Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

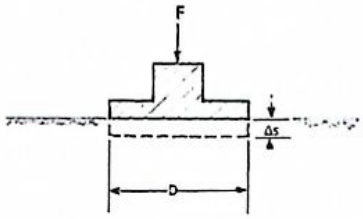
Company Name	AL ANOD		
Location	525+920	To	526+000
Taste Date	20-07-2023		
Layer level	**P.S.G +0.50**		

Station	525+950

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

s = settlement

D = diameter of the plate

The diameter *D* of the plate is generally 0.30 m. For very coarse grained material also plates with diameter *D* = 0.60 m and *D* = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett . 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.95	19.96		0.050	0.040		0.045
2.000	17.1	5.652	0.08	19.85	19.84		0.150	0.160		0.155
0.080	34.2	11.304	0.16	19.72	19.70		0.280	0.300		0.290
4.000	53.3	17.663	0.25	19.50	19.59		0.500	0.410		0.455
5.000	70.5	23.315	0.33	19.25	19.48		0.750	0.520		0.635
6.000	89.8	29.673	0.42	19.02	19.36		0.980	0.640		0.810
7.000	106.8	35.325	0.50	18.84	19.29		1.160	0.710		0.935
8.000	53.4	17.663	0.25	18.89	19.31		1.110	0.690		0.900
9.000	26.7	8.831	0.12	19.01	19.40		0.990	0.600		0.795
9.000	2.1	0.707	0.01	19.31	19.60		0.690	0.400		0.545
10.000	2.1	0.707	0.01	19.31	19.60		0.690	0.400		0.545
11.000	17.1	5.652	0.08	19.28	19.55		0.720	0.450		0.585
12.000	34.2	11.304	0.16	19.12	19.46		0.880	0.540		0.710
13.000	53.3	17.663	0.25	19.00	19.40		1.000	0.600		0.800
14.000	70.5	23.315	0.33	18.94	19.35		1.060	0.650		0.855
15.000	89.8	29.673	0.42	18.85	19.30		1.150	0.700		0.925

		s	ΔS	Δσ
0.7 σ_1	0.35	0.70063	0.4275	0.2
0.3 σ_1	0.15	0.27313		
0.7σ_2	0.35	0.87056	0.24555	0.2
0.3σ_2	0.15	0.625		
D (mm)	300			
Ev_1	105.26			
Ev_2	183.26			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.74		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

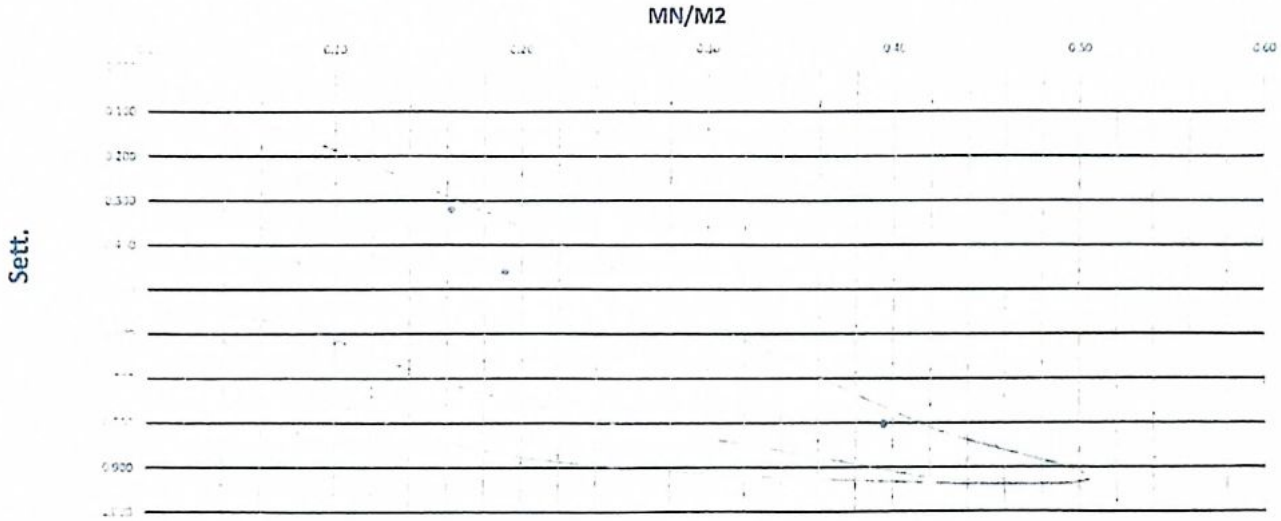
E_v = deformation modulus

Ds = load increment

Ds = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 25/7/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

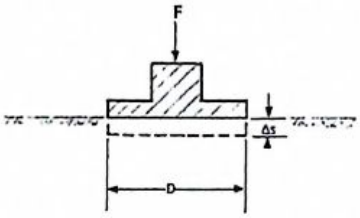
Company Name	AL ANOD			
Location	525+920	To	526+000	
Taste Date	20-07-2023			
Layer level	**P.S.G +0.50**			

Station	525+975

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter *D* of the plate is generally 0.30 m. For very coarse grained material also plates with diameter *D* = 0.60 m and *D* = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading	Load	Load	Stress	Dial 1	Dial 2	Dial 3	Sett. 1	Sett. 2	Sett . 3	Avg. Sett.
Stage No.	Bar	KN	MN/M2	mm	mm	mm	mm	mm	mm	mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.90	19 85		0.100	0.150		0.125
2.000	17.1	5.652	0.08	19.62	19.56		0.380	0.440		0.410
0.080	34.2	11.304	0.16	19.55	19.20		0.450	0.800		0.625
4.000	53.3	17.663	0.25	19.44	18.95		0.560	1.050		0.805
5.000	70.5	23.315	0.33	19.34	18.75		0.660	1.250		0.955
6.000	89.8	29.673	0.42	19.29	18.52		0.710	1.480		1.095
7.000	106.8	35.325	0.50	19.20	18.35		0.800	1.650		1.225
8.000	53.4	17.663	0.25	19.25	18.40		0.750	1.600		1.175
9.000	26.7	8.831	0.12	19.30	18.48		0.700	1.520		1.110
9.000	2.1	0.707	0.01	19.35	18.64		0.650	1.360		1.005
10.000	2.1	0.707	0.01	19.35	18.64		0.650	1.360		1.005
11.000	17.1	5.652	0.08	19.32	18.62		0.680	1.380		1.030
12.000	34.2	11.304	0.16	19.28	18.52		0.720	1.480		1.100
13.000	53.3	17.663	0.25	19.24	18.45		0.760	1.550		1.155
14.000	70.5	23.315	0.33	19.22	18.41		0.780	1.590		1.185
15.000	89.8	29.673	0.42	19.19	18.38		0.810	1.620		1.215

		s	ΔS	Δσ
0.7 σ_1	0.35	0.98125	0.38313	0.2
0.3 σ_1	0.15	0.59813		
0.7σ_2	0.35	1.19167	0.13666	0.2
0.3σ_2	0.15	1.055		
D (mm)	300			
Ev_1	117.46			
Ev_2	329.27			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.80		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

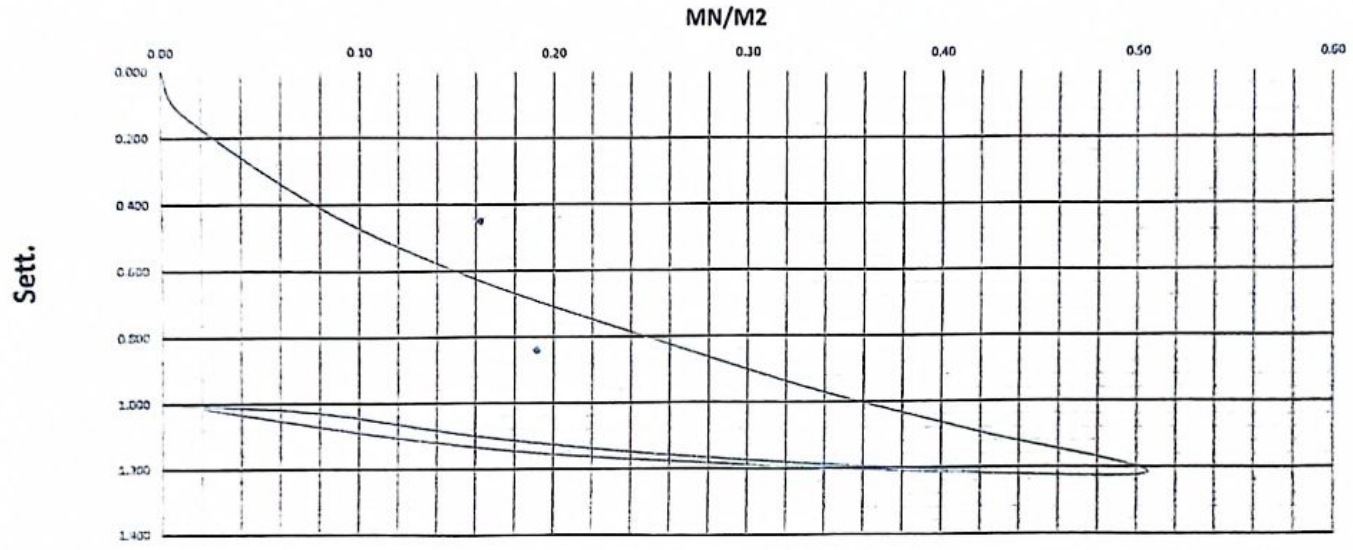
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 26 / 7 / 2023

Owner Consultant | Contractor Consultant | Contractor | Owner

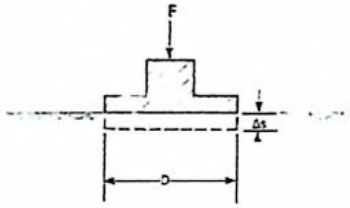
Plate Load Test Results

Company Name	AL ANOD			
Location	525+920	To	526+000	Station 525+915
Taste Date	20-07-2023			
Layer level	**P.S.G +0.50**			

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

s = settlement

D = diameter of the plate

The diameter *D* of the plate is generally 0.30 m. For very coarse grained material also plates with diameter *D* = 0.60 m and *D* = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading Stage No.	Load Bar	Load KN	Stress MN/M2	Dial 1 mm	Dial 2 mm	Dial 3 mm	Sett. 1 mm	Sett. 2 mm	Sett. 3 mm	Avg. Sett. mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.94	19.94		0.060	0.060		0.060
2.000	17.1	5.652	0.08	19.84	19.83		0.160	0.170		0.165
0.080	34.2	11.304	0.16	19.70	19.67		0.300	0.330		0.315
4.000	53.3	17.663	0.25	19.48	19.58		0.520	0.420		0.470
5.000	70.5	23.315	0.33	19.23	19.47		0.770	0.530		0.650
6.000	89.8	29.673	0.42	19.00	19.35		1.000	0.650		0.825
7.000	106.8	35.325	0.50	18.83	19.27		1.170	0.730		0.950
8.000	53.4	17.663	0.25	18.90	19.32		1.100	0.680		0.890
9.000	26.7	8.831	0.12	19.01	19.41		0.990	0.590		0.790
9.000	2.1	0.707	0.01	19.32	19.62		0.680	0.380		0.530
10.000	2.1	0.707	0.01	19.32	19.62		0.680	0.380		0.530
11.000	17.1	5.652	0.08	19.27	19.54		0.730	0.460		0.595
12.000	34.2	11.304	0.16	19.13	19.47		0.870	0.530		0.700
13.000	53.3	17.663	0.25	19.02	19.40		0.980	0.600		0.790
14.000	70.5	23.315	0.33	18.94	19.36		1.060	0.640		0.850
15.000	89.8	29.673	0.42	18.85	19.32		1.150	0.680		0.915

		s	ΔS	Δσ
0.7 σ_1	0.35	0.71562	0.41937	0.2
0.3 σ_1	0.15	0.29625		
0.7σ_2	0.35	0.86444	0.20444	0.2
0.3σ_2	0.15	0.66001		
D (mm)	300			
Ev_1	107.30			
Ev_2	220.12			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.05		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

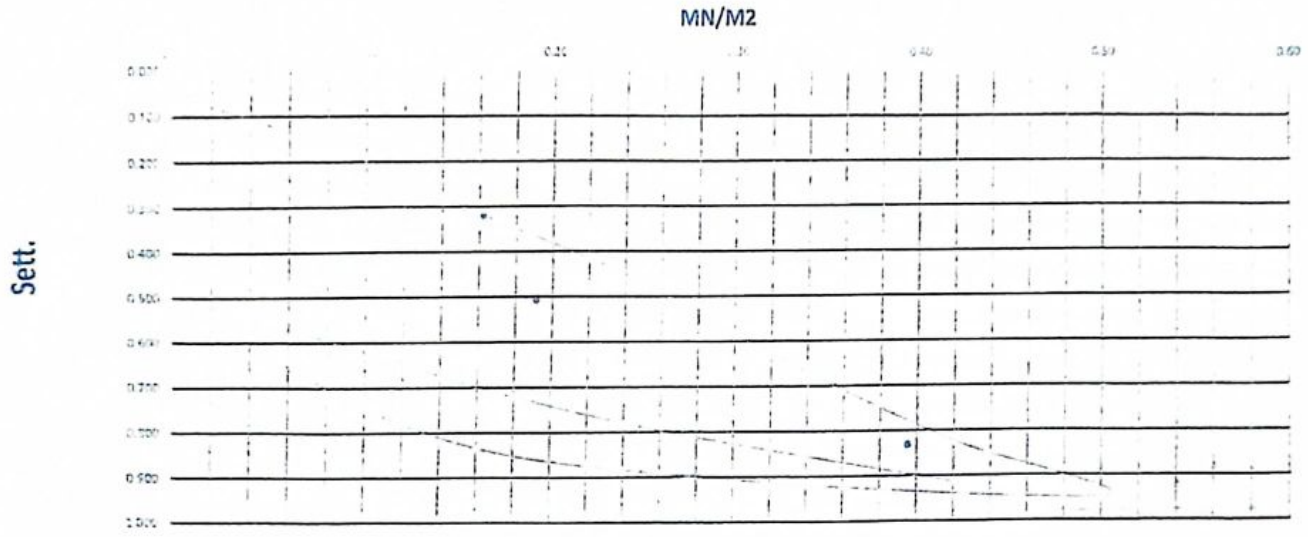
E_v = deformation modulus

ΔS = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign :

Owner Consultant | Contractor Consultant | Contarctor | Owner

Plate Load Test Results

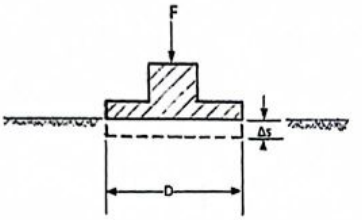
Company Name	AL ANOD		
Location	525+920	To	526+000
Taste Date	13-08-2023		
Layer level	**sub ballast +0.90**		

Station	525+935

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter D = 0.60 m and D = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading	Load	Load	Stress	Dial 1	Dial 2	Dial 3	Sett. 1	Sett. 2	Sett. 3	Avg. Sett.
Stage No.	Bar	KN	MN/M2	mm	mm	mm	mm	mm	mm	mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.95	19.65		0.050	0.350		0.200
2.000	17.1	5.652	0.08	19.70	19.30		0.300	0.700		0.500
0.080	34.2	11.304	0.16	19.55	19.09		0.450	0.910		0.680
4.000	53.3	17.663	0.25	19.41	18.92		0.590	1.080		0.835
5.000	70.5	23.315	0.33	19.31	18.78		0.690	1.220		0.955
6.000	89.8	29.673	0.42	19.20	18.60		0.800	1.400		1.100
7.000	106.8	35.325	0.50	19.10	18.50		0.900	1.500		1.200
8.000	53.4	17.663	0.25	19.19	18.60		0.810	1.400		1.105
9.000	26.7	8.831	0.12	19.25	18.66		0.750	1.340		1.045
9.000	2.1	0.707	0.01	19.35	18.82		0.650	1.180		0.915
10.000	2.1	0.707	0.01	19.35	18.82		0.650	1.180		0.915
11.000	17.1	5.652	0.08	19.31	18.77		0.690	1.230		0.960
12.000	34.2	11.304	0.16	19.25	18.66		0.750	1.340		1.045
13.000	53.3	17.663	0.25	19.21	18.61		0.790	1.390		1.090
14.000	70.5	23.315	0.33	19.17	18.57		0.830	1.430		1.130
15.000	89.8	29.673	0.42	19.10	18.50		0.900	1.500		1.200

		s	ΔS	Δσ
0.7 σ_1	0.35	1.0125	0.355	0.2
0.3 σ_1	0.15	0.6575		
0.7σ_2	0.35	1.14556	0.14055	0.2
0.3σ_2	0.15	1.005		
D (mm)	300			
Ev_1	126.76			
Ev_2	320.17			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.53		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

E_v = deformation modulus

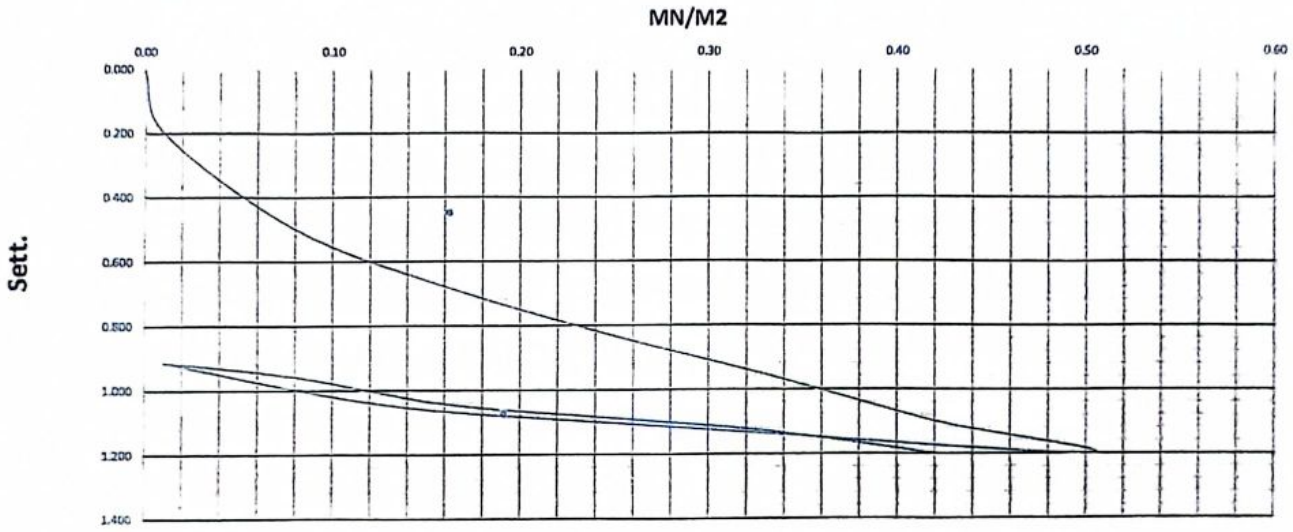
$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

plate is generally 0.30 m. For ...

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Ahmed Haleem	Name : Hassan
Sign :	Sign :	Sign : 16/8/2023

Owner Consultant | Contractor Consultant | Contarctor | Owner

Plate Load Test Results

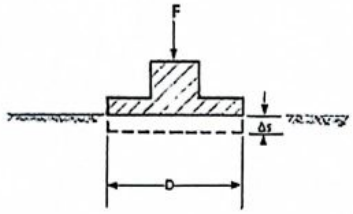
Company Name	AL ANOD		
Location	525+920	To	526+000
Taste Date	13-08-2023		
Layer level	**sub ballast +0.90**		

Station	525+955

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter D = 0.60 m and D = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading	Load	Load	Stress	Dial 1	Dial 2	Dial 3	Sett. 1	Sett. 2	Sett . 3	Avg. Sett.
Stage No.	Bar	KN	MN/M2	mm	mm	mm	mm	mm	mm	mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.99	19.96		0.010	0.040		0.025
2.000	17.1	5.652	0.08	19.84	19.82		0.160	0.180		0.170
0.080	34.2	11.304	0.16	19.80	19.65		0.200	0.350		0.275
4.000	53.3	17.663	0.25	19.76	19.44		0.240	0.560		0.400
5.000	70.5	23.315	0.33	19.66	19.20		0.340	0.800		0.570
6.000	89.8	29.673	0.42	19.60	19.02		0.400	0.980		0.690
7.000	106.8	35.325	0.50	19.55	18.80		0.450	1.200		0.825
8.000	53.4	17.663	0.25	19.60	18.93		0.400	1.070		0.735
9.000	26.7	8.831	0.12	19.80	19.05		0.200	0.950		0.575
9.000	2.1	0.707	0.01	19.89	19.33		0.110	0.670		0.390
10.000	2.1	0.707	0.01	19.89	19.33		0.110	0.670		0.390
11.000	17.1	5.652	0.08	19.86	19.23		0.140	0.770		0.455
12.000	34.2	11.304	0.16	19.80	19.12		0.200	0.880		0.540
13.000	53.3	17.663	0.25	19.76	19.01		0.240	0.990		0.615
14.000	70.5	23.315	0.33	19.71	18.95		0.290	1.050		0.670
15.000	89.8	29.673	0.42	19.60	18.90		0.400	1.100		0.750

		s	ΔS	Δσ
0.7 σ_1	0.35	0.57188	0.31	0.2
0.3 σ_1	0.15	0.26188		
0.7σ_2	0.35	0.68778	0.16777	0.2
0.3σ_2	0.15	0.52001		
D (mm)	300			
Ev_1	145.16			
Ev_2	268.22			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.85		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

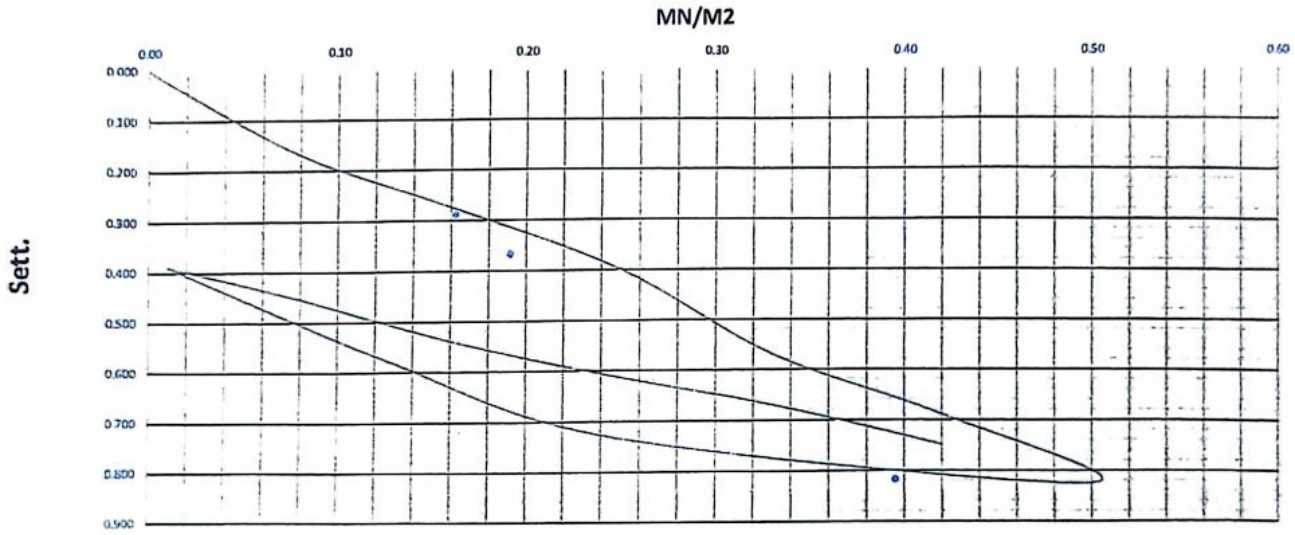
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Ahmed Haleem	Name : Hassan
Sign :	Sign :	Sign : 16/8/2023

Owner Consultant | Contractor Consultant | Contarctor | Owner

Plate Load Test Results

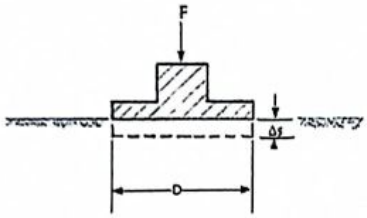
Company Name	AL ANOD		
Location	525+920	To	526+000
Taste Date	13-08-2023		
Layer level	**sub ballast +0.90**		

Station	525+970

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

ds = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter D = 0.60 m and D = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading	Load	Load	Stress	Dial 1	Dial 2	Dial 3	Sett. 1	Sett. 2	Sett . 3	Avg. Sett.
Stage No.	Bar	KN	MN/M2	mm	mm	mm	mm	mm	mm	mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.84	19.90		0.160	0.100		0.130
2.000	17.1	5.652	0.08	19.50	19.79		0.500	0.210		0.355
0.080	34.2	11.304	0.16	19.20	19.59		0.800	0.410		0.605
4.000	53.3	17.663	0.25	19.07	19.41		0.930	0.590		0.760
5.000	70.5	23.315	0.33	18.85	19.24		1.150	0.760		0.955
6.000	89.8	29.673	0.42	18.68	19.18		1.320	0.820		1.070
7.000	106.8	35.325	0.50	18.55	19.00		1.450	1.000		1.225
8.000	53.4	17.663	0.25	18.60	19.03		1.400	0.970		1.185
9.000	26.7	8.831	0.12	18.70	19.08		1.300	0.920		1.110
9.000	2.1	0.707	0.01	18.85	19.14		1.150	0.860		1.005
10.000	2.1	0.707	0.01	18.85	19.14		1.150	0.860		1.005
11.000	17.1	5.652	0.08	18.83	19.13		1.170	0.870		1.020
12.000	34.2	11.304	0.16	18.78	19.09		1.220	0.910		1.065
13.000	53.3	17.663	0.25	18.70	19.07		1.300	0.930		1.115
14.000	70.5	23.315	0.33	18.64	19.05		1.360	0.950		1.155
15.000	89.8	29.673	0.42	18.60	18.95		1.400	1.050		1.225

		s	ΔS	Δσ
0.7 σ_1	0.35	0.93438	0.36063	0.2
0.3 σ_1	0.15	0.57375		
0.7σ_2	0.35	1.17056	0.13555	0.2
0.3σ_2	0.15	1.035		
D (mm)	300			
Ev_1	124.78			
Ev_2	331.97			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.66		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

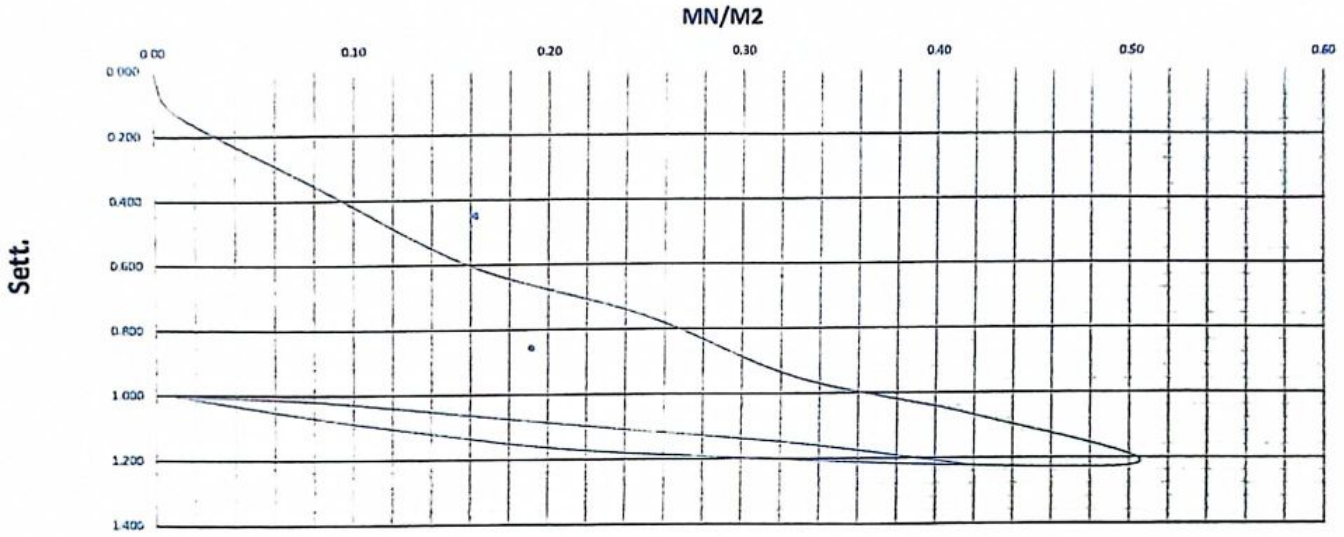
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Ahmed Haleem	Name : Hassan
Sign :	Sign :	Sign : 16/8/2023

Plate Load Test Results

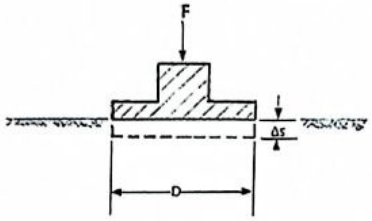
Company Name	AL ANOD		
Location	525+920	To	526+000
Taste Date	13-08-2023		
Layer level	**sub ballast +0.90**		

Station	525+995

EQUIPMENT AND TEST PROCEDURE : -

The basis of the given equation is Boussinesq's theory of the relationship between the modulus of elasticity and the settlement of a circular rigid plate with the diameter D.

The load is applied to a circular rigid steel bearing plate by a hydraulic jack in several steps. The settlement under each load step is recorded. The following sketch shows the principle of the test.



F = load

Δs = settlement

D = diameter of the plate

The diameter D of the plate is generally 0.30 m. For very coarse grained material also plates with diameter D = 0.60 m and D = 0.762 m are used

The load is applied in 6 load increments of equal size. Under each load step the settlement must come to a noticeable end (< 0.02 mm/minute). After the maximum load is reached the unloading procedure can begin. After that, the plate is reloaded in 5 steps. A loaded truck, an excavator or a roller usually serve as counterweight for the hydraulic jack

Diameter = 300mm

Loading	Load	Load	Stress	Dial 1	Dial 2	Dial 3	Sett. 1	Sett. 2	Sett . 3	Avg. Sett.
Stage No.	Bar	KN	MN/M2	mm	mm	mm	mm	mm	mm	mm
0.000	0.0	0.000	0.00	20.00	20.00		0.000	0.000		0.000
1.000	2.1	0.707	0.01	19.97	19.95		0.030	0.050		0.040
2.000	17.1	5.652	0.08	19.87	19.80		0.130	0.200		0.165
0.080	34.2	11.304	0.16	19.83	19.63		0.170	0.370		0.270
4.000	53.3	17.663	0.25	19.79	19.43		0.210	0.570		0.390
5.000	70.5	23.315	0.33	19.70	19.18		0.300	0.820		0.560
6.000	89.8	29.673	0.42	19.63	19.00		0.370	1.000		0.685
7.000	106.8	35.325	0.50	19.58	18.82		0.420	1.180		0.800
8.000	53.4	17.663	0.25	19.65	18.92		0.350	1.080		0.715
9.000	26.7	8.831	0.12	19.79	19.03		0.210	0.970		0.590
9.000	2.1	0.707	0.01	19.87	19.31		0.130	0.690		0.410
10.000	2.1	0.707	0.01	19.87	19.31		0.130	0.690		0.410
11.000	17.1	5.652	0.08	19.85	19.21		0.150	0.790		0.470
12.000	34.2	11.304	0.16	19.79	19.11		0.210	0.890		0.550
13.000	53.3	17.663	0.25	19.75	19.00		0.250	1.000		0.625
14.000	70.5	23.315	0.33	19.69	18.95		0.310	1.050		0.680
15.000	89.8	29.673	0.42	19.63	18.89		0.370	1.110		0.740

		s	ΔS	Δσ
0.7 σ_1	0.35	0.58438	0.3275	0.2
0.3 σ_1	0.15	0.25688		
0.7σ_2	0.35	0.69333	0.16333	0.2
0.3σ_2	0.15	0.53001		
D (mm)	300			
Ev_1	137.40			
Ev_2	275.52			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.01		

$$E_v = 0.75 \cdot D \cdot \Delta\sigma / \Delta s$$

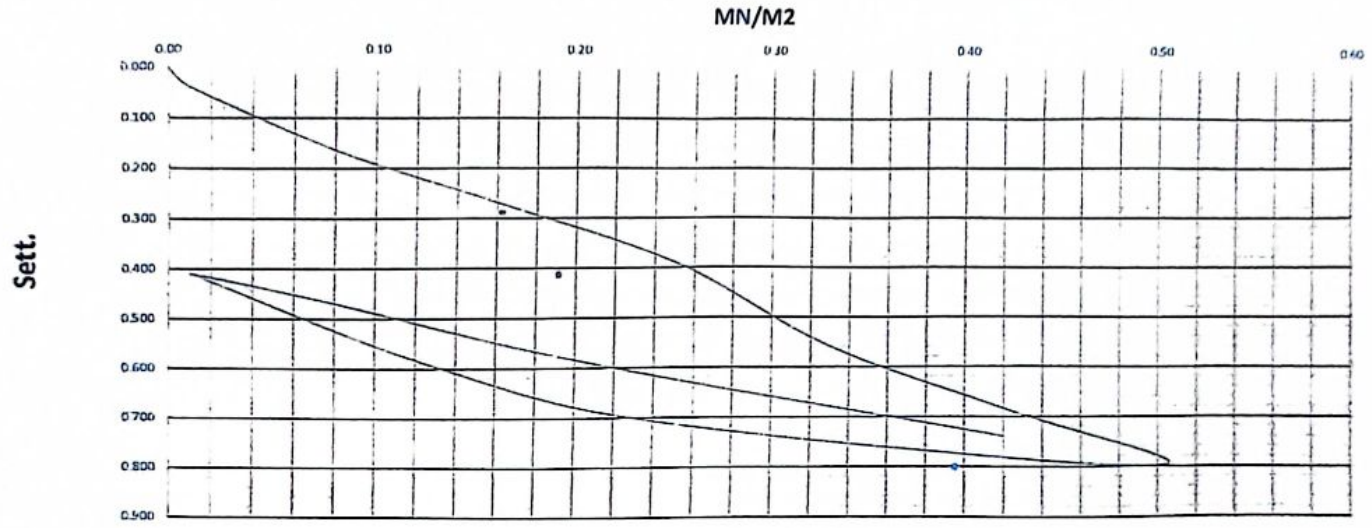
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and Δs are usually taken from the load span between 0.3 σ_{max} and 0.7 σ_{max}.



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