الهيئة العامة
للطرق والكباري

قائمة كميات بالمستخلص جارى (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العالمين

رقم البند و بيانه : (٣-١) علاوة مسافة النقل ٣٠٨ كم

علاوة مسافة النقل

تـــنفيـــذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 53410.97 م٣

بيان بالكميات	الكمية	
الكمية طبقا لقوائم الكميات	7844.00	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		7844.00
الاجمالـي الكلي (م٣)		61254.97

مهندس الشركة
م / يمين عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الحناوي

قائمة كميات بالمستخلص جارى (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العالمين

رقم البند و بيانه : (٣-١) رسوم الكارتة والموازين طبقاً للمادة(٣٦) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لاعمال طبقة الأتربة

الكارتات والموازين

تـنفيـذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 53410.97 م٣

بيان بالكميات	الكمية	
الكمية طبقاً لقوائم الكميات	7844.00	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		7844.00
الإجمالـي الكلي (م٣)		61254.97

مهندس الشركة
م / شهير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الحنوي

الهيئة العامة
للطـرق والكبـاري

قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٥+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٥,٠ كيلو متر اتجاه العالمين

رقم البند و بيانه : (٣-١) أعمال توريد و تشغيل اتربة صالحة للردم مطابقة للمواصفات

تـنفيـذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 53410.97 م٣

بيان الاعمال بالمقايسة	الموقع الكيلومتري		الابعاد (متر)		الكمية
	من	الى	طول	مساحة المقطع	
القطاع الأول	525+220	525+280	60	50.467	3028.00
القطاع الثاني	525+280	525+360	80	17.375	1390.00
القطاع الثالث	527+840	527+920	80	18.375	1470.00
القطاع الرابع	527+920	528+020	100	19.561	1956.08
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)					7844.08
الاجمالي الكلي (م٣)					61255.05

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الجنزاوي

الهيئة العامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العلمين

رقم البند و بيانه : (٤-١) أعمال توريد وتشغيل طبقة تأسيس (prepared subgrade) مطابقة للمواصفات

تـنفيـذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 25012.00 م٣

بيان الاعمال بالمقايسة	الموقع الكيلومترى		الابعاد (متر)		الكمية
	من	الى	طول	مساحة المقطع	
القطاع الأول	527+820	528+060	240	9.62667	2310.40
القطاع الثاني	528+320	528+800	480	2.97042	1425.80
القطاع الثالث	529+400	529+960	560	1.95821	1096.60
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)					4832.80
الاجمالـي الكلـي (م٣)					29844.80

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الحناوي

الهيئة العامة
للطرق والكباري

قائمة كميات بالمستخلص جارى (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العلمين

رقم البند و بيانه : (٤-١) علاوة مسافة النقل ١١٠ كم

علاوة مسافة النقل

تـنفيـذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 25012.40 م٣

بيان بالكميات	الكمية	
الكمية طبقا لقوائم الكميات	25012.40	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		4832.80
الاجمالـي الكلي (م٣)		29845.20

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / [illegible]

هيئة العامة
للطرق والكباري

قائمة كميات بالمستخلص جارى (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العلمين

رقم البند و بيانه : (٤-١) رسوم الكارتة والموازين طبقاً للمادة(٣٦) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لاعمال طبقة تأسيس

الكارتات والموازين

تـنفيـذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 25012.40 م٣

بيان بالكميات	الكمية	
الكمية طبقاً لقوائم الكميات	25012.40	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		4832.80
الاجمالـي الكلي (م٣)		29845.20

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد فنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الحنوري

الهيئة العامة
للطرق والكباري

قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العلمين

رقم البند و بيانه : (٢-٤) أعمال توريد وتشغيل طبقة الأساس المتدرجة (SUBBALLAST) ومطابقة للمواصفات

تـنفيـذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 4135.28 م٣

بيان الاعمال بالمقايسة	الموقع الكيلومتري		الابعاد (متر)		الكمية
	من	الى	طول	مساحة المقطع	
القطاع الأول	525+380	526+700	1320	2.0439	2698.00
القطاع الثاني	526+800	528+240	1440	2.2907	3298.60
القطاع الثالث	528+260	529+160	900	4.6576	4191.80
القطاع الرابع	529+240	529+500	260	6.1423	1597.00
القطاع الخامس	529+520	529+900	380	7.1011	2698.43
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)					14483.83
الاجمالـي الكلـي (م٣)					18619.11

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري

الهيئة العامة
للطرق والكباري

قائمة كميات بالمستخلص جارى (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العلمين

رقم البند و بيانه : (٤-٢) علاوة مسافة النقل ٢٣٤ كم

علاوة مسافة النقل

تـــنفيـــذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 4135.28 م٣

بيان بالكميات	الكمية
الكمية طبقا لقوائم الكميات	14483.00
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)	14483.00
الاجمالـــي الكلي (م٣)	18618.28

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب دكتور خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الطحاوي

الهيئة العامة
للطـرق والكبـاري

قائمة كميات بالمستخلص جارى (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر اتجاه العلمين

رقم البند و بيانه : (٤-٢)رسوم الكارتة والموازين طبقاً للمادة(٣٦) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لاعمال طبقة الاساس

الكارتات والموازين

تـــنفيـــذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : 4135.28 م٣

بيان بالكميات	الكمية	
الكمية طبقاً لتوالم الكميات	14483.00	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		14483.00
الاجمالـي الكلي (م٣)		18618.28

مهندس الشركة
م / سمير عبد العزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد فديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحداوي

الهيئة العامة
للطـرق والكبـاري

قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٠٠٠+٥٢٢ الى الكم ٠٠٠+٥٣٠ بطول ٨,٠ كيلو متر باتجاه العلمين

رقم البند و بيانه : (٥-١) أعمال توريد وصب خرسانة عادية سمك ١٥ سم لحماية الأكتاف والميول الجانبية

تـــنفيـــذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : ٠ م٢

بيان الاعمال بالمقايسة	الموقع الكيلومتري		الابعاد (متر)		الكمية
	من	الى	طول	الارتفاع	
القطاع الأول	526+020	526+122	102	7.9016	805.96
القطاع الثانى	527+499	527+598	99	3.6785	364.17
القطاع الثالث	527+619	527+835	216	8.4704	1829.60
اجمالي الكميات خلال فترة المستخلص الحالية (م٢)					2999.73
الاجمالي الكلي (م٢)					2999.73

مهندس الشركة
م / سمير عبدالعزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / [illegible] الحناوي

الهيئة العامة
للطـرق والكبـاري

قائمة الكميات الواردة بالمستخلص جاري (٣)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٥٢٢+٠٠٠ الى الكم ٥٣٠+٠٠٠ بطول ٨,٠ كيلو متر باتجاه العلمين

رقم البند و بيانه : (٥-٢) أعمال توريد وصب خرسانة عادية لقدمات الحمايات والميول الجانبية

تـــنفيـــذ : شركة ايه جي ار انترناشيونال

مقدار العمل السابق : ٠ م٣

بيان الاعمال بالمقايسة	الموقع الكيلومتري		الابعاد (متر)		الكمية
	من	الى	طول	مساحة القطاع	
القطاع الأول	526+020	526+122	102	0.15	15.30
القطاع الثاني	527+499	527+598	99	0.15	14.85
القطاع الثالث	527+619	527+835	216	0.15	32.00
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)					62.150
الاجمالـي الكلـي (م٣)					62.150

مهندس الشركة
م / سمير عبدالعزيز

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد قنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / ابراهيم الحناوي

Owner Consultant | Contractor Consultant | Contractor | Owner

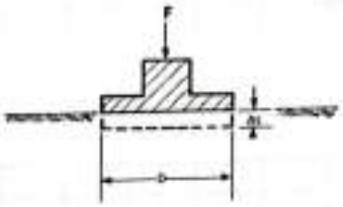
Plate Load Test Results

Company Name	AGR			
Location	529+320	To	529+400	Station 529+360
Taste Date	21-06-2023			
Layer level	UPPER EMBANK MENT -1.5			

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 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	19.96	19.96		0.040	0.040		0.040
2.000	17.1	5.652	0.08	19.44	19.68		0.560	0.320		0.440
0.080	34.2	11.304	0.16	19.20	19.51		0.800	0.490		0.645
4.000	53.3	17.663	0.25	18.96	19.30		1.040	0.700		0.870
5.000	70.5	23.315	0.33	18.77	19.24		1.230	0.760		0.995
6.000	89.8	29.673	0.42	18.50	19.04		1.500	0.960		1.230
7.000	106.8	35.325	0.50	18.28	18.93		1.720	1.070		1.395
8.000	53.4	17.663	0.25	18.33	18.96		1.670	1.040		1.355
9.000	26.7	8.831	0.12	18.41	19.00		1.590	1.000		1.295
9.000	2.1	0.707	0.01	18.63	19.15		1.370	0.850		1.110
10.000	2.1	0.707	0.01	18.63	19.15		1.370	0.850		1.110
11.000	17.1	5.652	0.08	18.58	19.11		1.420	0.890		1.155
12.000	34.2	11.304	0.16	18.54	19.08		1.460	0.920		1.190
13.000	53.3	17.663	0.25	18.47	19.03		1.530	0.970		1.250
14.000	70.5	23.315	0.33	18.38	18.98		1.620	1.020		1.320
15.000	89.8	29.673	0.42	18.29	18.92		1.710	1.080		1.395

		E	ΔS	Δσ
0.7 σ_1	0.35	1.08563	0.46625	0.2
0.3 σ_1	0.15	0.61938		
0.7σ_2	0.35	1.33667	0.13666	0.2
0.3σ_2	0.15	1.2		
D (mm)	300			
Ev_1	96.51			
Ev_2	329.28			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.41		

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

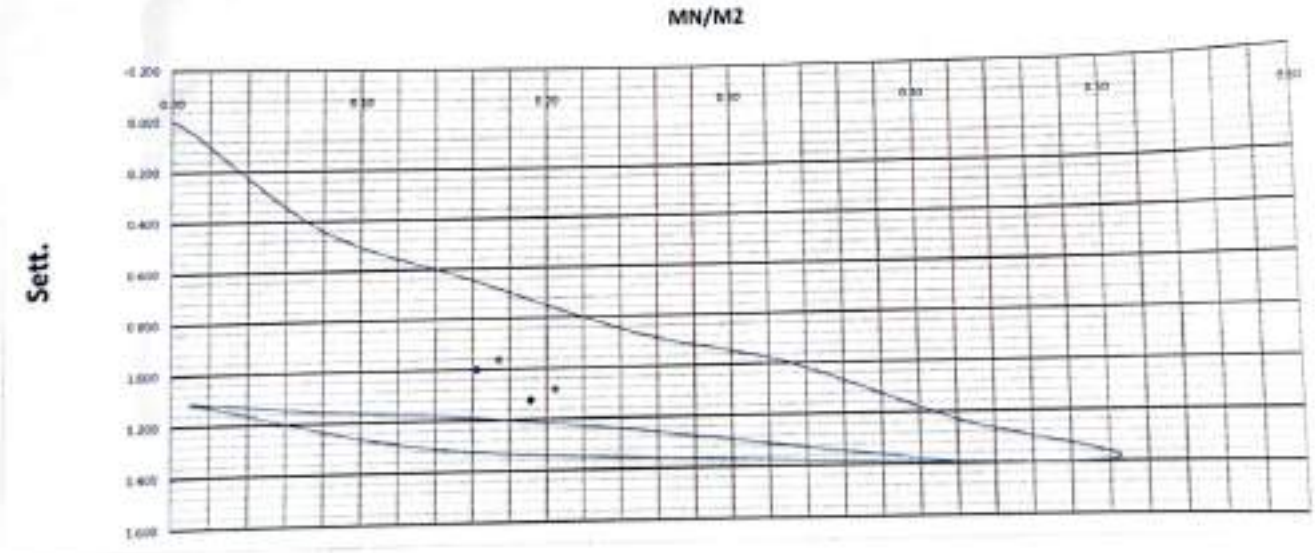
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 :
Sign :	Sign :	Sign :

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

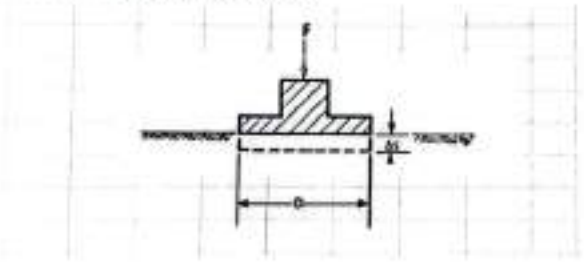
Company Name	AGR			
Location	528+940	To	529+100	
Taste Date	21-06-2023			
Layer level	FERMA			

Station	529+020

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 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	19.91	19.93		0.090	0.070		0.080
2.000	17.1	5.652	0.08	19.65	19.78		0.350	0.220		0.285
0.080	34.2	11.304	0.16	19.38	19.68		0.620	0.320		0.470
4.000	53.3	17.663	0.25	19.07	19.55		0.930	0.450		0.690
5.000	70.5	23.315	0.33	18.80	19.46		1.200	0.540		0.870
6.000	89.8	29.673	0.42	18.55	19.38		1.450	0.620		1.035
7.000	106.8	35.325	0.50	18.27	19.25		1.730	0.750		1.240
8.000	53.4	17.663	0.25	18.31	19.29		1.690	0.710		1.200
9.000	26.7	8.831	0.12	18.39	19.33		1.610	0.670		1.140
9.000	2.1	0.707	0.01	18.55	19.39		1.450	0.610		1.030
10.000	2.1	0.707	0.01	18.55	19.39		1.450	0.610		1.030
11.000	17.1	5.652	0.08	18.54	19.38		1.460	0.620		1.040
12.000	34.2	11.304	0.16	18.48	19.36		1.520	0.640		1.080
13.000	53.3	17.663	0.25	18.41	19.30		1.590	0.700		1.145
14.000	70.5	23.315	0.33	18.30	19.25		1.700	0.750		1.225
15.000	89.8	29.673	0.42	18.25	19.20		1.750	0.800		1.275

		E	SS	Δe
0.7 σ_1	0.35	0.85563	0.40875	0.2
0.3 σ_1	0.15	0.44688		
0.7σ_2	0.35	1.23611	0.18611	0.2
0.3σ_2	0.15	1.05		
D (mm)	300			
Ev_1	110.09			
Ev_2	241.79			
Area (Sq.m)	0.070665			

Ev2/Ev1	2.20		

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

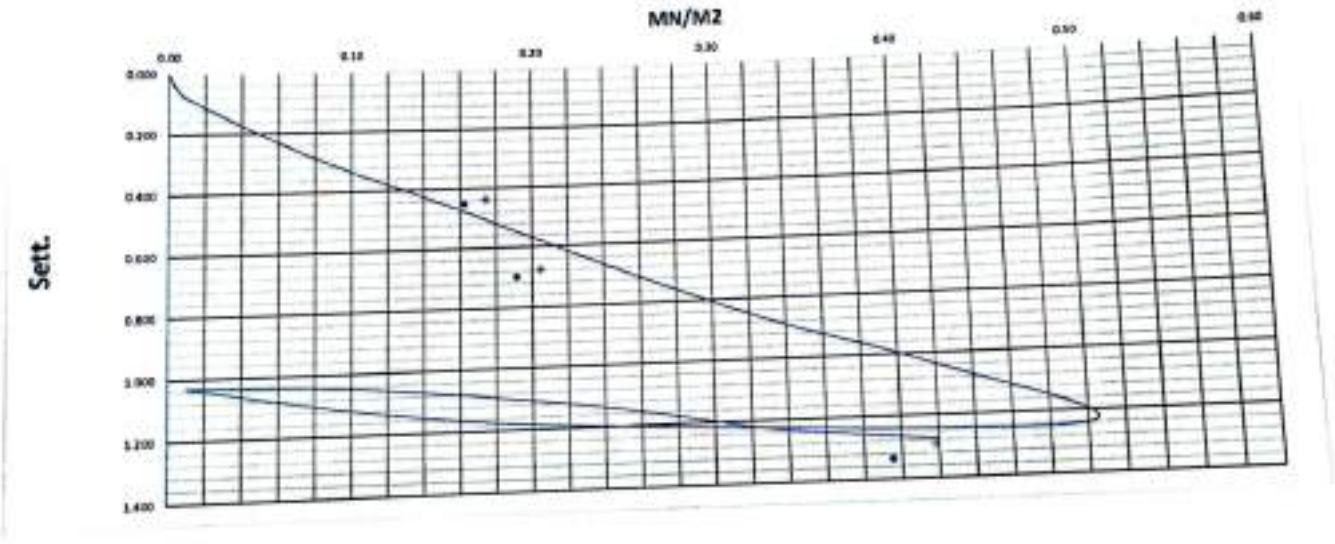
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hossa
Sign :	Sign :	Sign : 23/6/23

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

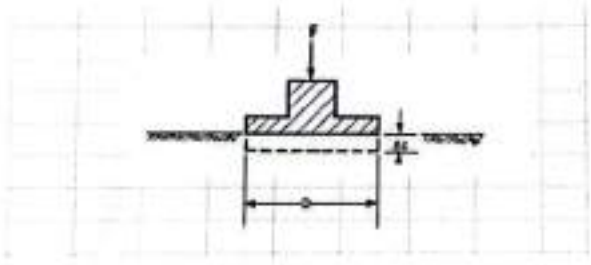
Company Name	AGR			
Location	528+940	To	529+100	
Taste Date	21-06-2023			
Layer level	**FERMA**			

Station	529+060

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.



p = 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	19.96	19.95		0.040	0.050		0.045
2.000	17.1	5.652	0.08	19.54	19.68		0.460	0.320		0.390
0.080	34.2	11.304	0.16	19.37	19.54		0.630	0.460		0.545
4.000	53.3	17.663	0.25	19.12	19.38		0.880	0.620		0.750
5.000	70.5	23.315	0.33	18.95	19.27		1.050	0.730		0.890
6.000	89.8	29.673	0.42	18.65	19.10		1.350	0.900		1.125
7.000	106.8	35.325	0.50	18.45	18.95		1.550	1.050		1.300
8.000	53.4	17.663	0.25	18.50	18.99		1.500	1.010		1.255
9.000	26.7	8.831	0.12	18.57	19.04		1.430	0.960		1.195
9.000	2.1	0.707	0.01	18.75	19.16		1.250	0.840		1.045
10.000	2.1	0.707	0.01	18.75	19.16		1.250	0.840		1.045
11.000	17.1	5.652	0.08	18.74	19.14		1.260	0.860		1.060
12.000	34.2	11.304	0.16	18.66	19.12		1.340	0.880		1.110
13.000	53.3	17.663	0.25	18.61	19.06		1.390	0.940		1.165
14.000	70.5	23.315	0.33	18.50	19.01		1.500	0.990		1.245
15.000	89.8	29.673	0.42	18.46	18.90		1.540	1.100		1.320

		ν	ΔS	$\Delta\sigma$
$0.7\,\sigma_1$	0.35	0.97187	0.44625	0.2
$0.3\,\sigma_1$	0.15	0.52563		
$0.7\sigma_2$	0.35	1.26167	0.18667	0.2
$0.3\sigma_2$	0.15	1.075		
D (mm)	300			
Ev_1	100.84			
Ev_2	241.07			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.39		

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

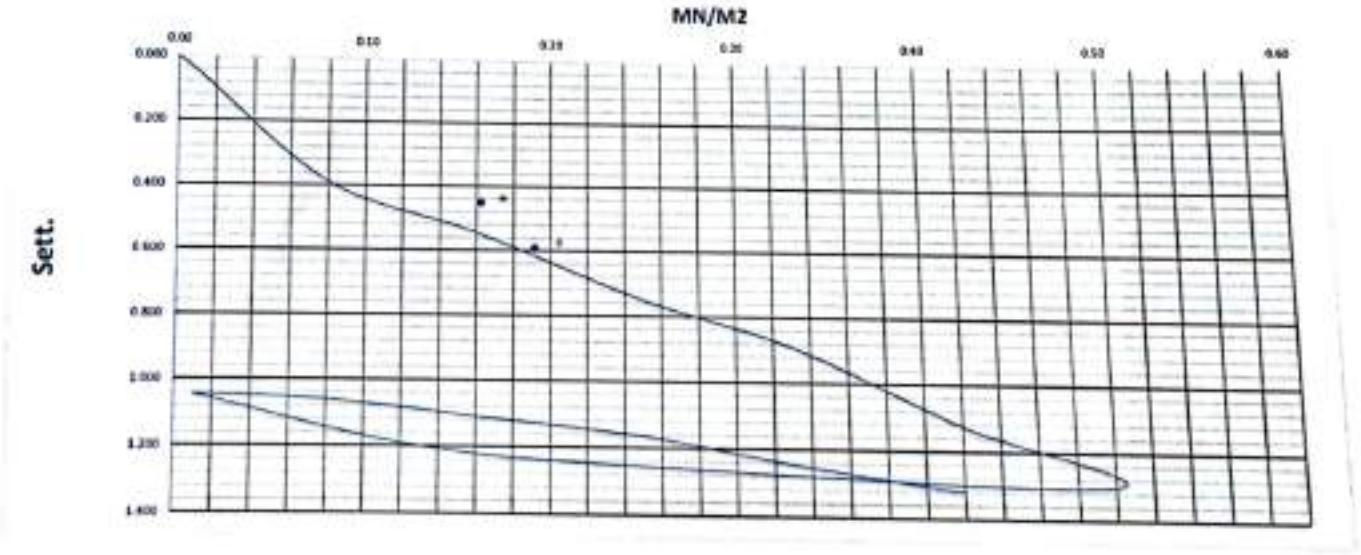
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

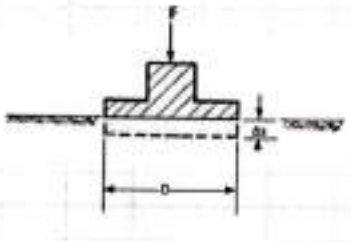
Company Name	AGR			
Location	528+940	To	529+100	
Taste Date	21-06-2023			
Layer level	**FERMA**			

Station	528+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

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 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	19.90	19.98		0.100	0.020		0.060
2.000	17.1	5.652	0.08	19.69	19.92		0.310	0.080		0.195
0.080	34.2	11.304	0.16	19.41	19.74		0.590	0.260		0.425
4.000	53.3	17.663	0.25	19.10	19.59		0.900	0.410		0.655
5.000	70.5	23.315	0.33	18.88	19.44		1.120	0.560		0.840
6.000	89.8	29.673	0.42	18.70	19.37		1.300	0.630		0.965
7.000	106.8	35.325	0.50	18.53	19.24		1.470	0.760		1.115
8.000	53.4	17.663	0.25	18.63	19.28		1.370	0.720		1.045
9.000	26.7	8.831	0.12	18.74	19.33		1.260	0.670		0.965
9.000	2.1	0.707	0.01	18.88	19.41		1.120	0.590		0.855
10.000	2.1	0.707	0.01	18.88	19.41		1.120	0.590		0.855
11.000	17.1	5.652	0.08	18.87	19.40		1.130	0.600		0.865
12.000	34.2	11.304	0.16	18.83	19.38		1.170	0.620		0.895
13.000	53.3	17.663	0.25	18.71	19.33		1.290	0.670		0.980
14.000	70.5	23.315	0.33	18.63	19.28		1.370	0.720		1.045
15.000	89.8	29.673	0.42	18.54	19.25		1.460	0.750		1.105

		I	ΔS	Δσ
0.7 σ_1	0.35	0.83375	0.4375	0.2
0.3 σ_1	0.15	0.39625		
0.7σ_2	0.35	1.05833	0.18333	0.2
0.3σ_2	0.15	0.875		
D (mm)	300			
Ev_1	102.86			
Ev_2	245.46			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.39		

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

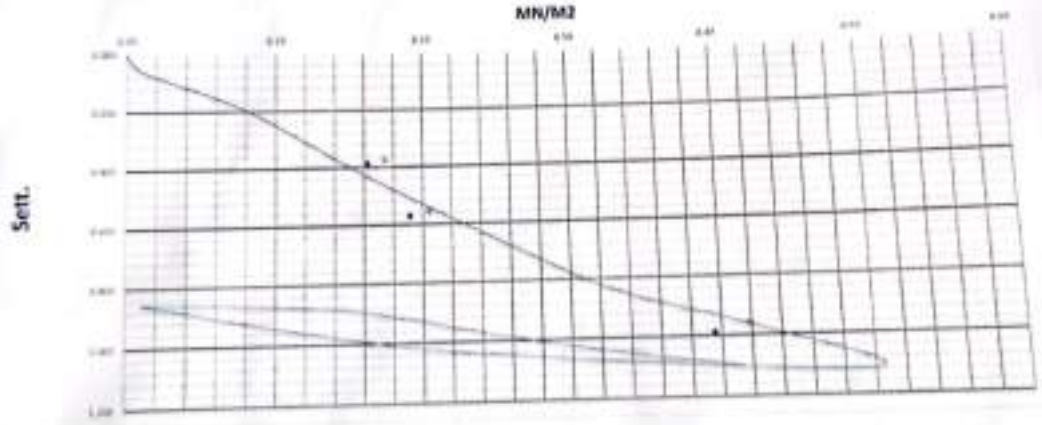
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation σ_{cr} and σ_{cr} 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 : Hassa
Sign :	Sign :	Sign : 23/6/2022

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

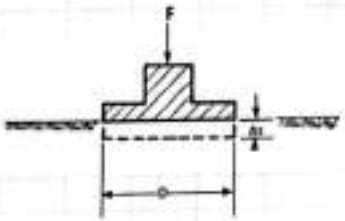
Company Name	AGR		
Location	529+400	To	529+500
Taste Date	19-06-2023		
Layer level	upper embankment -1.5		

Station	529+440

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 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	19.95		0.050	0.050		0.050
2.000	17.1	5.652	0.08	19.82	19.80		0.180	0.200		0.190
0.080	34.2	11.304	0.16	19.66	19.55		0.340	0.450		0.395
4.000	53.3	17.663	0.25	19.29	19.32		0.710	0.680		0.695
5.000	70.5	23.315	0.33	19.00	19.02		1.000	0.980		0.990
6.000	89.8	29.673	0.42	18.76	18.80		1.240	1.200		1.220
7.000	106.8	35.325	0.50	18.55	18.51		1.450	1.490		1.470
8.000	53.4	17.663	0.25	18.60	18.58		1.400	1.420		1.410
9.000	26.7	8.831	0.12	18.70	18.70		1.300	1.300		1.300
9.000	2.1	0.707	0.01	18.94	18.96		1.060	1.040		1.050
10.000	2.1	0.707	0.01	18.94	18.96		1.060	1.040		1.050
11.000	17.1	5.652	0.08	18.87	18.90		1.130	1.100		1.115
12.000	34.2	11.304	0.16	18.79	18.80		1.210	1.200		1.205
13.000	53.3	17.663	0.25	18.70	18.70		1.300	1.300		1.300
14.000	70.5	23.315	0.33	18.62	18.60		1.380	1.400		1.390
15.000	89.8	29.673	0.42	18.55	18.51		1.450	1.490		1.470

		s	ΔS	Δσ
0.7 σ_1	0.35	1.00125	0.63187	0.2
0.3 σ_1	0.15	0.36938		
0.7σ_2	0.35	1.40778	0.22777	0.2
0.3σ_2	0.15	1.18001		
D (mm)	300			
Ev_1	71.22			
Ev_2	197.57			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.77		

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

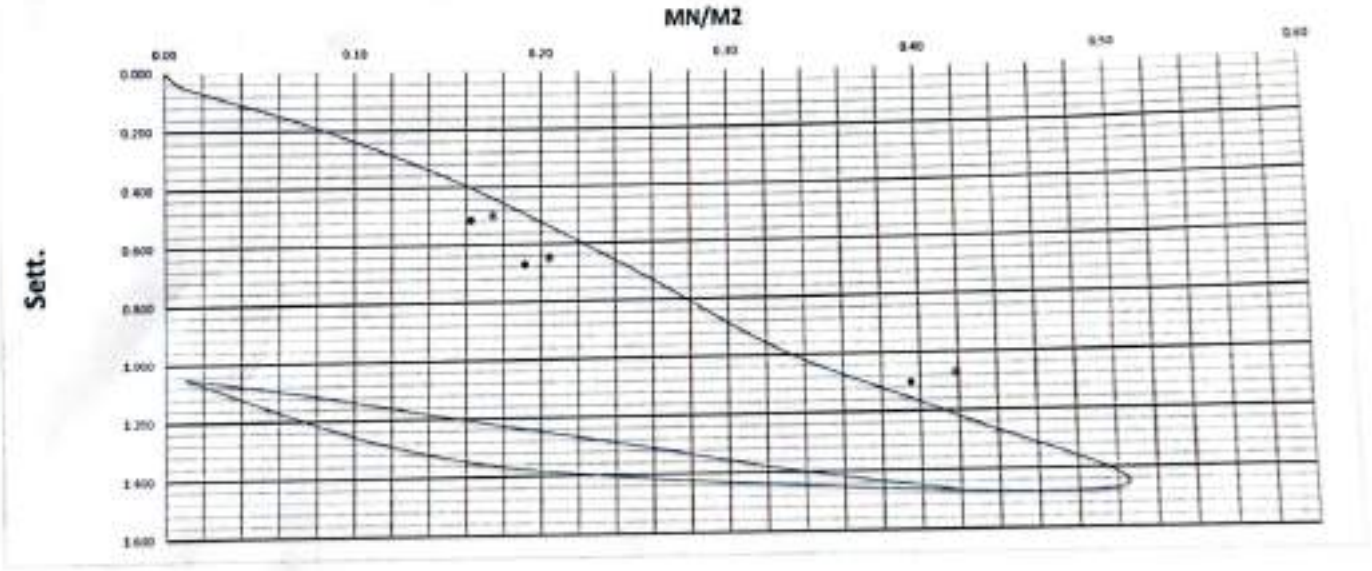
E_v = deformation modulus

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 : 29/6/2023

Plate Load Test Results

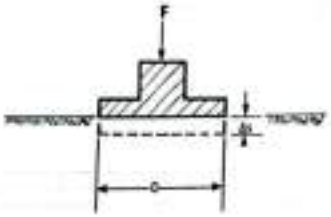
Company Name	AGR			
Location	525+000	To	525+080	
Taste Date	17/6/2023			
Layer level	-1.5			

Station	525+050

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	18.39	18.04		0.000	0.000		0.000
1.000	2.1	0.707	0.01	18.22	17.95		0.170	0.090		0.130
2.000	17.1	5.652	0.08	18.01	17.88		0.380	0.160		0.270
0.050	34.2	11.304	0.16	17.81	17.79		0.580	0.250		0.415
4.000	53.4	17.663	0.25	17.47	17.69		0.920	0.350		0.635
5.000	70.5	23.315	0.33	17.28	17.59		1.110	0.450		0.780
6.000	89.7	29.673	0.42	17.04	17.48		1.350	0.560		0.955
7.000	106.8	35.325	0.50	16.83	17.36		1.560	0.680		1.120
8.000	53.4	17.663	0.25	16.93	17.40		1.460	0.640		1.050
9.000	26.7	8.831	0.12	17.13	17.45		1.260	0.590		0.925
9.000	2.1	0.707	0.01	17.43	17.59		0.960	0.450		0.705
10.000	2.1	0.707	0.01	17.43	17.59		0.960	0.450		0.705
11.000	17.1	5.652	0.08	17.36	17.56		1.030	0.480		0.755
12.000	34.2	11.304	0.16	17.23	17.51		1.160	0.530		0.845
13.000	53.4	17.663	0.25	17.10	17.46		1.290	0.580		0.935
14.000	70.5	23.315	0.33	17.00	17.41		1.390	0.630		1.010
15.000	89.7	29.673	0.42	16.90	17.37		1.490	0.670		1.080

		s	ΔS	Δs
0.7 σ_1	0.35	0.81062	0.41375	0.2
0.3 σ_1	0.15	0.39688		
0.7σ_2	0.35	1.02556	0.22055	0.2
0.3σ_2	0.15	0.80501		
D (mm)	300			
Ev_1	108.76			
Ev_2	204.03			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.88		

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

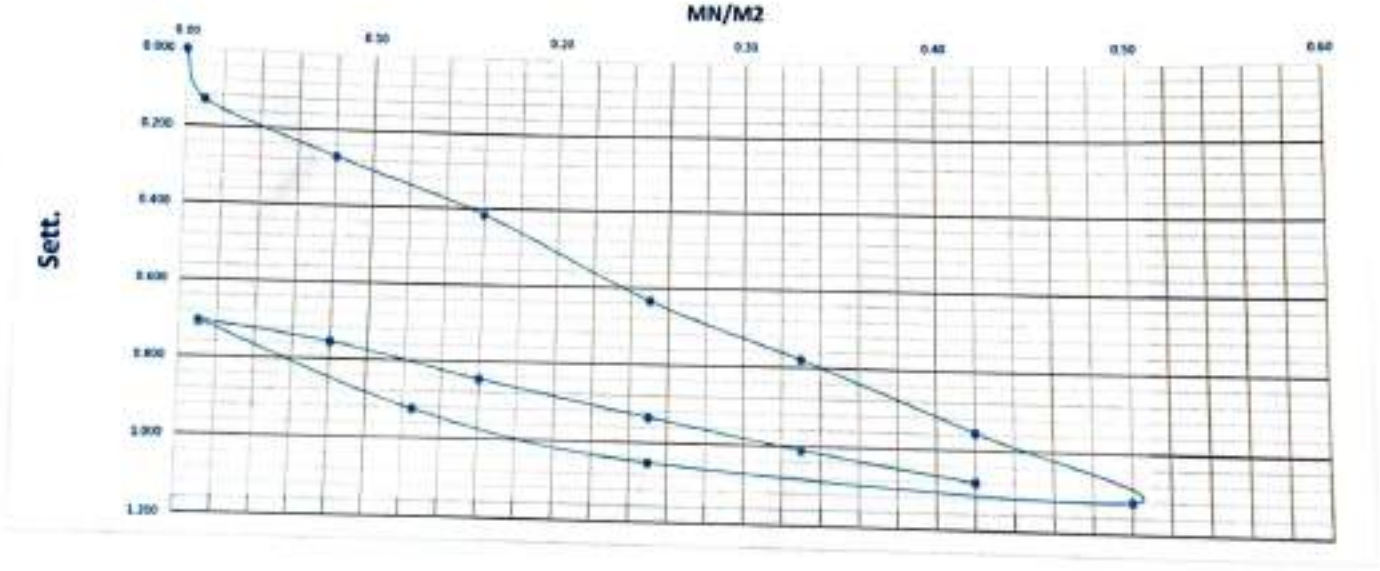
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign : 19/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

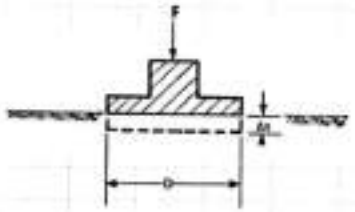
Plate Load Test Results

Company Name	AGR			
Location	529+400	To	529+500	Station 529+480
Taste Date	19-06-2023			
Layer level	**upper embankment -1.5**			

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 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	19.96	19.90		0.040	0.100		0.070
2.000	17.1	5.652	0.08	19.85	19.72		0.150	0.280		0.215
0.080	34.2	11.304	0.16	19.68	19.40		0.320	0.600		0.460
4.000	53.3	17.663	0.25	19.41	19.10		0.590	0.900		0.745
5.000	70.5	23.315	0.33	19.35	18.83		0.650	1.170		0.910
6.000	89.8	29.673	0.42	19.11	18.51		0.890	1.490		1.190
7.000	106.8	35.325	0.50	19.01	18.19		0.990	1.810		1.400
8.000	53.4	17.663	0.25	19.08	18.25		0.920	1.750		1.335
9.000	26.7	8.831	0.12	19.18	18.38		0.820	1.620		1.220
9.000	2.1	0.707	0.01	19.44	18.66		0.560	1.340		0.950
10.000	2.1	0.707	0.01	19.44	18.66		0.560	1.340		0.950
11.000	17.1	5.652	0.08	19.40	18.54		0.600	1.460		1.030
12.000	34.2	11.304	0.16	19.36	18.47		0.640	1.530		1.085
13.000	53.3	17.663	0.25	19.22	18.38		0.780	1.620		1.200
14.000	70.5	23.315	0.33	19.16	18.28		0.840	1.720		1.280
15.000	89.8	29.673	0.42	19.10	18.17		0.900	1.830		1.365

		k	SS	Se
$0.7\,\sigma_1$	0.35	1.00625	0.57688	0.2
$0.3\,\sigma_1$	0.15	0.42938		
$0.7\sigma_2$	0.35	1.29889	0.18888	0.2
$0.3\sigma_2$	0.15	1.11001		
D (mm)	300			
Ev_1	78.01			
Ev_2	238.25			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.05		

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

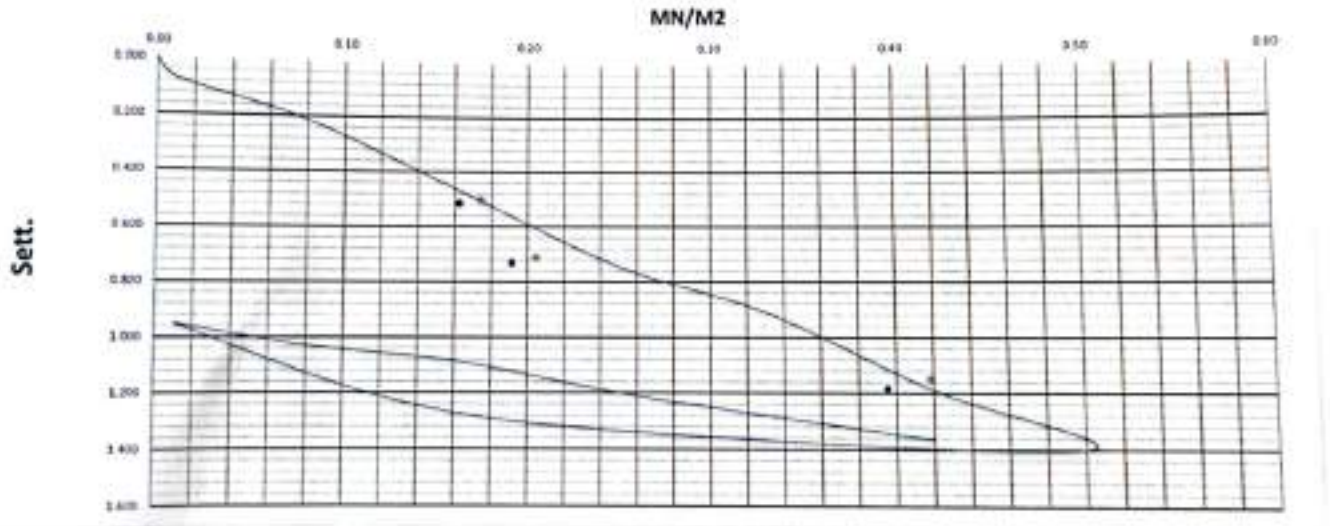
E_v = deformation modulus

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 : 20/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

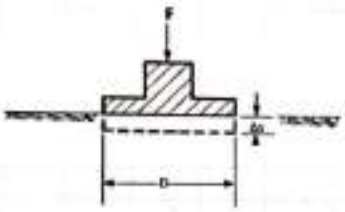
Plate Load Test Results

Company Name	AGR			
Location	526+200	To	526+280	Station 526+220
Taste Date	19-06-2023			
Layer level	**p.s.g +0.5**			

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 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	19.74	19.95		0.260	0.050		0.155
2.000	17.1	5.652	0.08	19.30	19.85		0.700	0.150		0.425
0.080	34.2	11.304	0.16	19.10	19.70		0.900	0.300		0.600
4.000	53.3	17.663	0.25	18.90	19.60		1.100	0.400		0.750
5.000	70.5	23.315	0.33	18.70	19.50		1.300	0.500		0.900
6.000	89.8	29.673	0.42	18.56	19.38		1.440	0.620		1.030
7.000	106.8	35.325	0.50	18.47	19.18		1.530	0.820		1.175
8.000	53.4	17.663	0.25	18.52	19.20		1.480	0.800		1.140
9.000	26.7	8.831	0.12	18.54	19.25		1.460	0.750		1.105
9.000	2.1	0.707	0.01	18.63	19.42		1.370	0.580		0.975
10.000	2.1	0.707	0.01	18.63	19.42		1.370	0.580		0.975
11.000	17.1	5.652	0.08	18.60	19.39		1.400	0.610		1.005
12.000	34.2	11.304	0.16	18.58	19.36		1.420	0.640		1.030
13.000	53.3	17.663	0.25	18.55	19.30		1.450	0.700		1.075
14.000	70.5	23.315	0.33	18.51	19.26		1.490	0.740		1.115
15.000	89.8	29.673	0.42	18.48	19.19		1.520	0.810		1.165

		s	ΔS	Se
0.7 σ_1	0.35	0.90313	0.325	0.2
0.3 σ_1	0.15	0.57813		
0.7σ_2	0.35	1.12611	0.09111	0.2
0.3σ_2	0.15	1.035		
D (mm)	300			
Ev_1	138.46			
Ev_2	493.92			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.57		

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

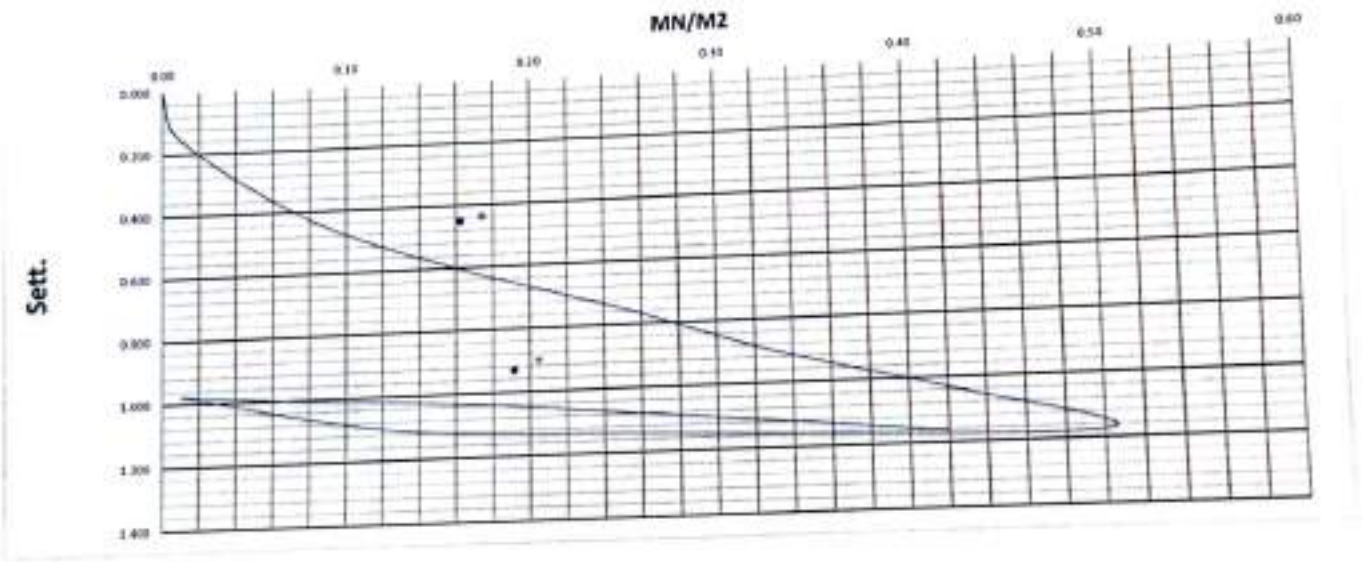
E_s = deformation modulus

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 : 23/6/2023

Plate Load Test Results

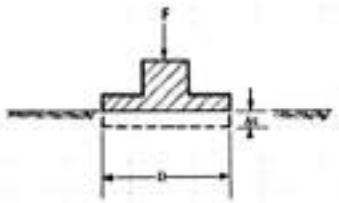
Company Name	AGR		
Location	526+200	To	526+280
Taste Date	19-06-2023		
Layer level	p.s.g +0.5		

Station	526+260

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 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	19.80	19.75		0.200	0.250		0.225
2.000	17.1	5.652	0.08	19.66	19.60		0.340	0.400		0.370
0.080	34.2	11.304	0.16	19.59	19.39		0.410	0.610		0.510
4.000	53.3	17.663	0.25	19.51	19.21		0.490	0.790		0.640
5.000	70.5	23.315	0.33	19.48	19.12		0.520	0.880		0.700
6.000	89.8	29.673	0.42	19.46	19.02		0.540	0.980		0.760
7.000	106.8	35.325	0.50	19.38	18.91		0.620	1.090		0.855
8.000	53.4	17.663	0.25	19.39	18.96		0.610	1.040		0.825
9.000	26.7	8.831	0.12	19.41	19.00		0.590	1.000		0.795
9.000	2.1	0.707	0.01	19.49	19.08		0.510	0.920		0.715
10.000	2.1	0.707	0.01	19.49	19.08		0.510	0.920		0.715
11.000	17.1	5.652	0.08	19.48	19.07		0.520	0.930		0.725
12.000	34.2	11.304	0.16	19.45	19.06		0.550	0.940		0.745
13.000	53.3	17.663	0.25	19.42	19.02		0.580	0.980		0.780
14.000	70.5	23.315	0.33	19.40	19.00		0.600	1.000		0.800
15.000	89.8	29.673	0.42	19.38	18.95		0.620	1.050		0.835

		λ	ΔS	$\Delta\sigma$
0.7 σ_1	0.35	0.67687	0.18438	0.2
0.3 σ_1	0.15	0.4925		
0.7σ_2	0.35	0.80778	0.07278	0.2
0.3σ_2	0.15	0.735		
D (mm)	300			
Ev_1	244.07			
Ev_2	618.33			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.53		

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

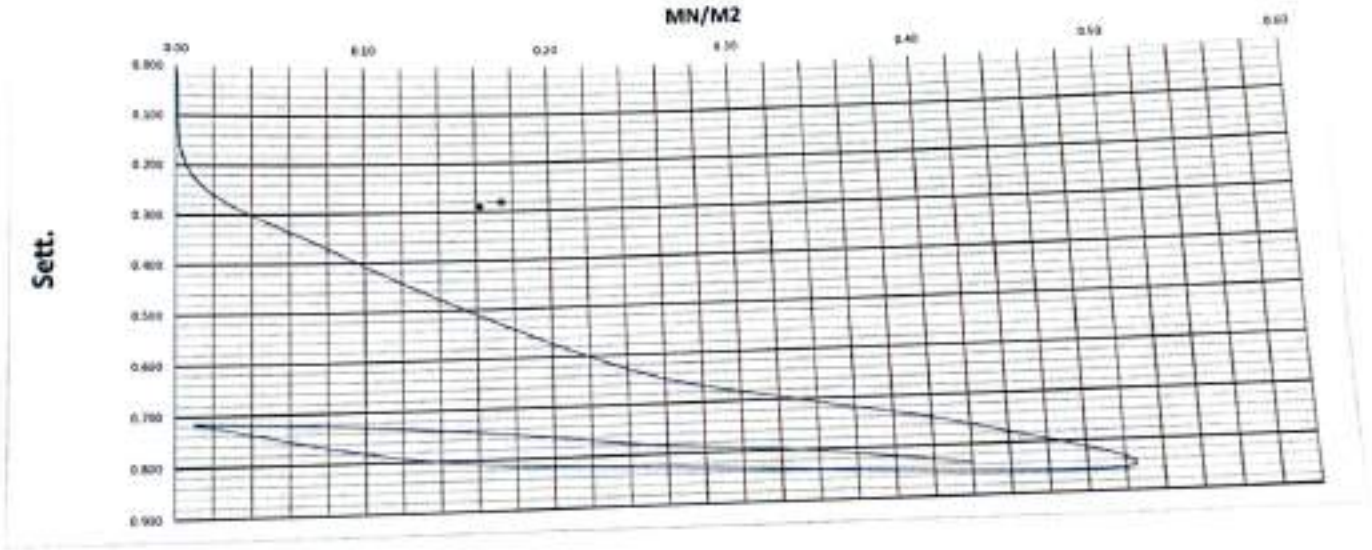
E_v = deformation modulus

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 : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

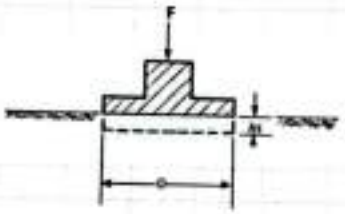
Company Name	AGR		
Location	526+200	To	526+280
Taste Date	19-06-2023		
Layer level	p.s.g +0.5		

Station	526+240

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 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	Ave. 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	19.85	19.92		0.150	0.080		0.115
2.000	17.1	5.652	0.08	19.42	19.74		0.580	0.260		0.420
0.000	34.2	11.304	0.16	19.22	19.61		0.780	0.390		0.585
4.000	53.3	17.663	0.25	19.14	19.52		0.860	0.480		0.670
5.000	70.5	23.315	0.33	19.06	19.45		0.940	0.550		0.745
6.000	89.8	29.673	0.42	19.03	19.34		0.970	0.660		0.815
7.000	106.8	35.325	0.50	18.97	19.31		1.030	0.690		0.860
8.000	53.4	17.663	0.25	19.01	19.35		0.990	0.650		0.820
9.000	26.7	8.831	0.12	19.07	19.41		0.930	0.590		0.760
9.000	2.1	0.707	0.01	19.36	19.54		0.640	0.460		0.550
10.000	2.1	0.707	0.01	19.36	19.54		0.640	0.460		0.550
11.000	17.1	5.652	0.08	19.28	19.48		0.720	0.520		0.620
12.000	34.2	11.304	0.16	19.22	19.42		0.780	0.580		0.680
13.000	53.3	17.663	0.25	19.12	19.39		0.880	0.610		0.745
14.000	70.5	23.315	0.33	19.06	19.36		0.940	0.640		0.790
15.000	89.8	29.673	0.42	18.99	19.32		1.010	0.680		0.845

		s	ΔS	$\Delta\sigma$
0.7 σ_1	0.35	0.77562	0.21125	0.2
0.3 σ_1	0.15	0.56438		
0.7σ_2	0.35	0.80222	0.11222	0.2
0.3σ_2	0.15	0.69001		
D (mm)	300			
Ev_1	213.02			
Ev_2	401.82			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.88		

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

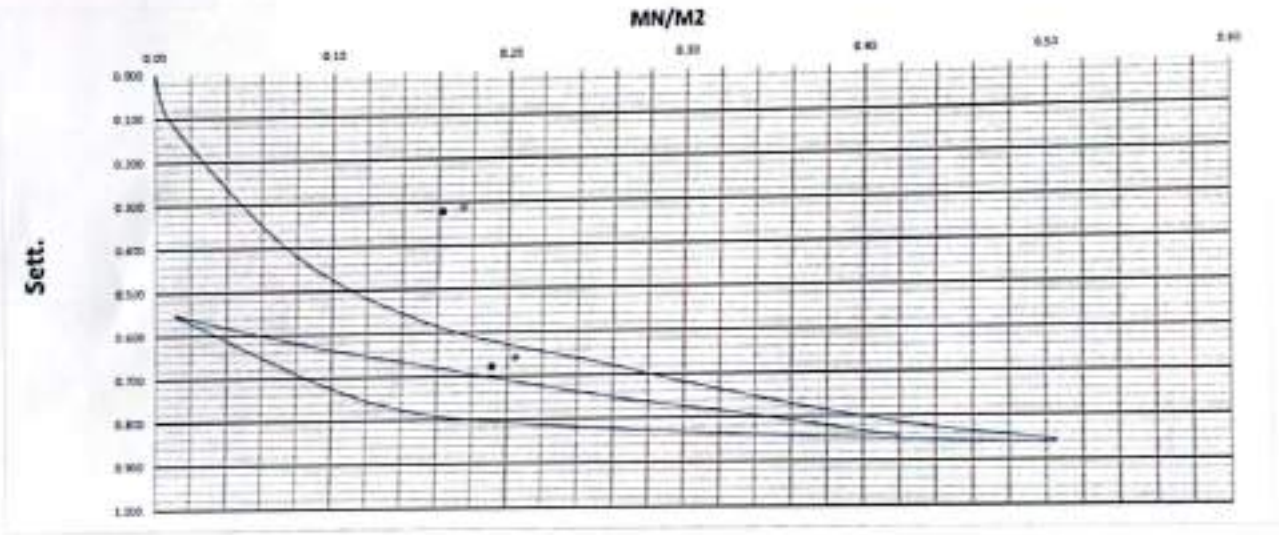
E_v = deformation modulus

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 : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

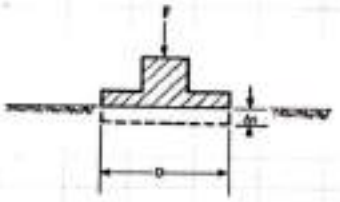
Company Name	AGR			
Location	526+100	To	526+200	
Taste Date	19-06-2023			
Layer level	p.s.g +0.5			

Station	526+120

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	19.80		0.100	0.200		0.150
2.000	17.1	5.652	0.08	19.75	19.30		0.250	0.700		0.475
0.080	34.2	11.304	0.16	19.59	19.19		0.410	0.810		0.610
4.000	53.3	17.663	0.25	19.48	19.10		0.520	0.900		0.710
5.000	70.5	23.315	0.33	19.38	19.04		0.620	0.960		0.790
6.000	89.8	29.673	0.42	19.34	19.00		0.660	1.000		0.830
7.000	106.8	35.325	0.50	19.26	18.91		0.740	1.090		0.915
8.000	53.4	17.663	0.25	19.27	18.92		0.730	1.080		0.905
9.000	26.7	8.831	0.12	19.31	18.95		0.690	1.050		0.870
9.000	2.1	0.707	0.01	19.39	19.00		0.610	1.000		0.805
10.000	2.1	0.707	0.01	19.39	19.04		0.610	0.960		0.785
11.000	17.1	5.652	0.08	19.38	19.02		0.620	0.980		0.800
12.000	34.2	11.304	0.16	19.36	19.00		0.640	1.000		0.820
13.000	53.3	17.663	0.25	19.32	18.98		0.680	1.020		0.850
14.000	70.5	23.315	0.33	19.30	18.96		0.700	1.040		0.870
15.000	89.8	29.673	0.42	19.28	18.94		0.720	1.060		0.890

		s	ΔS	Δσ
0.7 σ_1	0.35	0.75563	0.1625	0.2
0.3 σ_1	0.15	0.59312		
0.7σ_2	0.35	0.87444	0.05944	0.2
0.3σ_2	0.15	0.815		
D (mm)	300			
Ev_1	276.92			
Ev_2	757.03			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.73		

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

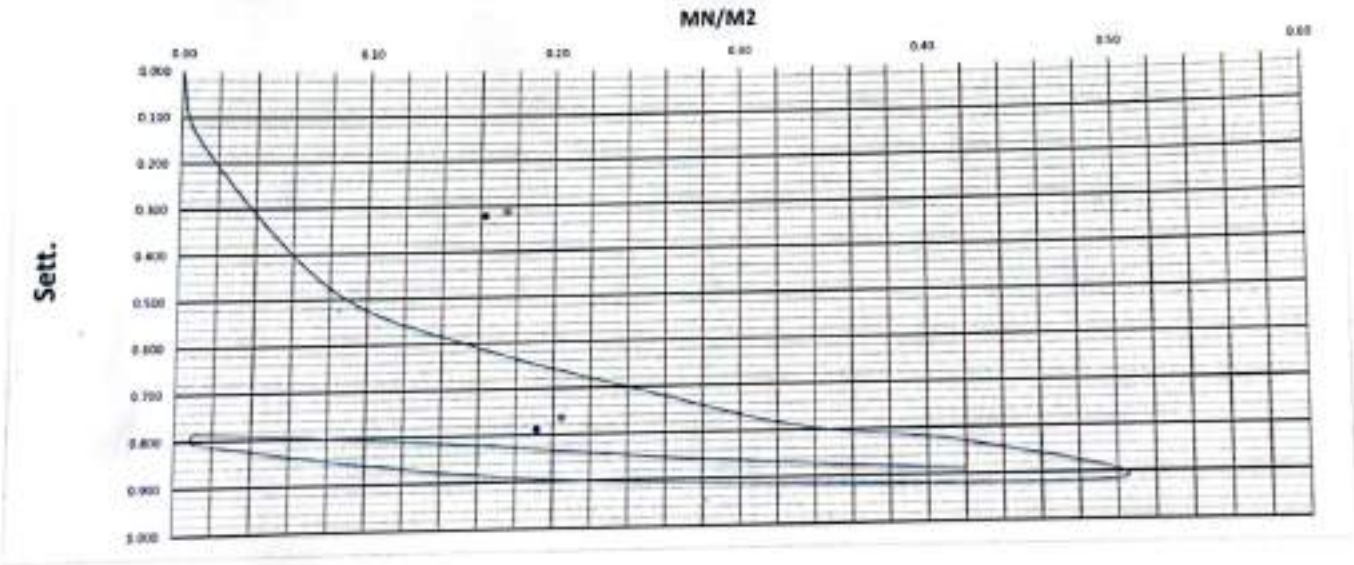
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 : 23/6/2023

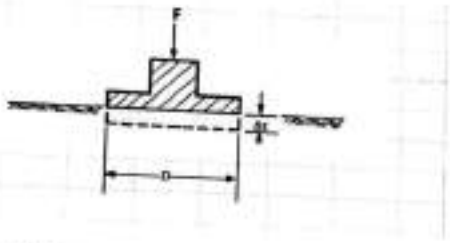
Plate Load Test Results

Company Name	AGR			
Location	526+100	To	526+200	Station 526+185
Taste Date	19-06-2023			
Layer level	p.s.g +0.5			

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 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	19.91	19.94		0.090	0.060		0.075
2.000	17.1	5.652	0.08	19.46	19.68		0.540	0.320		0.430
0.080	34.2	11.304	0.16	19.30	19.58		0.700	0.420		0.560
4.000	53.3	17.663	0.25	19.12	19.51		0.880	0.490		0.685
5.000	70.5	23.315	0.33	18.95	19.48		1.050	0.520		0.785
6.000	89.8	29.673	0.42	18.85	19.44		1.150	0.560		0.855
7.000	106.8	35.325	0.50	18.71	19.30		1.290	0.700		0.995
8.000	53.4	17.663	0.25	18.75	19.32		1.250	0.680		0.965
9.000	26.7	8.831	0.12	18.81	19.38		1.190	0.620		0.905
9.000	2.1	0.707	0.01	18.86	19.40		1.140	0.600		0.870
10.000	2.1	0.707	0.01	18.86	19.40		1.140	0.600		0.870
11.000	17.1	5.652	0.08	18.85	19.39		1.150	0.610		0.880
12.000	34.2	11.304	0.16	18.83	19.38		1.170	0.620		0.895
13.000	53.3	17.663	0.25	18.81	19.37		1.190	0.630		0.910
14.000	70.5	23.315	0.33	18.78	19.35		1.220	0.650		0.935
15.000	89.8	29.673	0.42	18.71	19.32		1.290	0.680		0.985

		s	ΔS	$\Delta\sigma$
0.7 σ_1	0.35	0.7325	0.18875	0.2
0.3 σ_1	0.15	0.54375		
0.7σ_2	0.35	0.94611	0.05611	0.2
0.3σ_2	0.15	0.89		
D (mm)	300			
Ev_1	238.41			
Ev_2	801.99			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.36		

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

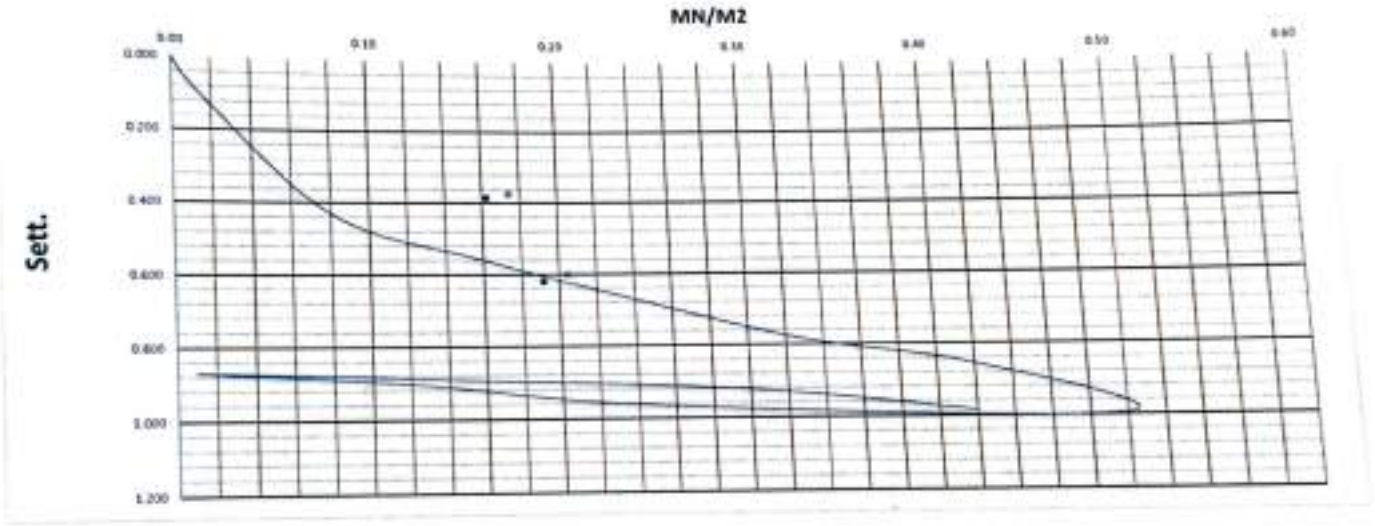
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

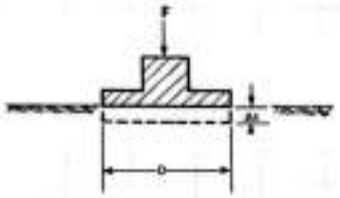
Plate Load Test Results

Company Name	AGR			
Location	526+100	To	526+200	Station 526+185
Taste Date	19-06-2023			
Layer level	p.s.g +0.5			

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 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	19.63	19.74		0.370	0.260		0.315
2.000	17.1	5.652	0.08	19.30	19.35		0.700	0.650		0.675
0.080	34.2	11.304	0.16	19.08	19.25		0.920	0.750		0.835
4.000	53.3	17.663	0.25	18.97	19.20		1.030	0.800		0.915
5.000	70.5	23.315	0.33	18.85	19.18		1.150	0.820		0.985
6.000	89.8	29.673	0.42	18.78	19.12		1.220	0.880		1.050
7.000	106.8	35.325	0.50	18.65	19.10		1.350	0.900		1.125
8.000	53.4	17.663	0.25	18.69	19.12		1.310	0.880		1.095
9.000	26.7	8.831	0.12	18.74	19.15		1.260	0.850		1.055
9.000	2.1	0.707	0.01	18.82	19.22		1.180	0.780		0.980
10.000	2.1	0.707	0.01	18.82	19.22		1.180	0.780		0.980
11.000	17.1	5.652	0.08	18.80	19.21		1.200	0.790		0.995
12.000	34.2	11.304	0.16	18.76	19.19		1.240	0.810		1.025
13.000	53.3	17.663	0.25	18.75	19.17		1.250	0.830		1.040
14.000	70.5	23.315	0.33	18.72	19.15		1.280	0.850		1.065
15.000	89.8	29.673	0.42	18.67	19.13		1.330	0.870		1.100

		ν	Δσ	Δs
0.7 σ_1	0.35	0.98437	0.16937	0.2
0.3 σ_1	0.15	0.815		
0.7σ_2	0.35	1.07278	0.06278	0.2
0.3σ_2	0.15	1.01		
D (mm)	300			
Ev_1	265.68			
Ev_2	716.83			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.70		

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

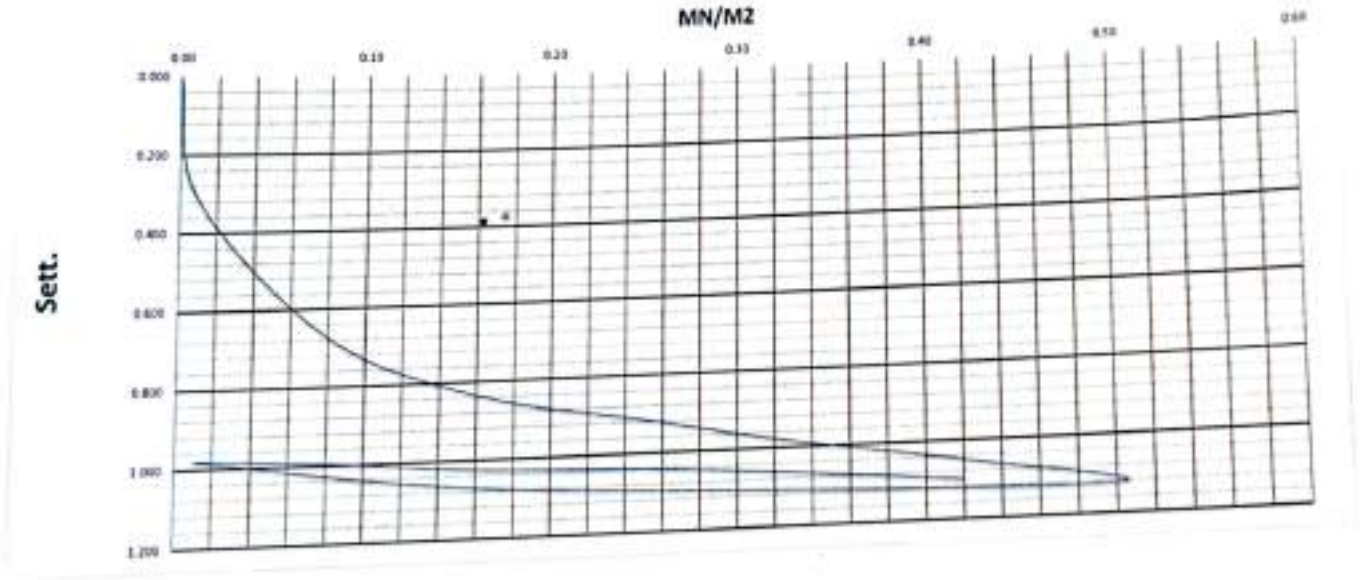
E_v = deformation modulus

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 : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

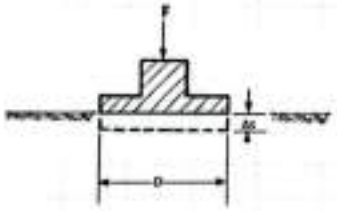
Company Name	AGR		
Location	526+100	To	526+200
Taste Date	19-06-2023		
Layer level	p.s.g +0.5		

Station	526+145

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 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	19.98		0.050	0.020		0.035
2.000	17.1	5.652	0.08	19.54	19.75		0.460	0.250		0.355
0.080	34.2	11.304	0.16	19.30	19.58		0.700	0.420		0.560
4.000	53.3	17.663	0.25	19.15	19.48		0.850	0.520		0.685
5.000	70.5	23.315	0.33	19.04	19.43		0.960	0.570		0.765
6.000	89.8	29.673	0.42	19.00	19.40		1.000	0.600		0.800
7.000	106.8	35.325	0.50	18.92	19.36		1.080	0.640		0.860
8.000	53.4	17.663	0.25	18.94	19.38		1.060	0.620		0.840
9.000	26.7	8.831	0.12	19.00	19.39		1.000	0.610		0.805
9.000	2.1	0.707	0.01	19.08	19.43		0.920	0.570		0.745
10.000	2.1	0.707	0.01	19.08	19.43		0.920	0.570		0.745
11.000	17.1	5.652	0.08	19.07	19.42		0.930	0.580		0.755
12.000	34.2	11.304	0.16	19.04	19.41		0.960	0.590		0.775
13.000	53.3	17.663	0.25	18.98	19.39		1.020	0.610		0.815
14.000	70.5	23.315	0.33	18.96	19.38		1.040	0.620		0.830
15.000	89.8	29.673	0.42	18.94	19.36		1.060	0.640		0.850

		s	ΔS	Δσ
0.7 σ_1	0.35	0.7475	0.21313	0.2
0.3 σ_1	0.15	0.53438		
0.7σ_2	0.35	0.83444	0.86944	0.2
0.3σ_2	0.15	0.765		
D (mm)	300			
Ev_1	211.14			
Ev_2	648.01			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.07		

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

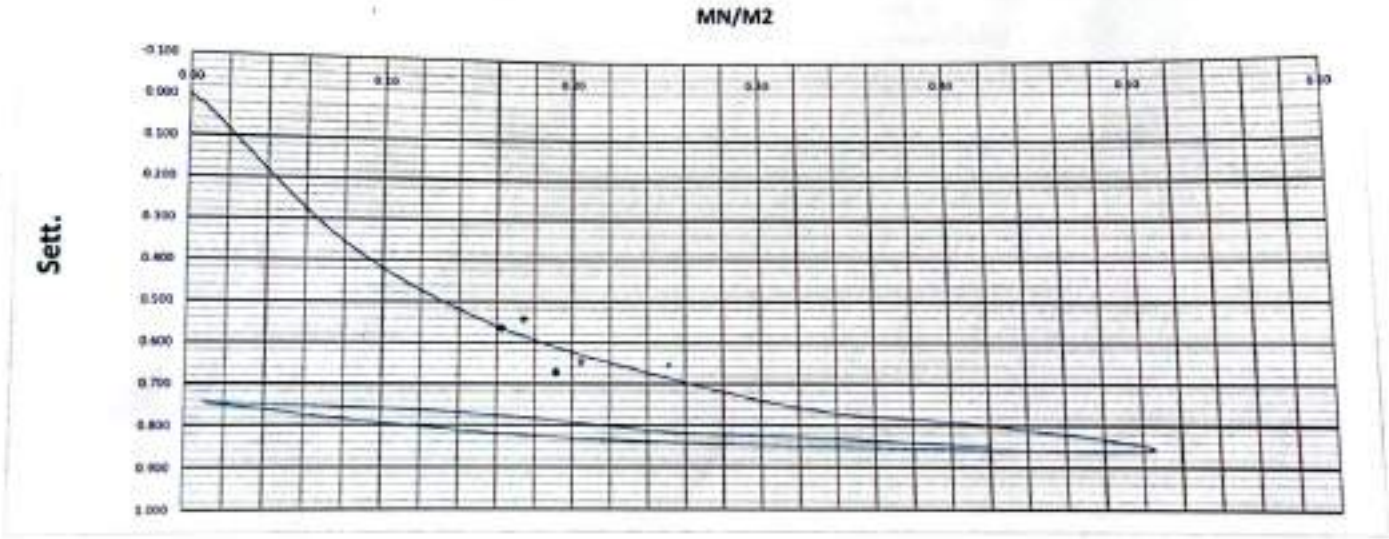
E_v = deformation modulus

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 : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

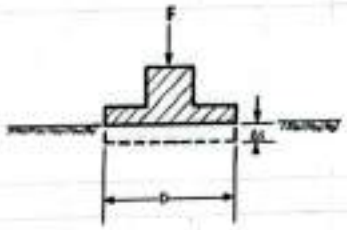
Company Name	AGR			
Location	529+900	To	530+000	
Taste Date	15/6/2023			
Layer level	**Ferma**			

Station	529+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

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	7.38	8.50		0.000	0.000		0.000
1.000	2.1	0.707	0.01	7.26	8.07		0.120	0.430		0.275
2.000	17.1	5.652	0.08	7.14	7.49		0.240	1.010		0.625
0.080	34.2	11.304	0.16	6.95	7.19		0.430	1.310		0.870
4.000	53.4	17.663	0.25	6.85	6.73		0.530	1.770		1.150
5.000	70.5	23.315	0.33	6.73	6.44		0.650	2.060		1.355
6.000	89.7	29.673	0.42	6.61	6.15		0.770	2.350		1.560
7.000	106.8	35.325	0.50	6.28	5.69		1.100	2.810		1.955
8.000	53.4	17.663	0.25	6.49	5.79		0.890	2.710		1.800
9.000	26.7	8.831	0.12	6.53	5.84		0.850	2.660		1.755
9.000	2.1	0.707	0.01	6.68	6.55		0.700	1.950		1.325
10.000	2.1	0.707	0.01	6.68	6.55		0.700	1.950		1.325
11.000	17.1	5.652	0.08	6.64	6.50		0.740	2.000		1.370
12.000	34.2	11.304	0.16	6.62	6.38		0.760	2.120		1.440
13.000	53.4	17.663	0.25	6.55	6.12		0.830	2.380		1.605
14.000	70.5	23.315	0.33	6.50	6.01		0.880	2.490		1.685
15.000	89.7	29.673	0.42	6.45	5.91		0.930	2.590		1.760

		s	ΔS	$\Delta\sigma$
0.7 σ_1	0.35	1.21438	0.375	0.2
0.3 σ_1	0.15	0.83938		
0.7σ_2	0.35	1.70167	0.28666	0.2
0.3σ_2	0.15	1.415		
D (mm)	300			
Ev_1	120.00			
Ev_2	156.98			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.31		

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

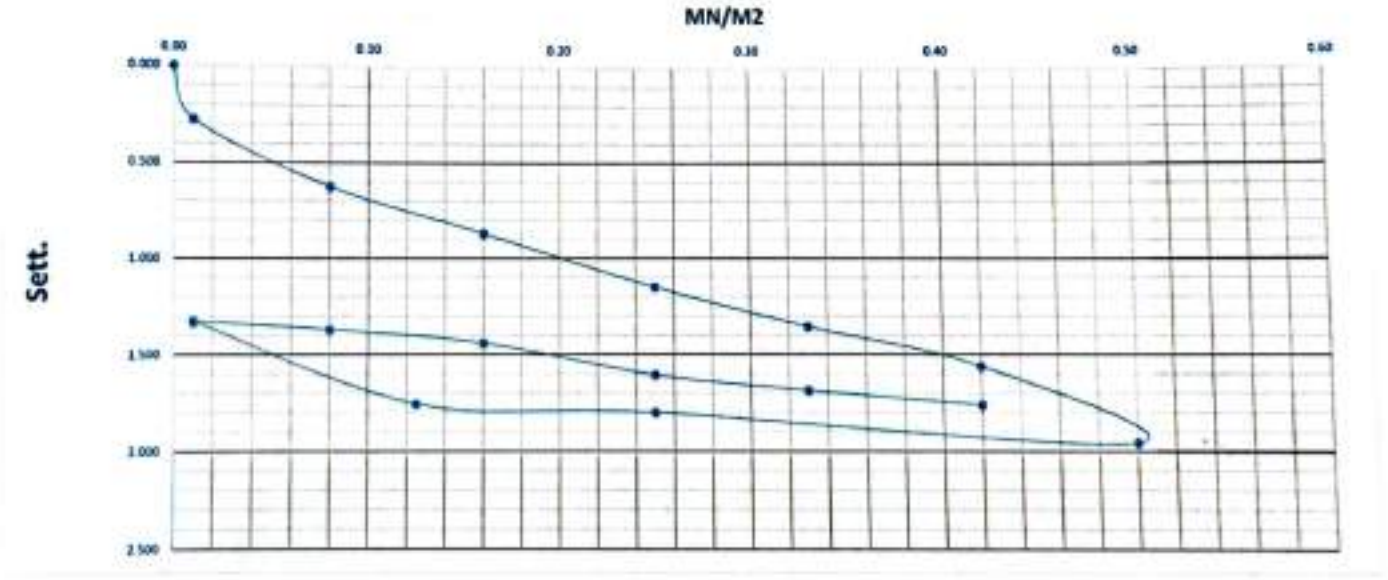
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign : 18/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

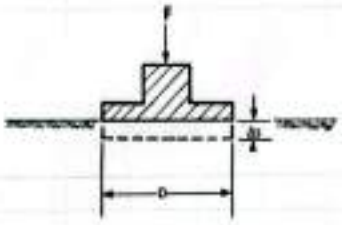
Company Name	AGR			
Location	529+900	To	530+000	
Taste Date	15/6/2023			
Layer level	**Ferma**			

Station	529+920

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

Δ*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	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	8.23	6.52		0.000	0.000		0.000
1.000	2.1	0.707	0.01	7.81	6.07		0.420	0.450		0.435
2.000	17.1	5.652	0.08	7.65	5.88		0.580	0.640		0.610
0.080	34.2	11.304	0.16	7.30	5.73		0.930	0.790		0.860
4.000	53.4	17.663	0.25	7.11	5.46		1.120	1.060		1.090
5.000	70.5	23.315	0.33	6.91	5.27		1.320	1.250		1.285
6.000	89.7	29.673	0.42	6.68	5.14		1.550	1.380		1.465
7.000	106.8	35.325	0.50	6.20	4.97		2.028	1.550		1.789
8.000	53.4	17.663	0.25	6.52	5.04		1.710	1.480		1.595
9.000	26.7	8.831	0.12	6.85	5.11		1.380	1.410		1.395
9.000	2.1	0.707	0.01	7.30	5.57		0.930	0.950		0.940
10.000	2.1	0.707	0.01	7.30	5.57		0.930	0.950		0.940
11.000	17.1	5.652	0.08	7.22	5.34		1.010	1.180		1.095
12.000	34.2	11.304	0.16	7.18	5.12		1.050	1.400		1.225
13.000	53.4	17.663	0.25	7.11	4.89		1.120	1.630		1.375
14.000	70.5	23.315	0.33	7.07	4.55		1.160	1.970		1.565
15.000	89.7	29.673	0.42	7.05	4.29		1.180	2.230		1.705

		s	ΔS	Δs
0.7 σ_1	0.35	1.18154	0.35279	0.2
0.3 σ_1	0.15	0.82875		
0.7σ_2	0.35	1.59611	0.3461	0.2
0.3σ_2	0.15	1.25002		
D (mm)	300			
Ev_1	127.56			
Ev_2	130.02			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.02		

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

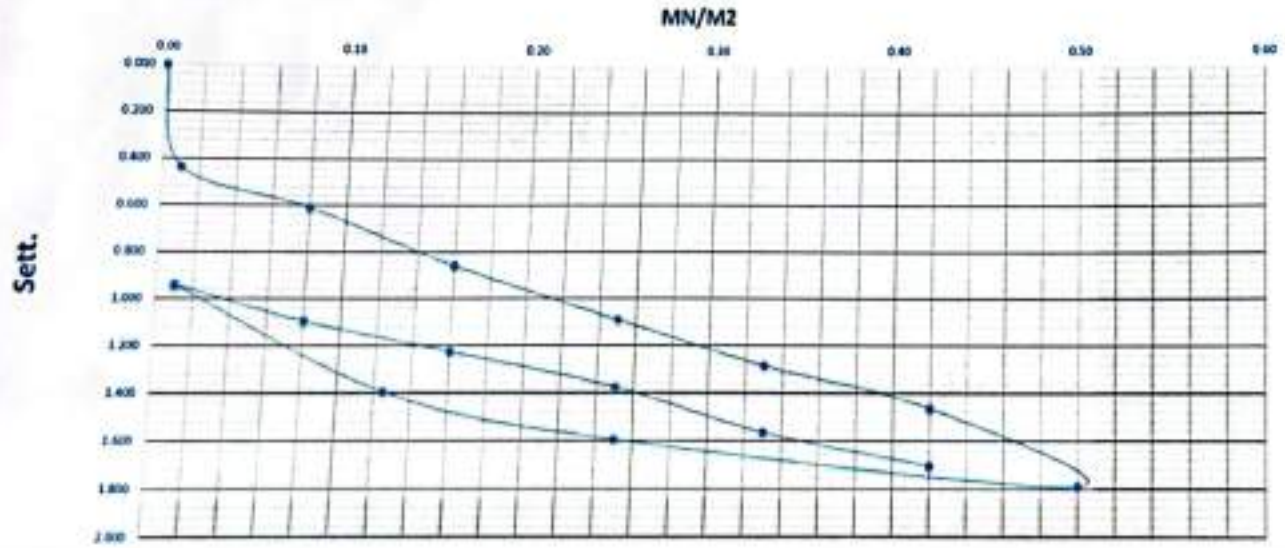
E_s = deformation modulus

$\Delta\sigma$ = 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 :	Name : 16/6/2023 Hassan
Sign :	Sign :	Sign :

Consultant | Contractor Consultant | Contractor | Owner

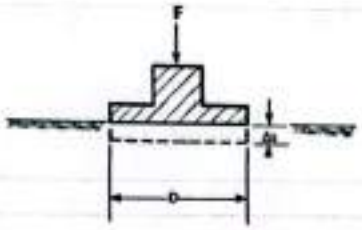
Plate Load Test Results

Company Name	AGR				
Location	527+000	To	527+060	Station	527+020
Taste Date	15/6/2023				
Layer level	Ferma				

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 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	5.81	6.67		0.000	0.000		0.000
1.000	2.1	0.707	0.01	5.74	6.16		0.070	0.510		0.290
2.000	17.1	5.652	0.08	5.56	6.06		0.250	0.610		0.430
0.080	34.2	11.304	0.16	5.34	5.99		0.470	0.680		0.575
4.000	53.4	17.663	0.25	4.97	5.71		0.840	0.960		0.900
5.000	70.5	23.315	0.33	4.80	5.53		1.010	1.140		1.075
6.000	89.7	29.673	0.42	4.42	5.41		1.390	1.260		1.325
7.000	106.8	35.325	0.50	4.11	5.22		1.700	1.450		1.575
8.000	53.4	17.663	0.25	4.32	5.28		1.490	1.390		1.440
9.000	26.7	8.831	0.12	4.70	5.34		1.110	1.330		1.220
9.000	2.1	0.707	0.01	5.10	5.86		0.710	0.810		0.760
10.000	2.1	0.707	0.01	5.10	5.86		0.710	0.810		0.760
11.000	17.1	5.652	0.08	5.00	5.70		0.810	0.970		0.890
12.000	34.2	11.304	0.16	4.95	5.43		0.860	1.240		1.050
13.000	53.4	17.663	0.25	4.85	5.22		0.960	1.450		1.205
14.000	70.5	23.315	0.33	4.78	4.98		1.030	1.690		1.360
15.000	89.7	29.673	0.42	4.75	4.72		1.060	1.950		1.505

		s	SS	Is
0.7 σ_1	0.35	1.10625	0.54938	0.2
0.3 σ_1	0.15	0.55688		
0.7σ_2	0.35	1.39222	0.37221	0.2
0.3σ_2	0.15	1.02001		
D (mm)	300			
Ev_1	81.91			
Ev_2	120.90			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.48		

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

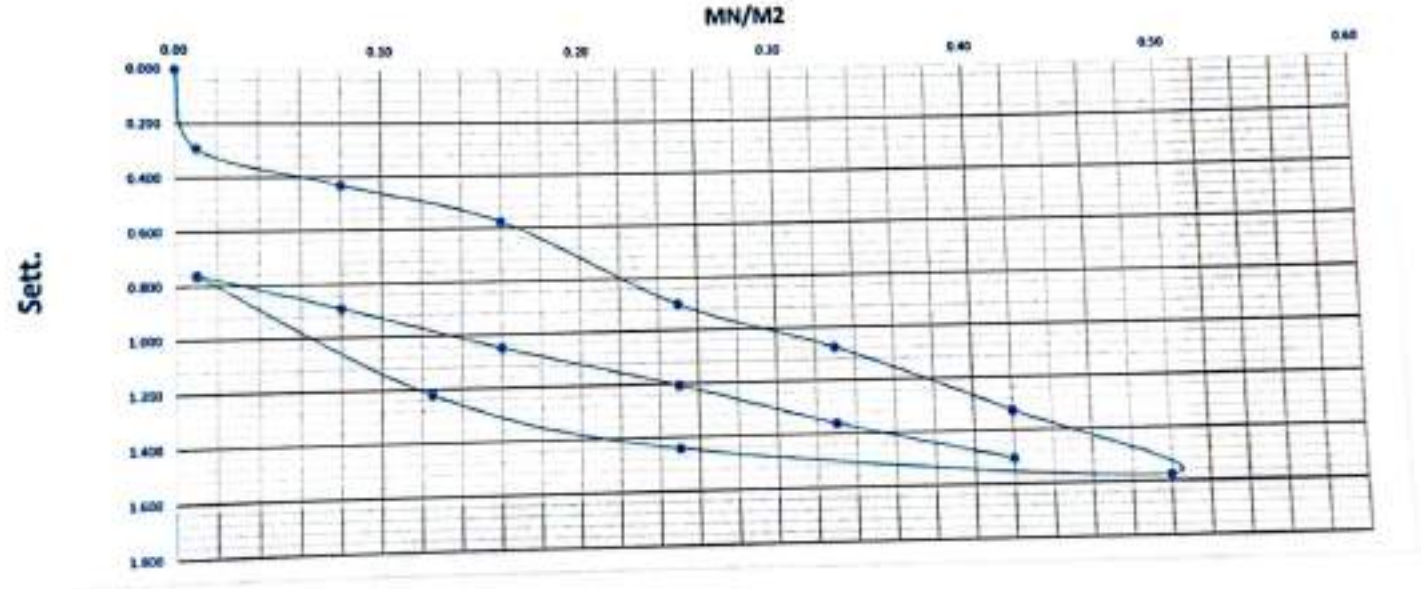
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

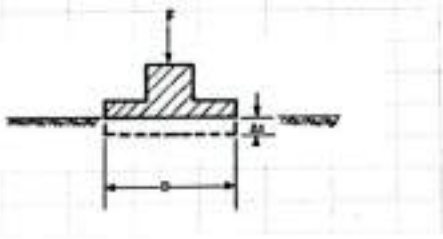
Company Name	AGR		
Location	526+100	To	526+200
Taste Date	19-06-2023		
Layer level	**p.s.g +0.5**		

Station	526+120

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 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	19.90	19.80		0.100	0.200		0.150
2.000	17.1	5.652	0.08	19.75	19.30		0.250	0.700		0.475
0.080	34.2	11.304	0.16	19.59	19.19		0.410	0.810		0.610
4.000	53.3	17.663	0.25	19.48	19.10		0.520	0.900		0.710
5.000	70.5	23.315	0.33	19.38	19.04		0.620	0.960		0.790
6.000	89.8	29.673	0.42	19.34	19.00		0.660	1.000		0.830
7.000	106.8	35.325	0.50	19.26	18.91		0.740	1.090		0.915
8.000	53.4	17.663	0.25	19.27	18.92		0.730	1.080		0.905
9.000	26.7	8.831	0.12	19.31	18.95		0.690	1.050		0.870
9.000	2.1	0.707	0.01	19.39	19.00		0.610	1.000		0.805
10.000	2.1	0.707	0.01	19.39	19.04		0.610	0.960		0.785
11.000	17.1	5.652	0.08	19.38	19.02		0.620	0.980		0.800
12.000	34.2	11.304	0.16	19.36	19.00		0.640	1.000		0.820
13.000	53.3	17.663	0.25	19.32	18.98		0.680	1.020		0.850
14.000	70.5	23.315	0.33	19.30	18.96		0.700	1.040		0.870
15.000	89.8	29.673	0.42	19.28	18.94		0.720	1.060		0.890

		s	LS	Se
$0.7\,\sigma_1$	0.35	0.75563	0.1625	0.2
$0.3\,\sigma_1$	0.15	0.59312		
$0.7\sigma_2$	0.35	0.87444	0.05944	0.2
$0.3\sigma_2$	0.15	0.815		
D (mm)	300			
E_{V1}	276.92			
E_{V2}	757.03			
Area (Sq.m)	0.07065			

E_{V2}/E_{V1}	2.73		

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

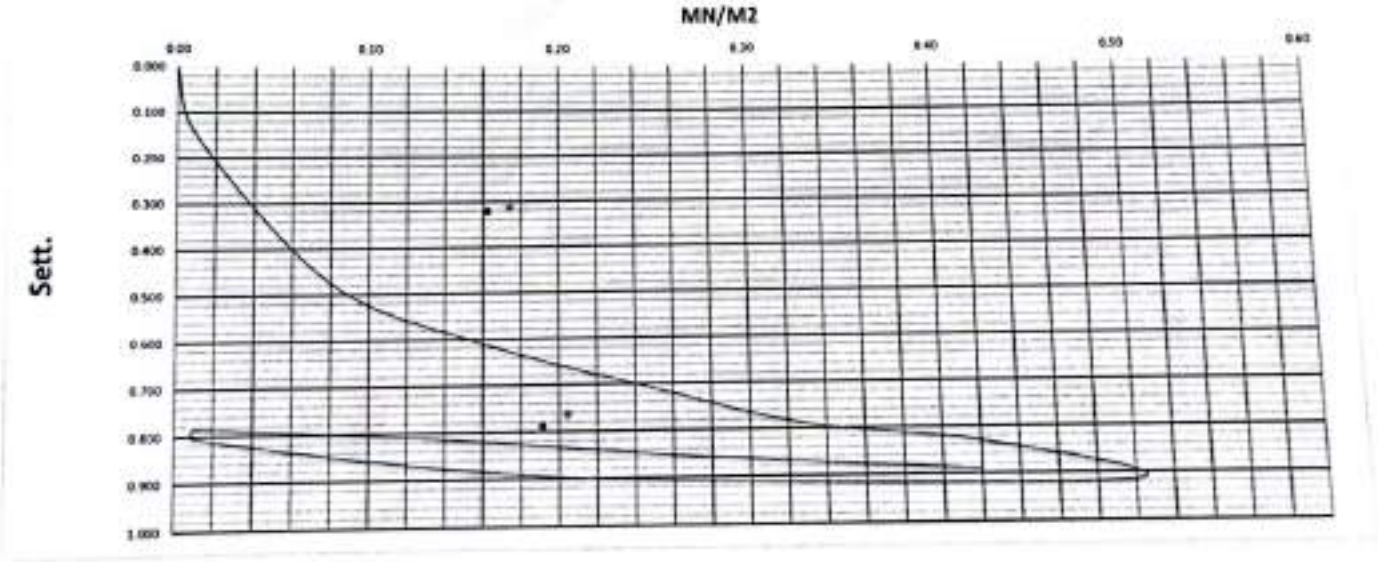
E_v = deformation modulus

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 : 23-6-2023

Owner Consultant | Contractor Consultant | Contractor | Owner

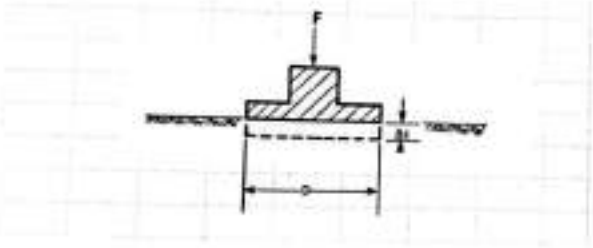
Plate Load Test Results

Company Name	AGR			
Location	526+100	To	526+200	Station: 526+145
Taste Date	19-06-2023			
Layer level	p.s.g +0.5			

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 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	19.98		0.050	0.020		0.035
2.000	17.1	5.652	0.08	19.54	19.75		0.460	0.250		0.355
0.080	34.2	11.304	0.16	19.30	19.58		0.700	0.420		0.560
4.000	53.3	17.663	0.25	19.15	19.48		0.850	0.520		0.685
5.000	70.5	23.315	0.33	19.04	19.43		0.960	0.570		0.765
6.000	89.8	29.673	0.42	19.00	19.40		1.000	0.600		0.800
7.000	106.8	35.325	0.50	18.92	19.36		1.080	0.640		0.860
8.000	53.4	17.663	0.25	18.94	19.38		1.060	0.620		0.840
9.000	26.7	8.831	0.12	19.00	19.39		1.000	0.610		0.805
9.000	2.1	0.707	0.01	19.08	19.43		0.920	0.570		0.745
10.000	2.1	0.707	0.01	19.08	19.43		0.920	0.570		0.745
11.000	17.1	5.652	0.08	19.07	19.42		0.930	0.580		0.755
12.000	34.2	11.304	0.16	19.04	19.41		0.960	0.590		0.775
13.000	53.3	17.663	0.25	18.98	19.39		1.020	0.610		0.815
14.000	70.5	23.315	0.33	18.96	19.38		1.040	0.620		0.830
15.000	89.8	29.673	0.42	18.94	19.36		1.060	0.640		0.850

0.7 σ_1	0.35	0.7475	0.21313	0.2
0.3 σ_1	0.15	0.53438		
0.7σ_2	0.35	0.83444	0.06944	0.2
0.3σ_2	0.15	0.765		
D (mm)	300			
Ev_1	211.14			
Ev_2	648.01			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.07		

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

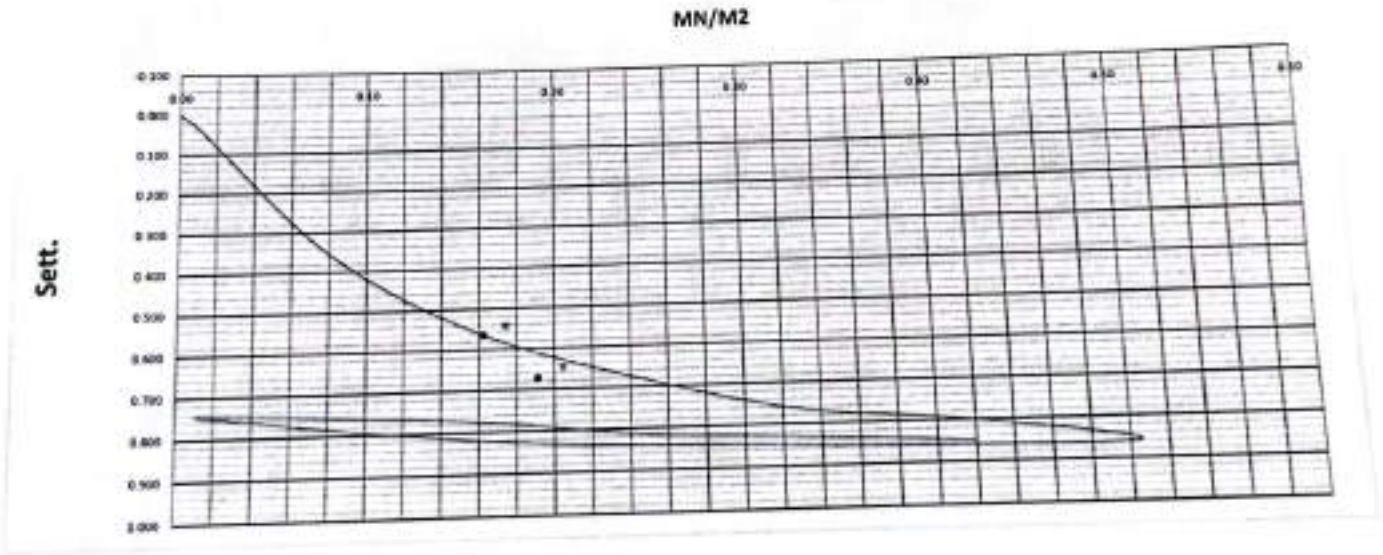
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 :
Sign :	Sign :	Sign :

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

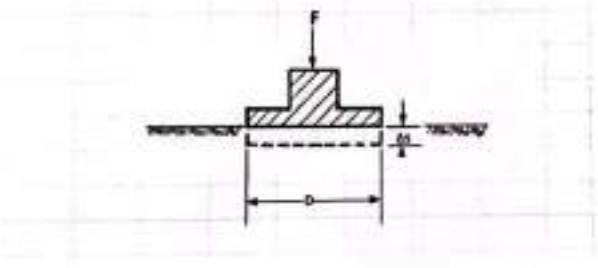
Company Name	AGR			
Location	526+100	To	526+200	
Taste Date	19-06-2023			
Layer level	**p.s.g +0.5**			

Station	526+165

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	19.63	19.74		0.370	0.260		0.315
2.000	17.1	5.652	0.08	19.30	19.35		0.700	0.650		0.675
0.080	34.2	11.304	0.16	19.08	19.25		0.920	0.750		0.835
4.000	53.3	17.663	0.25	18.97	19.20		1.030	0.800		0.915
5.000	70.5	23.315	0.33	18.85	19.18		1.150	0.820		0.985
6.000	89.8	29.673	0.42	18.78	19.12		1.220	0.880		1.050
7.000	106.8	35.325	0.50	18.65	19.10		1.350	0.900		1.125
8.000	53.4	17.663	0.25	18.69	19.12		1.310	0.880		1.095
9.000	26.7	8.831	0.12	18.74	19.15		1.260	0.850		1.055
9.000	2.1	0.707	0.01	18.82	19.22		1.180	0.780		0.980
10.000	2.1	0.707	0.01	18.82	19.22		1.180	0.780		0.980
11.000	17.1	5.652	0.08	18.80	19.21		1.200	0.790		0.995
12.000	34.2	11.304	0.16	18.76	19.19		1.240	0.810		1.025
13.000	53.3	17.663	0.25	18.75	19.17		1.250	0.830		1.040
14.000	70.5	23.315	0.33	18.72	19.15		1.280	0.850		1.065
15.000	89.8	29.673	0.42	18.67	19.13		1.330	0.870		1.100

		s	ΔS	Δσ
0.7 σ_1	0.35	0.98437	0.16937	0.2
0.3 σ_1	0.15	0.815		
0.7σ_2	0.35	1.07278	0.06278	0.2
0.3σ_2	0.15	1.01		
D (mm)	300			
Ev_1	265.68			
Ev_2	716.83			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.70		

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

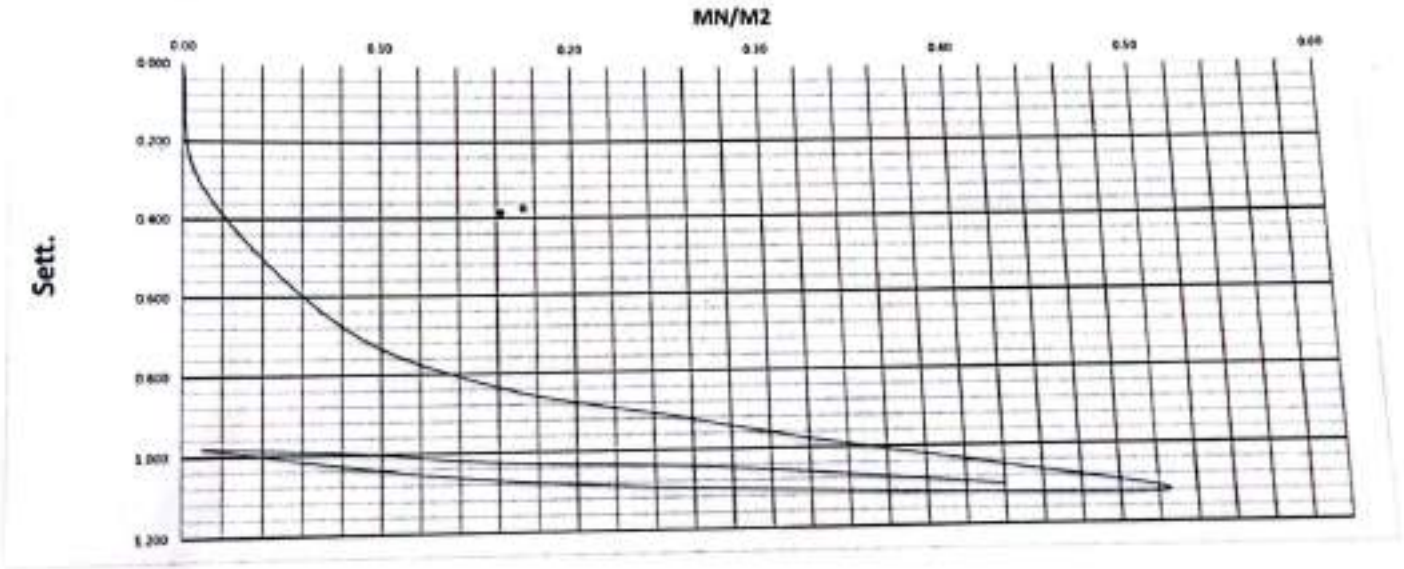
E_v = deformation modulus

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 :

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

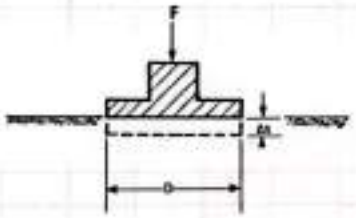
Company Name	AGR			
Location	526+100	To	526+200	
Taste Date	19-06-2023			
Layer level	**p.s.g +0.5**			

Station	526+185

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 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	19.91	19.94		0.090	0.060		0.075
2.000	17.1	5.652	0.08	19.46	19.68		0.540	0.320		0.430
0.080	34.2	11.304	0.16	19.30	19.58		0.700	0.420		0.560
4.000	53.3	17.663	0.25	19.12	19.51		0.880	0.490		0.685
5.000	70.5	23.315	0.33	18.95	19.48		1.050	0.520		0.785
6.000	89.8	29.673	0.42	18.85	19.44		1.150	0.560		0.855
7.000	106.8	35.325	0.50	18.71	19.30		1.290	0.700		0.995
8.000	53.4	17.663	0.25	18.75	19.32		1.250	0.680		0.965
9.000	26.7	8.831	0.12	18.81	19.38		1.190	0.620		0.905
9.000	2.1	0.707	0.01	18.86	19.40		1.140	0.600		0.870
10.000	2.1	0.707	0.01	18.86	19.40		1.140	0.600		0.870
11.000	17.1	5.652	0.08	18.85	19.39		1.150	0.610		0.880
12.000	34.2	11.304	0.16	18.83	19.38		1.170	0.620		0.895
13.000	53.3	17.663	0.25	18.81	19.37		1.190	0.630		0.910
14.000	70.5	23.315	0.33	18.78	19.35		1.220	0.650		0.935
15.000	89.8	29.673	0.42	18.71	19.32		1.290	0.680		0.985

		ε	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.7325	0.18875	0.2
$0.3\,\sigma_1$	0.15	0.54375		
$0.7\sigma_2$	0.35	0.94611	0.05611	0.2
$0.3\sigma_2$	0.15	0.89		
D (mm)	300			
E_{V1}	238.41			
E_{V2}	801.99			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.36		

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

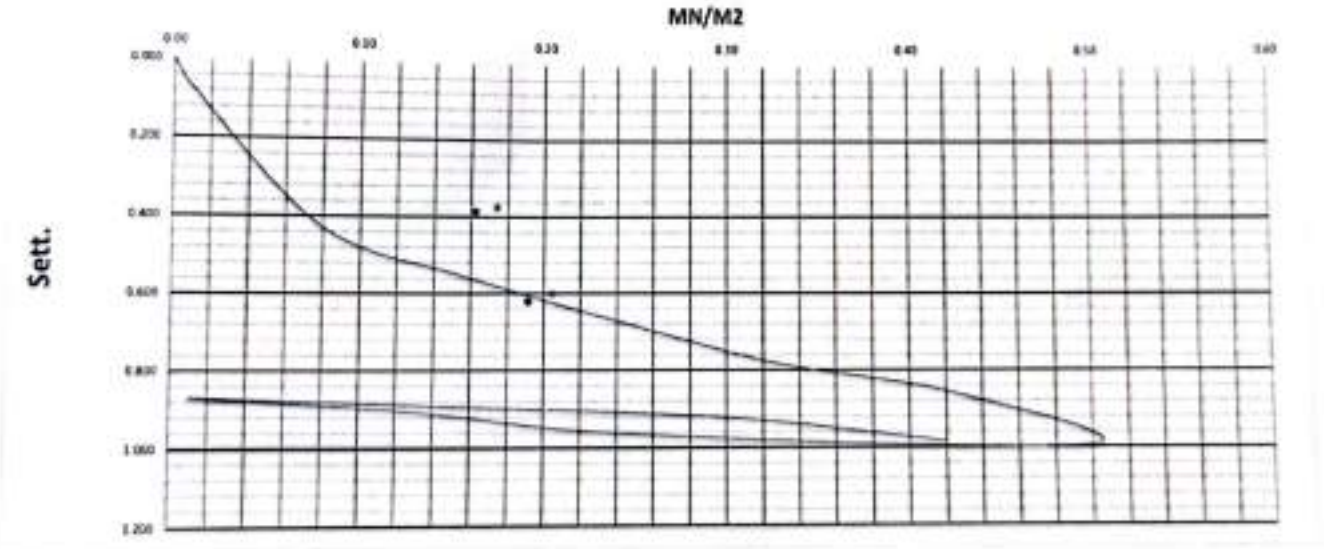
E_v = deformation modulus

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 : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

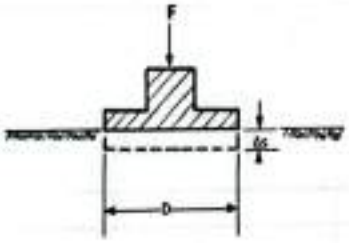
Company Name	AGR		
Location	526+380	To	526+460
Taste Date	15/6/2023		
Layer level	Ferma		

Station	526+400

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	10.93	11.08		0.000	0.000		0.000
1.000	2.1	0.707	0.01	10.89	11.01		0.040	0.070		0.055
2.000	17.1	5.652	0.08	10.78	10.73		0.152	0.350		0.251
0.080	34.2	11.304	0.16	10.61	10.30		0.320	0.780		0.550
4.000	53.4	17.663	0.25	10.43	9.91		0.500	1.170		0.835
5.000	70.5	23.315	0.33	10.34	9.74		0.590	1.340		0.965
6.000	89.7	29.673	0.42	10.21	9.51		0.720	1.570		1.145
7.000	106.8	35.325	0.50	10.11	9.37		0.820	1.710		1.265
8.000	53.4	17.663	0.25	10.18	9.46		0.750	1.620		1.185
9.000	26.7	8.831	0.12	10.31	9.67		0.620	1.410		1.015
9.000	2.1	0.707	0.01	10.46	9.93		0.470	1.150		0.810
10.000	2.1	0.707	0.01	10.46	9.93		0.470	1.150		0.810
11.000	17.1	5.652	0.08	10.43	9.85		0.500	1.230		0.865
12.000	34.2	11.304	0.16	10.35	9.70		0.580	1.380		0.980
13.000	53.4	17.663	0.25	10.28	9.57		0.650	1.510		1.080
14.000	70.5	23.315	0.33	10.20	9.47		0.730	1.610		1.170
15.000	89.7	29.673	0.42	10.13	9.40		0.800	1.680		1.240

		s	ΔS	Δσ
0.7 σ_1	0.35	1.04	0.52737	0.2
0.3 σ_1	0.15	0.51263		
0.7σ_2	0.35	1.18556	0.26555	0.2
0.3σ_2	0.15	0.92001		
D (mm)	300			
Ev_1	85.33			
Ev_2	169.46			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.99		

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

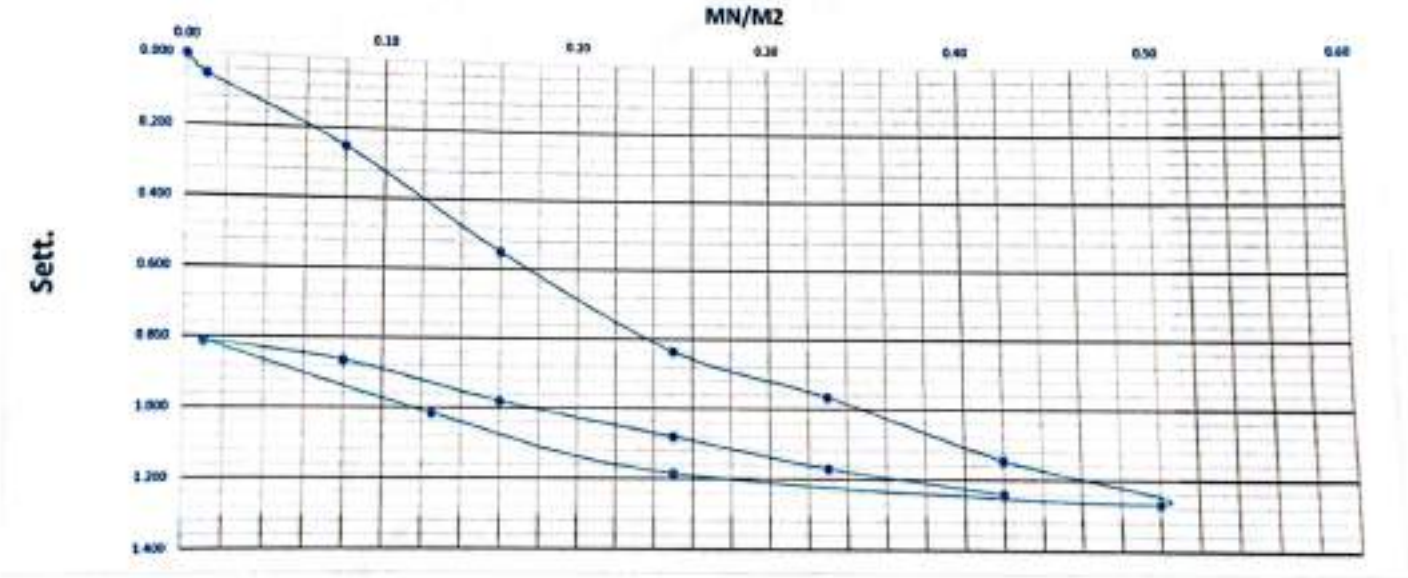
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign : 23/6/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

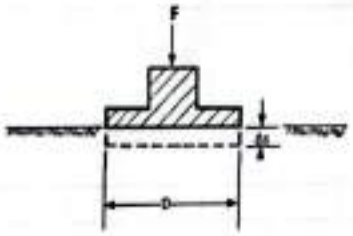
Company Name	AGR			
Location	526+380	To	526+460	
Taste Date	15/6/2023			
Layer level	**Ferma**			

Station	526+450

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	10.18	12.11		0.000	0.000		0.000
1.000	2.1	0.707	0.01	10.15	11.67		0.030	0.440		0.235
2.000	17.1	5.652	0.08	10.09	11.29		0.090	0.820		0.455
0.080	34.2	11.304	0.16	10.00	11.01		0.180	1.100		0.640
4.000	53.4	17.663	0.25	9.82	10.79		0.360	1.320		0.840
5.000	70.5	23.315	0.33	9.72	10.66		0.460	1.450		0.955
6.000	89.7	29.673	0.42	9.57	10.45		0.610	1.660		1.135
7.000	106.8	35.325	0.50	9.49	10.32		0.690	1.790		1.240
8.000	53.4	17.663	0.25	9.56	10.42		0.620	1.690		1.155
9.000	26.7	8.831	0.12	9.65	10.58		0.530	1.530		1.030
9.000	2.1	0.707	0.01	9.79	10.83		0.390	1.280		0.835
10.000	2.1	0.707	0.01	9.79	10.83		0.390	1.280		0.835
11.000	17.1	5.652	0.08	9.75	10.77		0.430	1.340		0.885
12.000	34.2	11.304	0.16	9.67	10.64		0.510	1.470		0.990
13.000	53.4	17.663	0.25	9.61	10.50		0.570	1.610		1.090
14.000	70.5	23.315	0.33	9.56	10.43		0.620	1.680		1.150
15.000	89.7	29.673	0.42	9.50	10.34		0.680	1.770		1.225

		s	ΔS	$\Delta\sigma$
0.7 σ_1	0.35	1.04313	0.42625	0.2
0.3 σ_1	0.15	0.61688		
0.7σ_2	0.35	1.16667	0.23166	0.2
0.3σ_2	0.15	0.93501		
D (mm)	300			
E_{V1}	105.57			
E_{V2}	194.25			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.84		

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

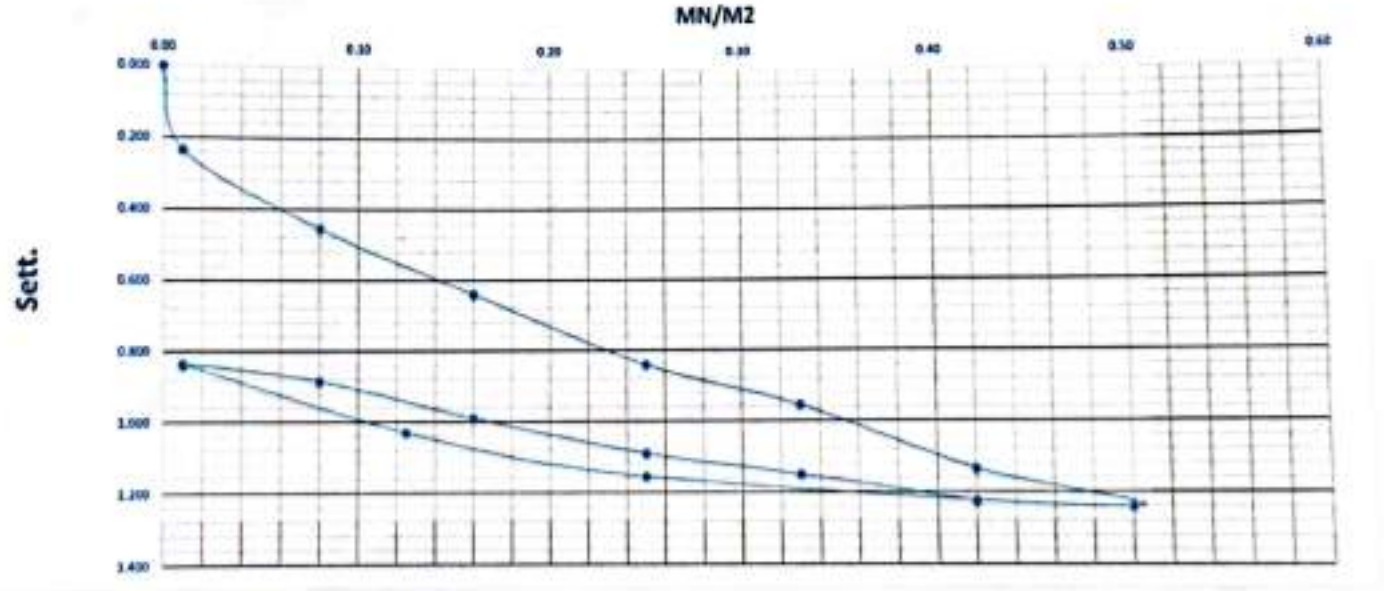
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign : 23/6/2022

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 529+520 TO 529+620
Date: 13-06-23

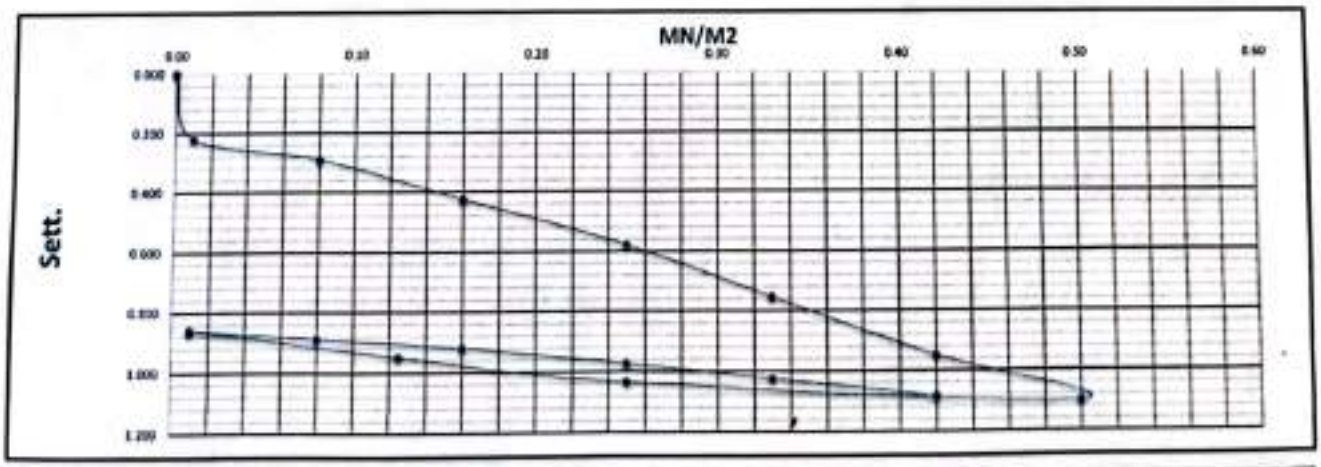
COMPANY	AGR COMPANY
Location	529+600

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	7.30	7.80		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.10	7.56		0.200	0.240		0.220
2.000	7.9	5.652	0.08	7.03	7.49		0.270	0.310		0.290
0.080	15.8	11.304	0.16	6.91	7.34		0.390	0.460		0.425
4.000	24.7	17.663	0.25	6.77	7.17		0.530	0.630		0.580
5.000	32.6	23.315	0.33	6.61	6.98		0.690	0.820		0.755
6.000	41.5	29.673	0.42	6.43	6.77		0.870	1.030		0.950
7.000	49.4	35.325	0.50	6.30	6.60		1.000	1.200		1.100
8.000	24.7	17.663	0.25	6.33	6.70		0.970	1.100		1.035
9.000	12.4	8.831	0.12	6.40	6.80		0.900	1.000		0.950
9.000	1.0	0.707	0.01	6.48	6.90		0.820	0.900		0.860
10.000	1.0	0.707	0.01	6.48	6.90		0.820	0.900		0.860
11.000	7.9	5.652	0.08	6.45	6.87		0.850	0.930		0.890
12.000	15.8	11.304	0.16	6.43	6.83		0.870	0.970		0.920
13.000	24.7	17.663	0.25	6.39	6.76		0.910	1.040		0.975
14.000	32.6	23.315	0.33	6.35	6.70		0.950	1.100		1.025
15.000	41.5	29.673	0.42	6.30	6.63		1.000	1.170		1.085

		s	SS	Se
$0.7\sigma_1$	0.35	0.81875	0.41063	0.2
$0.3\sigma_1$	0.15	0.40813		
$0.7\sigma_2$	0.35	1.03833	0.11833	0.2
$0.3\sigma_2$	0.15	0.92		
D (mm)	300			
Ev_1	109.59			
Ev_2	380.29			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.47		

LOAD
UN LOAD
RE LOAD



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

شركة نفاذ للمقاولات
المعمل المركزي
مشروع القطار السريع فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.50
Station: 527+700 TO 527+840
Date: 12-06-23

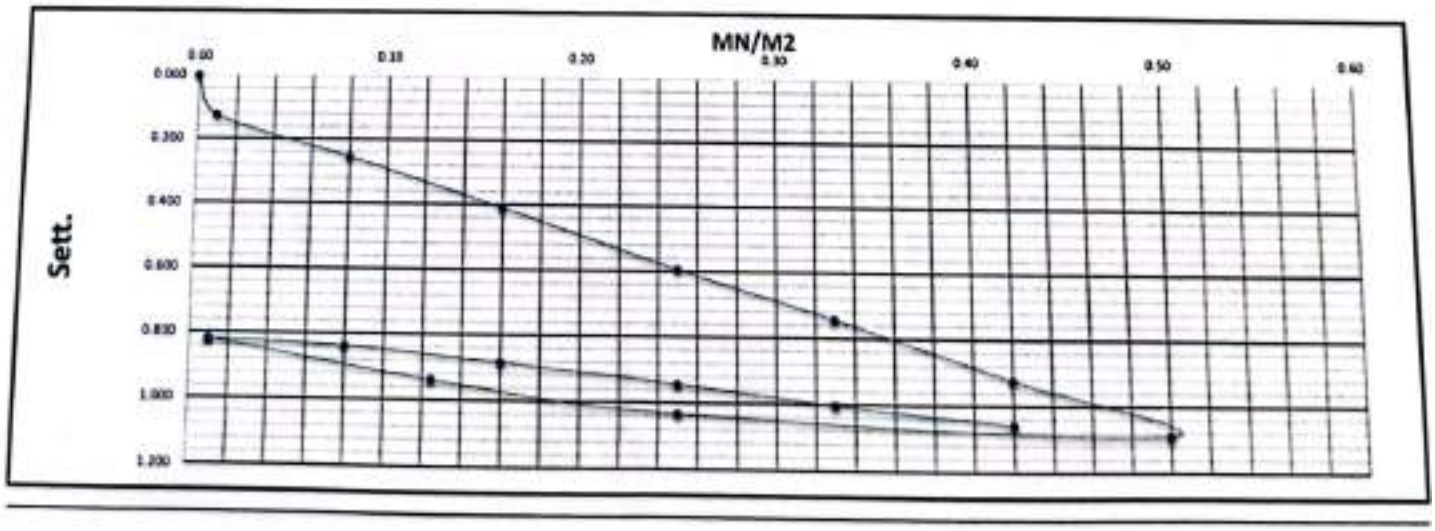
COMPANY	AGR COMPANY
Location	527+740

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	6.49	5.40		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.38	5.26		0.110	0.140		0.125
2.000	7.9	5.652	0.08	6.28	5.10		0.210	0.300		0.255
0.080	15.8	11.304	0.16	6.17	4.90		0.320	0.500		0.410
4.000	24.7	17.663	0.25	6.05	4.65		0.440	0.750		0.595
5.000	32.6	23.315	0.33	5.93	4.47		0.560	0.930		0.745
6.000	41.5	29.673	0.42	5.79	4.25		0.700	1.150		0.925
7.000	49.4	35.325	0.50	5.66	4.05		0.830	1.350		1.090
8.000	24.7	17.663	0.25	5.71	4.11		0.780	1.290		1.035
9.000	12.4	8.831	0.12	5.79	4.22		0.700	1.180		0.940
9.000	1.0	0.707	0.01	5.88	4.37		0.610	1.030		0.820
10.000	1.0	0.707	0.01	5.88	4.37		0.610	1.030		0.820
11.000	7.9	5.652	0.08	5.87	4.34		0.620	1.060		0.840
12.000	15.8	11.304	0.16	5.83	4.29		0.660	1.110		0.885
13.000	24.7	17.663	0.25	5.78	4.22		0.710	1.180		0.945
14.000	32.6	23.315	0.33	5.73	4.15		0.760	1.250		1.005
15.000	41.5	29.673	0.42	5.68	4.09		0.810	1.310		1.060

			ΔS	Δσ
0.7 σ_1	0.35	0.78063	0.39	0.2
0.3 σ_1	0.15	0.39063		
0.7σ_2	0.35	1.01722	0.15722	0.2
0.3σ_2	0.15	0.86		
D (mm)	300			
Ev_1	115.38			
Ev_2	286.22			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.48		

LOAD
UN LOAD
RE LOAD



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

شركة تجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع / فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.50
Station: 527+700 TO 527+840
Date: 12-06-23

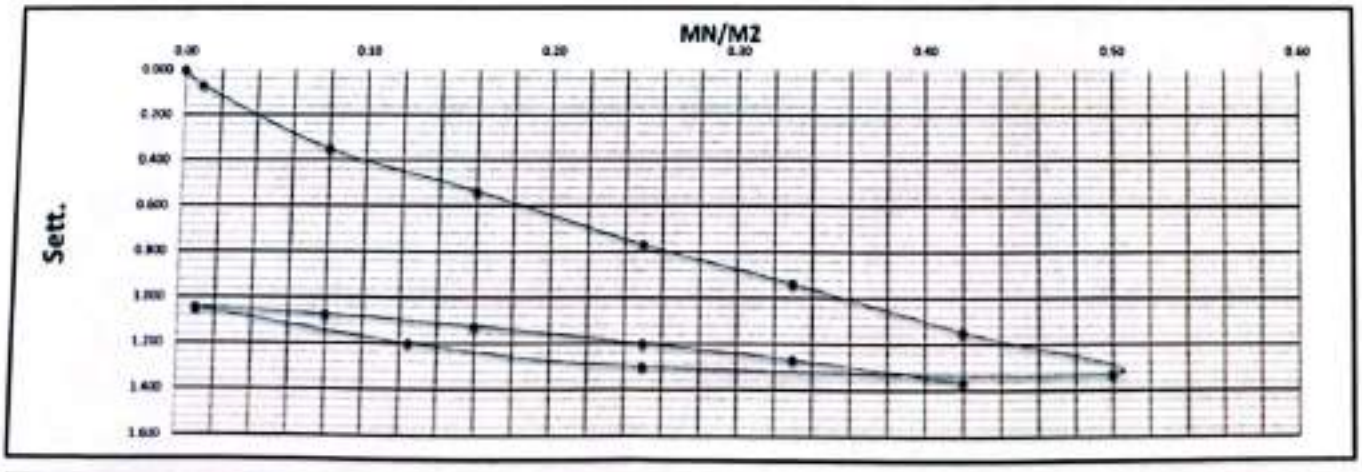
COMPANY	AGR COMPANY
Location	527+780

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	Ave. Sett. mm
0.000	0.0	0.000	0.00	7.20	6.93		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.11	6.88		0.090	0.050		0.070
2.000	7.9	5.652	0.08	6.75	6.68		0.450	0.250		0.350
0.080	15.8	11.304	0.16	6.49	6.57		0.710	0.360		0.535
4.000	24.7	17.663	0.25	6.20	6.39		1.000	0.540		0.770
5.000	32.6	23.315	0.33	6.01	6.24		1.190	0.690		0.940
6.000	41.5	29.673	0.42	5.80	6.03		1.400	0.900		1.150
7.000	49.4	35.325	0.50	5.57	5.90		1.630	1.030		1.330
8.000	24.7	17.663	0.25	5.61	5.92		1.590	1.010		1.300
9.000	12.4	8.831	0.12	5.72	6.01		1.480	0.920		1.200
9.000	1.0	0.707	0.01	5.89	6.15		1.310	0.780		1.045
10.000	1.0	0.707	0.01	5.89	6.15		1.310	0.780		1.045
11.000	7.9	5.652	0.08	5.85	6.13		1.350	0.800		1.075
12.000	15.8	11.304	0.16	5.78	6.10		1.420	0.830		1.125
13.000	24.7	17.663	0.25	5.68	6.05		1.520	0.880		1.200
14.000	32.6	23.315	0.33	5.60	5.99		1.600	0.940		1.270
15.000	41.5	29.673	0.42	5.44	5.96		1.760	0.970		1.365

		ε	ΔS	Δσ
0.7 σ_1	0.35	0.9925	0.48063	0.2
0.3 σ_1	0.15	0.51188		
0.7σ_1	0.35	1.29111	0.18611	0.2
0.3σ_1	0.15	1.105		
D (mm)	300			
Ev_1	93.63			
Ev_2	241.79			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.58		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Owner Consultant | Contractor Consultant | Contactor | Owner

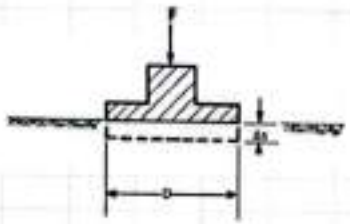
Plate Load Test Results

Company Name	AGR			
Location	529+600	To	529+700	Station: 529+650
Taste Date	06-06-2023			
Layer level	-1.5			

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 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	19.99		0.050	0.010		0.030
2.000	17.1	5.652	0.08	19.89	19.90		0.110	0.100		0.105
0.080	34.2	11.304	0.16	19.81	19.79		0.190	0.210		0.200
4.000	53.3	17.663	0.25	19.72	19.64		0.280	0.360		0.320
5.000	70.5	23.315	0.33	19.70	19.55		0.300	0.450		0.375
6.000	89.8	29.673	0.42	19.64	19.45		0.360	0.550		0.455
7.000	106.8	35.325	0.50	19.59	19.30		0.410	0.700		0.555
8.000	53.4	17.663	0.25	19.62	19.40		0.380	0.600		0.490
9.000	26.7	8.831	0.12	19.68	19.50		0.320	0.500		0.410
9.000	2.1	0.707	0.01	19.78	19.69		0.220	0.310		0.265
10.000	2.1	0.707	0.01	19.78	19.69		0.220	0.310		0.265
11.000	17.1	5.652	0.08	19.73	19.65		0.270	0.350		0.310
12.000	34.2	11.304	0.16	19.70	19.56		0.300	0.440		0.370
13.000	53.3	17.663	0.25	19.68	19.50		0.320	0.500		0.410
14.000	70.5	23.315	0.33	19.62	19.41		0.380	0.590		0.485
15.000	89.8	29.673	0.42	19.59	19.33		0.410	0.670		0.540

		I	ΔS	Se
0.7 σ_1	0.35	0.3675	0.17937	0.2
0.3 σ_1	0.15	0.18813		
0.7σ_2	0.35	0.49722	0.14222	0.2
0.3σ_2	0.15	0.355		
D (mm)	300			
Ev_1	250.87			
Ev_2	316.42			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.26		

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

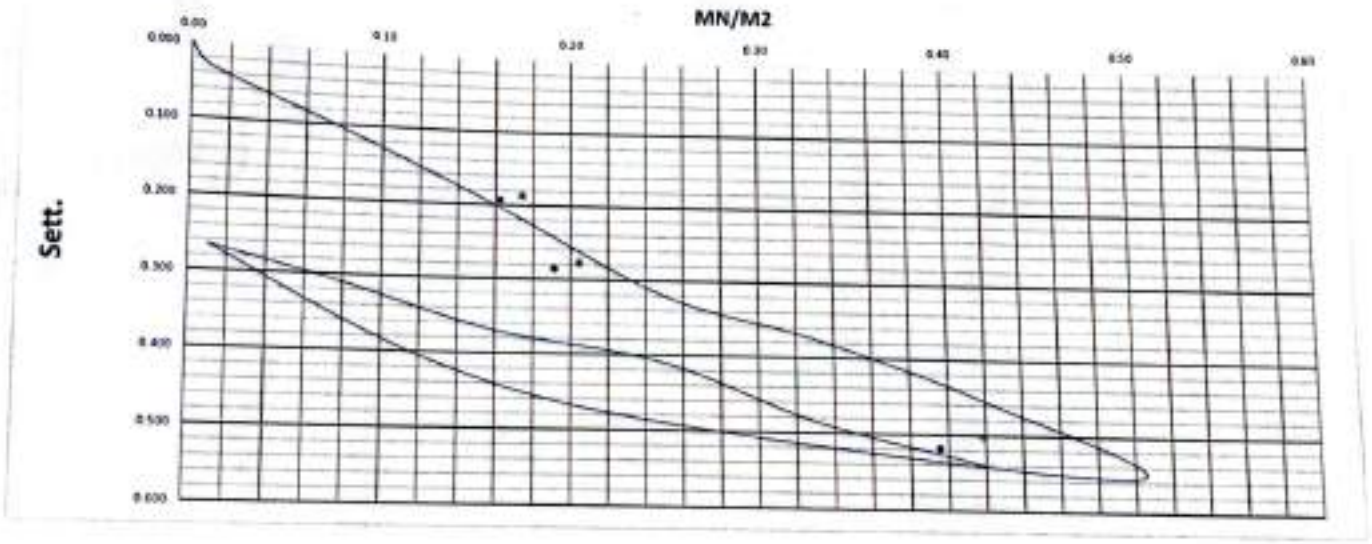
E_v = deformation modulus

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 : mohamed elsaied
Sign :	Sign :	Sign : m. elsaied

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: -1.5
Station: 529+160 TO 529+300
Date: 05-06-23

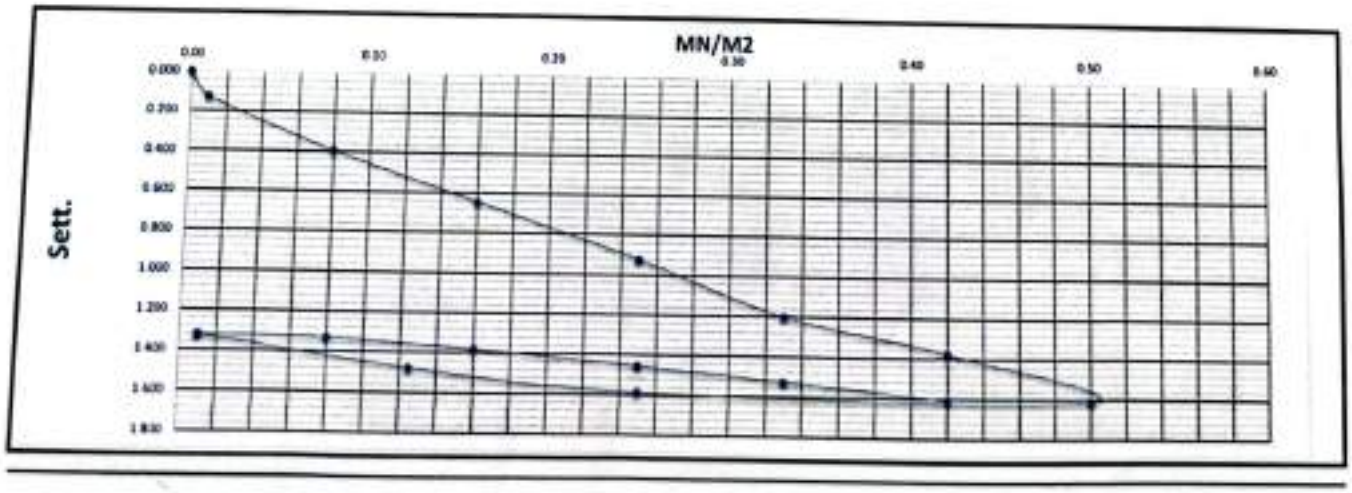
COMPANY	AGR
Location	529+180

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	Adj. Sett. mm
0.000	0.0	0.000	0.00	7.24	7.66		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.09	7.56		0.150	0.100		0.125
2.000	7.9	5.652	0.08	6.78	7.33		0.460	0.330		0.395
0.080	15.8	11.304	0.16	6.48	7.13		0.760	0.530		0.645
4.000	24.7	17.663	0.25	6.14	6.91		1.100	0.750		0.925
5.000	32.6	23.315	0.33	5.82	6.67		1.420	0.990		1.205
6.000	41.5	29.673	0.42	5.63	6.51		1.610	1.150		1.380
7.000	49.4	35.325	0.50	5.42	6.25		1.820	1.410		1.615
8.000	24.7	17.663	0.25	5.46	6.26		1.780	1.400		1.590
9.000	12.4	8.831	0.12	5.61	6.33		1.630	1.330		1.480
9.000	1.0	0.707	0.01	5.81	6.44		1.430	1.220		1.325
10.000	1.0	0.707	0.01	5.81	6.44		1.430	1.220		1.325
11.000	7.9	5.652	0.08	5.80	6.43		1.440	1.230		1.335
12.000	15.8	11.304	0.16	5.73	6.40		1.510	1.260		1.385
13.000	24.7	17.663	0.25	5.63	6.35		1.610	1.310		1.460
14.000	32.6	23.315	0.33	5.54	6.30		1.700	1.360		1.530
15.000	41.5	29.673	0.42	5.44	6.24		1.800	1.420		1.610

		z	ΔS	Δσ
$0.7\,\sigma_1$	0.35	1.17438	0.56063	0.2
$0.3\,\sigma_1$	0.15	0.61375		
$0.7\sigma_2$	0.35	1.54778	0.38278	0.2
$0.3\sigma_2$	0.15	1.345		
D (mm)	300			
E_{V_1}	80.27			
E_{V_2}	221.92			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.76		

LOAD
UN LOAD
RE LOAD



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

شركة نارة للمقاولات
المعمل المركزى
مشروع القطار السريع / فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	-1.5		
Station:	529+160	TO	529+300
Date:	05-06-23		

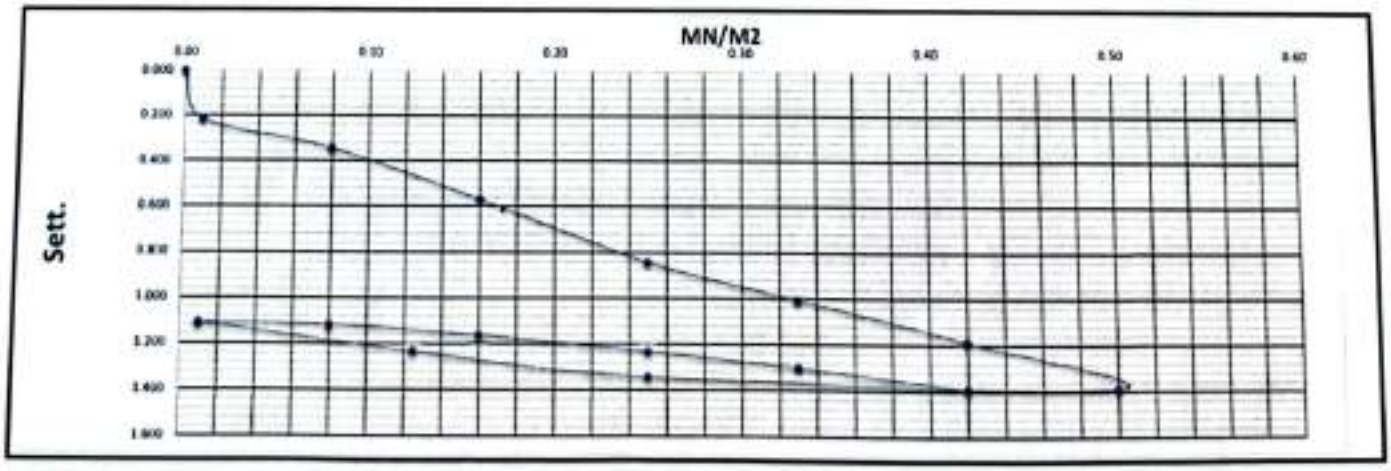
COMPANY	AGR
Location	529+260

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	7.29	7.35		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.05	7.16		0.240	0.190		0.215
2.000	7.9	5.652	0.08	6.90	7.05		0.390	0.300		0.345
0.080	15.8	11.304	0.16	6.65	6.85		0.640	0.500		0.570
4.000	24.7	17.663	0.25	6.34	6.61		0.950	0.740		0.845
5.000	32.6	23.315	0.33	6.14	6.48		1.150	0.870		1.010
6.000	41.5	29.673	0.42	5.94	6.32		1.350	1.030		1.190
7.000	49.4	35.325	0.50	5.72	6.14		1.570	1.210		1.390
8.000	24.7	17.663	0.25	5.78	6.17		1.510	1.180		1.345
9.000	12.4	8.831	0.12	5.92	6.25		1.370	1.100		1.235
9.000	1.0	0.707	0.01	6.08	6.34		1.210	1.010		1.110
10.000	1.0	0.707	0.01	6.08	6.34		1.210	1.010		1.110
11.000	7.9	5.652	0.08	6.07	6.33		1.220	1.020		1.120
12.000	15.8	11.304	0.16	6.01	6.30		1.280	1.050		1.165
13.000	24.7	17.663	0.25	5.91	6.26		1.380	1.090		1.235
14.000	32.6	23.315	0.33	5.83	6.20		1.460	1.150		1.305
15.000	41.5	29.673	0.42	5.72	6.13		1.570	1.220		1.395

		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	1.015	0.47312	0.2
$0.3\,\sigma_1$	0.15	0.54188		
$0.7\sigma_2$	0.35	1.325	0.195	0.2
$0.3\sigma_2$	0.15	1.13		
D (mm)	300			
Ev_1	95.11			
Ev_2	230.77			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.43		

LOAD
UN LOAD
RE LOAD



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

شركة الجديدة للمقاولات
المعمل المركزى
مشروع القطار السريع / فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: 0.5 +
Station: 526+000 TO 526+100
Date: 05-06-23

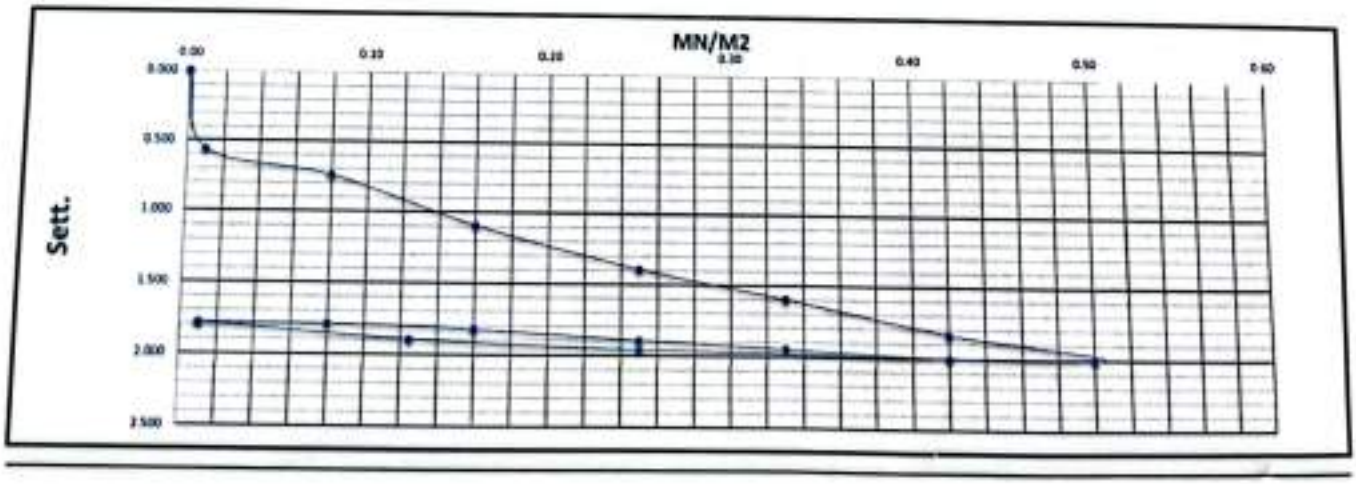
COMPANY	AGR
Location	526+010

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	6.92	7.24		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.35	6.68		0.570	0.560		0.565
2.000	7.9	5.652	0.08	6.18	6.49		0.740	0.750		0.745
0.000	15.8	11.304	0.16	5.84	6.13		1.080	1.110		1.095
4.000	24.7	17.663	0.25	5.55	5.82		1.370	1.420		1.395
5.000	32.6	23.315	0.33	5.31	5.65		1.610	1.590		1.600
6.000	41.5	29.673	0.42	4.97	5.51		1.950	1.730		1.840
7.000	49.4	35.325	0.50	4.72	5.43		2.200	1.810		2.005
8.000	24.7	17.663	0.25	4.72	5.52		2.200	1.720		1.960
9.000	12.4	8.831	0.12	4.74	5.62		2.180	1.620		1.900
9.000	1.0	0.707	0.01	4.82	5.76		2.100	1.480		1.790
10.000	1.0	0.707	0.01	4.82	5.76		2.100	1.480		1.790
11.000	7.9	5.652	0.08	4.81	5.76		2.110	1.480		1.795
12.000	15.8	11.304	0.16	4.78	5.72		2.140	1.520		1.830
13.000	24.7	17.663	0.25	4.74	5.62		2.180	1.620		1.900
14.000	32.6	23.315	0.33	4.71	5.55		2.210	1.690		1.950
15.000	41.5	29.673	0.42	4.68	5.47		2.240	1.770		2.005

		a	ΔS	$\Delta\sigma$
0.7 σ_1	0.35	1.69563	0.64438	0.2
0.3 σ_1	0.15	1.05125		
0.7σ_2	0.35	1.96222	0.16222	0.2
0.3σ_2	0.15	1.8		
D (mm)	300			
Ev_1	69.84			
Ev_2	277.40			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.97		

LOAD
UN LOAD
RE LOAD



Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name : Shehab Hamdi	Name : Hassan
Sign :	Sign : 6 2023	Sign :

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: 0.5 +
Station: 526+000 | TO | 526+100
Date: 05-06-23

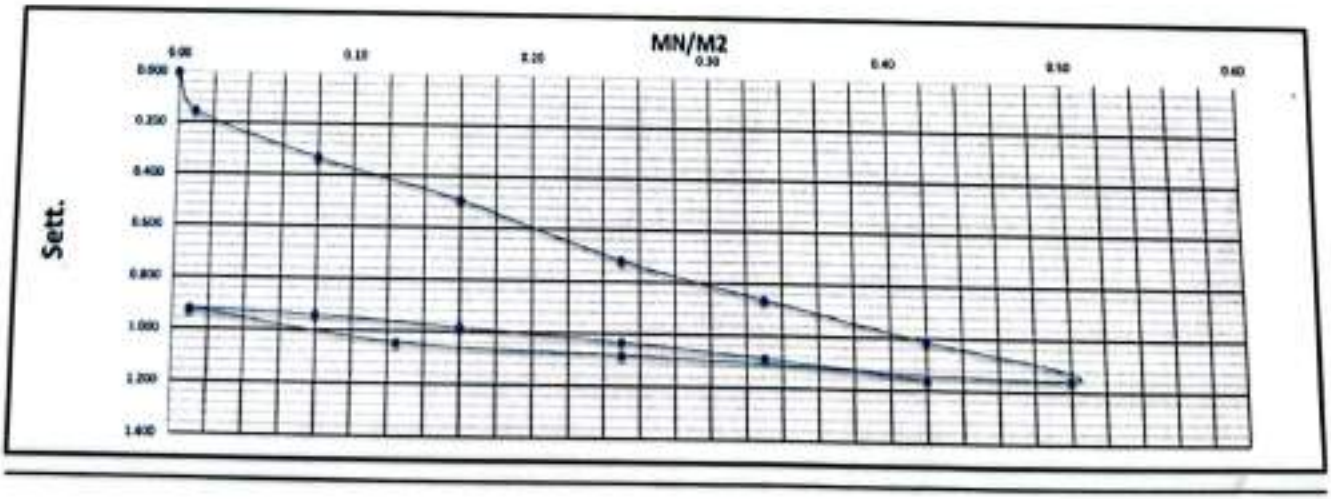
COMPANY	AGR
Location	526+040

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	7.19	7.30		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.98	7.20		0.210	0.100		0.155
2.000	7.9	5.652	0.08	6.78	7.04		0.410	0.260		0.335
0.080	15.8	11.304	0.16	6.65	6.85		0.540	0.450		0.495
4.000	24.7	17.663	0.25	6.49	6.56		0.700	0.740		0.720
5.000	32.6	23.315	0.33	6.38	6.38		0.810	0.920		0.865
6.000	41.5	29.673	0.42	6.26	6.20		0.930	1.100		1.015
7.000	49.4	35.325	0.50	6.17	6.01		1.020	1.290		1.155
8.000	24.7	17.663	0.25	6.27	6.05		0.920	1.250		1.085
9.000	12.4	8.831	0.12	6.33	6.07		0.860	1.230		1.045
9.000	1.0	0.707	0.01	6.46	6.18		0.730	1.120		0.925
10.000	1.0	0.707	0.01	6.46	6.18		0.730	1.120		0.925
11.000	7.9	5.652	0.08	6.45	6.15		0.740	1.150		0.945
12.000	15.8	11.304	0.16	6.42	6.10		0.770	1.200		0.985
13.000	24.7	17.663	0.25	6.38	6.04		0.810	1.260		1.035
14.000	32.6	23.315	0.33	6.30	6.01		0.890	1.290		1.090
15.000	41.5	29.673	0.42	6.20	5.97		0.990	1.330		1.160

		s	Δδ	Δσ
0.7 σ_1	0.35	0.8925	0.4175	0.2
0.3 σ_1	0.15	0.475		
0.7σ_2	0.35	1.10556	0.14855	0.2
0.3σ_2	0.15	0.965		
D (mm)	300			
E_{v1}	107.78			
E_{v2}	228.16			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.97		

LOAD
UN LOAD
RE LOAD



Lab. Specialist
Name :
Sign :

Lab. Engineer
Name : Shehab Hamdi
Sign :

Consultant Engineer
Name : Hassan
Sign :

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: 0.5 +
Station: 526+000 TO 526+100
Date: 05-06-23

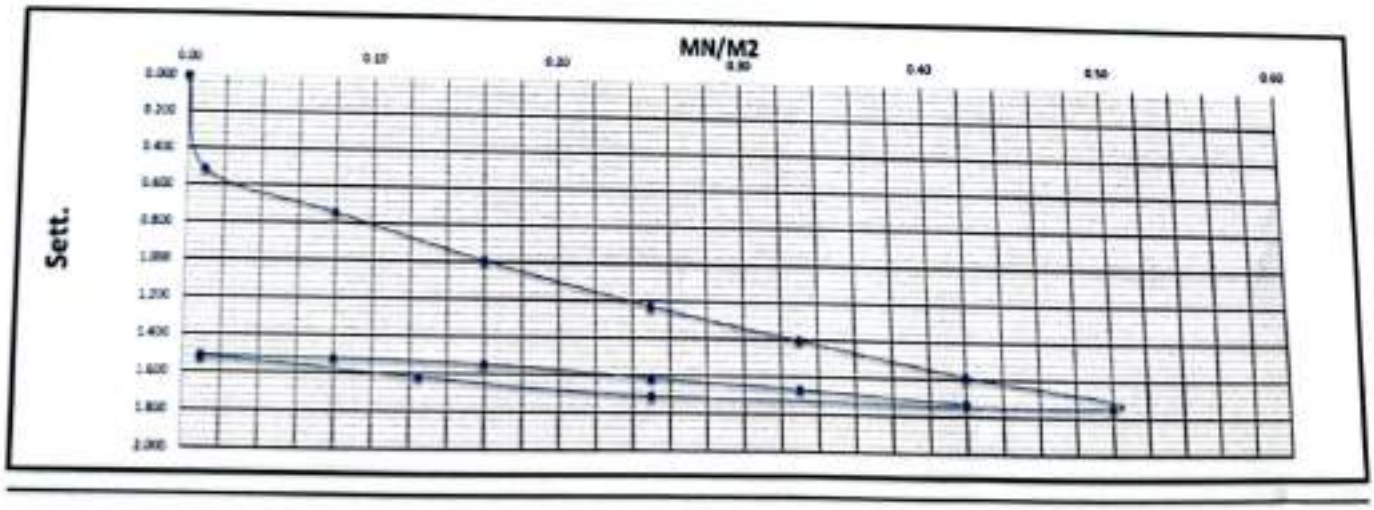
COMPANY	AGR
Location	526+060

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	6.95	7.02		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.28	6.66		0.670	0.360		0.515
2.000	7.9	5.652	0.08	6.01	6.47		0.940	0.550		0.745
3.000	15.8	11.304	0.16	5.71	6.27		1.240	0.750		0.995
4.000	24.7	17.663	0.25	5.45	6.06		1.500	0.960		1.230
5.000	32.6	23.315	0.33	5.27	5.89		1.680	1.130		1.405
6.000	41.5	29.673	0.42	5.07	5.72		1.880	1.300		1.590
7.000	49.4	35.325	0.50	4.92	5.56		2.030	1.460		1.745
8.000	24.7	17.663	0.25	4.98	5.57		1.970	1.450		1.710
9.000	12.4	8.831	0.12	5.12	5.61		1.830	1.410		1.620
9.000	1.0	0.707	0.01	5.25	5.69		1.700	1.330		1.515
10.000	1.0	0.707	0.01	5.25	5.69		1.700	1.330		1.515
11.000	7.9	5.652	0.08	5.24	5.68		1.710	1.340		1.525
12.000	15.8	11.304	0.16	5.22	5.65		1.730	1.370		1.550
13.000	24.7	17.663	0.25	5.13	5.61		1.820	1.410		1.615
14.000	32.6	23.315	0.33	5.06	5.57		1.890	1.450		1.670
15.000	41.5	29.673	0.42	4.96	5.54		1.990	1.480		1.735

0.7 σ_1	0.35	1.45438	0.49063	0.2
0.3 σ_2	0.15	0.96375		
0.7σ_2	0.35	1.68444	0.14944	0.2
0.3σ_1	0.15	1.535		
D (mm)	300			
E_{V1}	91.72			
E_{V2}	301.12			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.28		

LOAD
UN LOAD
RE LOAD



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

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: 0.50 +
Station: 526+000 TO 526+100
Date: 05-06-23

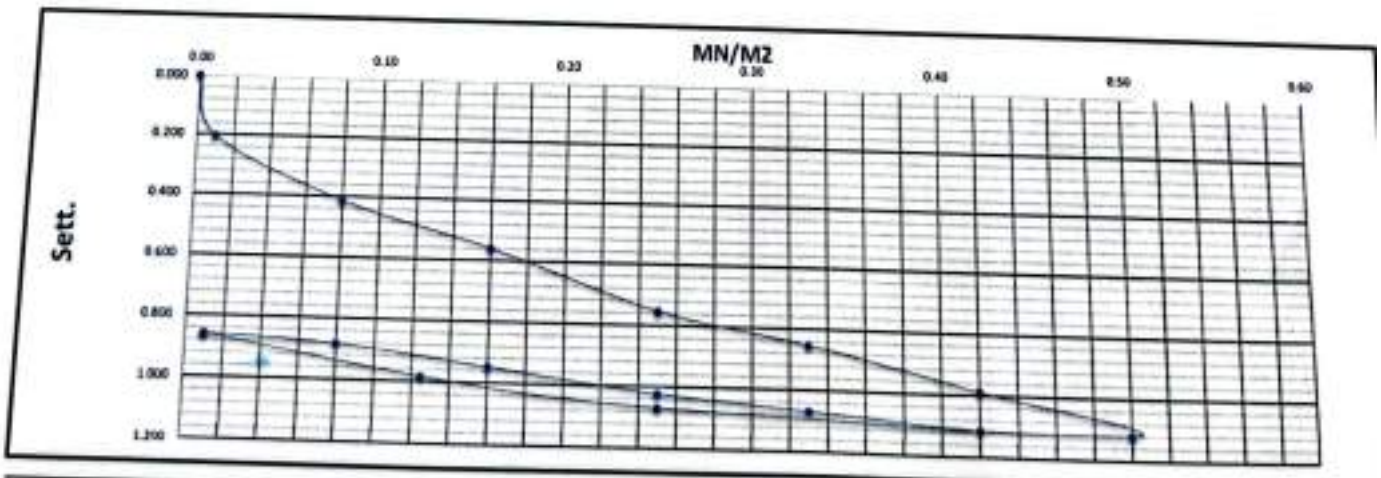
COMPANY	AGR
Location	526+085

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	6.24	6.88		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.03	6.68		0.210	0.200		0.205
2.000	7.9	5.652	0.08	5.80	6.49		0.440	0.390		0.415
0.080	15.8	11.304	0.16	5.63	6.37		0.610	0.510		0.560
4.000	24.7	17.663	0.25	5.41	6.20		0.830	0.680		0.755
5.000	32.6	23.315	0.33	5.30	6.11		0.940	0.770		0.855
6.000	41.5	29.673	0.42	5.17	5.97		1.070	0.910		0.990
7.000	49.4	35.325	0.50	5.06	5.82		1.180	1.060		1.120
8.000	24.7	17.663	0.25	5.12	5.86		1.120	1.020		1.070
9.000	12.4	8.831	0.12	5.26	5.89		0.980	0.990		0.985
9.000	1.0	0.707	0.01	5.46	5.94		0.780	0.940		0.860
10.000	1.0	0.707	0.01	5.46	5.94		0.780	0.940		0.860
11.000	7.9	5.652	0.08	5.44	5.91		0.800	0.970		0.885
12.000	15.8	11.304	0.16	5.34	5.88		0.900	1.000		0.950
13.000	24.7	17.663	0.25	5.23	5.84		1.010	1.040		1.025
14.000	32.6	23.315	0.33	5.16	5.82		1.080	1.060		1.070
15.000	41.5	29.673	0.42	5.09	5.80		1.150	1.080		1.115

		z	ΔS	$\Delta\sigma$
$0.7\,\sigma_1$	0.35	0.87625	0.33438	0.2
$0.3\,\sigma_1$	0.15	0.54188		
$0.7\sigma_2$	0.35	1.08	0.17	0.2
$0.3\sigma_2$	0.15	0.91		
D (mm)	300			
E_{V_1}	134.58			
E_{V_2}	264.71			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.97		

LOAD
UN LOAD
RE LOAD



Lab. Specialist
Name :
Sign :

Lab. Engineer
Name : Shehab Hamdi
Sign :
6 2023

Consultant Engineer
Name : Hassan
Sign :

Owner Consultant | Contractor Consultant | Contractor | Owner

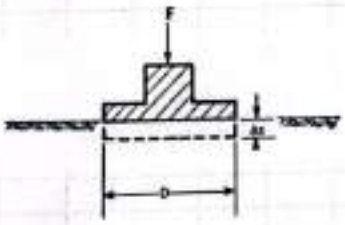
Plate Load Test Results

Company Name	AGR			
Location	526+000	To	526+100	Station: 526+050
Taste Date	19-06-2023			
Layer level	**p.s.g +0.5**			

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	19.95		0.100	0.050		0.075
2.000	17.1	5.652	0.08	19.55	19.71		0.450	0.290		0.370
0.080	34.2	11.304	0.16	19.27	19.55		0.730	0.450		0.590
4.000	53.3	17.663	0.25	19.13	19.48		0.870	0.520		0.695
5.000	70.5	23.315	0.33	19.00	19.40		1.000	0.600		0.800
6.000	89.8	29.673	0.42	18.90	19.32		1.100	0.680		0.890
7.000	106.8	35.325	0.50	18.71	19.20		1.290	0.800		1.045
8.000	53.4	17.663	0.25	18.75	19.22		1.250	0.780		1.015
9.000	26.7	8.831	0.12	18.80	19.23		1.200	0.770		0.985
9.000	2.1	0.707	0.01	18.86	19.35		1.140	0.650		0.895
10.000	2.1	0.707	0.01	18.86	19.35		1.140	0.650		0.895
11.000	17.1	5.652	0.08	18.85	19.33		1.150	0.670		0.910
12.000	34.2	11.304	0.16	18.84	19.32		1.160	0.680		0.920
13.000	53.3	17.663	0.25	18.81	19.30		1.190	0.700		0.945
14.000	70.5	23.315	0.33	18.80	19.26		1.200	0.740		0.970
15.000	89.8	29.673	0.42	18.74	19.20		1.260	0.800		1.030

		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.75438	0.19188	0.2
$0.3\,\sigma_1$	0.15	0.5625		
$0.7\sigma_2$	0.35	0.98333	0.05833	0.2
$0.3\sigma_2$	0.15	0.925		
D (mm)	300			
Ev_1	234.53			
Ev_2	771.45			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.29		

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

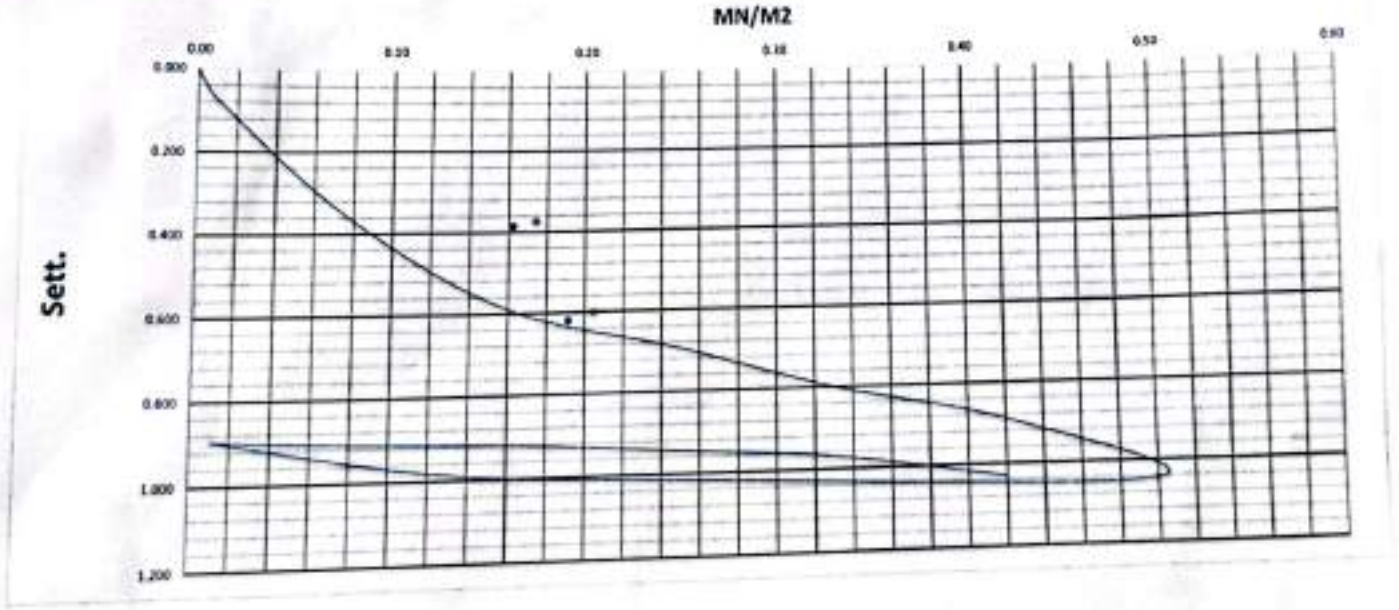
E_v = deformation modulus

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 : mohamed elsaied
Sign :	Sign :	Sign :

Contactor

Owner

Plate Load Test Results

Layer: -1.5

Station: 527+200 TO 527+300

Date: 3\6\2023

COMPANY	A G R
SAMPLE LOCATION	527+260

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	14.07	17.20		0.000	0.000		0.000
1.000	2.4	0.707	0.01	13.62	16.75		0.450	0.450		0.450
2.000	18.8	5.652	0.08	13.50	16.57		0.570	0.630		0.600
0.080	37.7	11.304	0.16	13.10	16.10		0.970	1.100		1.035
4.000	58.9	17.663	0.25	12.79	15.71		1.280	1.490		1.385
5.000	77.7	23.315	0.33	12.54	15.44		1.530	1.760		1.645
6.000	98.9	29.673	0.42	12.26	15.16		1.810	2.040		1.925
7.000	117.8	35.325	0.50	12.00	14.90		2.070	2.300		2.185
8.000	58.9	17.663	0.25	12.12	14.98		1.950	2.220		2.085
9.000	29.4	8.831	0.12	12.27	15.13		1.800	2.070		1.935
9.000	2.4	0.707	0.01	12.79	15.89		1.280	1.310		1.295
10.000	2.4	0.707	0.01	12.79	15.89		1.280	1.310		1.295
11.000	18.8	5.652	0.08	12.54	15.61		1.530	1.590		1.560
12.000	37.7	11.304	0.16	12.32	15.42		1.750	1.780		1.765
13.000	58.9	17.663	0.25	12.18	15.30		1.890	1.900		1.895
14.000	77.7	23.315	0.33	12.04	15.18		2.030	2.020		2.025
15.000	98.9	29.673	0.42	11.90	15.06		2.170	2.140		2.155

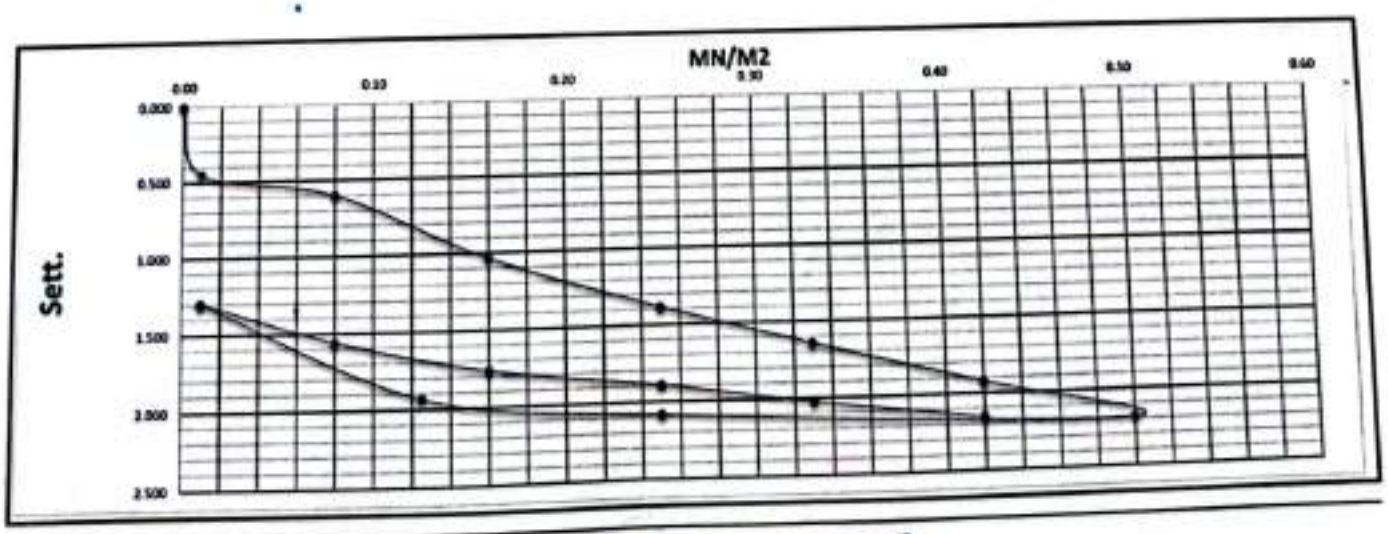
		s	ΔS	Δσ
0.7 σ_1	0.35	1.6975	0.71688	0.2
0.3 σ_1	0.15	0.98062		
0.7σ_2	0.35	2.05389	0.22886	0.2
0.3σ_2	0.15	1.82503		
D (mm)	300			
Ev_1	62.77			
Ev_2	196.62			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.13		

LOAD

UN LOAD

RE LOAD



Lab. Specialist

Name :

Sign :

Consultant Engineer

Name : mohamed elsaied

Sign : m.elsaied

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: -1.5
Station: 527+300 | TO | 527+500
Date: 31/05/2023

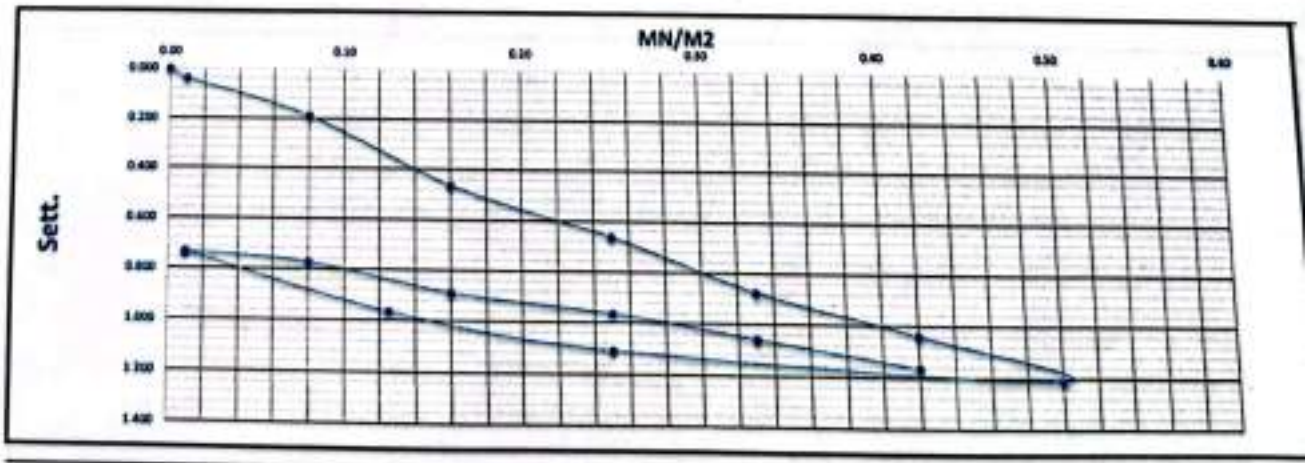
COMPANY	AGR
Location	527+350

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	Adj. Sett. mm
0.000	0.0	0.000	0.00	7.63	7.65		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.60	7.60		0.030	0.050		0.049
2.000	7.9	5.652	0.08	7.43	7.47		0.200	0.180		0.190
3.000	15.8	11.304	0.16	7.18	7.17		0.450	0.480		0.465
4.000	24.7	17.663	0.25	7.04	6.91		0.590	0.740		0.665
5.000	32.6	23.315	0.33	6.92	6.61		0.710	1.040		0.875
6.000	41.5	29.673	0.42	6.82	6.38		0.810	1.270		1.040
7.000	49.4	35.325	0.50	6.63	6.23		1.000	1.420		1.210
8.000	24.7	17.663	0.25	6.70	6.36		0.930	1.290		1.110
9.000	12.4	8.831	0.12	6.82	6.53		0.810	1.120		0.965
9.000	1.0	0.707	0.01	7.03	6.78		0.600	0.870		0.735
10.000	1.0	0.707	0.01	7.03	6.78		0.600	0.870		0.735
11.000	7.9	5.652	0.08	6.99	6.74		0.640	0.910		0.775
12.000	15.8	11.304	0.16	6.88	6.62		0.750	1.030		0.890
13.000	24.7	17.663	0.25	6.81	6.54		0.820	1.110		0.965
14.000	32.6	23.315	0.33	6.71	6.45		0.920	1.200		1.060
15.000	41.5	29.673	0.42	6.61	6.34		1.020	1.310		1.165

		E	ΔS	Se
0.7 σ_1	0.35	0.89125	0.46663	0.2
0.3 σ_1	0.15	0.43063		
0.7σ_2	0.35	1.88333	0.26833	0.2
0.3σ_2	0.15	0.815		
D (mm)	300			
Ev_1	97.69			
Ev_2	167.78			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.72		

LOAD
UN LOAD
RE LOAD



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

شركة نجيبة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: -1.5
Station: 527+300 TO 527+500
Date: 31/05/2023

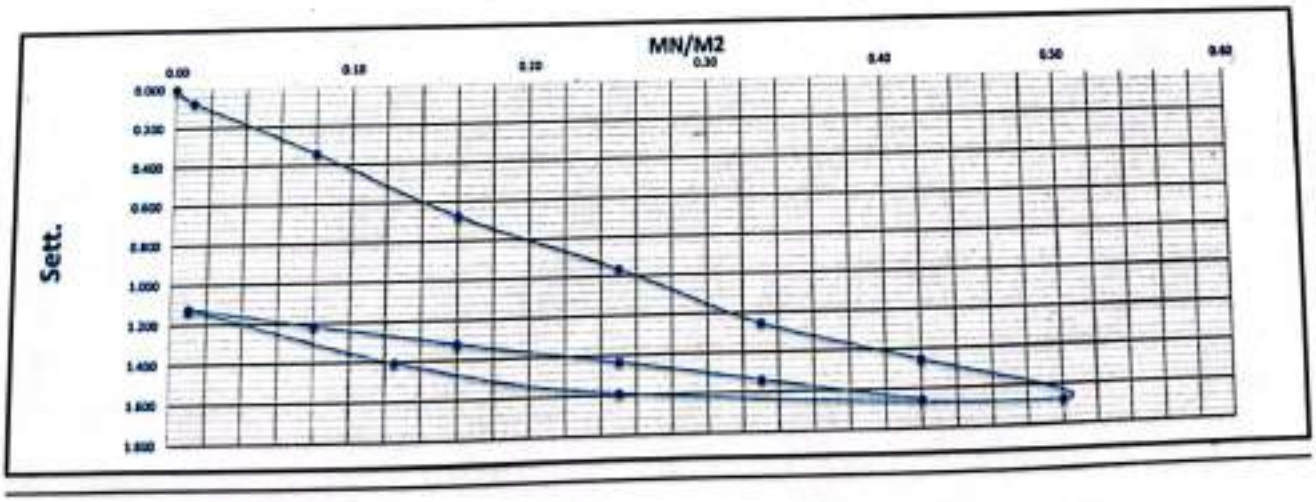
COMPANY	AGR
Location	527+450

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	7.61	6.30		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.56	6.21		0.050	0.090		0.070
2.000	7.9	5.652	0.08	7.27	5.96		0.340	0.340		0.340
0.080	15.8	11.304	0.16	6.88	5.68		0.730	0.620		0.675
4.000	24.7	17.663	0.25	6.55	5.43		1.060	0.870		0.965
5.000	32.6	23.315	0.33	6.23	5.17		1.380	1.130		1.255
6.000	41.5	29.673	0.42	6.02	4.98		1.590	1.320		1.455
7.000	49.4	35.325	0.50	5.80	4.76		1.810	1.540		1.675
8.000	24.7	17.663	0.25	5.91	4.82		1.700	1.480		1.590
9.000	12.4	8.831	0.12	6.15	4.95		1.460	1.350		1.405
9.000	1.0	0.707	0.01	6.45	5.22		1.160	1.080		1.120
10.000	1.0	0.707	0.01	6.45	5.22		1.160	1.080		1.120
11.000	7.9	5.652	0.08	6.30	5.18		1.310	1.120		1.215
12.000	15.8	11.304	0.16	6.14	5.13		1.470	1.170		1.320
13.000	24.7	17.663	0.25	6.01	5.03		1.600	1.270		1.435
14.000	32.6	23.315	0.33	5.90	4.93		1.710	1.370		1.540
15.000	41.5	29.673	0.42	5.77	4.83		1.840	1.470		1.655

		μ	Δδ	Δσ
0.7 σ_1	0.35	1.2625	0.62938	0.2
0.3 σ_1	0.15	0.63313		
0.7σ_2	0.35	1.56556	0.25555	0.2
0.3σ_2	0.15	1.31001		
D (mm)	300			
Ev_1	71.50			
Ev_2	176.09			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.46		

LOAD
UN LOAD
RE LOAD



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

شركة تجيد للمقاولات
المعمل المركزى
مشروع القطار السريع/ فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: -1.5
Station: 527+500 | TO | 527+700
Date: 31/05/2023

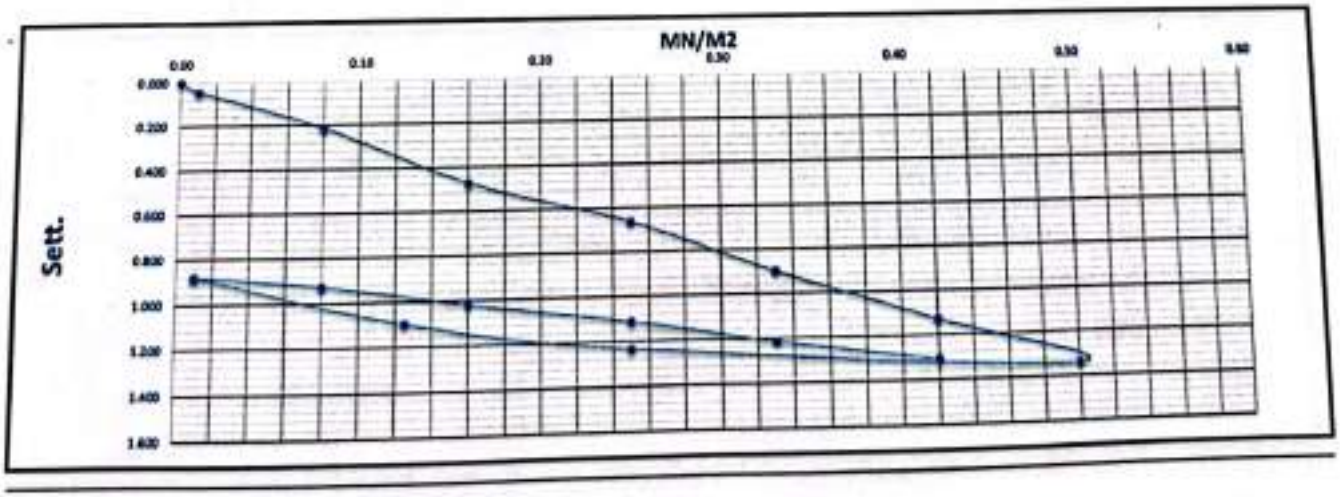
COMPANY	AGR
Location	527+560

Loading Steps 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	7.95	7.34		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.92	7.28		0.030	0.060		0.045
2.000	7.9	5.652	0.08	7.79	7.07		0.160	0.270		0.215
8.080	15.8	11.304	0.16	7.58	6.76		0.370	0.580		0.475
4.000	24.7	17.663	0.25	7.43	6.53		0.520	0.810		0.665
5.000	32.6	23.315	0.33	7.25	6.24		0.700	1.100		0.900
6.000	41.5	29.673	0.42	7.09	5.94		0.860	1.400		1.130
7.000	49.4	35.325	0.50	6.94	5.67		1.010	1.670		1.340
8.000	24.7	17.663	0.25	7.02	5.80		0.930	1.540		1.235
9.000	12.4	8.831	0.12	7.14	5.95		0.810	1.390		1.100
9.000	1.0	0.707	0.01	7.35	6.18		0.600	1.160		0.880
10.000	1.0	0.707	0.01	7.35	6.18		0.600	1.160		0.880
11.000	7.9	5.652	0.08	7.31	6.12		0.640	1.220		0.930
12.000	15.8	11.304	0.16	7.23	6.02		0.720	1.320		1.020
13.000	24.7	17.663	0.25	7.15	5.91		0.800	1.430		1.115
14.000	32.6	23.315	0.33	7.05	5.81		0.900	1.530		1.215
15.000	41.5	29.673	0.42	6.96	5.71		0.990	1.630		1.310

0.7 σ_1	0.35	0.94625	0.58375	0.2
0.3 σ_1	0.15	0.4425		
0.7σ_2	0.35	1.23611	0.25611	0.2
0.3σ_2	0.15	0.98001		
D (mm)	300			
Ev_1	89.33			
Ev_2	175.71			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.97		

LOAD
UN LOAD
RE LOAD



Lab. Specialist
Name :
Sign :

Lab. Engineer
Name :
Sign :

Consultant Engineer
Name : Hassan
Sign :

شركة نجيبة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Consortior | Owner

Plate Load Test Results

Layer: -1.5
Station: 527+500 TO 527+700
Date: 31/05/2023

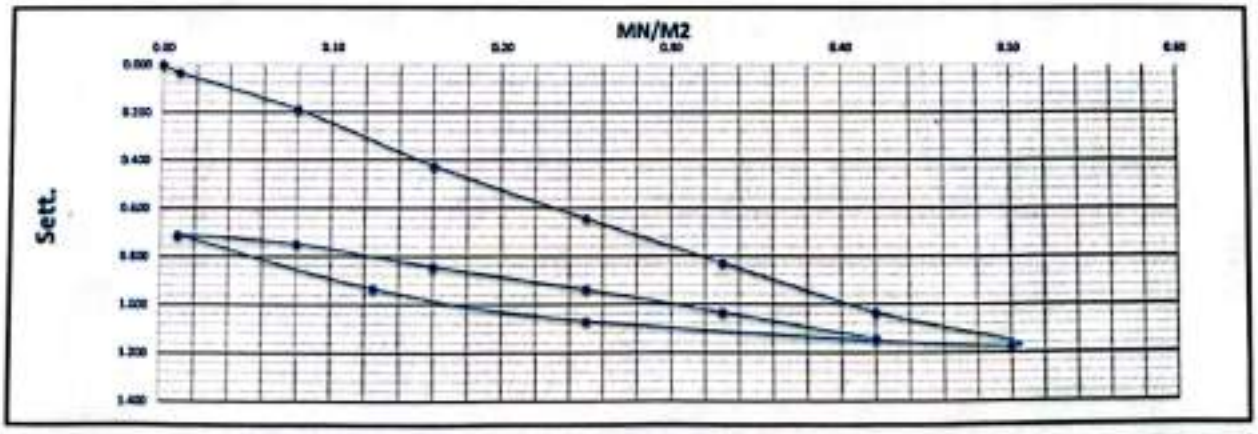
COMPANY	AGR
Location	527+660

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	Adj. Sett. mm
0.000	0.0	0.000	0.00	7.09	7.19		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.04	7.17		0.050	0.020		0.035
2.000	7.9	5.652	0.08	6.82	7.08		0.270	0.110		0.190
0.080	15.8	11.304	0.16	6.53	6.90		0.560	0.290		0.425
4.000	24.7	17.663	0.25	6.27	6.72		0.820	0.470		0.645
5.000	32.6	23.315	0.33	6.06	6.56		1.030	0.630		0.830
6.000	41.5	29.673	0.42	5.84	6.37		1.250	0.820		1.035
7.000	49.4	35.325	0.50	5.69	6.24		1.400	0.950		1.175
8.000	24.7	17.663	0.25	5.83	6.31		1.260	0.880		1.070
9.000	12.4	8.831	0.12	5.97	6.44		1.120	0.750		0.935
9.000	1.0	0.707	0.01	6.18	6.68		0.910	0.510		0.710
10.000	1.0	0.707	0.01	6.18	6.68		0.910	0.510		0.710
11.000	7.9	5.652	0.08	6.13	6.65		0.960	0.540		0.750
12.000	15.8	11.304	0.16	6.03	6.56		1.060	0.630		0.845
13.000	24.7	17.663	0.25	5.93	6.47		1.160	0.720		0.940
14.000	32.6	23.315	0.33	5.83	6.38		1.260	0.810		1.035
15.000	41.5	29.673	0.42	5.71	6.28		1.380	0.910		1.145

		E	ΔS	Δσ
$0.7\sigma_2$	0.35	0.9125	0.51688	0.3
$0.3\sigma_1$	0.15	0.39563		
$0.7\sigma_2$	0.35	1.05944	0.36944	0.2
$0.3\sigma_2$	0.15	0.79		
D (mm)	300			
E_{V1}	87.96			
E_{V2}	167.01			
Area (Sq.m)	0.07065			

E2/E1	1.93		

LOAD
UN LOAD
RE LOAD



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

شركة نجيلة للمقاولات
المعمل المركزى
مشروع القطار السريع/ فوكة - مطروح

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

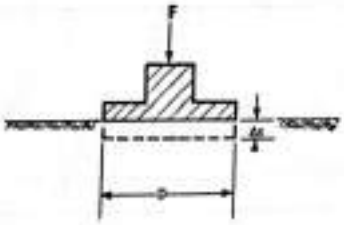
Company Name	A.G.R		
Location	528+820	To	528+860
Taste Date	28-5-2023		
Layer level	**-5.5**		

Station	528+840

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

Δ*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	13.30	13.10		0.000	0.000		0.000
1.000	2.4	0.707	0.01	13.20	12.90		0.100	0.200		0.150
2.000	18.8	5.652	0.08	12.95	12.55		0.350	0.550		0.450
0.080	37.7	11.304	0.16	12.80	12.30		0.500	0.800		0.650
4.000	58.9	17.663	0.25	12.70	12.10		0.600	1.000		0.800
5.000	77.7	23.315	0.33	12.60	11.70		0.700	1.400		1.050
6.000	98.9	29.673	0.42	12.50	11.50		0.800	1.600		1.200
7.000	117.8	35.325	0.50	12.30	11.30		1.000	1.800		1.400
8.000	58.9	17.663	0.25	12.50	11.38		0.800	1.720		1.260
9.000	29.4	8.831	0.12	12.65	11.55		0.650	1.550		1.100
9.000	2.4	0.707	0.01	12.80	11.65		0.500	1.450		0.975
10.000	2.4	0.707	0.01	12.80	11.65		0.500	1.450		0.975
11.000	18.8	5.652	0.08	12.75	11.63		0.550	1.470		1.010
12.000	37.7	11.304	0.16	12.70	11.55		0.600	1.550		1.075
13.000	58.9	17.663	0.25	12.56	11.45		0.740	1.650		1.195
14.000	77.7	23.315	0.33	12.50	11.40		0.800	1.700		1.250
15.000	98.9	29.673	0.42	12.45	11.35		0.850	1.750		1.300

		s	ΔN	Δs
0.7 σ_1	0.35	1.025	0.4	0.2
0.3 σ_1	0.15	0.625		
0.7σ_2	0.35	1.26111	0.21611	0.2
0.3σ_2	0.15	1.045		
D (mm)	300			
Ev_1	112.50			
Ev_2	208.23			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.85		

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

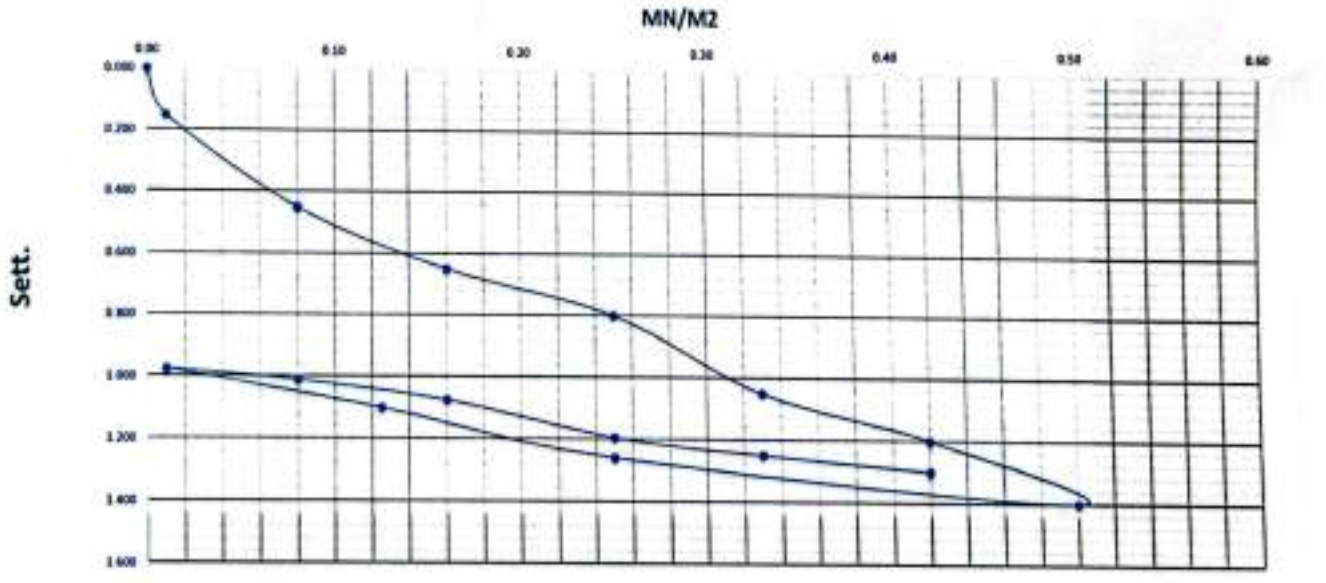
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassan
Sign :	Sign :	Sign :

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

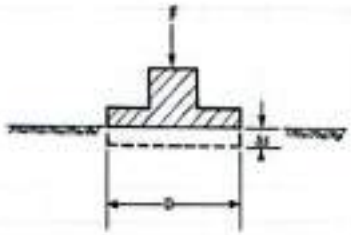
Company Name	A.G.R		
Location	528+420	To	528+480
Taste Date	28-5-2023		
Layer level	**-5.5**		

Station	528+460

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	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	17.90	17.30		0.000	0.000		0.000
1.000	2.4	0.707	0.01	17.75	17.10		0.150	0.200		0.175
2.000	18.8	5.652	0.08	17.30	16.75		0.600	0.550		0.575
0.000	37.7	11.304	0.16	16.95	16.50		0.950	0.800		0.875
4.000	58.9	17.663	0.25	16.60	16.25		1.300	1.050		1.175
5.000	77.7	23.315	0.33	16.35	16.00		1.550	1.300		1.425
6.000	98.9	29.673	0.42	16.05	15.80		1.850	1.500		1.675
7.000	117.8	35.325	0.50	15.60	15.40		2.300	1.900		2.100
8.000	58.9	17.663	0.25	16.00	15.80		1.900	1.500		1.700
9.000	29.4	8.831	0.12	16.15	16.00		1.750	1.300		1.525
9.000	2.4	0.707	0.01	16.39	16.30		1.510	1.000		1.255
10.000	2.4	0.707	0.01	16.39	16.30		1.510	1.000		1.255
11.000	18.8	5.652	0.08	16.30	16.20		1.600	1.100		1.350
12.000	37.7	11.304	0.16	16.25	16.10		1.650	1.200		1.425
13.000	58.9	17.663	0.25	16.20	16.00		1.700	1.300		1.500
14.000	77.7	23.315	0.33	16.10	15.95		1.800	1.350		1.575
15.000	98.9	29.673	0.42	15.97	15.83		1.930	1.470		1.700

		E	ΔS	Δσ
0.7 σ_1	0.35	1.30313	0.46562	0.2
0.3 σ_1	0.15	0.8375		
0.7σ_2	0.35	1.60278	0.15777	0.2
0.3σ_2	0.15	1.44501		
D (mm)	300			
Ev_1	96.64			
Ev_2	285.23 ✓			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.95		

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

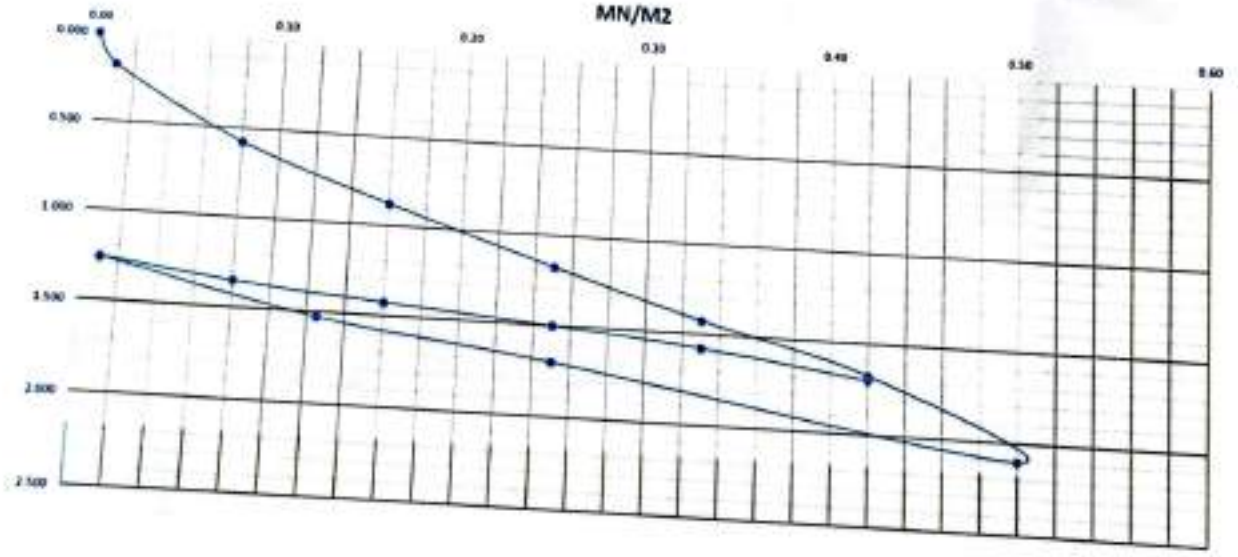
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 | Contractor | Owner

Plate Load Test Results

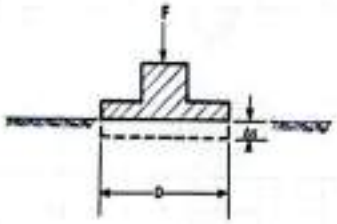
Company Name	A.G.R		
Location	529+020	To	529+160
Taste Date	28-5-2023		
Layer level	**-1.5**		

Station	529+060

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 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	15.85	13.68		0.000	0.000		0.000
1.000	2.4	0.707	0.01	15.75	13.54		0.100	0.140		0.120
2.000	18.8	5.652	0.08	15.58	13.10		0.270	0.580		0.425
0.080	37.7	11.304	0.16	15.45	12.80		0.400	0.880		0.640
4.000	58.9	17.663	0.25	15.05	12.60		0.800	1.080		0.940
5.000	77.7	23.315	0.33	15.00	12.45		0.850	1.230		1.040
6.000	98.9	29.673	0.42	14.88	12.33		0.970	1.350		1.160
7.000	117.8	35.325	0.50	14.70	12.20		1.150	1.480		1.315
8.000	58.9	17.663	0.25	14.80	12.30		1.050	1.380		1.215
9.000	29.4	8.831	0.12	14.95	12.45		0.900	1.230		1.065
9.000	2.4	0.707	0.01	15.30	12.64		0.550	1.040		0.795
10.000	2.4	0.707	0.01	15.30	12.64		0.550	1.040		0.795
11.000	18.8	5.652	0.08	15.20	12.60		0.650	1.080		0.865
12.000	37.7	11.304	0.16	15.10	12.53		0.750	1.150		0.950
13.000	58.9	17.663	0.25	15.00	12.47		0.850	1.210		1.030
14.000	77.7	23.315	0.33	14.95	12.40		0.900	1.280		1.090
15.000	98.9	29.673	0.42	14.90	12.30		0.950	1.380		1.165

		s	ΔS	Δσ
0.7 σ_1	0.35	1.02438	0.41125	0.2
0.3 σ_1	0.15	0.61313		
0.7σ_2	0.35	1.10667	0.17166	0.2
0.3σ_2	0.15	0.93501		
D (mm)	300			
Ev_1	109.42			
Ev_2	262.15			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.40		

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

E_v = deformation modulus

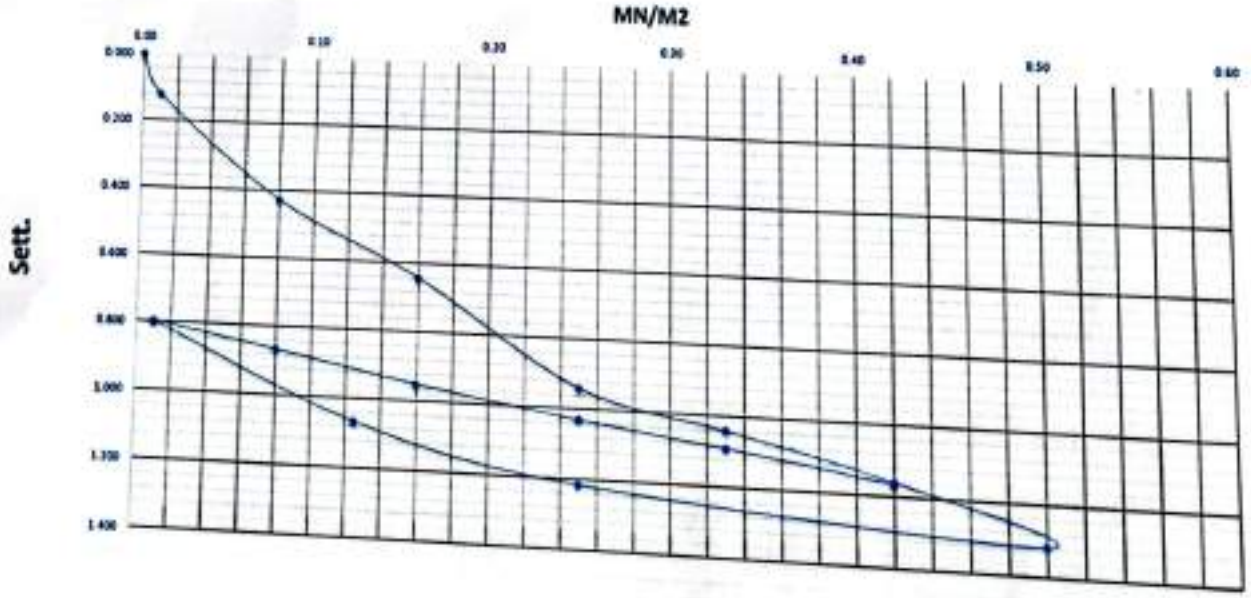
$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

15:850

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
Name :
Sign :

Lab. Engineer
Name :
Sign :

Consultant Engineer
Name : Hassan
Sign :

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

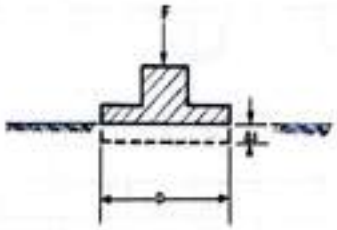
Company Name	A.G.R		
Location	529+020	To	529+160
Taste Date	28-5-2023		
Layer level	**-1.5**		

Station	529+140

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	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	12.10	11.10		0.000	0.000		0.000
1.000	2.4	0.707	0.01	11.98	10.98		0.120	0.120		0.120
2.000	18.8	5.652	0.08	11.70	10.74		0.400	0.360		0.380
0.080	37.7	11.304	0.16	11.50	10.57		0.600	0.530		0.565
4.000	58.9	17.663	0.25	11.40	10.50		0.700	0.600		0.650
5.000	77.7	23.315	0.33	11.25	10.35		0.850	0.750		0.800
6.000	98.9	29.673	0.42	11.08	10.20		1.020	0.900		0.960
7.000	117.8	35.325	0.50	10.90	10.05		1.200	1.050		1.125
8.000	58.9	17.663	0.25	11.02	10.20		1.080	0.900		0.990
9.000	29.4	8.831	0.12	11.20	10.30		0.900	0.800		0.850
9.000	2.4	0.707	0.01	11.80	10.75		0.300	0.350		0.325
10.000	2.4	0.707	0.01	11.80	10.75		0.300	0.350		0.325
11.000	18.8	5.652	0.08	11.60	10.50		0.500	0.600		0.550
12.000	37.7	11.304	0.16	11.35	10.35		0.750	0.750		0.750
13.000	58.9	17.663	0.25	11.20	10.30		0.900	0.800		0.850
14.000	77.7	23.315	0.33	11.15	10.18		0.950	0.920		0.935
15.000	98.9	29.673	0.42	11.00	10.05		1.100	1.050		1.075

		ν	ΔS	Δσ
0.7 σ_1	0.35	0.81563	0.27375	0.2
0.3 σ_1	0.15	0.54188		
0.7σ_2	0.35	0.96611	0.19109	0.2
0.3σ_2	0.15	0.77502		
D (mm)	300			
Ev_1	164.38			
Ev_2	235.49 ✓			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.43		

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

E_v = deformation modulus

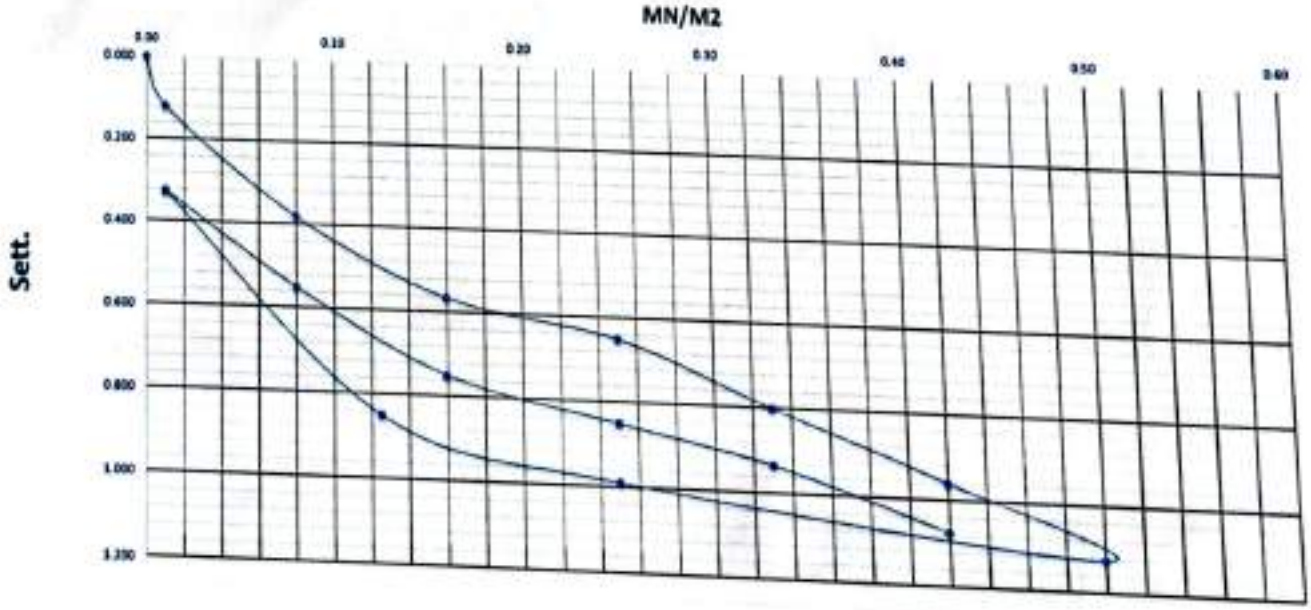
$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

12.100

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 :

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 529+700 TO 529+800
Date: 25-05-23

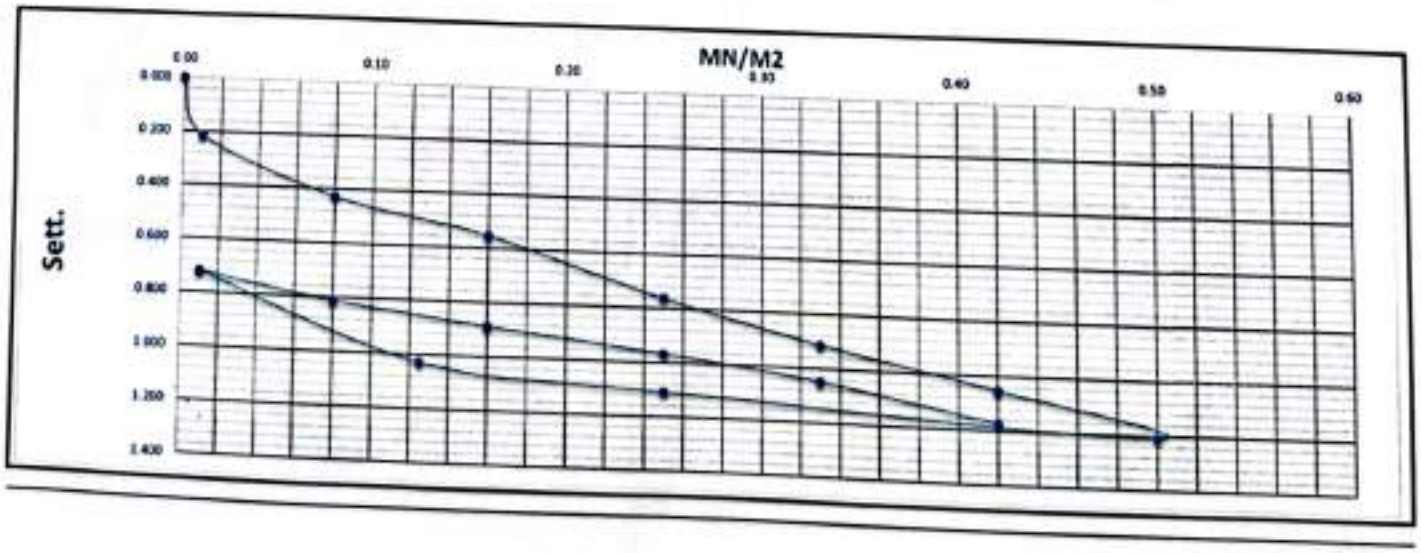
COMPANY	AGR COMPANY
Location	529+740

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	6.39	7.39		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.25	7.10		0.140	0.290		0.215
2.000	7.9	5.652	0.08	6.11	6.81		0.280	0.580		0.430
0.080	15.8	11.304	0.16	5.97	6.70		0.420	0.690		0.555
4.000	24.7	17.663	0.25	5.81	6.44		0.580	0.950		0.765
5.000	32.6	23.315	0.33	5.69	6.26		0.700	1.130		0.915
6.000	41.5	29.673	0.42	5.61	6.06		0.780	1.330		1.055
7.000	49.4	35.325	0.50	5.53	5.83		0.860	1.560		1.210
8.000	24.7	17.663	0.25	5.62	5.94		0.770	1.450		1.110
9.000	12.4	8.831	0.12	5.67	6.05		0.720	1.340		1.030
9.000	1.0	0.707	0.01	5.83	6.51		0.560	0.880		0.720
10.000	1.0	0.707	0.01	5.83	6.51		0.560	0.880		0.720
11.000	7.9	5.652	0.08	5.78	6.37		0.610	1.020		0.815
12.000	15.8	11.304	0.16	5.70	6.30		0.690	1.090		0.890
13.000	24.7	17.663	0.25	5.65	6.19		0.740	1.200		0.970
14.000	32.6	23.315	0.33	5.59	6.09		0.800	1.300		1.050
15.000	41.5	29.673	0.42	5.43	6.00		0.960	1.390		1.175

		s	AS	Le
$0.7\,\sigma_1$	0.35	0.91938	0.38	0.2
$0.3\,\sigma_1$	0.15	0.53938		
$0.7\sigma_2$	0.35	1.07778	0.16777	0.2
$0.3\sigma_2$	0.15	0.91001		
D (mm)	300			
Ev_1	118.42			
Ev_2	268.23			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.27		

LOAD
UN LOAD
RE LOAD



Lab. Specialist
Name :
Sign :

Lab. Engineer
Name : Mehak Hamdi
Sign :

شركة [illegible] للمقاولات
[illegible] المركزي
2023
مشروع القطار السريع / فوكة - مطروح

Consultant Engineer
Name : Hassan
Sign :

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 528+389 TO 528+389
Date: 25-05-23

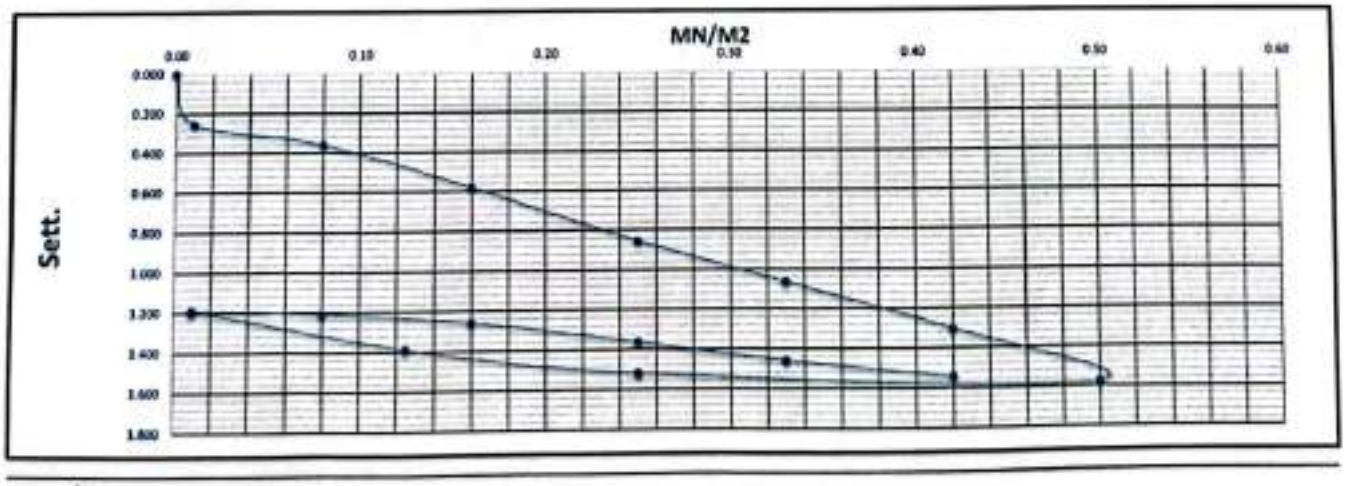
COMPANY	AGR COMPANY
Location	528+389

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	6.22	6.32		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.02	6.01		0.200	0.310		0.255
2.000	7.9	5.652	0.08	5.93	5.89		0.290	0.430		0.360
0.080	15.8	11.304	0.16	5.75	5.63		0.470	0.690		0.580
4.000	24.7	17.663	0.25	5.49	5.34		0.730	0.980		0.855
5.000	32.6	23.315	0.33	5.31	5.10		0.910	1.220		1.065
6.000	41.5	29.673	0.42	5.12	4.81		1.100	1.510		1.305
7.000	49.4	35.325	0.50	4.93	4.46		1.290	1.860		1.575
8.000	24.7	17.663	0.25	4.97	4.53		1.250	1.790		1.520
9.000	12.4	8.831	0.12	5.13	4.63		1.090	1.690		1.390
9.000	1.0	0.707	0.01	5.33	4.83		0.890	1.490		1.190
10.000	1.0	0.707	0.01	5.33	4.83		0.890	1.490		1.190
11.000	7.9	5.652	0.08	5.32	4.80		0.900	1.520		1.210
12.000	15.8	11.304	0.16	5.27	4.75		0.950	1.570		1.260
13.000	24.7	17.663	0.25	5.15	4.66		1.070	1.660		1.365
14.000	32.6	23.315	0.33	5.04	4.58		1.180	1.740		1.460
15.000	41.5	29.673	0.42	4.95	4.50		1.270	1.820		1.545

		s	ΔS	Δσ
0.7 σ_1	0.35	1.06875	0.51625	0.2
0.3 σ_1	0.15	0.5525		
0.7σ_2	0.35	1.47889	0.24889	0.2
0.3σ_2	0.15	1.23		
D (mm)	300			
Ev_1	87.17			
Ev_2	180.81			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.07		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT 0.00
Station: 528+389 TO 528+389
Date: 25-05-23

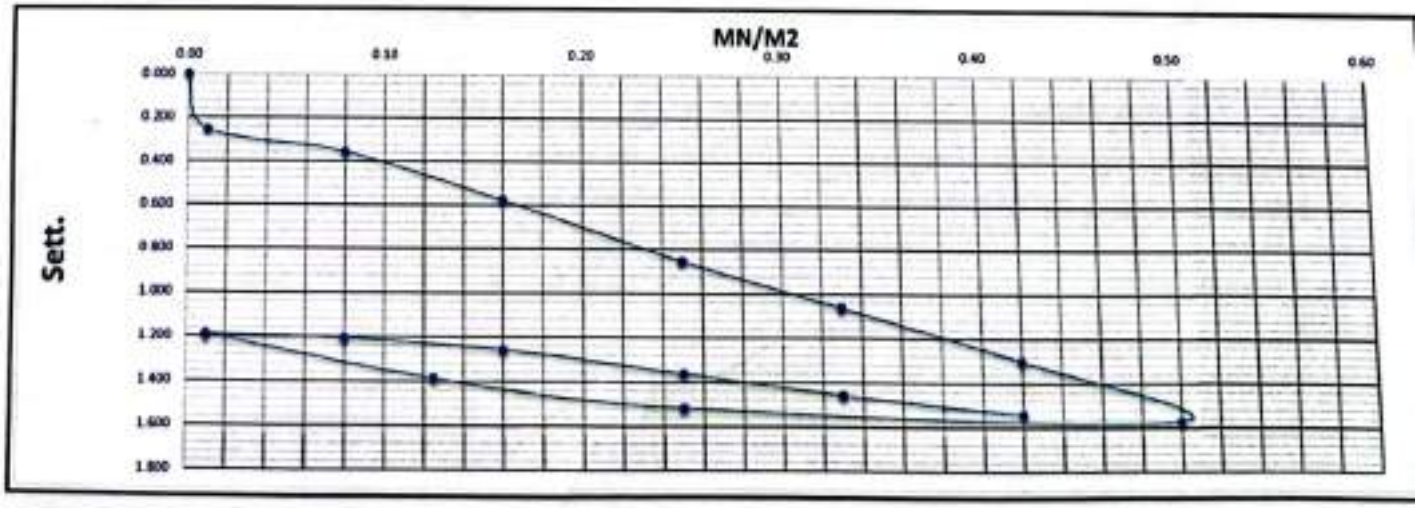
COMPANY	AGR COMPANY
Location	528+389

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	6.22	6.32		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.02	6.01		0.200	0.310		0.255
2.000	7.9	5.652	0.08	5.93	5.89		0.290	0.430		0.360
0.080	15.8	11.304	0.16	5.75	5.63		0.470	0.690		0.580
4.000	24.7	17.663	0.25	5.49	5.34		0.730	0.980		0.855
5.000	32.6	23.315	0.33	5.31	5.10		0.910	1.220		1.065
6.000	41.5	29.673	0.42	5.12	4.81		1.100	1.510		1.305
7.000	49.4	35.325	0.50	4.93	4.46		1.290	1.860		1.575
8.000	24.7	17.663	0.25	4.97	4.53		1.250	1.790		1.520
9.000	12.4	8.831	0.12	5.13	4.63		1.090	1.690		1.390
9.000	1.0	0.707	0.01	5.33	4.83		0.890	1.490		1.190
10.000	1.0	0.707	0.01	5.33	4.83		0.890	1.490		1.190
11.000	7.9	5.652	0.08	5.32	4.80		0.900	1.520		1.210
12.000	15.8	11.304	0.16	5.27	4.75		0.950	1.570		1.260
13.000	24.7	17.663	0.25	5.15	4.66		1.070	1.660		1.365
14.000	32.6	23.315	0.33	5.04	4.58		1.180	1.740		1.460
15.000	41.5	29.673	0.42	4.95	4.50		1.270	1.820		1.545

		a	ΔS	Δσ
$0.7\,\sigma_1$	0.35	1.06875	0.51625	0.2
$0.3\,\sigma_1$	0.15	0.5525		
$0.7\sigma_2$	0.35	1.47889	0.24889	0.2
$0.3\sigma_2$	0.15	1.23		
D (mm)	300			
Ev_1	87.17			
Ev_2	180.81			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.07		

LOAD
UN LOAD
RE LOAD



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

شركة وحدة للمقاولات
المعمل المركزي
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 529+800 TO 529+900
Date: 23-05-23

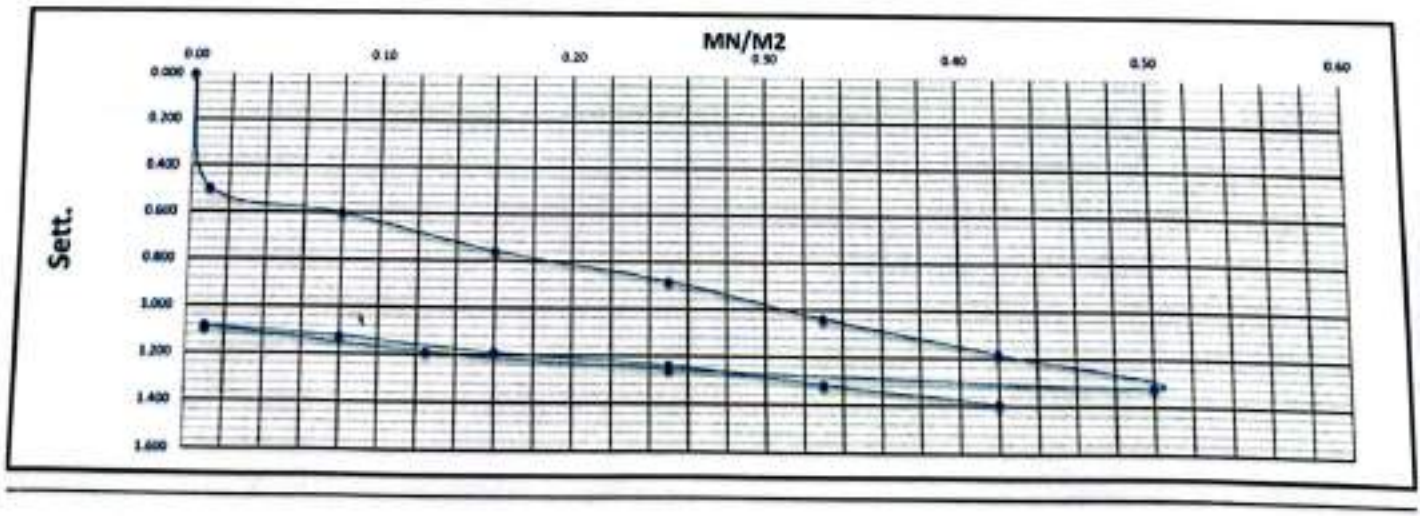
COMPANY	AGR COMPANY
Location	529+830

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	6.86	8.03		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.03	7.87		0.830	0.160		0.495
2.000	7.9	5.652	0.08	5.85	7.84		1.010	0.190		0.600
0.080	15.8	11.304	0.16	5.59	7.78		1.270	0.250		0.760
4.000	24.7	17.663	0.25	5.39	7.73		1.470	0.300		0.885
5.000	32.6	23.315	0.33	5.15	7.66		1.710	0.370		1.040
6.000	41.5	29.673	0.42	4.90	7.62		1.960	0.410		1.185
7.000	49.4	35.325	0.50	4.73	7.52		2.130	0.510		1.320
8.000	24.7	17.663	0.25	4.77	7.61		2.090	0.420		1.255
9.000	12.4	8.831	0.12	4.87	7.64		1.990	0.390		1.190
9.000	1.0	0.707	0.01	5.03	7.69		1.830	0.340		1.085
10.000	1.0	0.707	0.01	5.03	7.69		1.830	0.340		1.085
11.000	7.9	5.652	0.08	4.99	7.65		1.870	0.380		1.125
12.000	15.8	11.304	0.16	4.93	7.58		1.930	0.450		1.190
13.000	24.7	17.663	0.25	4.86	7.55		2.000	0.480		1.240
14.000	32.6	23.315	0.33	4.76	7.49		2.100	0.540		1.320
15.000	41.5	29.673	0.42	4.68	7.42		2.180	0.610		1.395

		s	ΔS	Δσ
0.7 σ_1	0.35	1.06688	0.32688	0.2
0.3 σ_1	0.15	0.74		
0.7σ_2	0.35	1.33667	0.17166	0.2
0.3σ_2	0.15	1.165		
D (mm)	300			
Ev_1	137.67			
Ev_2	262.14			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.90		

LOAD
UN LOAD
RE LOAD



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

شركة نجيلة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 529+800 TO 529+900
Date: 23-05-23

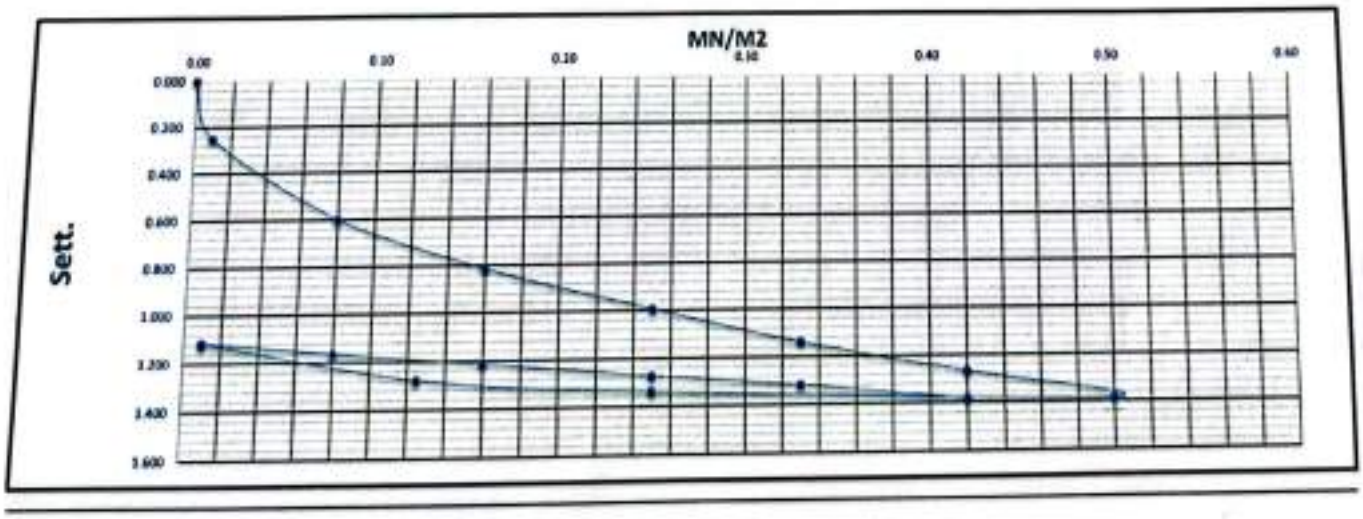
COMPANY	AGR COMPANY
Location	529+880

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	5.95	6.58		0.000	0.000		0.000
1.000	1.0	0.707	0.01	5.64	6.39		0.310	0.190		0.250
2.000	7.9	5.652	0.08	5.17	6.16		0.780	0.420		0.600
0.000	15.8	11.304	0.16	4.86	6.04		1.090	0.540		0.815
4.000	24.7	17.663	0.25	4.61	5.93		1.340	0.650		0.995
5.000	32.6	23.315	0.33	4.42	5.83		1.530	0.750		1.140
6.000	41.5	29.673	0.42	4.27	5.72		1.680	0.860		1.270
7.000	49.4	35.325	0.50	4.18	5.58		1.770	1.000		1.385
8.000	24.7	17.663	0.25	4.24	5.61		1.710	0.970		1.340
9.000	12.4	8.831	0.12	4.32	5.65		1.630	0.930		1.280
9.000	1.0	0.707	0.01	4.52	5.78		1.430	0.800		1.115
10.000	1.0	0.707	0.01	4.52	5.78		1.430	0.800		1.115
11.000	7.9	5.652	0.08	4.46	5.74		1.490	0.840		1.165
12.000	15.8	11.304	0.16	4.40	5.70		1.550	0.880		1.215
13.000	24.7	17.663	0.25	4.32	5.66		1.630	0.920		1.275
14.000	32.6	23.315	0.33	4.26	5.63		1.690	0.950		1.320
15.000	41.5	29.673	0.42	4.18	5.58		1.770	1.000		1.385

		s	Δs	Se
$0.7\,\sigma_1$	0.35	1.16938	0.38125	0.2
$0.3\,\sigma_1$	0.15	0.78813		
$0.7\sigma_2$	0.35	1.33444	0.11944	0.2
$0.3\sigma_2$	0.15	1.21501		
D (mm)	300			
Ev_1	118.83			
Ev_2	376.76			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.19		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 528+920 TO 529+020
Date: 23-05-23

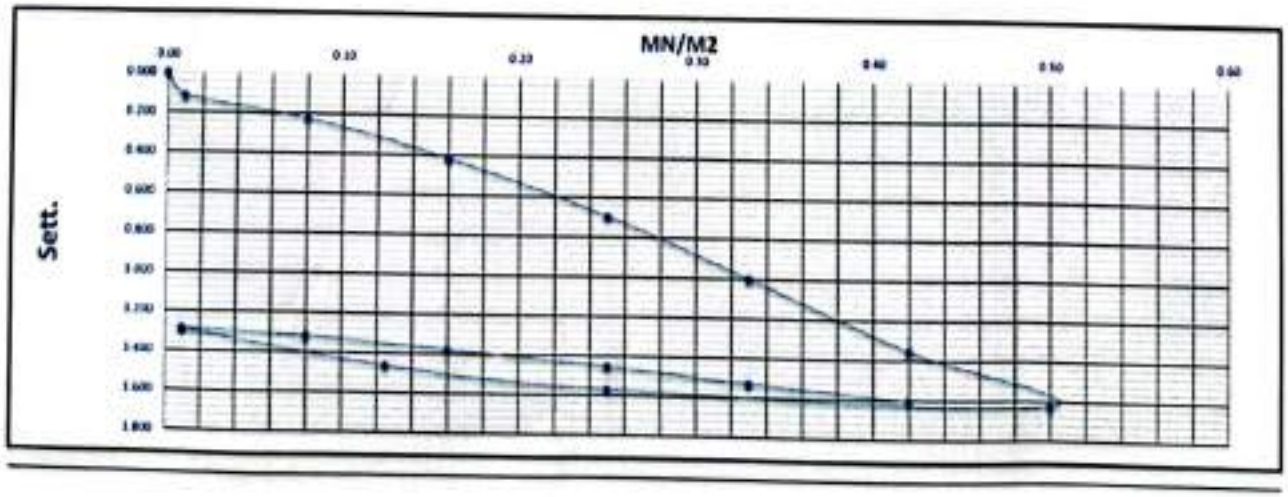
COMPANY	AGR COMPANY
Location	528+940

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	6.17	6.88		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.07	6.75		0.100	0.130		0.115
2.000	7.9	5.652	0.08	5.93	6.67		0.240	0.210		0.225
0.080	15.8	11.304	0.16	5.71	6.51		0.460	0.370		0.415
4.000	24.7	17.663	0.25	5.42	6.24		0.750	0.640		0.695
5.000	32.6	23.315	0.33	5.16	5.89		1.010	0.990		1.000
6.000	41.5	29.673	0.42	4.86	5.48		1.310	1.400		1.355
7.000	49.4	35.325	0.50	4.62	5.18		1.550	1.700		1.625
8.000	24.7	17.663	0.25	4.69	5.22		1.480	1.660		1.570
9.000	12.4	8.831	0.12	4.79	5.33		1.380	1.550		1.465
9.000	1.0	0.707	0.01	4.97	5.50		1.200	1.380		1.290
10.000	1.0	0.707	0.01	4.97	5.50		1.200	1.380		1.290
11.000	7.9	5.652	0.08	4.92	5.49		1.250	1.390		1.320
12.000	15.8	11.304	0.16	4.86	5.43		1.310	1.450		1.380
13.000	24.7	17.663	0.25	4.78	5.36		1.390	1.520		1.455
14.000	32.6	23.315	0.33	4.70	5.29		1.470	1.590		1.530
15.000	41.5	29.673	0.42	4.64	5.20		1.530	1.680		1.605

		s	ΔS	Δσ
$0.7\,\sigma_1$	0.35	1.11875	0.7275	0.2
$0.3\,\sigma_1$	0.15	0.39125		
$0.7\sigma_2$	0.35	1.54667	0.19666	0.2
$0.3\sigma_2$	0.15	1.35		
D (mm)	300			
E_{v1}	61.86			
E_{v2}	228.82	✓		
Area (Sq.m)	0.07065			

E_{v2}/E_{v1}	3.70		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 528+920 TO 529+020
Date: 23-05-23

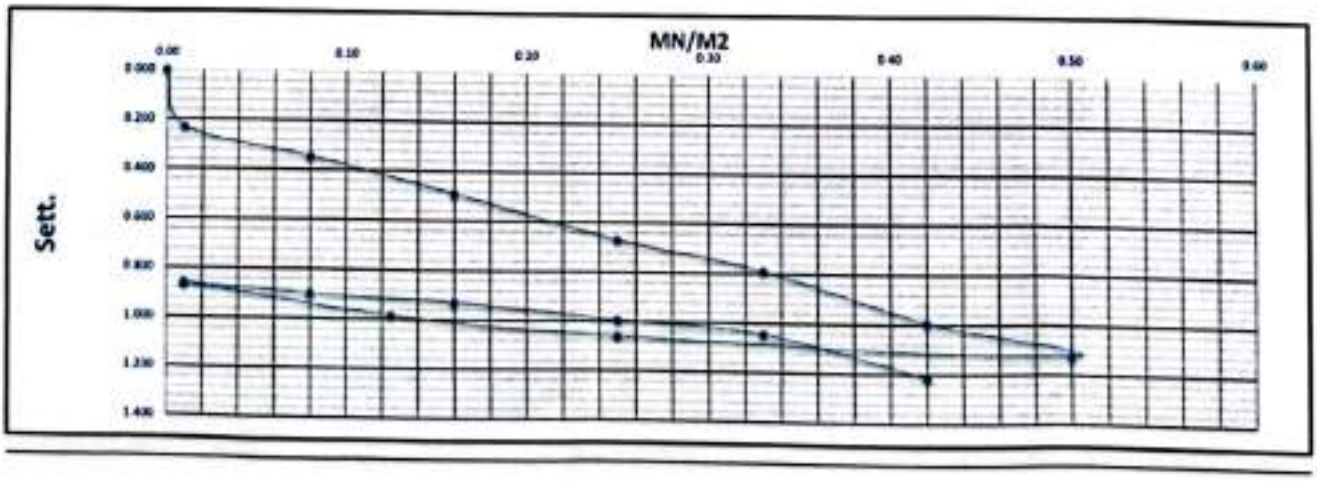
COMPANY	AGR COMPANY
Location	529+010

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	6.18	7.40		0.000	0.000		0.000
1.000	1.0	0.707	0.01	5.95	7.17		0.230	0.230		0.230
2.000	7.9	5.652	0.08	5.83	7.06		0.350	0.340		0.345
0.080	15.8	11.304	0.16	5.67	6.93		0.510	0.470		0.490
4.000	24.7	17.663	0.25	5.46	6.78		0.720	0.620		0.670
5.000	32.6	23.315	0.33	5.33	6.67		0.850	0.730		0.790
6.000	41.5	29.673	0.42	5.09	6.50		1.090	0.900		0.995
7.000	49.4	35.325	0.50	4.93	6.40		1.250	1.000		1.125
8.000	24.7	17.663	0.25	4.98	6.48		1.200	0.920		1.060
9.000	12.4	8.831	0.12	5.05	6.56		1.130	0.840		0.985
9.000	1.0	0.707	0.01	5.16	6.70		1.020	0.700		0.860
10.000	1.0	0.707	0.01	5.16	6.70		1.020	0.700		0.860
11.000	7.9	5.652	0.08	5.14	6.64		1.040	0.760		0.900
12.000	15.8	11.304	0.16	5.12	6.60		1.060	0.800		0.930
13.000	24.7	17.663	0.25	5.07	6.52		1.110	0.880		0.995
14.000	32.6	23.315	0.33	5.02	6.47		1.160	0.930		1.045
15.000	41.5	29.673	0.42	4.82	6.33		1.360	1.070		1.215

		s	ΔS	Δσ
0.7 σ_1	0.35	0.88125	0.40938	0.2
0.3 σ_1	0.15	0.47188		
0.7σ_2	0.35	1.08278	0.14277	0.2
0.3σ_2	0.15	0.94		
D (mm)	300			
Ev_1	109.92			
Ev_2	315.18			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.87		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 525+360 TO 525+500
Date: 23-05-23

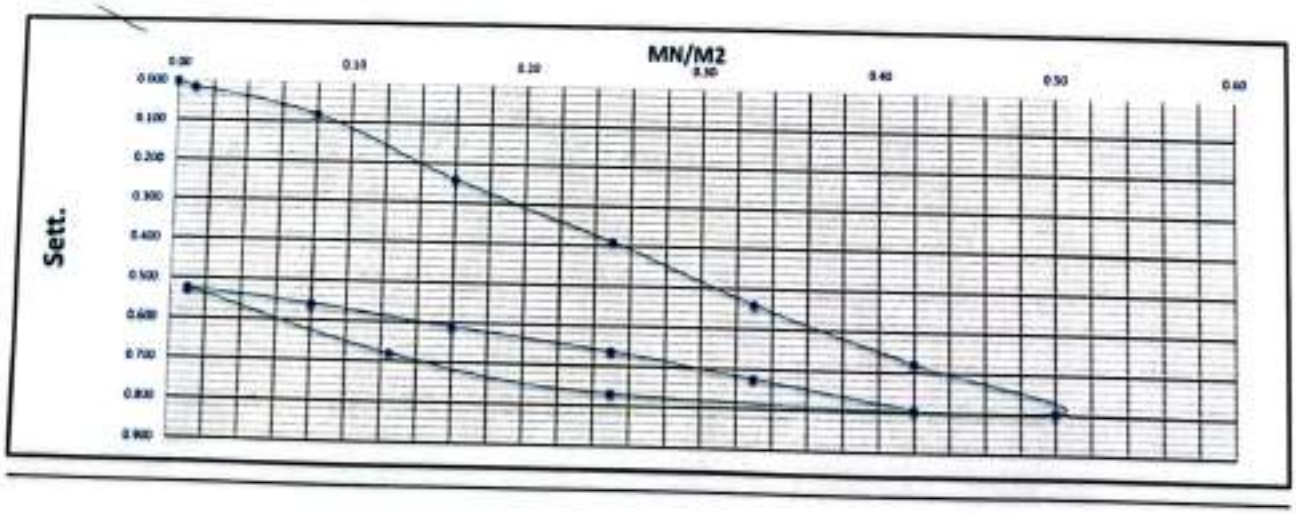
COMPANY	AGR COMPANY
Location	525+460

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	Adj. Sett. mm
0.000	0.0	0.000	0.00	4.96	6.81		0.000	0.000		0.000
1.000	1.0	0.707	0.01	4.94	6.80		0.020	0.010		0.015
2.000	7.9	5.652	0.08	4.88	6.73		0.080	0.080		0.080
0.080	15.8	11.304	0.16	4.73	6.56		0.230	0.250		0.240
4.000	24.7	17.663	0.25	4.61	6.38		0.350	0.430		0.390
5.000	32.6	23.315	0.33	4.48	6.21		0.480	0.600		0.540
6.000	41.5	29.673	0.42	4.37	6.04		0.590	0.770		0.680
7.000	49.4	35.325	0.50	4.28	5.90		0.680	0.910		0.795
8.000	24.7	17.663	0.25	4.30	5.93		0.660	0.880		0.770
9.000	12.4	8.831	0.12	4.38	6.03		0.580	0.780		0.680
9.000	1.0	0.707	0.01	4.51	6.21		0.450	0.600		0.525
10.000	1.0	0.707	0.01	4.51	6.21		0.450	0.600		0.525
11.000	7.9	5.652	0.08	4.48	6.17		0.480	0.640		0.560
12.000	15.8	11.304	0.16	4.44	6.11		0.520	0.700		0.610
13.000	24.7	17.663	0.25	4.40	6.04		0.560	0.770		0.665
14.000	32.6	23.315	0.33	4.34	5.98		0.620	0.830		0.725
15.000	41.5	29.673	0.42	4.28	5.90		0.680	0.910		0.795

		ε	ΔS	Δσ
$0.7\,\sigma_1$	0.35	0.57938	0.35938	0.2
$0.3\,\sigma_2$	0.15	0.22		
$0.7\sigma_1$	0.35	0.74056	0.14555	0.2
$0.3\sigma_2$	0.15	0.595		
D (mm)	300			
Ev_1	125.22			
Ev_2	309.17			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.47		

LOAD
UN LOAD
RE LOAD



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

شركة نجيبة للمقاولات
المعمل المركزى
مشروع القطار السريع/ فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 525+360 TO 525+500
Date: 23-05-23

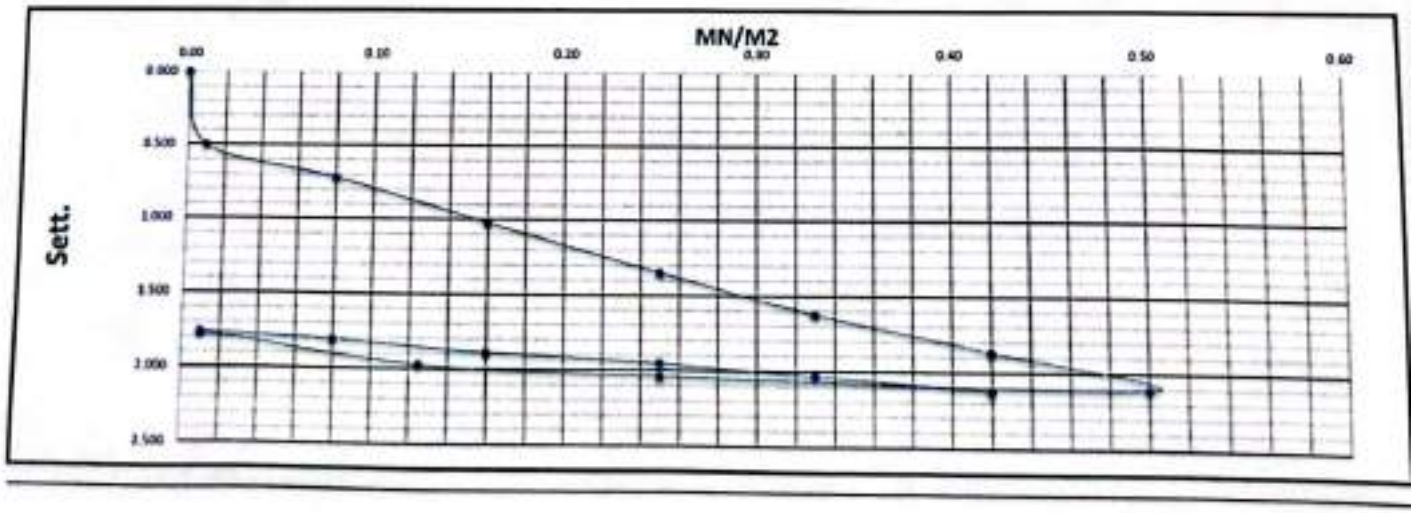
COMPANY	AGR COMPANY
Location	525+400

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	AVE. Sett. mm
0.000	0.0	0.000	0.00	8.24	7.36		0.000	0.000		0.000
1.000	1.0	0.707	0.01	7.71	6.89		0.530	0.470		0.500
2.000	7.9	5.652	0.08	7.48	6.68		0.760	0.680		0.720
0.080	15.8	11.304	0.16	7.17	6.39		1.070	0.970		1.020
4.000	24.7	17.663	0.25	6.84	6.06		1.400	1.300		1.350
5.000	32.6	23.315	0.33	6.55	5.80		1.690	1.560		1.625
6.000	41.5	29.673	0.42	6.29	5.57		1.950	1.790		1.870
7.000	49.4	35.325	0.50	6.05	5.33		2.190	2.030		2.110
8.000	24.7	17.663	0.25	6.09	5.43		2.150	1.930		2.040
9.000	12.4	8.831	0.12	6.14	5.51		2.100	1.850		1.975
9.000	1.0	0.707	0.01	6.33	5.74		1.910	1.620		1.765
10.000	1.0	0.707	0.01	6.33	5.74		1.910	1.620		1.765
11.000	7.9	5.652	0.08	6.29	5.69		1.950	1.670		1.810
12.000	15.8	11.304	0.16	6.22	5.60		2.020	1.760		1.890
13.000	24.7	17.663	0.25	6.16	5.53		2.080	1.830		1.955
14.000	32.6	23.315	0.33	6.08	5.45		2.160	1.910		2.035
15.000	41.5	29.673	0.42	6.00	5.35		2.240	2.010		2.125

		t	ΔS	Ar
$0.7\,\sigma_1$	0.35	1.66	0.6775	0.2
$0.3\,\sigma_2$	0.15	0.9825		
$0.7\sigma_1$	0.35	2.055	0.2	0.2
$0.3\sigma_2$	0.15	1.855		
D (mm)	300			
Ev_1	66.42			
Ev_2	225.01			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.39		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer:	EMBANKMENT	-1.5	
Station:	529+700	TO	529+800
Date:	25-05-23		

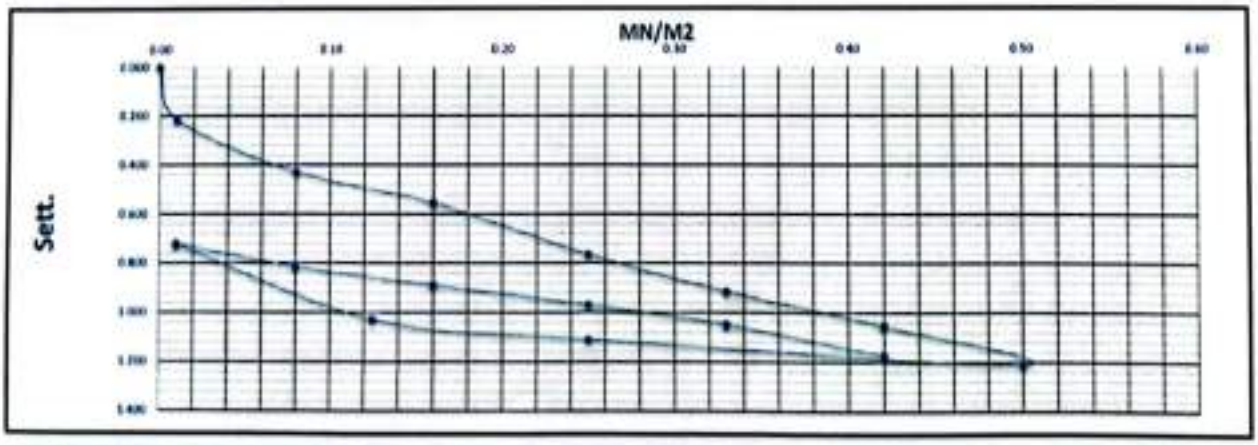
COMPANY	AGR COMPANY
Location	529+740

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	6.39	7.39		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.25	7.10		0.140	0.290		0.215
2.000	7.9	5.652	0.08	6.11	6.81		0.280	0.580		0.430
0.000	15.8	11.304	0.16	5.97	6.70		0.420	0.690		0.555
4.000	24.7	17.663	0.25	5.81	6.44		0.580	0.950		0.765
5.000	32.6	23.315	0.33	5.69	6.26		0.700	1.130		0.915
6.000	41.5	29.673	0.42	5.61	6.06		0.780	1.330		1.055
7.000	49.4	35.325	0.50	5.53	5.83		0.860	1.560		1.210
8.000	24.7	17.663	0.25	5.62	5.94		0.770	1.450		1.110
9.000	12.4	8.831	0.12	5.67	6.05		0.720	1.340		1.030
9.000	1.0	0.707	0.01	5.83	6.51		0.560	0.880		0.720
10.000	1.0	0.707	0.01	5.83	6.51		0.560	0.880		0.720
11.000	7.9	5.652	0.08	5.78	6.37		0.610	1.020		0.815
12.000	15.8	11.304	0.16	5.70	6.30		0.690	1.090		0.890
13.000	24.7	17.663	0.25	5.65	6.19		0.740	1.200		0.970
14.000	32.6	23.315	0.33	5.59	6.09		0.800	1.300		1.050
15.000	41.5	29.673	0.42	5.43	6.00		0.960	1.390		1.175

		k	ΔS	Sr
0.7 σ_1	0.35	0.91938	0.38	0.2
0.3 σ_1	0.15	0.53938		
0.7σ_2	0.35	1.07778	0.16777	0.2
0.3σ_2	0.15	0.91001		
D (mm)	300			
Ev_1	118.42			
Ev_2	268.23			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.27		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Contractor Consultant | Contractor | Owner

Plate Load Test Results

Layer: EMBANKMENT -1.5
Station: 529+700 TO 529+800
Date: 25-05-23

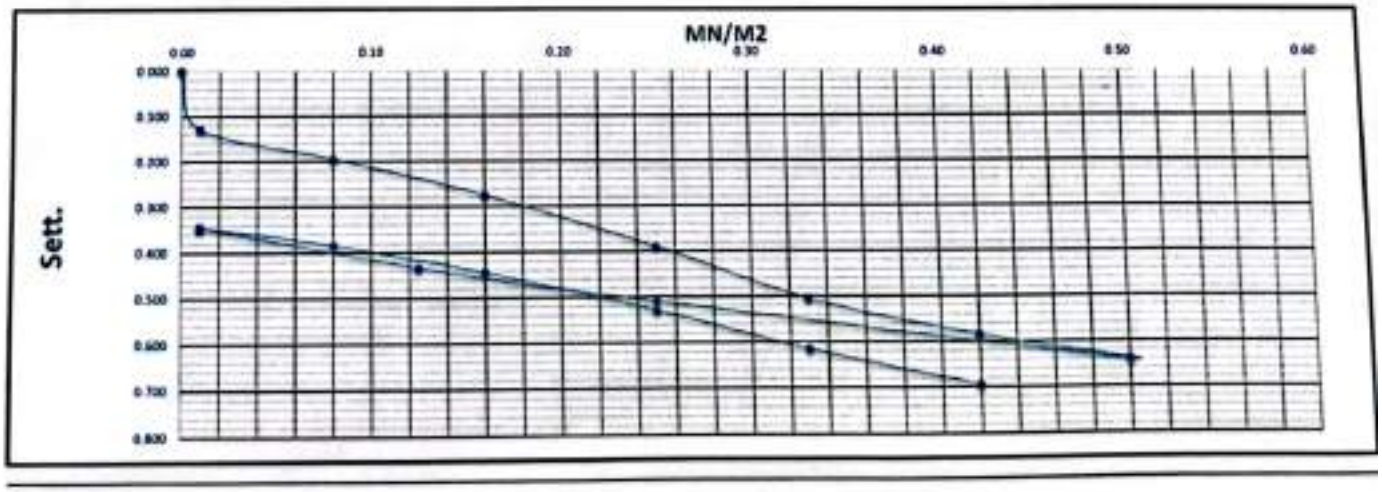
COMPANY	AGR COMPANY
Location	529+780

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	6.17	6.67		0.000	0.000		0.000
1.000	1.0	0.707	0.01	6.07	6.51		0.100	0.160		0.130
2.000	7.9	5.652	0.08	6.04	6.41		0.130	0.260		0.195
0.080	15.8	11.304	0.16	5.99	6.30		0.180	0.370		0.275
4.000	24.7	17.663	0.25	5.88	6.18		0.290	0.490		0.390
5.000	32.6	23.315	0.33	5.73	6.10		0.440	0.570		0.505
6.000	41.5	29.673	0.42	5.66	6.01		0.510	0.660		0.585
7.000	49.4	35.325	0.50	5.63	5.93		0.540	0.740		0.640
8.000	24.7	17.663	0.25	5.83	5.99		0.340	0.680		0.510
9.000	12.4	8.831	0.12	5.89	6.08		0.280	0.590		0.435
9.000	1.0	0.707	0.01	5.98	6.17		0.190	0.500		0.345
10.000	1.0	0.707	0.01	5.98	6.17		0.190	0.500		0.345
11.000	7.9	5.652	0.08	5.92	6.15		0.250	0.520		0.385
12.000	15.8	11.304	0.16	5.85	6.10		0.320	0.570		0.445
13.000	24.7	17.663	0.25	5.75	6.03		0.420	0.640		0.530
14.000	32.6	23.315	0.33	5.66	5.95		0.510	0.720		0.615
15.000	41.5	29.673	0.42	5.57	5.88		0.600	0.790		0.695

		ε	ΔS	Δσ
$0.7\sigma_1$	0.35	0.53688	0.27188	0.2
$0.3\sigma_1$	0.15	0.265		
$0.7\sigma_2$	0.35	0.63278	0.20777	0.2
$0.3\sigma_2$	0.15	0.425		
D (mm)	300			
Ev_1	165.51			
Ev_2	216.58			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.31		

LOAD
UN LOAD
RE LOAD



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

شركة نجيدة للمقاولات
المعمل المركزى
مشروع القطار السريع/فوكة - مطروح

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

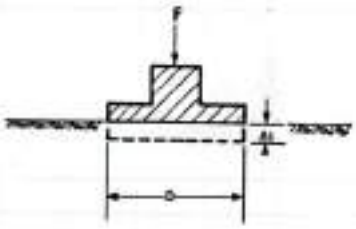
Company Name	A.G.R
Location	Culvert 13 (528+875)
Taste Date	10-5-2023

Station	528+875

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	13.43	11.89		0.000	0.000		0.000
1.000	2.4	0.707	0.01	13.15	11.46		0.280	0.430		0.355
2.000	18.8	5.652	0.08	12.85	11.03		0.580	0.860		0.720
0.080	37.7	11.304	0.16	12.70	10.90		0.730	0.990		0.860
4.000	58.9	17.663	0.25	12.49	10.79		0.940	1.100		1.020
5.000	77.7	23.315	0.33	12.35	10.68		1.080	1.210		1.145
6.000	98.9	29.673	0.42	12.29	10.59		1.140	1.300		1.220
7.000	117.8	35.325	0.50	12.20	10.48		1.230	1.410		1.320
8.000	58.9	17.663	0.25	12.24	10.52		1.190	1.370		1.280
9.000	29.4	8.831	0.12	12.32	10.59		1.110	1.300		1.205
9.000	2.4	0.707	0.01	12.51	10.70		0.920	1.190		1.055
10.000	2.4	0.707	0.01	12.51	10.70		0.920	1.190		1.055
11.000	18.8	5.652	0.08	12.45	10.65		0.980	1.240		1.110
12.000	37.7	11.304	0.16	12.34	10.60		1.090	1.290		1.190
13.000	58.9	17.663	0.25	12.30	10.50		1.130	1.390		1.260
14.000	77.7	23.315	0.33	12.25	10.40		1.180	1.490		1.335
15.000	98.9	29.673	0.42	12.15	10.35		1.280	1.540		1.410

		s	ΔS	Δσ
0.7 σ_1	0.35	1.1325	0.29	0.2
0.3 σ_1	0.15	0.8425		
0.7σ_1	0.35	1.35167	0.18666	0.2
0.3σ_1	0.15	1.16501		
D (mm)	300			
E_{V1}	155.17			
E_{V2}	241.08			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.55		

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

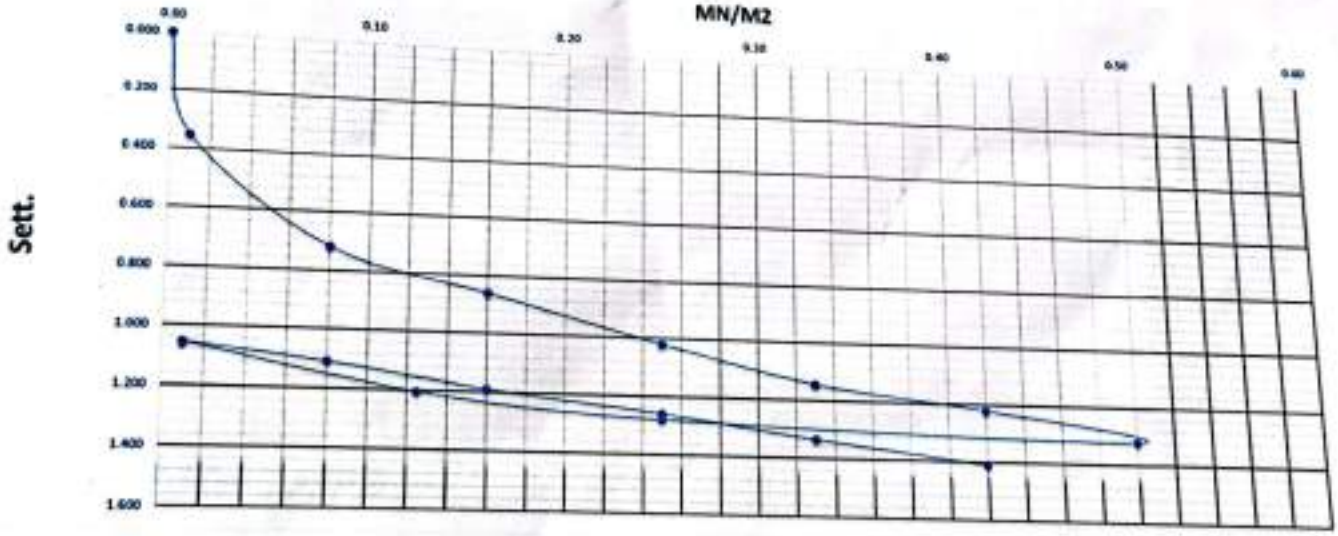
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Youssef Ragab
Sign :	Sign :	Sign : Youssef 10/5/2023

اختبار عينة
معمل التوبي المركزي
قطاع فرع - مطروح

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

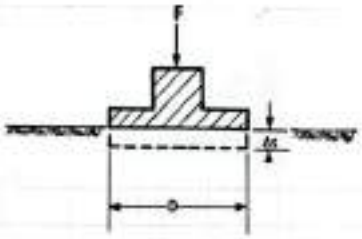
Company Name	A.G.R
Location	Culvert 13 (528+875)
Taste Date	10-5-2023

Station	528+875

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	15.60	17.30		0.000	0.000		0.000
1.000	2.4	0.707	0.01	15.50	16.84		0.100	0.460		0.280
2.000	18.8	5.652	0.08	15.30	16.53		0.300	0.770		0.535
0.080	37.7	11.304	0.16	15.20	16.32		0.400	0.980		0.690
4.000	58.9	17.663	0.25	15.02	16.00		0.580	1.300		0.940
5.000	77.7	23.315	0.33	14.90	15.75		0.700	1.550		1.125
6.000	98.9	29.673	0.42	14.75	15.59		0.850	1.710		1.280
7.000	117.8	35.325	0.50	14.67	15.35		0.930	1.950		1.440
8.000	58.9	17.663	0.25	14.72	15.39		0.880	1.910		1.395
9.000	29.4	8.831	0.12	14.80	15.41		0.800	1.890		1.345
9.000	2.4	0.707	0.01	15.08	15.75		0.520	1.550		1.035
10.000	2.4	0.707	0.01	15.08	15.75		0.520	1.550		1.035
11.000	18.8	5.652	0.08	14.94	15.69		0.660	1.610		1.135
12.000	37.7	11.304	0.16	14.89	15.63		0.710	1.670		1.190
13.000	58.9	17.663	0.25	14.77	15.50		0.830	1.800		1.315
14.000	77.7	23.315	0.33	14.70	15.43		0.900	1.870		1.385
15.000	98.9	29.673	0.42	14.60	15.30		1.000	2.000		1.500

		s	Δs	Δσ
$0.7\,\sigma_1$	0.35	1.14	0.46938	0.2
$0.3\,\sigma_1$	0.15	0.67063		
$0.7\sigma_2$	0.35	1.41056	0.17555	0.2
$0.3\sigma_2$	0.15	1.23501		
D (mm)	300			
Ev_1	95.87			
Ev_2	256.34			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.67		

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

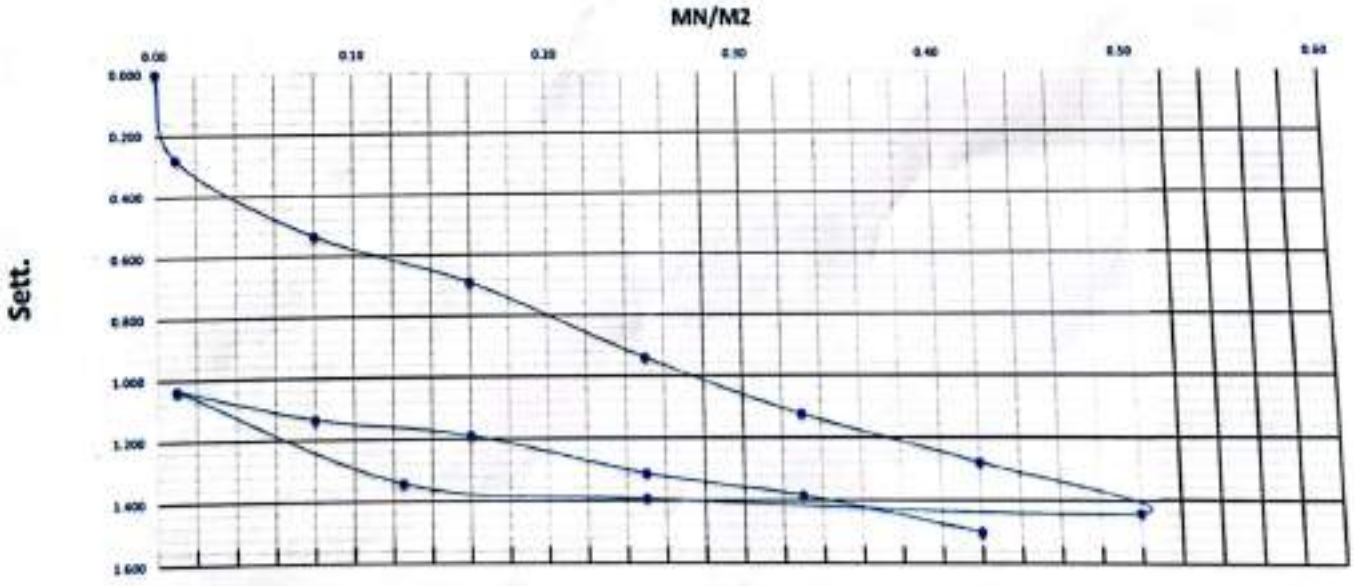
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

[2]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 : Youssef Rafla
Sign :	Sign :	Sign : Youssef 2023

Owner Consultant | Contractor Consultant | Contractor | Owner

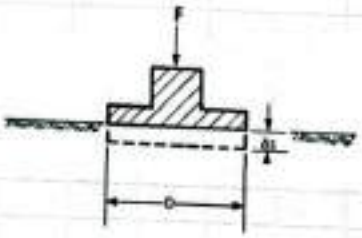
Plate Load Test Results

Company Name	A.G.R			
Location	528+875	To	528+875	Station 528+875
Taste Date	7/5/2023			
Layer level	**Excavation of bed**			

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 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	7.63	5.61		0.000	0.000		0.000
1.000	2.1	0.707	0.01	7.48	5.54		0.150	0.070		0.110
2.000	17.1	5.652	0.08	7.39	5.46		0.240	0.150		0.195
0.080	34.2	11.304	0.16	7.26	5.40		0.370	0.210		0.290
4.000	53.4	17.663	0.25	7.14	5.35		0.490	0.260		0.375
5.000	70.5	23.315	0.33	6.98	5.30		0.650	0.310		0.480
6.000	89.7	29.673	0.42	6.84	5.25		0.790	0.360		0.575
7.000	106.8	35.325	0.50	6.62	5.20		1.010	0.410		0.710
8.000	53.4	17.663	0.25	6.88	5.28		0.750	0.330		0.540
9.000	26.7	8.831	0.12	7.08	5.38		0.550	0.230		0.390
9.000	2.1	0.707	0.01	7.20	5.48		0.430	0.130		0.280
10.000	2.1	0.707	0.01	7.20	5.48		0.430	0.130		0.280
11.000	17.1	5.652	0.08	7.17	5.45		0.460	0.160		0.310
12.000	34.2	11.304	0.16	7.10	5.35		0.530	0.260		0.395
13.000	53.4	17.663	0.25	7.02	5.25		0.610	0.360		0.485
14.000	70.5	23.315	0.33	6.98	5.16		0.650	0.450		0.550
15.000	89.7	29.673	0.42	6.92	5.05		0.710	0.560		0.635

$0.7\,\sigma_1$	0.35	0.45688	0.17875	0.2
$0.3\,\sigma_1$	0.15	0.27813		
$0.7\sigma_2$	0.35	0.56889	0.22889	0.2
$0.3\sigma_2$	0.15	0.34		
D (mm)	300			
Ev_1	251.75			
Ev_2	196.60			
Area (Sq.m)	0.07065			

Ev2/Ev1	0.78		

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

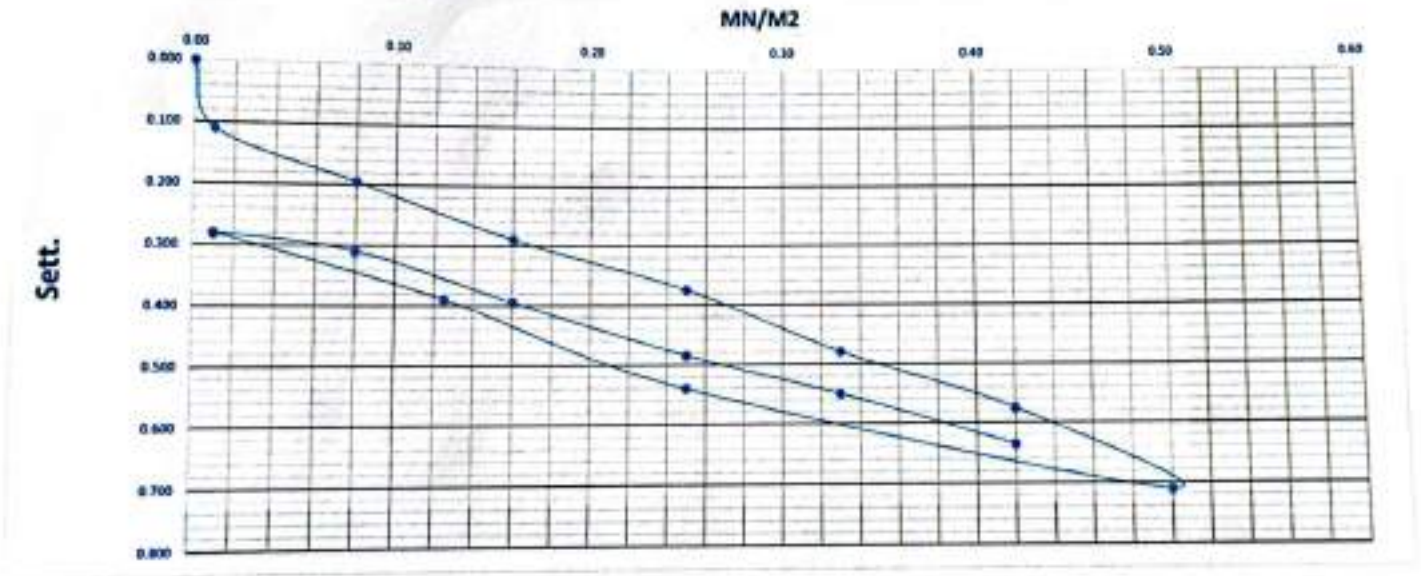
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Youssef Raghb
Sign :	Sign :	Sign :

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

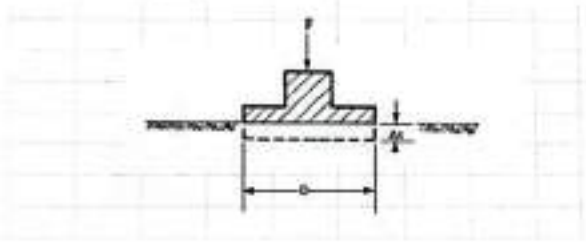
Company Name	AGR
Location	culvert 528
Taste Date	03-05-2023
Layer level	قاع حفر

Station	528+033

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	19.98	19.80		0.020	0.200		0.110
2.000	17.1	5.652	0.08	19.75	19.15		0.250	0.850		0.550
0.080	34.2	11.304	0.16	19.60	18.85		0.400	1.150		0.775
4.000	53.3	17.663	0.25	19.40	18.40		0.600	1.600		1.100
5.000	70.5	23.315	0.33	19.20	18.08		0.800	1.920		1.360
6.000	89.8	29.673	0.42	18.92	17.80		1.080	2.200		1.640
7.000	106.8	35.325	0.50	18.70	17.50		1.300	2.500		1.900
8.000	53.4	17.663	0.25	18.80	17.80		1.200	2.200		1.700
9.000	26.7	8.831	0.12	18.90	17.95		1.100	2.050		1.575
9.000	2.1	0.707	0.01	19.08	18.26		0.920	1.740		1.330
10.000	2.1	0.707	0.01	19.08	18.26		0.920	1.740		1.330
11.000	17.1	5.652	0.08	19.04	18.20		0.960	1.800		1.380
12.000	34.2	11.304	0.16	18.95	18.06		1.050	1.940		1.495
13.000	53.3	17.663	0.25	18.87	17.90		1.130	2.100		1.615
14.000	70.5	23.315	0.33	18.80	17.77		1.200	2.230		1.715
15.000	89.8	29.673	0.42	18.71	17.62		1.290	2.380		1.835

		ε	ΔS	Δσ
$0.7\,\sigma_1$	0.35	1.4125	0.66562	0.2
$0.3\,\sigma_1$	0.15	0.74687		
$0.7\sigma_2$	0.35	1.74167	0.31166	0.2
$0.3\sigma_2$	0.15	1.43001		
D (mm)	300			
Ev_1	67.61			
Ev_2	144.39			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.14		

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

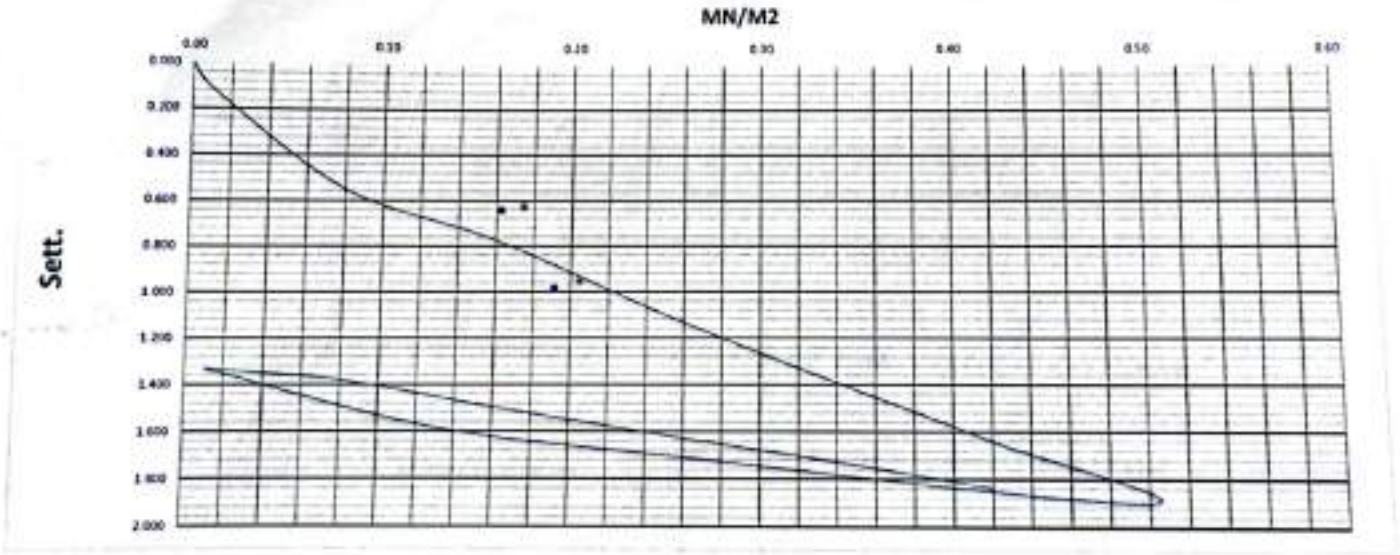
E_v = deformation modulus

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 : Youssef Rafat
Sign :	Sign :	Sign : Youssef 3/5/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

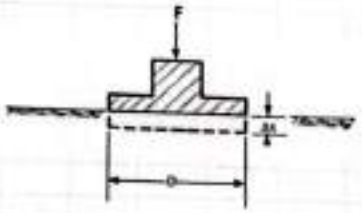
Company Name	AGR
Location	culvert 528
Taste Date	03-05-2023
Layer level	قاع حفر

Station	528+389

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 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	19.92	19.96		0.080	0.040		0.060
2.000	17.1	5.652	0.08	19.63	19.70		0.370	0.300		0.335
0.080	34.2	11.304	0.16	19.33	19.42		0.670	0.580		0.625
4.000	53.3	17.663	0.25	19.00	19.12		1.000	0.880		0.940
5.000	70.5	23.315	0.33	18.74	18.85		1.260	1.150		1.205
6.000	89.8	29.673	0.42	18.48	18.58		1.520	1.420		1.470
7.000	106.8	35.325	0.50	18.28	18.35		1.720	1.650		1.685
8.000	53.4	17.663	0.25	18.42	18.47		1.580	1.530		1.555
9.000	26.7	8.831	0.12	18.58	18.62		1.420	1.380		1.400
9.000	2.1	0.707	0.01	18.82	18.84		1.180	1.160		1.170
10.000	2.1	0.707	0.01	18.82	18.84		1.180	1.160		1.170
11.000	17.1	5.652	0.08	18.75	18.77		1.250	1.230		1.240
12.000	34.2	11.304	0.16	18.66	18.70		1.340	1.300		1.320
13.000	53.3	17.663	0.25	18.52	18.58		1.480	1.420		1.450
14.000	70.5	23.315	0.33	18.40	18.48		1.600	1.520		1.560
15.000	89.8	29.673	0.42	18.31	18.37		1.690	1.630		1.660

		x	Δs	Δσ
$0.7\,\sigma_1$	0.35	1.28188	0.69313	0.3
$0.3\,\sigma_1$	0.15	0.58875		
$0.7\sigma_2$	0.35	1.58222	0.27222	0.3
$0.3\sigma_2$	0.15	1.31001		
D (mm)	300			
Ev_1	64.92			
Ev_2	165.31			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.55		

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

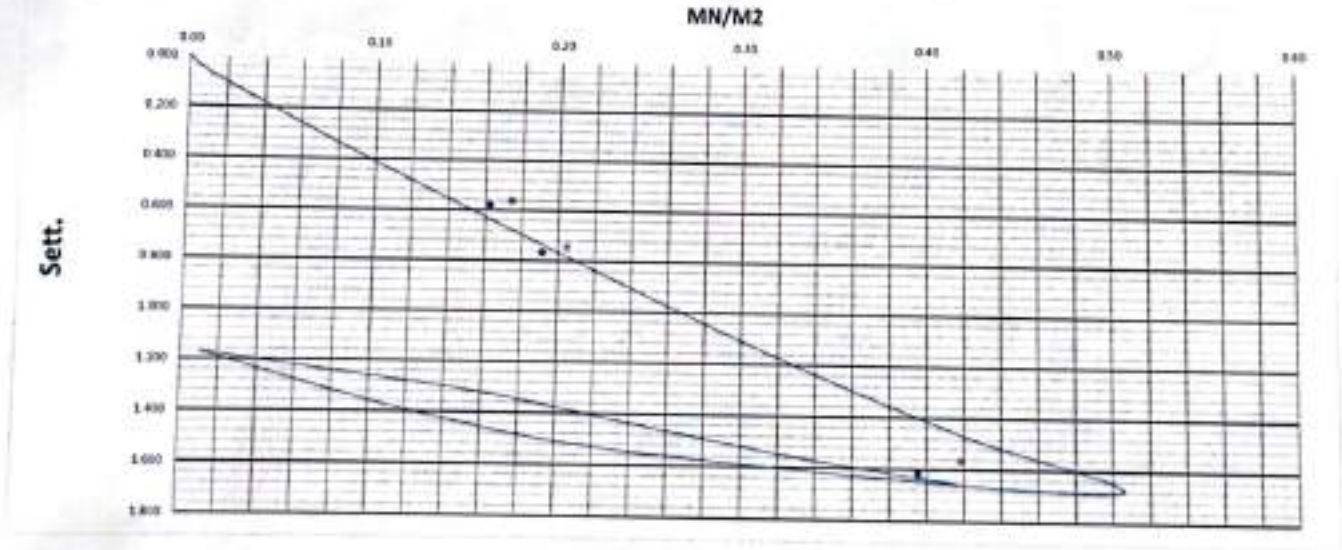
E_v = deformation modulus

D_σ = load increment

D_s = settlement increment

D = diameter of the plate, generally 0.30 r

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 : Youssef Rafat
Sign :	Sign :	Sign : Youssef 5/5/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

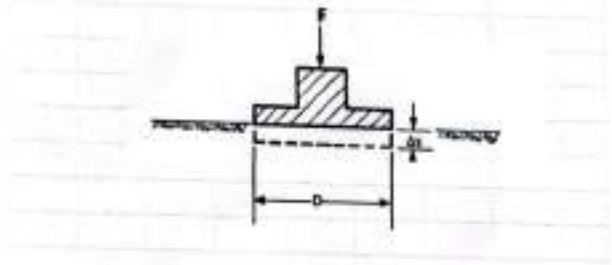
Company Name	A.G.R		
Location	526+380	To	526+460
Taste Date	13/4/2023		
Layer level	**-1.5**		

Station	526+410

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 Stage No.	Load Bar	Load KN	Stress MN/MI	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	6.68	5.61		0.000	0.000		0.000
1.000	2.1	0.707	0.01	6.58	5.54		0.100	0.070		0.085
2.000	17.1	5.652	0.08	6.50	5.46		0.180	0.150		0.165
0.080	34.2	11.304	0.16	6.42	5.40		0.260	0.210		0.235
4.000	53.4	17.663	0.25	6.30	5.35		0.380	0.260		0.320
5.000	70.5	23.315	0.33	6.20	5.30		0.480	0.310		0.395
6.000	89.7	29.673	0.42	6.10	5.25		0.580	0.360		0.470
7.000	106.8	35.325	0.50	5.88	5.20		0.800	0.410		0.605
8.000	53.4	17.663	0.25	6.00	5.28		0.680	0.330		0.505
9.000	26.7	8.831	0.12	6.19	5.38		0.490	0.230		0.360
9.000	2.1	0.707	0.01	6.39	5.48		0.290	0.130		0.210
10.000	2.1	0.707	0.01	6.39	5.48		0.290	0.130		0.210
11.000	17.1	5.652	0.08	6.33	5.45		0.350	0.160		0.255
12.000	34.2	11.304	0.16	6.30	5.35		0.380	0.260		0.320
13.000	53.4	17.663	0.25	6.25	5.25		0.430	0.360		0.395
14.000	70.5	23.315	0.33	6.20	5.16		0.480	0.450		0.465
15.000	89.7	29.673	0.42	6.16	5.05		0.520	0.560		0.540

		s	Δs	Δσ
$0.7\,\sigma_1$	0.35	0.35188	0.12563	0.2
$0.3\,\sigma_1$	0.15	0.22625		
$0.7\sigma_2$	0.35	0.48167	0.18166	0.2
$0.3\sigma_2$	0.15	0.3		
D (mm)	300			
Ev_1	358.21			
Ev_2	247.71			
Area (Sq.m)	0.07065			

Ev2/Ev1	0.69		

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

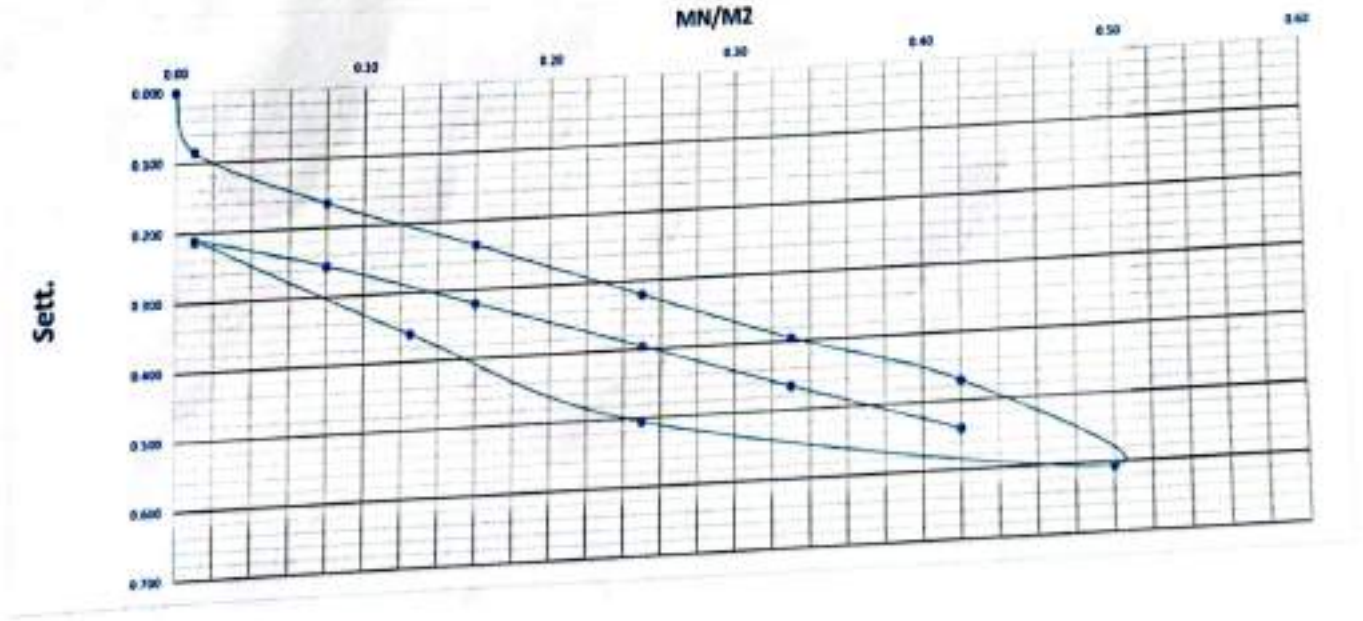
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Youssef Rageb
Sign :	Sign :	Sign : Youssef 11/4 2021

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

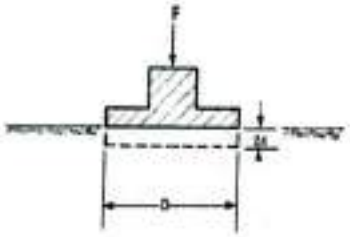
Company Name	A.G.R		
Location	527+000	To	527+060
Taste Date	29-3-2023		
Layer level	-1.5		

Station	527+040

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 6 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	11.70	9.80		0.000	0.000		0.000
1.000	2.4	0.707	0.01	11.50	9.73		0.200	0.070		0.135
2.000	18.8	5.652	0.08	11.35	9.60		0.350	0.200		0.275
0.080	37.7	11.304	0.16	11.25	9.52		0.450	0.280		0.365
4.000	58.9	17.663	0.25	11.10	9.38		0.600	0.420		0.510
5.000	77.7	23.315	0.33	10.95	9.25		0.750	0.550		0.650
6.000	98.9	29.673	0.42	10.80	9.15		0.900	0.650		0.775
7.000	117.8	35.325	0.50	10.69	9.05		1.010	0.750		0.880
8.000	58.9	17.663	0.25	10.75	9.10		0.950	0.700		0.825
9.000	29.4	8.831	0.12	10.84	9.15		0.860	0.650		0.755
9.000	2.4	0.707	0.01	10.97	9.20		0.730	0.600		0.665
10.000	2.4	0.707	0.01	10.97	9.20		0.730	0.600		0.665
11.000	18.8	5.652	0.08	10.85	9.05		0.850	0.750		0.800
12.000	37.7	11.304	0.16	10.75	8.95		0.950	0.850		0.900
13.000	58.9	17.663	0.25	10.64	8.80		1.060	1.000		1.030
14.000	77.7	23.315	0.33	10.55	8.75		1.150	1.050		1.100
15.000	98.9	29.673	0.42	10.44	8.70		1.260	1.100		1.180

		s	ΔS	Δσ
0.7 σ_1	0.35	0.68312	0.32937	0.2
0.3 σ_1	0.15	0.35375		
0.7σ_2	0.35	1.11778	0.18276	0.2
0.3σ_2	0.15	0.93501		
D (mm)	300			
Ev_1	136.62			
Ev_2	246.22			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.80		

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

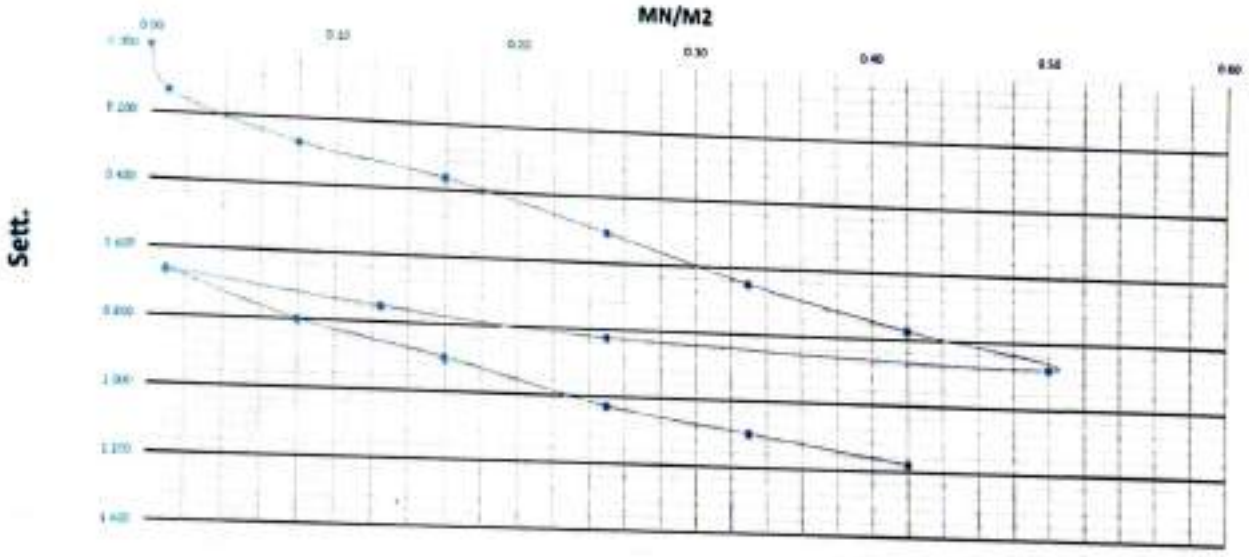
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 : Youssef Rafaat
Sign :	Sign :	Sign : Youssef 12/12/2023

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

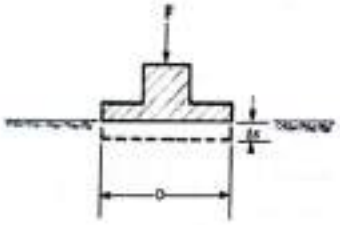
Company Name	A.G.R		
Location	528+140	To	528+220
Taste Date	21/3/2023		
Layer level	-5.5		

Station	528+180

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 6 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	16.60	17.80		0.000	0.000		0.000
1.000	2.4	0.707	0.01	16.40	17.50		0.200	0.300		0.250
2.000	18.8	5.652	0.08	16.30	17.14		0.300	0.660		0.480
0.080	37.7	11.304	0.16	16.15	17.00		0.450	0.800		0.625
4.000	58.9	17.663	0.25	15.95	16.65		0.650	1.150		0.900
5.000	77.7	23.315	0.33	15.85	16.55		0.750	1.250		1.000
6.000	98.9	29.673	0.42	15.78	16.40		0.820	1.400		1.110
7.000	117.8	35.325	0.50	15.70	16.25		0.900	1.550		1.225
8.000	58.9	17.663	0.25	15.74	16.30		0.860	1.500		1.180
9.000	29.4	8.831	0.12	15.80	16.40		0.800	1.400		1.100
9.000	2.4	0.707	0.01	16.15	16.85		0.450	0.950		0.700
10.000	2.4	0.707	0.01	16.15	16.85		0.450	0.950		0.700
11.000	18.8	5.652	0.08	15.98	16.65		0.620	1.150		0.885
12.000	37.7	11.304	0.16	15.86	16.55		0.740	1.250		0.995
13.000	58.9	17.663	0.25	15.78	16.40		0.820	1.400		1.110
14.000	77.7	23.315	0.33	15.70	16.30		0.900	1.500		1.200
15.000	98.9	29.673	0.42	15.58	16.15		1.020	1.650		1.335

		s	ΔS	Δσ
0.7 σ_1	0.35	1.00938	0.4025	0.2
0.3 σ_1	0.15	0.60688		
0.7σ_2	0.35	1.23	0.15998	0.2
0.3σ_2	0.15	1.07002		
D (mm)	300			
Ev_1	111.80			
Ev_2	281.28			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.52		

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

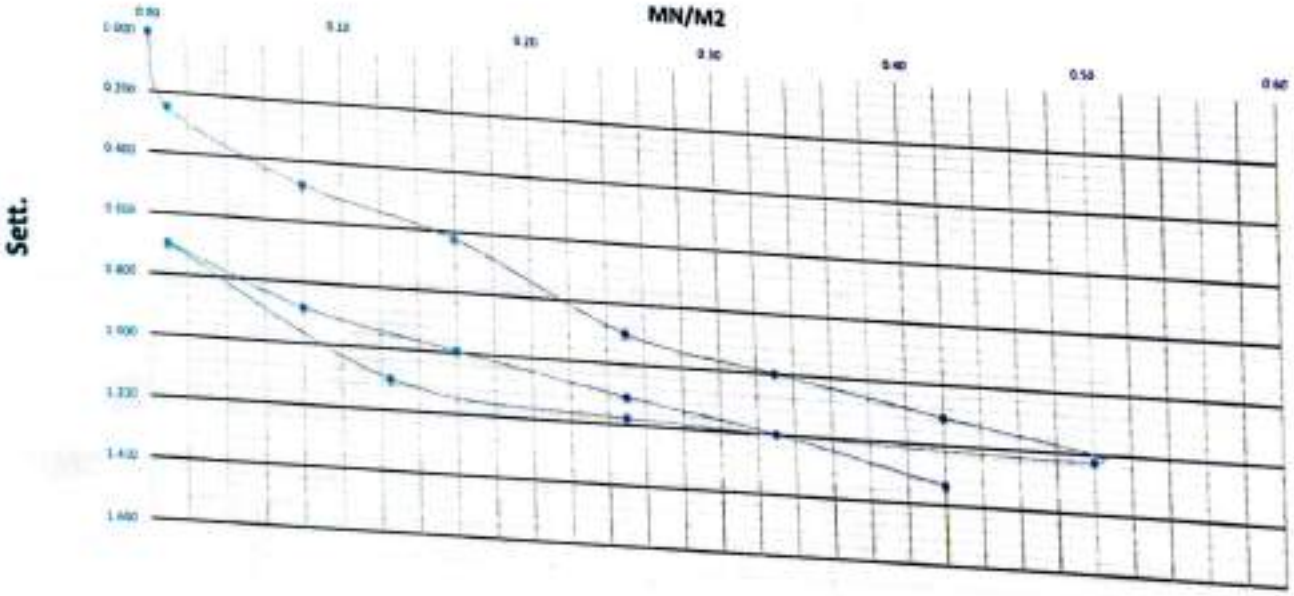
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : Youssef Rafla
Sign :	Sign :	Sign : Youssef 22/2 2023

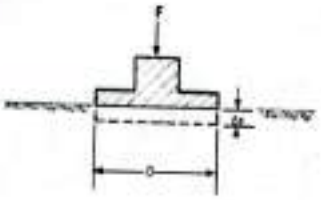
Plate Load Test Results

Company Name	A.G.R			
Location	528+620	To	528+700	Station 528+660
Taste Date	12-3-2023			
Layer level	-5.5			

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 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	Aver. Sett. mm
0.000	0.0	0.000	0.00	10.16	18.71		0.000	0.000		0.000
1.000	2.4	0.707	0.01	9.71	17.93		0.450	0.780		0.615
2.000	18.8	5.652	0.08	9.62	17.68		0.540	1.030		0.785
0.080	37.7	11.304	0.16	9.46	17.38		0.700	1.330		1.015
4.000	58.9	17.663	0.25	9.21	17.04		0.950	1.670		1.310
5.000	77.7	23.315	0.33	9.02	16.79		1.140	1.920		1.530
6.000	98.9	29.673	0.42	8.75	16.53		1.410	2.180		1.795
7.000	117.8	35.325	0.50	8.46	16.36		1.700	2.350		2.025
8.000	58.9	17.663	0.25	8.52	16.38		1.640	2.330		1.985
9.000	29.4	8.831	0.12	8.68	16.57		1.480	2.140		1.810
9.000	2.4	0.707	0.01	9.13	17.11		1.030	1.600		1.315
10.000	2.4	0.707	0.01	9.13	17.11		1.030	1.600		1.315
11.000	18.8	5.652	0.08	9.00	16.85		1.160	1.860		1.510
12.000	37.7	11.304	0.16	8.91	16.72		1.250	1.990		1.620
13.000	58.9	17.663	0.25	8.82	16.54		1.340	2.170		1.755
14.000	77.7	23.315	0.33	8.71	16.40		1.450	2.310		1.880
15.000	98.9	29.673	0.42	8.58	16.36		1.580	2.350		1.965

		a	$\Delta\sigma$	Δs
0.7 σ_1	0.35	1.59375	0.6075	0.2
0.3 σ_1	0.15	0.98625		
0.7σ_2	0.35	1.89889	0.19387	0.2
0.3σ_2	0.15	1.78562		
D (mm)	300			
Ev_1	74.07			
Ev_2	232.12			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.13		

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

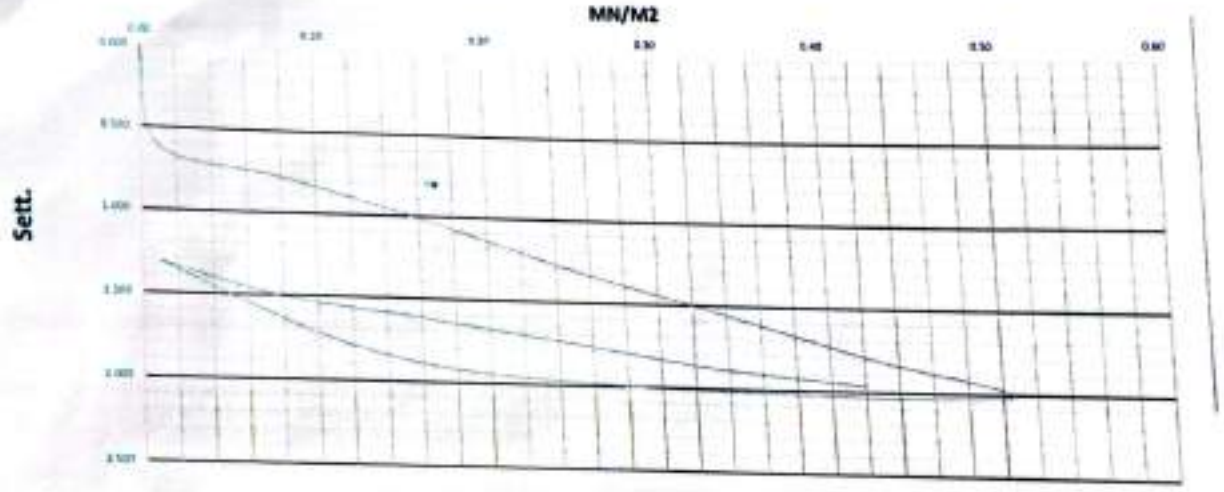
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation Δe 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 : mohamed elsaied
Sign :	Sign :	Sign : m-elsaied

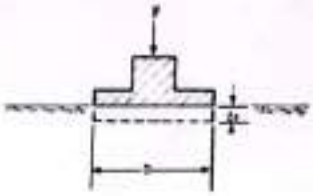
Plate Load Test Results

Company Name	A.G.R			
Location	528+560	To	528+620	Station 528+590
Taste Date	12-3-2023			
Layer level	-5.5			

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	13.85	16.21		0.000	0.000		0.000
1.000	2.4	0.707	0.01	13.29	15.61		0.560	0.600		0.580
2.000	18.8	5.652	0.08	13.08	15.44		0.770	0.770		0.770
0.080	37.7	11.304	0.16	12.76	15.19		1.090	1.020		1.055
4.000	58.9	17.663	0.25	12.45	14.92		1.400	1.290		1.345
5.000	77.7	23.315	0.33	12.21	14.77		1.640	1.440		1.540
6.000	98.9	29.673	0.42	11.88	14.56		1.970	1.650		1.810
7.000	117.8	35.325	0.50	11.63	14.42		2.220	1.790		2.005
8.000	58.9	17.663	0.25	11.69	14.46		2.160	1.750		1.955
9.000	29.4	8.831	0.12	11.81	14.60		2.040	1.610		1.825
9.000	2.4	0.707	0.01	12.37	15.11		1.480	1.100		1.290
10.000	2.4	0.707	0.01	12.37	15.11		1.480	1.100		1.290
11.000	18.8	5.652	0.08	12.11	14.89		1.740	1.320		1.530
12.000	37.7	11.304	0.16	11.96	14.76		1.890	1.450		1.670
13.000	58.9	17.663	0.25	11.83	14.63		2.020	1.580		1.800
14.000	77.7	23.315	0.33	11.74	14.52		2.110	1.690		1.900
15.000	98.9	29.673	0.42	11.63	14.43		2.220	1.780		2.000

		z	Δs	Δσ
$0.7\,\sigma_1$	0.35	1.63938	0.62	0.2
$0.3\,\sigma_1$	0.15	1.01938		
$0.7\sigma_2$	0.35	1.92222	0.1522	0.2
$0.3\sigma_2$	0.15	1.77002		
D (mm)	300			
E_{V1}	72.58			
E_{V2}	295.67			
Area ($S_{q,m}$)	0.07065			

E=2/E=1	4.07		

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

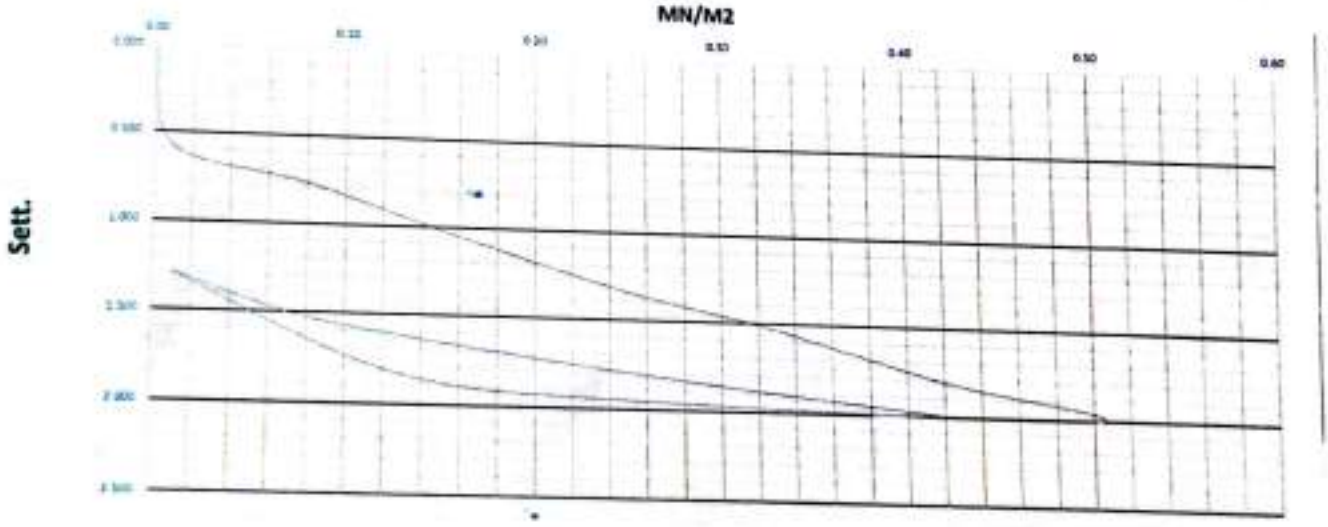
E_s = deformation modulus

$\Delta\sigma$ = 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 :	Name : mohamed elsaied
Sign :	Sign :	Sign : m.elsaied

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

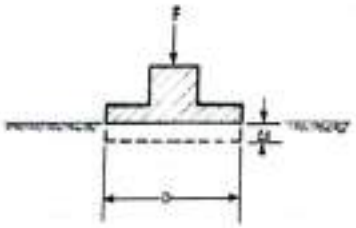
Company Name	A.G.R		
Location	526+700	To	526+840
Taste Date	8-3-2023		
Layer level	0		

Station	526+740

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	13.90	14.74		0.000	0.000		0.000
1.000	2.4	0.707	0.01	13.82	14.64		0.080	0.100		0.090
2.000	18.8	5.652	0.08	13.79	14.60		0.110	0.140		0.125
0.080	37.7	11.304	0.16	13.72	14.55		0.180	0.190		0.185
4.000	58.9	17.663	0.25	13.67	14.35		0.230	0.390		0.310
5.000	77.7	23.315	0.33	13.58	14.10		0.320	0.640		0.480
6.000	98.9	29.673	0.42	13.54	14.02		0.360	0.720		0.540
7.000	117.8	35.325	0.50	13.50	13.85		0.400	0.890		0.645
8.000	58.9	17.663	0.25	13.55	14.00		0.350	0.740		0.545
9.000	29.4	8.831	0.12	13.65	14.10		0.250	0.640		0.445
9.000	2.4	0.707	0.01	13.70	14.20		0.200	0.540		0.370
10.000	2.4	0.707	0.01	13.70	14.20		0.200	0.540		0.370
11.000	18.8	5.652	0.08	13.60	14.10		0.300	0.640		0.470
12.000	37.7	11.304	0.16	13.50	14.05		0.400	0.690		0.545
13.000	58.9	17.663	0.25	13.42	13.95		0.480	0.790		0.635
14.000	77.7	23.315	0.33	13.33	13.85		0.570	0.890		0.730
15.000	98.9	29.673	0.42	13.25	13.75		0.650	0.990		0.820

		v	ΔS	Δe
0.7 σ_1	0.35	0.44813	0.27063	0.2
0.3 σ_1	0.15	0.1775		
0.7σ_2	0.35	0.75	0.17999	0.2
0.3σ_2	0.15	0.57001		
D (mm)	300			
Ev_1	166.28			
Ev_2	250.01			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.50		

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

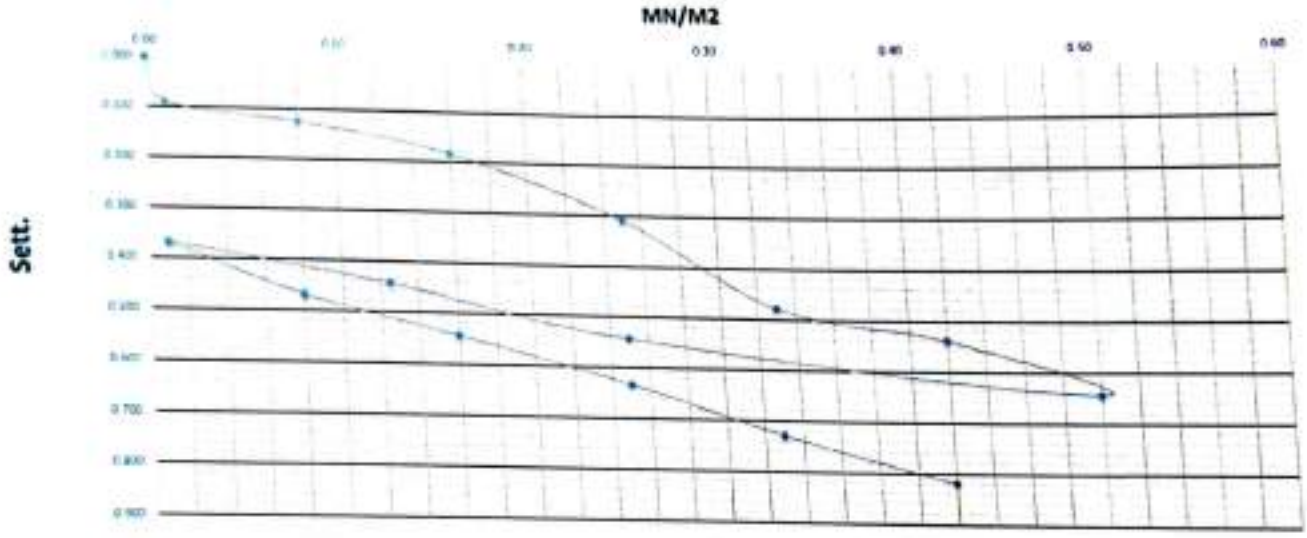
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 r

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 : mohamed elsaied
Sign :	Sign :	Sign : m.elsaied

Owner Consultant | Contractor Consultant | Contractor | Owner

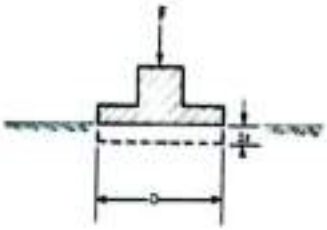
Plate Load Test Results

Company Name	A.G.R				
Location	526+700	To	526+840	Station	526+780
Taste Date	8-3-2023				
Layer level	0				

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 6 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	13.83	14.54		0.000	0.000		0.000
1.000	2.4	0.707	0.01	13.72	14.35		0.110	0.190		0.150
2.000	18.8	5.652	0.08	13.80	14.17		0.030	0.370		0.200
0.080	37.7	11.304	0.16	13.30	13.82		0.530	0.720		0.625
4.000	58.9	17.663	0.25	13.08	13.53		0.750	1.010		0.880
5.000	77.7	23.315	0.33	12.90	13.34		0.930	1.200		1.065
6.000	98.9	29.673	0.42	12.70	13.05		1.130	1.490		1.310
7.000	117.8	35.325	0.50	12.58	12.75		1.250	1.790		1.520
8.000	58.9	17.663	0.25	12.60	12.90		1.230	1.640		1.435
9.000	29.4	8.831	0.12	12.64	13.03		1.190	1.510		1.350
9.000	2.4	0.707	0.01	12.85	13.54		0.980	1.000		0.990
10.000	2.4	0.707	0.01	12.85	13.54		0.980	1.000		0.990
11.000	18.8	5.652	0.08	12.75	13.30		1.080	1.240		1.160
12.000	37.7	11.304	0.16	12.65	13.13		1.180	1.410		1.295
13.000	58.9	17.663	0.25	12.58	13.03		1.250	1.510		1.380
14.000	77.7	23.315	0.33	12.51	12.95		1.320	1.590		1.455
15.000	98.9	29.673	0.42	12.44	12.80		1.390	1.740		1.565

		s	ΔS	Δσ
0.7 σ_1	0.35	1.12625	0.55438	0.2
0.3 σ_1	0.15	0.57187		
0.7σ_2	0.35	1.47944	0.14943	0.2
0.3σ_2	0.15	1.33802		
D (mm)	300			
Ev_1	81.17			
Ev_2	301.15			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.71		

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

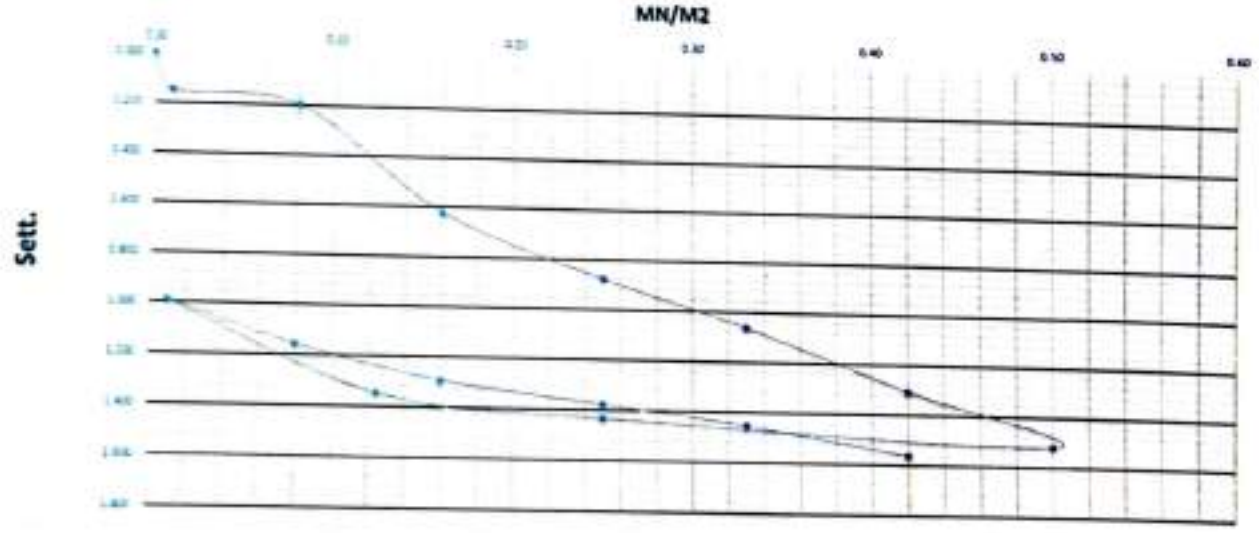
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : mohamed elsaid
Sign :	Sign :	Sign : m.elsaid

Plate Load Test Results

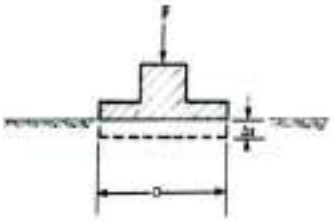
Company Name	A.G.R			
Location	526+700	To	526+840	
Taste Date	8-3-2023			
Layer level	**0**			

Station	526+820

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	10.68	15.80		0.000	0.000		0.000
1.000	2.4	0.707	0.01	10.50	15.68		0.180	0.120		0.150
2.000	18.8	5.652	0.08	10.25	15.35		0.430	0.450		0.440
0.080	37.7	11.304	0.16	10.00	15.04		0.680	0.760		0.720
4.000	58.9	17.663	0.25	9.75	14.67		0.930	1.130		1.030
5.000	77.7	23.315	0.33	9.60	14.40		1.080	1.400		1.240
6.000	98.9	29.673	0.42	9.40	14.15		1.280	1.650		1.465
7.000	117.8	35.325	0.50	9.15	13.83		1.530	1.970		1.750
8.000	58.9	17.663	0.25	9.17	13.95		1.510	1.850		1.680
9.000	29.4	8.831	0.12	9.26	14.15		1.420	1.650		1.535
9.000	2.4	0.707	0.01	9.90	14.60		0.780	1.200		0.990
10.000	2.4	0.707	0.01	9.90	14.60		0.780	1.200		0.990
11.000	18.8	5.652	0.08	9.60	14.30		1.080	1.500		1.290
12.000	37.7	11.304	0.16	9.43	14.10		1.250	1.700		1.475
13.000	58.9	17.663	0.25	9.30	14.00		1.380	1.800		1.590
14.000	77.7	23.315	0.33	9.25	13.85		1.430	1.950		1.690
15.000	98.9	29.673	0.42	9.20	13.75		1.480	2.050		1.765

		s	ΔS	Δσ
0.7 σ_1	0.35	1.21563	0.53062	0.2
0.3 σ_1	0.15	0.685		
0.7σ_2	0.35	1.70667	0.11664	0.2
0.3σ_2	0.15	1.59063		
D (mm)	300			
Ev_1	84.81			
Ev_2	385.81			
Area (Sq.m)	0.07065			

Ev2/Ev1	4.55		

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

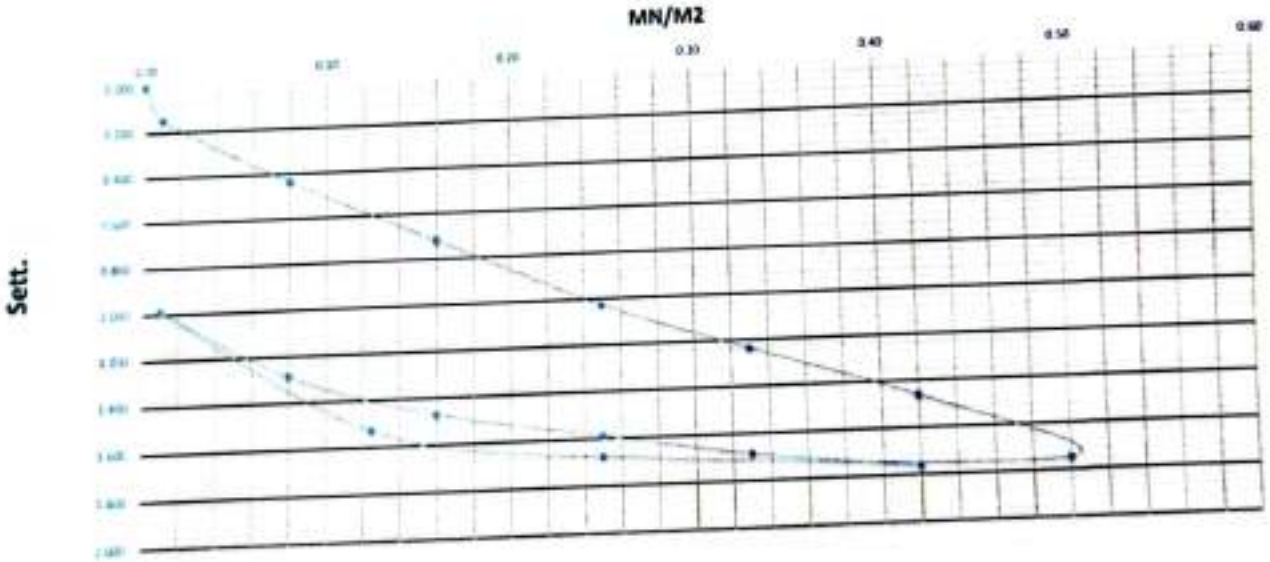
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 : mohamed elsaied
Sign :	Sign :	Sign : m.elsaied

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

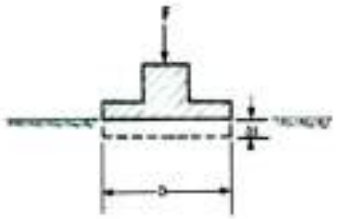
Company Name	A.G.R			
Location	526+840	To	527+000	
Taste Date	8-3-2023			
Layer level	**0**			

Station	526+845

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 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	15.11	14.35		0.000	0.000		0.000
1.000	2.4	0.707	0.01	15.00	14.22		0.110	0.130		0.120
2.000	18.8	5.652	0.08	14.90	14.08		0.210	0.270		0.240
0.080	37.7	11.304	0.16	14.75	13.90		0.360	0.450		0.405
4.000	58.9	17.663	0.25	14.60	13.70		0.510	0.650		0.580
5.000	77.7	23.315	0.33	14.48	13.58		0.630	0.770		0.700
6.000	98.9	29.673	0.42	14.35	13.45		0.760	0.900		0.830
7.000	117.8	35.325	0.50	14.25	13.33		0.860	1.020		0.940
8.000	58.9	17.663	0.25	14.30	13.40		0.810	0.950		0.880
9.000	29.4	8.831	0.12	14.38	13.53		0.730	0.820		0.775
9.000	2.4	0.707	0.01	14.68	13.88		0.430	0.470		0.450
10.000	2.4	0.707	0.01	14.68	13.88		0.430	0.470		0.450
11.000	18.8	5.652	0.08	14.55	13.75		0.560	0.600		0.580
12.000	37.7	11.304	0.16	14.45	13.60		0.660	0.750		0.705
13.000	58.9	17.663	0.25	14.35	13.50		0.760	0.850		0.805
14.000	77.7	23.315	0.33	14.20	13.40		0.910	0.950		0.930
15.000	98.9	29.673	0.42	14.10	13.32		1.010	1.030		1.020

		ν	ΔS	Δσ
0.7 σ_1	0.35	0.72375	0.34938	0.2
0.3 σ_1	0.15	0.38437		
0.7σ_2	0.35	0.95	0.23999	0.2
0.3σ_2	0.15	0.71001		
D (mm)	300			
Ev_1	128.80			
Ev_2	187.51			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.46		

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

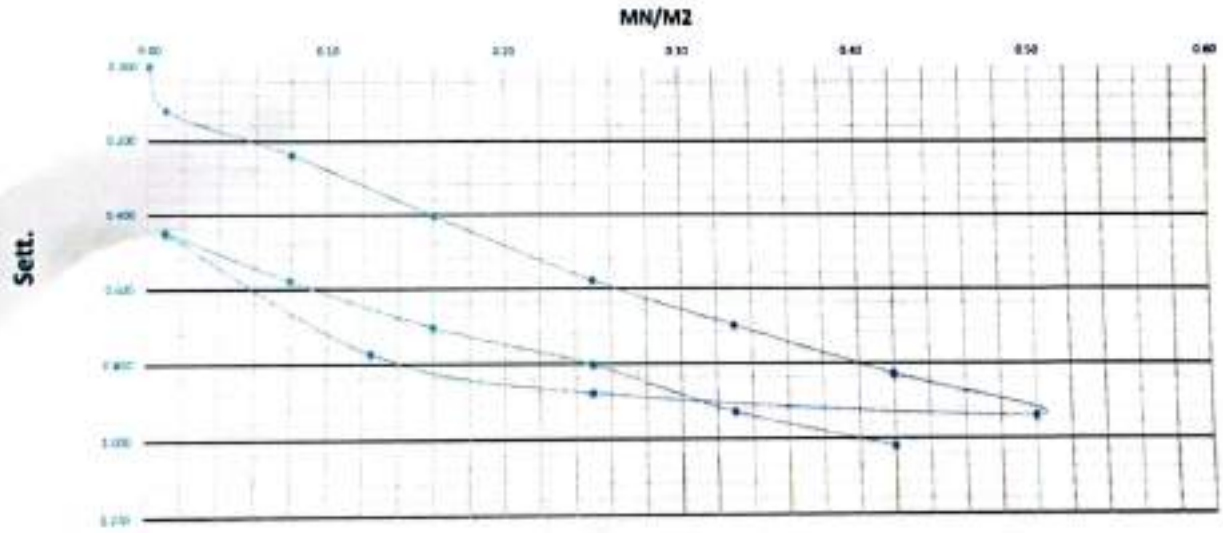
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 : mohamed elsaid
Sign :	Sign :	Sign : m.elsaid

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

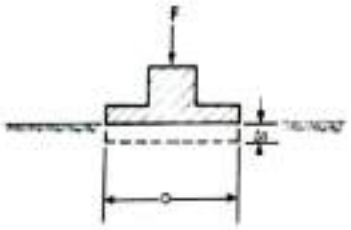
Company Name	A.G.R			
Location	526+840	To	527+000	
Taste Date	8-3-2023			
Layer level	**0**			

Station	526+980

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	15.00	15.35		0.000	0.000		0.000
1.000	2.4	0.707	0.01	14.93	15.20		0.070	0.150		0.110
2.000	18.8	5.652	0.08	14.80	15.00		0.200	0.350		0.275
0.080	37.7	11.304	0.16	14.70	14.74		0.300	0.610		0.455
4.000	58.9	17.663	0.25	14.64	14.50		0.360	0.850		0.605
5.000	77.7	23.315	0.33	14.55	14.30		0.450	1.050		0.750
6.000	98.9	29.673	0.42	14.50	14.10		0.500	1.250		0.875
7.000	117.8	35.325	0.50	14.40	13.90		0.600	1.450		1.025
8.000	58.9	17.663	0.25	14.43	13.98		0.570	1.370		0.970
9.000	29.4	8.831	0.12	14.45	14.10		0.550	1.250		0.900
9.000	2.4	0.707	0.01	14.65	14.38		0.350	0.970		0.660
10.000	2.4	0.707	0.01	14.65	14.38		0.350	0.970		0.660
11.000	18.8	5.652	0.08	14.52	14.10		0.480	1.250		0.865
12.000	37.7	11.304	0.16	14.40	14.00		0.600	1.350		0.975
13.000	58.9	17.663	0.25	14.30	13.95		0.700	1.400		1.050
14.000	77.7	23.315	0.33	14.18	13.80		0.820	1.550		1.185
15.000	98.9	29.673	0.42	14.11	13.70		0.890	1.650		1.270

		a	ΔS	Δσ
0.7 σ_1	0.35	0.74375	0.31125	0.2
0.3 σ_1	0.15	0.4325		
0.7σ_2	0.35	1.20389	0.13387	0.3
0.3σ_2	0.15	1.07002		
D (mm)	300			
E_{V1}	144.58			
E_{V2}	336.15			
Area (Sq.m)	0.07065			

E=2/E=1	2.33		

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

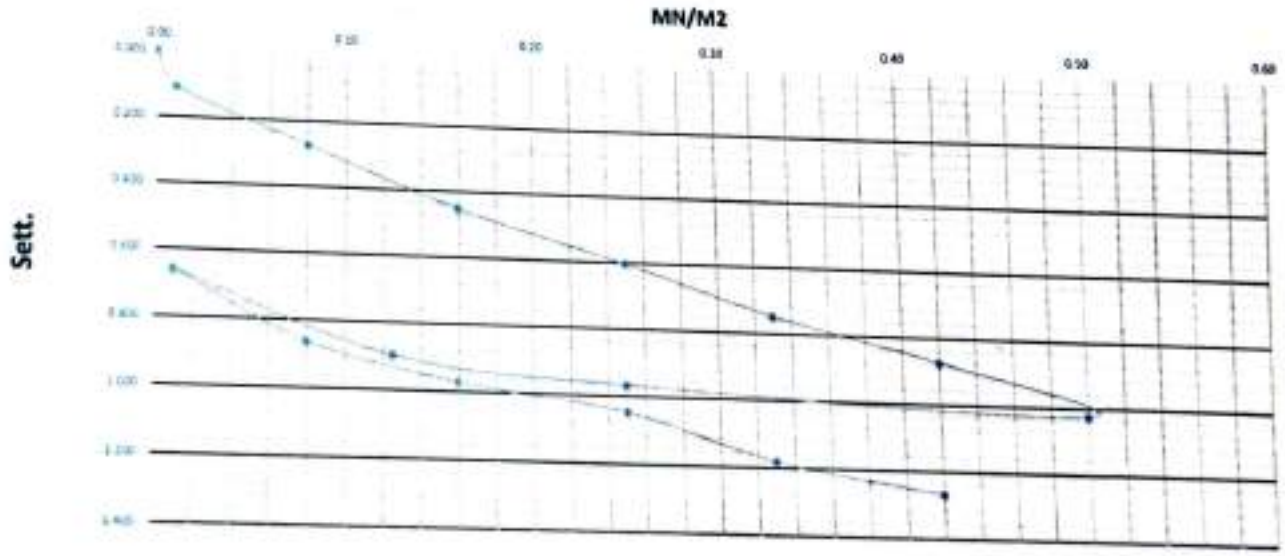
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : mohamed elsaid
Sign :	Sign :	Sign : m. elsaid

Owner Consultant | Contractor Consultant | Contractor | Owner

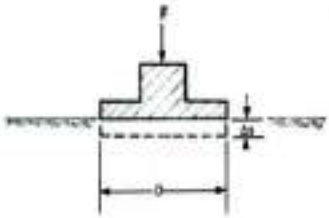
Plate Load Test Results

Company Name	A.G.R				
Location	526+840	To	527+000	Station	526+920
Taste Date	8-3-2023				
Layer level	0				

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 6 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	12.42	15.49		0.000	0.000		0.000
1.000	2.4	0.707	0.01	12.39	15.45		0.030	0.040		0.035
2.000	18.8	5.652	0.08	12.20	15.25		0.220	0.240		0.230
0.080	37.7	11.304	0.16	12.08	15.08		0.340	0.410		0.375
4.000	58.9	17.663	0.25	11.98	14.95		0.440	0.540		0.490
5.000	77.7	23.315	0.33	11.85	14.78		0.570	0.710		0.640
6.000	98.9	29.673	0.42	11.72	14.62		0.700	0.870		0.785
7.000	117.8	35.325	0.50	11.61	14.50		0.810	0.990		0.900
8.000	58.9	17.663	0.25	11.65	14.60		0.770	0.890		0.830
9.000	29.4	8.831	0.12	11.70	14.72		0.720	0.770		0.745
9.000	2.4	0.707	0.01	11.90	15.02		0.520	0.470		0.495
10.000	2.4	0.707	0.01	11.90	15.02		0.520	0.470		0.495
11.000	18.8	5.652	0.08	11.80	14.92		0.620	0.570		0.595
12.000	37.7	11.304	0.16	11.75	14.82		0.670	0.670		0.670
13.000	58.9	17.663	0.25	11.70	14.70		0.720	0.790		0.755
14.000	77.7	23.315	0.33	11.60	14.62		0.820	0.870		0.845
15.000	98.9	29.673	0.42	11.52	14.55		0.900	0.940		0.920

		ν	Δσ	Δs
0.7 σ_1	0.35	0.68438	0.3275	0.2
0.3 σ_1	0.15	0.35688		
0.7σ_2	0.35	0.86167	0.16666	0.2
0.3σ_2	0.15	0.69501		
D (mm)	300			
Ev_1	137.48			
Ev_2	270.02			
Area (Sq.m)	0.07065			

Ev2/Ev1	1.97		

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

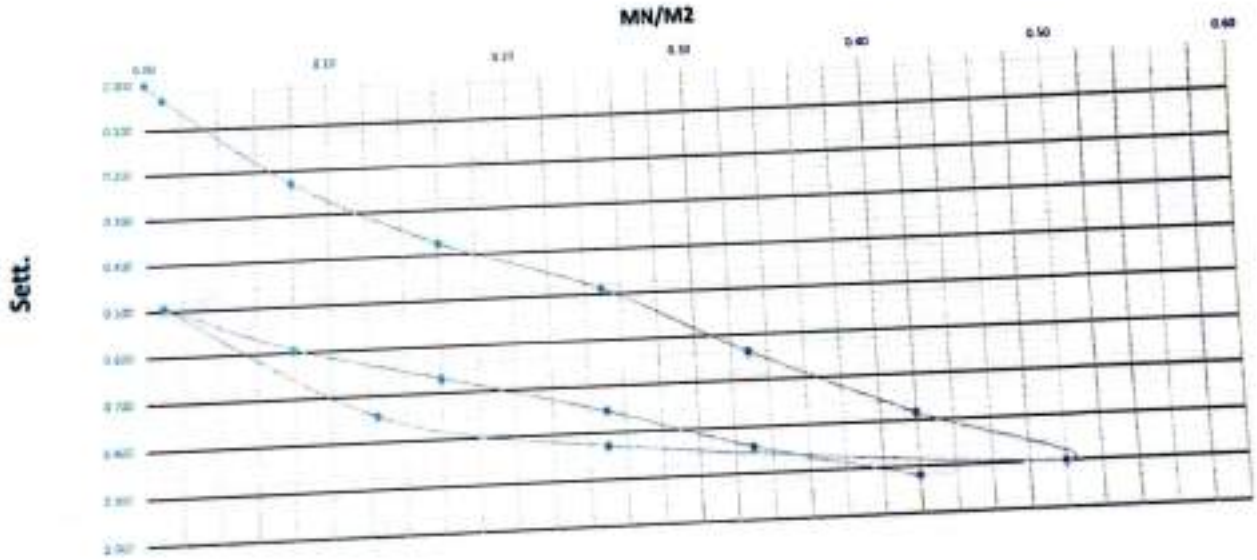
E_v = deformation modulus

$\Delta\sigma$ = load increment

Δs = settlement increment

D = diameter of the plate, generally 0.30 m

For this calculation $\Delta\sigma$ and $\Delta\varepsilon$ 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 : mohamed elsaid
Sign :	Sign :	Sign : m. elsaid

Owner Consultant | Contractor Consultant | Contractor | Owner

Plate Load Test Results

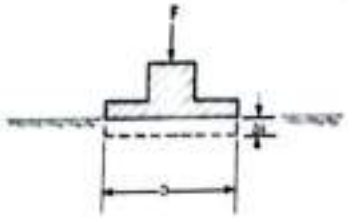
Company Name	A.G.R			
Location	526+840	To	527+000	
Taste Date	8-3-2023			
Layer level	0			

Station	526+870

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	15.64	15.00		0.000	0.000		0.000
1.000	2.4	0.707	0.01	15.55	14.85		0.090	0.150		0.120
2.000	18.8	5.652	0.08	15.41	14.50		0.230	0.500		0.365
0.080	37.7	11.304	0.16	15.31	14.11		0.330	0.890		0.610
4.000	58.9	17.663	0.25	15.18	13.83		0.460	1.170		0.815
5.000	77.7	23.315	0.33	15.08	13.50		0.560	1.500		1.030
6.000	98.9	29.673	0.42	15.00	13.28		0.640	1.720		1.180
7.000	117.8	35.325	0.50	14.92	13.02		0.720	1.980		1.350
8.000	58.9	17.663	0.25	14.95	13.15		0.690	1.850		1.270
9.000	29.4	8.831	0.12	15.04	13.29		0.600	1.710		1.155
9.000	2.4	0.707	0.01	15.36	13.68		0.280	1.320		0.800
10.000	2.4	0.707	0.01	15.36	13.68		0.280	1.320		0.800
11.000	18.8	5.652	0.08	15.18	13.45		0.460	1.550		1.005
12.000	37.7	11.304	0.16	15.10	13.34		0.540	1.660		1.100
13.000	58.9	17.663	0.25	15.00	13.20		0.640	1.800		1.220
14.000	77.7	23.315	0.33	14.90	13.14		0.740	1.860		1.300
15.000	98.9	29.673	0.42	14.82	13.00		0.820	2.000		1.410

		s	ΔS	Δσ
0.7 σ_1	0.35	1.03125	0.45188	0.2
0.3 σ_1	0.15	0.57938		
0.7σ_2	0.35	1.32444	0.11442	0.2
0.3σ_2	0.15	1.21002		
D (mm)	300			
Ev_1	99.59			
Ev_2	393.28			
Area (Sq.m)	0.07065			

Ev2/Ev1	3.95		

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

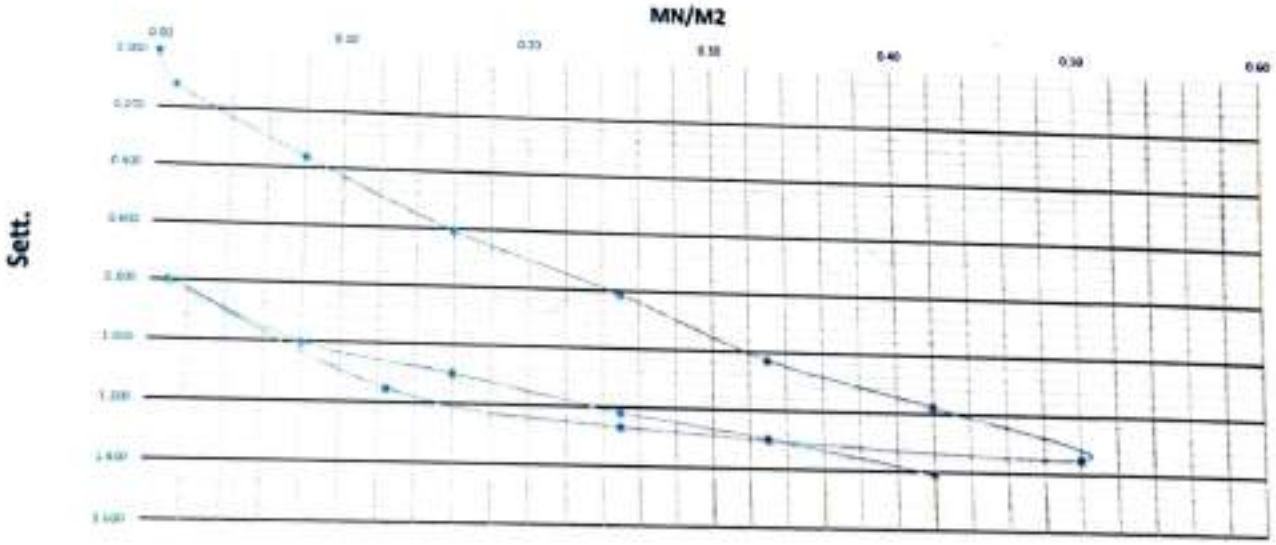
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : mohamed elsaied
Sign :	Sign :	Sign : m-elsaied

Plate Load Test Results

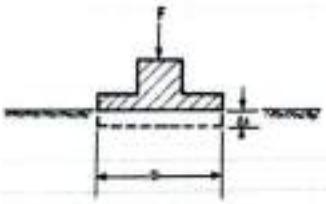
Company Name	A.G.R			
Location	525+920	To	526+040	
Taste Date	25/1/2023			
Layer level	**0**			

Station	526+020

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	14.91	16.11		0.000	0.000		0.000
1.000	2.4	0.707	0.01	14.71	15.85		0.200	0.260		0.230
2.000	18.8	5.652	0.08	14.53	15.55		0.380	0.560		0.470
0.080	37.7	11.304	0.16	14.48	15.32		0.430	0.790		0.610
4.000	58.9	17.663	0.25	14.23	15.04		0.680	1.070		0.875
5.000	77.7	23.315	0.33	14.11	14.81		0.800	1.300		1.050
6.000	98.9	29.673	0.42	14.01	14.55		0.900	1.560		1.230
7.000	117.8	35.325	0.50	13.92	14.29		0.990	1.820		1.405
8.000	58.9	17.663	0.25	14.00	14.43		0.910	1.680		1.295
9.000	29.4	8.831	0.12	14.15	14.51		0.760	1.600		1.180
9.000	2.4	0.707	0.01	14.31	14.85		0.600	1.260		0.930
10.000	2.4	0.707	0.01	14.31	14.85		0.600	1.260		0.930
11.000	18.8	5.652	0.08	14.15	14.73		0.760	1.380		1.070
12.000	37.7	11.304	0.16	14.03	14.65		0.880	1.460		1.170
13.000	58.9	17.663	0.25	13.90	14.52		1.010	1.590		1.300
14.000	77.7	23.315	0.33	13.81	14.45		1.100	1.660		1.380
15.000	98.9	29.673	0.42	13.69	14.31		1.220	1.800		1.510

$0.7\sigma_1$	0.35	1.07688	0.48437	0.2
$0.3\sigma_1$	0.15	0.5925		
$0.7\sigma_2$	0.35	1.40889	0.19887	0.2
$0.3\sigma_2$	0.15	1.21001		
D (mm)	300			
Ev_1	92.90			
Ev_2	226.27			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.44		

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

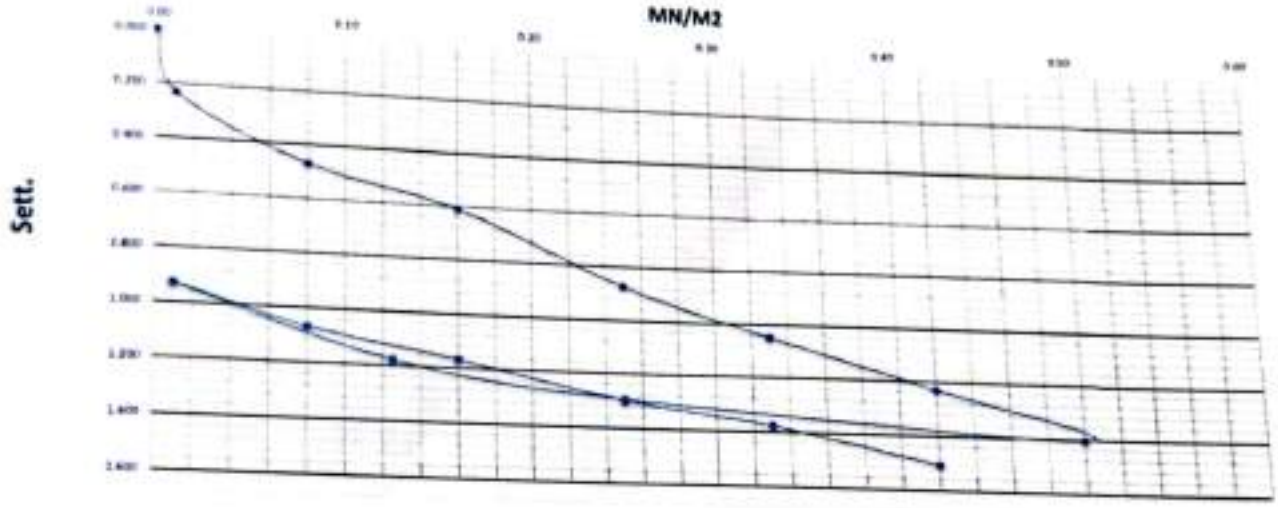
E_v = deformation modulus

$\Delta\sigma$ = 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 :	Name : I-lassa
Sign :	Sign :	Sign :

Plate Load Test Results

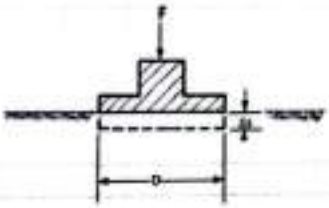
Company Name	A.G.R			
Location	525+920	To	526+040	
Taste Date	25/1/2023			
Layer level	**0**			

Station	525+960

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_r = 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	15.01	18.35		0.000	0.000		0.000
1.000	2.4	0.707	0.01	14.83	18.16		0.180	0.190		0.185
2.000	18.8	5.652	0.08	14.68	17.96		0.330	0.390		0.360
0.080	37.7	11.304	0.16	14.59	17.81		0.420	0.540		0.480
4.000	58.9	17.663	0.25	14.41	17.58		0.600	0.770		0.685
5.000	77.7	23.315	0.33	14.30	17.38		0.710	0.970		0.840
6.000	98.9	29.673	0.42	14.18	17.11		0.830	1.240		1.035
7.000	117.8	35.325	0.50	14.11	16.91		0.900	1.440		1.170
8.000	58.9	17.663	0.25	14.18	17.05		0.830	1.300		1.065
9.000	29.4	8.831	0.12	14.25	17.18		0.760	1.170		0.965
9.000	2.4	0.707	0.01	14.45	17.45		0.560	0.900		0.730
10.000	2.4	0.707	0.01	14.45	17.45		0.560	0.900		0.730
11.000	18.8	5.652	0.08	14.39	17.35		0.620	1.000		0.810
12.000	37.7	11.304	0.16	14.28	17.25		0.730	1.100		0.915
13.000	58.9	17.663	0.25	14.19	17.15		0.820	1.200		1.010
14.000	77.7	23.315	0.33	14.14	17.06		0.870	1.290		1.080
15.000	98.9	29.673	0.42	14.08	16.92		0.930	1.430		1.180

		s	ΔS	Δσ
0.7 σ_1	0.35	0.91688	0.45188	0.2
0.3 σ_1	0.15	0.465		
0.7σ_2	0.35	1.10222	0.21221	0.2
0.3σ_1	0.15	0.89001		
D (mm)	300			
Ev_1	99.59			
Ev_2	212.85			
Area (Sq.m)	0.07065			

Ev2/Ev1	2.13		

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

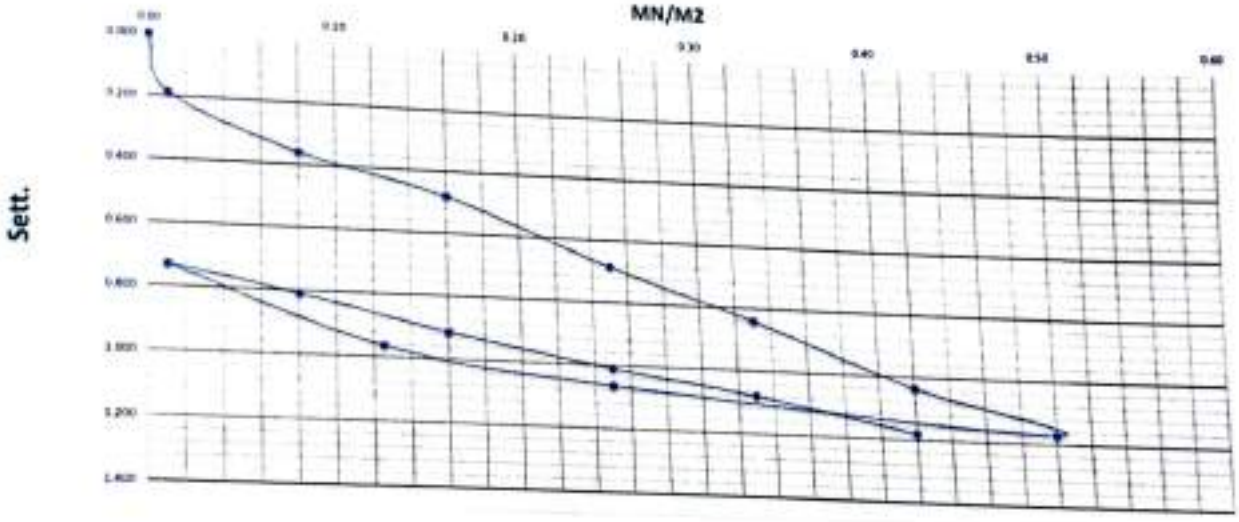
E_s = deformation modulus

$\Delta\sigma$ = 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 :	Name : Hassa
Sign :	Sign :	Sign :