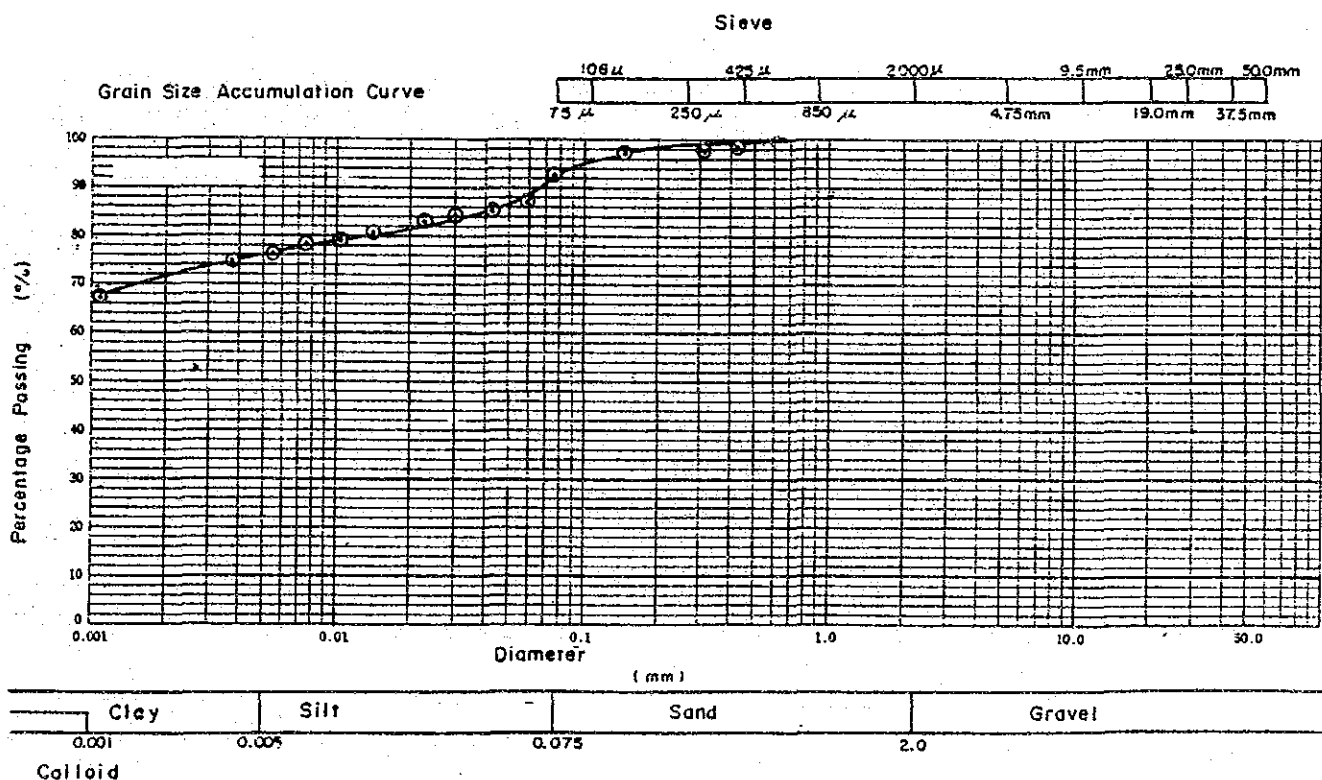
Proportion	4.75mm <	0 %	Maximum Diameter	mm
	4.75~2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00~0.425	2.8 %	30% Diameter (D ₃₀)	mm
	0.425~0.075 mm	25.0 %	10% Diameter (D ₁₀)	mm
	0.075~0.005 mm	30.2 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	42.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

ASTM D422-63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJET , PHASE III	DATE	10 - 9 - 85	
SAMPLE NO. & DEPTH	SP - 10 (4.0 m m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity G_s 2.85

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	98.7	98.0	95.0	92.8
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	86.5	82.0	79.0	75.5	73.0	71.0	67.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.0 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D_{60})	mm
	2.00 ~ 0.425	1.3 %	30% Diameter (D_{30})	mm
	0.425 ~ 0.075 mm	5.9 %	10% Diameter (D_{10})	mm
	0.075 ~ 0.005 mm	17.3 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	75.5 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	

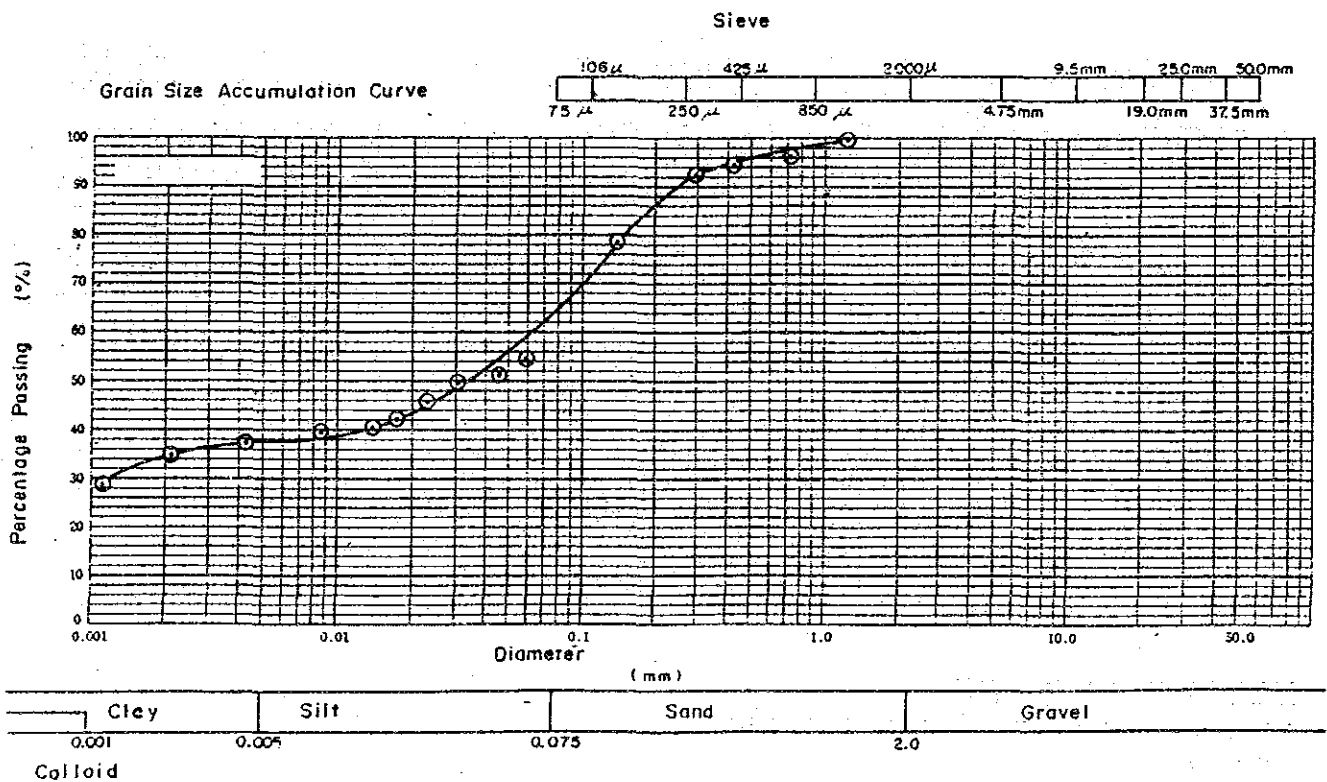
ASTM D422 - 63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT , PHASE III	DATE	3 - 10 - 85	
SAMPLE NO. & DEPTH	SP - 10 Mixed - I (1.0 m 2.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.86

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	95.1	90.0	74.0	70.9
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	60.5	43.0	38.5	38.0	36.5	33.5	28.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.2 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	4.9 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	24.2 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	32.9 %	Coefficient Of Uniformity Cu = D ₆₀ / D ₁₀	
	0.005 mm >	38.0 %	Coefficient Of Curvature Cc = (D ₃₀) ² / D ₆₀ x D ₁₀	

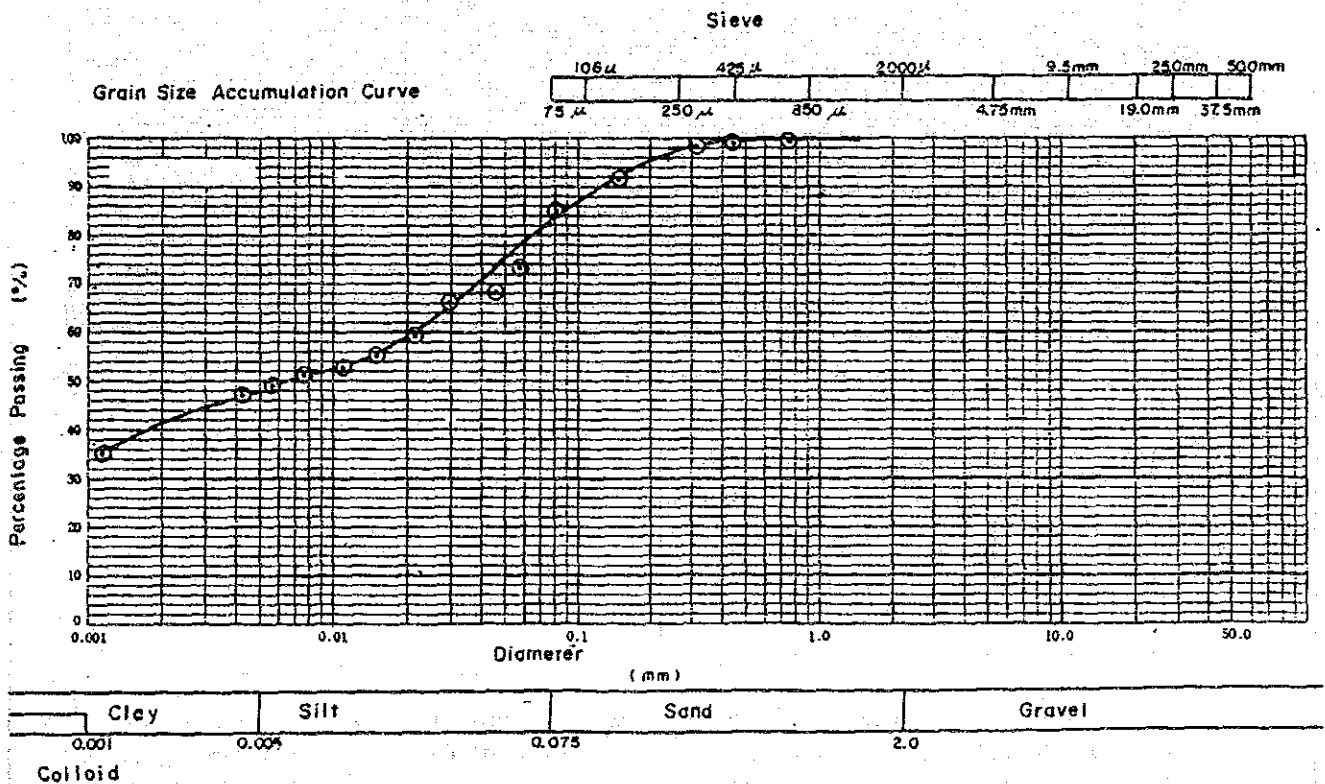
ASTM D422-63	GRADATION ANALYSIS			FOR REPORTING
NAME OF PROJECT	TENOM PANGI PROJECT, PHASE III	DATE	3-10-85	
SAMPLE NO. & DEPTH	SP-10 Mixed-2 (3.0 m ~ 5.0 m)	TESTED BY	DORA	

Particle Size & Weight Percentage of Particles under the Size

specific Gravity

G_s 2.87

Sieve	Grain Size (mm)	50.0	37.5	25.0	19.0	9.50	4.75	2.00	0.85	0.425	0.25	0.106	0.075
	Total Passing (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	99.2	97.0	88.5	84.4
Hydrometer	Grain Size (mm)	0.05	0.02	0.01	0.005	0.003	0.002	0.001					
	Total passing (%)	72.0	59.0	52.5	48.0	43.0	40.0	34.0					



Proportion	4.75 mm <	0 %	Maximum Diameter	1.2 mm
	4.75 ~ 2.00 mm	0 %	60% Diameter (D ₆₀)	mm
	2.00 ~ 0.425	0.8 %	30% Diameter (D ₃₀)	mm
	0.425 ~ 0.075 mm	14.8 %	10% Diameter (D ₁₀)	mm
	0.075 ~ 0.005 mm	36.4 %	Coefficient Of Uniformity $C_u = D_{60} / D_{10}$	
	0.005 mm >	48.0 %	Coefficient Of Curvature $C_c = (D_{30})^2 / D_{60} \times D_{10}$	