











Contractor Company	and the contract the particular transport of the contract of	y For Import & Export and eral Contracting		gner C				ngined ulting (		
	Name	Sign	Date	/ Seria	al Nun	nber	Time			
Issued by Contractor	Eng: Abdullah Kamal	عبدالله لحكمال			-2023 -004-1		11:00			H MM
Received by		1 1	C1	CZ	C3	DD	MM	YY	НН	ММ
GARB CONSULTANT	Eng. Saied Saif	thated Zaki MIR	346	EW	cs	22	10	23	11	00

CODE-1	S1 to S21	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE-2	Station Reference	Work Activity	
CODE - 3		Sub Element of Activity	

Descrip	ption of Materials	FILTER LAYER						
Locatio	on to be Used	From St. (346+360) T	o St. (346+	460)				
MAR Approval No		MAR (008) , MAR (0	009)			Date	20-09-2023 20-09-2023	
UIR Approval No Supplier Name Test Requirement Reference Photos		IR (FT-004)				Dute	28-09-2023	
				cifica	ition	EARTHWORK SPECIFICATIONS & TESTI REPORT (CG21-41.2) VERSION 2 BY CIV GROUP.		
				Other				
Item	Description	Uni		de H	Quantity		Note	
1	Plate load test		NUMBE	R	1	24-10-2023	-	
2								
3								
4		The second secon	remain manage	Cor	nments h	y: Eng. Alaa Abd	I-Allatif (ER)	
Comm	nents by : Saied Sa بفات المشروع .	if (K.K)  Plate load test و القطاع النتائج المطلوبة طبقاً لمواص	1- تم إختبار 2- تم تحقيق	1-P 2-R spe 3-F	L.T was car esults repo cifications.	ried-out By (CEL).	cceptable with project	

AND THE RESERVE OF THE	The second secon	APPROVAL STATUS		
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng: Abdullah Kamal	عبد الله كحال		A
QA/QC*	Eng. Saied Saif	phaled Calli		A
GARB**	Eng. Margret Magdy			A 100 m
Employers Representative	Eng. Alaa Abd-Allatif	A CULLY	23-10-2023	AWC

Page 1 of 1

Designer
 Alignment / Bridges: Culvert Only













Contractor Company		y For Import & Export and ral Contracting	il sensens		ompa		1000000000	ılting (		
	Name	Sign	Date	/ Seria	al Nun	ber	Time	<u> </u>		
Issued by Contractor	Eng: Abdullah Kamal	عبدالله گحال			-2023 -006-1		11:00		T	
Received by			C1	C2	C3	DD	MM	YY	HH	MM
GARB CONSULTANT	Eng. Saled Saif	KhaledZaki MIR	346	EW	cs	22	10	23	11	00

			V- VVV Note
CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note  For Kilometer point only Start Km is used
CODE-2		Work Activity	
CODE-3		Sub Element of Activity	

Descri	ption of Materials	FILTER LAYER					
Locati	on to be Used	From St. (346+460) To	From St. (346+460) To St. (346+480)				T
MAR Approval No MA		MAR (011) , MAR (0	012)			Date	
UIR Approval No Supplier Name Test Requirement		IR (FT-006)				Date	16-10-2023
		AL-Salam & AL- Howayeg P.L.T (DIN 18134) Spe					2.63
				pecific	cation	EARTHWORK SPECIFICATIONS & TESTIN REPORT (CG21-41.2) VERSION 2 BY CIVI GROUP.	
Refer	ence Photos	No	0				
Item	Description	Uni		Wall	Quantity	-	Note
1	Plate load test		NUM	BER	1	24-10-2023	
2							0.000
3							PORCE I
4						Taran Alaa Alaa	Allatif /ED\
Com	ments by : Saied Sa	if (K.K)				y: Eng. Alaa Abd	
	مفات المشروع .	ر القطاع Plate load test . النتائج المطلوبة طبقاً لمواص	تم إختبار تم تحقيق	3.	Results repo ecifications.		cceptable with project

Comments by 'Saled Sall (N.N.)	
_	1-P.L.T was carried-out By (CEL). 2-Results report attached and acceptable with project specifications. 3-Final approval is subject to above mentioned comments.

and the second second	A CONTRACT OF THE PERSON OF TH	APPROVAL STATUS		
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng: Abdullah Kamal	عبدالله محمل		Α
QA/QC*	Eng. Saied Saif	chaled Egler		A
GARB**	Eng. Margret Magdy			
Employers Representative	Eng. Alaa Abd-Allatif	for wells	23-10-2023	Awa

File: M.I.R-006

Page 1 of 1

<sup>\*</sup> Designer

\*\* Alignment / Bridges: Culvert Only



Company

: Orange contraction.

Project

: Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority

Sector (5) - Borg Al Arab to El Hamam.

Subject

: Determine the deformation and strength characteristics of soil by the plate

loading test according specifications DIN 18134:2012-04 and project requirements

Test Location : Station (346+360 to 346+480)

**Test Date** 

: 22/10/2023

Repot Date

: 24/10/2023

Type of soil : fill filter

Test level

: ----

Report No.

: 004:005

#### Dear Gentleman,

According to the above mentioned subject the test performed as follows:-

#### **Apparatus**

- 1. Loading plates consists of plate 300 mm diameter
- 2. The thickness of plates 30 mm
- 3. Dial gauges with accuracy 0.01 mm to measuring the settlement
- 4. Steel straightedges with magnetic supports to fixed the dial gauges
- 5. Hydraulic jack with pump to transfer reactive loads to the loading plates
- 6. Dial indicator measuring device with scale capacity 700 Bar (Enerbac)
- 7. Reaction loading system by roller compactor with weight approximately 15 ton
- 8. Calibration certificates are attached

#### **Test Procedure**

- 1. Clean the ground on test area to the required level with undisturbed soil
- 2. Install loading plate 300 mm diameter, hydraulic jack and 3 dial gauges
- 3. Prior to starting the test applied preloading about 30 seconds.
- 4. The strain gauge and the dial gauge shall be set to zero
- 5. For a 600 mm loading plate, the limit values are 5 kg/cm<sup>2</sup>
- 6. The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
- 7. Each change in load (from stage to stage) shall be completed within one minute
- 8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
- 9. Following unloading, a further (2<sup>nd</sup>) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).

ettlement of the plate becomes At each stage the load shall be me less than 0.02 mm/min.

11. Remove the loads

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#### Report

- 1. Evaluation and representation of results
- 2. Load Settlement curve
- 3. The test report content the following:-
- . location of test site Dimension of loading plate
- . Measuring device used Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements Unusual observation made during test
- Dial gauge reading and corresponding normal stress Loading-settlement curve
- Description of the soil condition below the plate after testing

#### Report

. Type of Soil : fill filter

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	300
- date of measurement	22/10/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

#### Evaluation and representation of results

Test		First Cycle	Second Cycle	
No.	Station	Ev <sub>1</sub> (MPa)	E <sub>V2</sub> (MPa)	Ev2/ Ev1 Ratio
1	346+400	67	173	2.6
2	346+420	68	173	2.5

Signature

الساحسل الشمالسي 2

التوكم الونيسي: ٣ شوع الملك الأنسل . الومانك. القاعد و



Company Name

: Orange contraction.

Project

:Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Borg Al Arab to El Hamam.

**Test Date** 

: 22/10/2023 : 24/10/2023

report date

: Station 346+400

Test No.

: 04

### Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Stross		Settlement	ettlement Settlement Signal 2		Settlement	Average	
D	Dial 1	105.03 (4.07)	Dial 2	mm	Diai 3	mm	
			20.00		20.00	0.00	0.00
	-					0.28	0.24
						0.60	0.47
							0.71
						1.15	1.04
		1.000				1.40	1.29
						1.63	1.56
	Stress Kg/cm2 0.00 0.83 1.67 2.50 3.33 4.17 5.00	Stress         Dial 1           Kg/cm2         0.00         20.00           0.83         19.79           1.67         19.58           2.50         19.34           3.33         19.00           4.17         18.75	Stress         Dial 1         Settlement           0.00         20.00         0.00           0.83         19.79         0.21           1.67         19.58         0.42           2.50         19.34         0.66           3.33         19.00         1.00           4.17         18.75         1.25	Stress         Dial 1         Settlement mm         Dial 2           0.00         20.00         0.00         20.00           0.83         19.79         0.21         19.76           1.67         19.58         0.42         19.60           2.50         19.34         0.66         19.40           3.33         19.00         1.00         19.03           4.17         18.75         1.25         18.78	Stress         Dial 1         Settlement         Dial 2         Settlement           Kg/cm2         mm         Dial 2         mm         mm           0.00         20.00         0.00         0.00         0.00           0.83         19.79         0.21         19.76         0.24           1.67         19.58         0.42         19.60         0.40           2.50         19.34         0.66         19.40         0.60           3.33         19.00         1.00         19.03         0.97           4.17         18.75         1.25         18.78         1.22	Stress         Dial 1         Settlement mm         Dial 2         Settlement mm         Dial 3           0.00         20.00         0.00         20.00         0.00         20.00           0.83         19.79         0.21         19.76         0.24         19.72           1.67         19.58         0.42         19.60         0.40         19.40           2.50         19.34         0.66         19.40         0.60         19.13           3.33         19.00         1.00         19.03         0.97         18.85           4.17         18.75         1.25         18.78         1.22         18.23	Stress         Dial 1         Settlement mm         Dial 2         Settlement mm         Dial 3         Settlement mm         Settlement mm         Settlement mm           0.00         20.00         0.00         20.00         0.00         20.00         0.00           0.83         19.79         0.21         19.76         0.24         19.72         0.28           1.67         19.58         0.42         19.60         0.40         19.40         0.60           2.50         19.34         0.66         19.40         0.60         19.13         0.87           3.33         19.00         1.00         19.03         0.97         18.85         1.15           4.17         18.75         1.25         18.78         1.25         18.60         1.40

Unloading Stage (1)

Stress			Settlement		Settlement	Dial 3	Settlement	Average
Loading Kg/cm2	Dial 1	mm	Dial 2	mm	Dial 3	mm	7.tto.u.go	
-	5.00	18.50	1.50	18.46	1.54	18.37	1.63	1.56
1	2.50	18.62	1.38	18.54	1.46	18.43	1.57	1.47
2	1.250	18.80	1.20	18.72	1.28	18.56	1.44	1.31
3	0.05	19.25	0.75	19.31	0.69	18.93	1.07	0.84

Loading Stage (2)

Loading	Loading Stress		Settlement	Dial 2	Settlement	Dial 3	Settlement	Average
Kg/cm2	Dial 1	mm	Diai 2	mm	Diai 3	mm	Attinge	
0	0.83	19.13	0.87	19.20	0.80	18.85	1.15	0.94
1	1.67	19.00	1.00	19.11	0.89	18.77	1.23	1.04
2	2.50	18.88	1.12	19.00	1.00	18.68	1.32	1.15
3	3.33	18.78	1.22	18.85	1.15	18.61	1.39	1.25
4	4.17	18.69	1.31	18.73	1.27	18.49	1.51	1.36



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Company Name Project Test Date report date Location

Test No.

: Orange contraction.

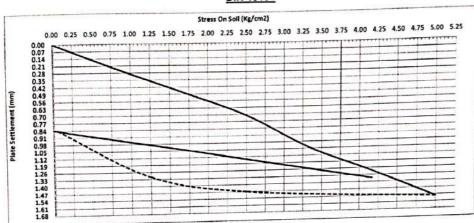
:Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Borg Al Arab to El Hamam.

: 22/10/2023

: 24/10/2023 : Station 346+400

: 04

#### Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**



0	1	2	3	4	5	6
0	589	1178	1767	2357	2946	3535
0.00	75.75	1.67	2.50	3.33	4.17	5.00
1.00			0.71	1.04	1.29	1.56
	0 0 0.00		0.00 0.83 1.67	0.00 0.83 1.67 2.50	0.00 0.83 1.67 2.50 3.33	0.00 0.83 1.67 2.50 3.33 4.17

UnLoading (1)	1	2	3	4
Stage(Kg)	1767	883	35	0
Stress (Kg/cm2)	5.00	2.50	1.250	0.05
Settlement (mm)	1.56	1.47	1.31	0.84

D (mm) =	300	S1 (mm)=	0.43	S2(mm)= 1.09	ΔS =	0.66
10-10-10-10-10-10-10-10-10-10-10-10-10-1	(0.75°D°Δσ)/ΔS		67			

S2(mm)=

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	589	1178	1767	2357	2946
Stress (Kg/cm2)	0.00	0.83	1.67	2.50	3.33	4.17
Settlement (mm)	0.84	0.94	1.04	- 1.15	1.25	1.36

Ev2/Ev1 =	2.6

D (mm) =	300	S1 (mm)=	1.02
Ev2 (MPa) =	(0.75°D°Δσ)	/ΔS	173

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage

D = Plate diameter (mm)

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الممسوحة ضوئيا بـ CamScanner



Company Name

: Orange contraction.

Project

:Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Borg Al Arab to El Hamam.

**Test Date** 

: 22/10/2023 : 24/10/2023

report date Location

: Station 346+420

Test No.

: 05

#### Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**

Data sheet

oaumy c	Stage (1)		Settlement	100000000000000000000000000000000000000	Settlement	Dial 2	Settlement	Average
Loading	Stress	Dial 1	Settienient	Dial 2	100.000	Dial 3	mm	Sec. (20)
	Kg/cm2	Diai !	mm	e - company	mm		0.00	0.00
		20.00	0.00	20.00	0.00	20.00		0.22
0	0.00	20.00		19.81	0.19	19.77	0.23	0.55
1	0.83	19.75	0.25		0.42	19.40	0.60	
2	1.67	19.36	0.64	19.58	0.71	19.18	0.82	0.82
3	2.50	19.07	0.93	19.29		18.95	1.05	1.10
-	3.33	18.82	1.18	18.93	1.07		1.24	1.30
4			1.41	18.75	1.25	18.76		1.52
5	4.17	18.59		18.53	1.47	18.56	1.44	1.02
6	5.00	18.35	1.65	10.33				

nloadin	g Stage (1	1			Settlement		Settlement	Average
	Stress	Dial 1	Settlement	Dial 2	mm	Dial 3	mm	* 1000 to the contract of the
Loading	Kg/cm2		mm		1.47	18.56	1.44	1.52
	5.00	18.35	1.65	18.53		18.63	1.37	1.43
-	2.50	18.43	1.57	18.65	1.35	18.77	1.23	1.31
2	1,250	18.57	1.43	18.73	1.27	19.13	0.87	0.95
3	0.05	18.93	1.07	19.10	0.90	19.13	0.01	

pading Stage (2)			92.1		Settlement	60.50	Settlement	Average
Loading Stress Kg/cm2		Dial 1	Settlement	Dial 2	mm	Dial 3	mm	Average
		mm	18.98	1.02	19.00	1.00	1.06	
0	0.83	18.83	1.17		1.10	18.89	1.11	1.17
1	1.67	18.70	1.30	18.90	1.22	18.80	1.20	1.27
2	2.50	18.61	1.39	18.78	1.34	18.71	1.29	1.38
3	3.33	18.48	1.52	18.66	1.47	18.60	1.40	1.49
	4 17	18.39	1.61	18.53	1.47	10.00		NAME OF THE OWNER, OWNE



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Zamalek, Cairo.

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Company Name Project Test Date report date

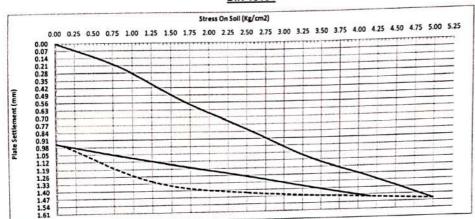
:Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Borg Al Arab to El Hamam.

: 22/10/2023

: 24/10/2023 : Station 346+420

Location : 05 Test No.

#### Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	589	1178	1767	2357	2946	3535
Stress (Kg/cm2)	0.00	0.83	1.67	2.50	3.33	4.17	5.00
Settlement (mm)	0.00	0.22	0.55	0.82	1.10	1.30	1.52

UnLoading (1)	1	2	3	4
Stage(Kg)	1767	883	35	0
Stress (Kg/cm2)	5.00	2.50	1.250	0.05
Settlement (mm)	1.52	1.43	1.31	0.95

D (mm) =	300	S1 (mm)= 0.49		S2(mm)=	1.14	ΔS =	0.65
-	(0.75°D°Δσ)/ΔS		68				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	589	1178	1767	2357	2946
Stress (Kg/cm2)	0.00	0.83	1.67	2.50	3.33	4.17
Settlement (mm)	0.95	1.06	1.17	1.27	1.38	1.49

Ev2/Ev1 =	2.5

D (mm) =	300	S1 (mm)=	1.15	S2(mm)=	1.40	ΔS =	0.26
-001	(0.75*D*Δσ)/ΔS		172				

Ev1 = Modulus of deformation during the loading stage.

Ev2 = Modulus of deformation during the Reloading stage.

D = Plate diameter (mm)

 $\Delta \sigma$  = The difference between 0.3 and 0.7 from the maximum loading (

Δs = Difference in settlements corresponding to 0.3 and 0.7 from the

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Contractor Company		y For Import & Exp ral Contracting			Designer Company				(KK) Engineering Consulting Office				
	Name	Sign	Sign			Date/ Serial Number				Time			
Issued by Contractor	Eng: Abdullah Kamal	U = 41	عبدال			-2023 -005-1		11:00	MA C				
Received by				C1	C2	C3	DD	MM	YY	НН	MM		
GARB CONSULTANT	Eng. Saied Saif	thelada	Pi MIR	346	EW	cs	22	10	23	11	00		

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE - 3		Sub Element of Activity	

Descr	iption of M	aterials	FILTER LAYER						
Locati	ion to be U	sed	From St. (346+640)	To St. (346	+820)				
MAR	Approval N	lo	MAR (009) , MAR	(010) , MA	R (01	1)	Date	20-09-2023 20-09-2023	
UIR A	pproval No	í	IR (FT-005)		12-10-	2023			
Supplier Name H		AL-Salam & AL- Howayeg					- <del> </del>		
		P.L.T (DIN 18134)	Sp	ecific	ation	EARTHWORK SPECIFICATIONS & TEST REPORT (CG21-41.2) VERSION 2 BY C GROUP.			
Refer	ence Photo	os	No	Ot	her				
Item	Descripti	escription				Quantity	Arrival Date	Note	
1	Plate load				IMBER 2		24-10-2023		
2									
3									
4									
Comr	ments by:	Saied Sai	f (K.K) Plate load test القطاع	APPENDENCE.			r: Eng. Alaa Ab ried-out By (CEL		(ER)
	.وع	صفات المشر	النتائج المطلوبة طبقاً لمواه	2- تم تحقیق	2-R spe 3-F con	esults repor cifications. nal approva nments.	t attached and a	cceptable	8 16
Orga	nication	Nama		APPROVA Sign	LSIA	TUS	Date		A-AWC-R
	Organisation Name  Contractor Eng: Abdullah Kamal			JL,	بدالله حج			A	
QA/QC * Eng. Saied Saif		choi	chalod as		i		4		
GARE	3**	Eng. Ma	argret Magdy					la f	WILL TO
Employers Representative Eng. Alaa Abd-Allatif					-El	13 25-10	-2018	Aus	

<sup>\*</sup> Designer

\*\* Alignment / Bridges: Culvert Only



**Company**: Orange contraction.

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority

Sector (5) - Borg Al Arab to El Hamam.

Subject : Determine the deformation and strength characteristics of soil by the plate

loading test according specifications DIN 18134:2012-04 and project requirements

Test Location: Station (346+640 to 346+820)

Test Date : 22/10/2023
Repot Date : 24/10/2023
Type of soil : fill filter

Test level : ----Report No. : 006:007

#### Dear Gentleman,

According to the above mentioned subject the test performed as follows:-

#### **Apparatus**

- 1. Loading plates consists of plate 300 mm diameter
- 2. The thickness of plates 30 mm
- 3. Dial gauges with accuracy 0.01 mm to measuring the settlement
- 4. Steel straightedges with magnetic supports to fixed the dial gauges
- 5. Hydraulic jack with pump to transfer reactive loads to the loading plates
- 6. Dial indicator measuring device with scale capacity 700 Bar (Enerbac)
- 7. Reaction loading system by roller compactor with weight approximately 15 ton
- 8. Calibration certificates are attached

#### **Test Procedure**

- 1. Clean the ground on test area to the required level with undisturbed soil
- 2. Install loading plate 300 mm diameter, hydraulic jack and 3 dial gauges
- 3. Prior to starting the test applied preloading about 30 seconds.
- 4. The strain gauge and the dial gauge shall be set to zero
- 5. For a 600 mm loading plate, the limit values are 5 kg/cm<sup>2</sup>
- The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
- 7. Each change in load (from stage to stage) shall be completed within one minute
- 8. The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
- 9. Following unloading, a further (2<sup>nd</sup>) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
- 10. At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min.

11. Remove the loads

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#### Report

- 1. Evaluation and representation of results
- 2. Load Settlement curve
- 3. The test report content the following:-
- · location of test site Dimension of loading plate
- Measuring device used Type of soil
- Type of Bedding material below the plate -Weathering condition
- Time and date of measurements Unusual observation made during test
- Dial gauge reading and corresponding normal stress Loading-settlement curve
- Description of the soil condition below the plate after testing

#### Report

. Type of Soil : fill filter

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	300
- date of measurement	22/10/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

#### Evaluation and representation of results

Test No.	Station	First Cycle  Ev1 (MPa)	Second Cycle  Ev2 (MPa)	Ev2l Ev1 Ratio	
1	346+700	71	180	2.5	
2	346+800	CEL	208	3.1	

Signature

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**Company Name** 

: Orange contraction.

Project

:Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Borg Al Arab to El Hamam.

Test Date report date

: 22/10/2023 : 24/10/2023

Location

: Station 346+700

Test No.

: 06

#### Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading Stage (1)

Loading Stress	Diel 4	Settlement	DI-L O	Settlement	Diel 2	Settlement	Average		
	Kg/cm2	Dial 1	mm	Dial 2	mm	Dial 3	mm	Atolugo	
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00	
1	0.83	19.82	0.18	19.78	0.22	19.68	0.32	0.24	
2	1.67	19.59	0.41	19.60	0.40	19.33	0.67	0.49	
3	2.50	19.40	0.60	19.38	0.62	18.98	1.02	0.75	
4	3.33	19.11	0.89	19.08	0.92	18.76	1.24	1.02	
5	4.17	18.86	1.14	18.82	1.18	18.53	1.47	1.26	
6	5.00	18.60	1.40	18.58	1.42	18.28	1.72	1.51	

Unloading Stage (1)

	Stress Kg/cm2 Dial 1	Diel 4	Settlement	Dial 2	Settlement	Dial 3	Settlement	Average
Loading		Diai 1	mm	mm		Diai 3	mm	Average
1	5.00	18.60	1.40	18.58	1.42	18.28	1.72	1.51
2	2.50	18.66	1.34	18.63	1.37	18.35	1.65	1.45
3	1.250	18.75	1.25	18.72	1.28	18.48	1.52	1.35
4	0.05	19.06	0.94	18.97	1.03	18.87	1.13	1.03

Loading Stage (2)

Loading	Stress	Di-L 4	Settlement	Dial 2	Settlement	Dial 3	Settlement	
Kg/cm2	Kg/cm2	Dial 1	mm	Diai 2	mm	Diai 3	mm	Average
0	0.83	18.95	1.05	18.86	1.14	18.80	1.20	1.13
1	1.67	18.86	1.14	18.75	1.25	18.65	1.35	1.25
2	2.50	18.77	1.23	18.67	1.33	18.48	1.52	1.36
3	3.33	18.65	1.35	18.60	1.40	18.39	1.61	1.45
4	4.17	18.56	1.44	18.52	1.48	18.31	1.69	1.54



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Company Name

Project **Test Date** 

Test No.

report date Location

: Orange contraction.

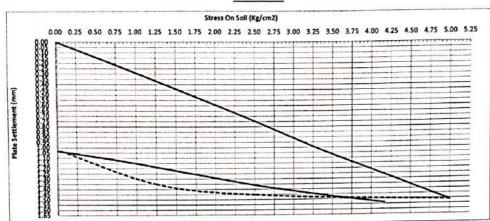
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: 22/10/2023 : 24/10/2023

: Station 346+700

: 06

#### Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**



Loading (1)	0	1	2	3	4	5	6
Stage(Kg)	0	589	1178	1767	2357	2946	3535
Stress (Kg/cm2)	0.00	0.83	1.67	2.50	3.33	4.17	5.00
Settlement (mm)	0.00	0.24	0.49	0.75	1.02	1.26	1.51

UnLoading (1)	1	2	3	4
Stage(Kg)	1767	883	35	0
Stress (Kg/cm2)	5.00	2.50	1.250	0.05
Settlement (mm)	1.51	1.45	1.35	1.03

D (mm) =	300	S1 (mm)=	0.44	S2(mm)=	1.06	ΔS =	0.62
Ev1 (MPa) =	(0.75°D°Δσ)/ΔS		71				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	589	1178	1767	2357	2946
Stress (Kg/cm2)	0.00	0.83	1.67	2.50	3.33	4.17
Settlement (mm)	1.03	1.13	1.25	1.36	1.45	1.54

Ev2/Ev1 =	2.5

D (mm) =	300	S1 (mm)=	1.22	S2(mm)=	1.47	ΔS =	0.25
Ev2 (MPa) =	(0.75°D°Δσ)/ΔS		179				

Ev1 = Modulus of deformation during the loading stage

Ev2 = Modulus of deformation during the Reloading stage

D = Plate diameter (mm)

Δσ = The difference between 0.3 and 0.7 from the maximum loa

Δs = Difference in settlements corresponding to 0.3 and 0.7 from

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Company Name

: Orange contraction.

Project

:Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority Sector (5) - Borg Al Arab to El Hamam.

**Test Date** 

: 22/10/2023 : 24/10/2023

: 07

report date Location

: Station 346+800

Test No.

#### Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**

Data sheet

Loading	Stress	0	Settlement		Settlement	Dial 3	Settlement	Average
Loading	74.00 70 0107	Dial 1	mm	Dial 2	mm	Diai	mm	
	Kg/cm2			22.00	0.00	20.00	0.00	0.00
0	0.00	20.00	0.00	20.00		19.68	0.32	0.25
1	0.83	19.75	0.25	19.81	0.19		0.63	0.57
2	1.67	19.32	0.68	19.60	0.40	19.37		0.88
3	2.50	19.00	1.00	19.36	0.64	19.01	0.99	
4	3.33	18.80	1.20	19.05	0.95	18.78	1.22	1.12
4			1.34	18.72	1.28	18.59	1.41	1.34
5	4.17 5.00	18.66	1.57	18.52	1.48	18.40	1.60	1.55

Unloading Stage (1)

moaum	Stress		Settlement		Settlement	D:-1 2	Settlement	Average
Loading	Kg/cm2	Dial 1	mm	Dial 2	mm	Dial 3	mm	Average
		18.43	1.57	18.52	1.48	18.40	1.60	1.55
1	5.00	18.52	1.48	18.61	1.39	18.48	1.52	1.46
2	2.50 1.250	18.65	1.35	18.75	1,25	18.55	1.45	1.35
3	0.05	18.92	1.08	19.05	0.95	18.84	1.16	1.06

Loading Stage (2)

Loading	Stress		Settlement	Diel 0	Settlement	Dial 3	Settlement	Average	
Loading	Kg/cm2	Dial 1	mm	Dial 2	mm		mm	Average	
0	0.83	18.83	1.17	18.94	1.06	18.77	1.23	1.15	
1	1.67	18.74	1.26	18.82	1.18	18.70	1.30	1.25	
2	2.50	18.63	1.37	18.75	1.25	18.62	1.38	1.33	
3	3.33	18.55	1.45	18.66	1.34	18.53	1.47	1.42	
4	4.17	18.46	1.54	18.54	1.46	18.43	1.57	1.52	



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Company Name Project Test Date report date Location

Test No.

: Orange contraction.

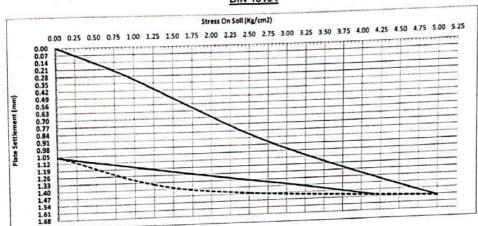
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: 22/10/2023

: 24/10/2023 : Station 346+800

: 07

#### Nonrepetitive Static Plate Load Tests of Soils **DIN 18134**



		1	2	3	4	5	6
Loading (1)	U			4707	2357	2946	3535
Stage(Kg)	0	589	1178	1767			F 00
	0.00	0.83	1.67	2.50	3.33	4.17	5.00
Stress (Kg/cm2)	0.00			0.88	1.12	1.34	1.55
Settlement (mm)	0.00	0.25	0.57	0.00	1.12		

UnLoading (1)	1	2	3	4
Stage(Kg)	1767	883	35	0
Stress (Kg/cm2)	5.00	2.50	1.250	0.05
Settlement (mm)	1.55	1.46	1.35	1.06

D (mm) =	300	S1 (mm)=	0.51	S2(mm)=	1.17	ΔS =	0.66
	000						
Fus (MPa) =	(0.75°D°Δσ)/ΔS		67	1			

			_			
t anding (2)	0	1	2	3	4	5
Loading (2)	-	500	1178	1767	2357	2946
Stage(Kg)	0	589		1.00	3.33	4.17
Stress (Kg/cm2)	0.00	0.83	1.67	2.50	3.33	0.000000
	1.06	1.15	1.25	1.33	1.42	1.52
Settlement (mm)	1.00	1	1.0			

v2/Ev1 =
/1-

D (mm) =		S1 (mm)=	1.23	1.23 S2(mm)=		ΔS =	0.21
	(0.75*D*Δσ)/ΔS		208			-	-

Ev1 = Modulus of deformation during the loading stage

Ev2 = Modulus of deformation during the Reloading stag

D = Plate diameter (mm)

 $\Delta \sigma$  = The difference between 0.3 and 0.7 from

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Contractor Company		y For Import & Export and ral Contracting	Desi	gner C	ompa	ny		Engine ulting (	100000000000000000000000000000000000000	
	Name	Sign	Date	e/ Seria	al Nur	nber	Time			
Issued by Contractor	Eng: Abdullah Kamal	क, कि द्वा		26-11-2023 M.I.R-007-1				MA 0	Office	
Received by			C1	C2	C3	DD	MM	YY	НН	MM
GARB CONSULTANT	Eng. Saied Saif	Chalcel 4 19 MIR	347	EW	CS	27	11	23	11	00

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2		Work Activity	
CODE - 3		Sub Element of Activity	

Descr	ription of Ma	aterials	FILTER LAYER							
Locat	ion to be Us	ed	From St. (347+020)	To St. (347	+080)					
MAR	Approval No	)	MAR (012)				10-1		2023	
UIR A	pproval No		IR (FT-007)				Date	22-11-2	2023	
Supp	pplier Name AL-Salam & AL- Howayeg									
Test I	Requiremen	t	P.L.T (DIN 18134)	Sp	ecific	ation	EARTHWORK SPECIFICATIONS & TESTI REPORT (CG21-41.2) VERSION 2 BY CIV GROUP.			
Refer	ence Photos	5	No	Ot	her					
Item	Descriptio	Unit		Quantity	Arrival Date	Note				
1	Plate load	test		NUMB	ER	1	28-11-2023			
2										
3										
4									A DATE OF	
Comr	ments by : S						y: Eng. Alaa Abo		(ER)	
	بروع .		القطاع Plate load test النتائج المطلوبة طبقاً لمواه		2-R spe 3-F	esults repo	rried-out By (CEL) rt attached and a al is subject to ab	cceptable		
				APPROVA	L STA	TUS			Allow divine	
Orgai	nisation	Name		Sign			Date		A-AWC-R	
Contr	ractor	Eng: Ab	dullah Kamal		1	عاطا را	4		A	
	QA/QC * Eng. Saled Saif			Kho	chaled Taki				A	
QA/C	(C *									
QA/O		Eng. Ma	argret Magdy						AWC	

Page 1 of 1 File: M.I.R-007

<sup>\*\*</sup> Alignment / Bridges: Culvert Only



Company : Orange contraction.

Project : Electric Express Train, Al Ain Sokhna to Marsa Matrouh Priority

Sector (5) - Borg Al Arab to El Hamam

Subject : Determine the deformation and strength characteristics of soil by the plate

loading test according specifications DIN 18134:2012-04 and project requirements

Test Location: Station (347+020 to 347+080)

Test Date : 27/11/2023

Repot Date : 28/11/2023

Type of soil : fill filter

Test level : ---
Report No. : 010

#### Dear Gentleman.

According to the above mentioned subject the test performed as follows:-

#### Apparatus

- 1 Loading plates consists of one plate with 300 mm diameter
- 2. The thickness of plates 30 mm
- 3. Dial gauges with accuracy 0.01 mm to measuring the settlement
- 4. Steel straightedges with magnetic supports to fixed the dial gauges
- 5 Hydraulic jack with pump to transfer reactive loads to the loading plates
- 6. Dial indicator measuring device with scale capacity 700 Bar (Enerbac)
- 7 Reaction loading system by roller compactor with weight approximately 15 ton
- 8. Calibration certificates are attached

#### Test Procedure

- 1 Clean the ground on test area to the required level with undisturbed soil
- 2 Install loading plate 300 mm diameter, hydraulic jack and 3 dial gauges
- 3 Prior to starting the test applied preloading about 30 seconds.
- 4 The strain gauge and the dial gauge shall be set to zero
- 5 For a 300 mm loading plate, the limit values are 5.0 kg/cm<sup>2</sup>
- 6 The load shall be applied in six stages, in approximately equal increments, until the required maximum normal stress is reached.
- 7 Each change in load (from stage to stage) shall be completed within one minute
- 8 The load shall be released in 3 stages, to 50 %, 25 %, and approximately 2 % of the maximum load.
- 9 Following unloading, a further (2<sup>nd</sup>) loading cycle shall be carried out, in which, however, the load is to be increased only to the penultimate stage of the first cycle (so that the full load is not reached).
- 10 At each stage the load shall be maintained until the rate of settlement of the plate becomes less than 0.02 mm/min:

11. Remove the loads

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ب معامسل الإستشسارات الهندس الساحسل الشمالسي 02

الركز الرئيسي: ٣ شارع اللك الأفسّل ، الزّمالك. التّأمرة





#### Report

- 1. Evaluation and representation of results
- 2 Load Settlement curve
- 3 The test report content the following:-
- · location of test site Dimension of loading plate
- · Measuring device used Type of soil
- · Type of Bedding material below the plate -Weathering condition
- . Time and date of measurements Unusual observation made during test
- · Dial gauge reading and corresponding normal stress Loading-settlement curve
- · Description of the soil condition below the plate after testing

#### Report

· Type of Soil : fill filter

Job requirement : Ev2 ≥ 50 Mpa

Item	Descriptions
- Type of bedding material below the plate	Natural Soil
- Weather condition	Partly Sunny
- Plate Diameter (mm)	300
- date of measurement	27/11/2023
- Unusual observation made during test	NO
- Description of the soil conditions below the plate after testing	No deformation

#### Evaluation and representation of results

Test	Challen	First Cycle	Second Cycle	C-/ C. Datie
No.	Station	Evi (MPa)	Ev2 (MPa)	Ev2/ Ev1 Ratio
1	347+050	69	153	2.2

Signature /-

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Company Name

: Orange contraction.

Project

Eleutric Express Train, At Ain Soktina to Marus Matrouit Priority Sector (5) - Borg Al Arab to El Hamam

Test Date report date : 27/11/2023 : 28/11/2023

Location Test No.

: Station 347+050 : 01

#### Nonrepetitive Static Plate Load Tests of Soils DIN 18134

Data sheet

Loading	g Stress	Dial 1	Settlement	Diel 2	Settlement	Dial 3	Settlement	Average
Kg/cm2	Diai 1	mm	Dial 2	mm	Diar 5	mm		
0	0.00	20.00	0.00	20.00	0.00	20.00	0.00	0.00
1	0.83	19.85	0.15	19.83	0.17	19.85	0.15	0.18
2	1.67	19.67	0.33	19.61	0.39	19.71	0.29	0.34
3	2.50	19.46	0.54	19.38	0.62	19.30	0.70	0.62
4	3.33	19.28	0.72	19.11	0.89	18.92	1.08	0.90
5	4.17	19.12	0.88	18.82	1.18	18.68	1.32	1.13
6	5.00	19.04	0.96	18.54	1.46	18.44	1.56	1.33

Unloading Stage (1)

	Stress	-	Sattlement	mint a	Settlement	Diai 3	Settlement	Average
Loading Kg/cm2	Dial 1	mm	Dial 2	mm	Diai 3	mm	Aronago	
1	5 00	19.04	0.96	18.54	1.46	18.44	1.56	1.33
2	2.50	19.08	0.92	18.60	1,40	18.49	1.51	1.28
3	1.250	19.18	0.82	18.68	1,32	18.55	1,45	1 20
4	0.05	19.42	0.58	18.83	1,17	18.78	1.22	0.99

Loading	Stress	min a	Settlement	Diai 2	Settlement	Dial 3	Settlement	Average	
	Kg/cm2	Dial 1	mm	Dial 2	mm	Dia 3	mm	Arciage.	
0	0.83	19.30	0.70	18.69	1.31	18.71	1.29	1.10	
1	1.67	19.17	0.83	18.52	1.48	18.49	1.51	1.27	
2	2.50	19.05	0.95	18.38	1.62	18.42	1.58	1.38	
3	3,33	18.93	1.07	18.76	1.74	18.30	1.70	1.50	
4	4:17	18.80	1,20	18.13	1.87	18.17	1.83	1.63	



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Company Name

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Project Test Date report date

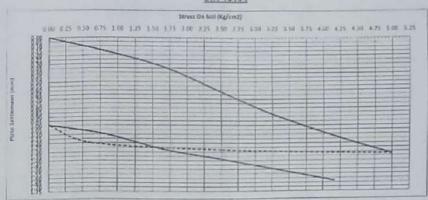
27/11/2023 28/11/2023

Test No.

Station 347+050

01

#### Nonrepetitive Static Plate Load Tests of Solls DIN 18134



Loading (1)	0	1	2	3	A	5	6
Stage(Kg)	0	2345.58	4719.4	7065	9410.0	11784	14130
Stress (Kgrom2)	0.00	0.83	1.87	2.50	3.33	4.17	5.00
Settlement (mm)	0.00	0.16	0.34	0.62	0.90	1.13	1.53

UnLoading (1)	1	2	3	4
Stage(Kg)	14130	7065	1768	0
Stress (Kg/cm2)	5.00	2.50	0.625	0.01
Settlement (mm)	1.33	128	1.20	0.99

= (mm) =	300	S1 (mm(=	0.30	\$2(nm)=	0.64	AS =	0.64
Ext (Mira) =	(0.75°D*Aa)/AS		69				

Loading (2)	0	1	2	3	4	5
Stage(Kg)	0	2345.58	4719.4	7065	9410.6	11784
Stress (Kg/cm2)	0.01	0.83	1.87	2.50	3,33	4.17
Settlement (mm)	0.99	1.10	1.27	1.38	1 50	1.63

Ev2/Ev1 =	22

(mm) =	300	\$1 (min)=	1.24	S2(num)>	1.53	∆S =	0.28
Control Marie To	10 75°D AoyAS		163				

Evi - Modulus of deformation during the loading stage

Evz - Modulus of deformation during the Reloading stage

O - Plate dameler (mm)

no - Trie difference between 0.3 and 0.7 from the maximum loading (smax) (ligitim<sup>2</sup>)

is a Difference in settlements corresponding to 0.3 and 6.7 from the maximum loading (mm)



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٣ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ٢٧٣٦٧٢١ - ٢٢٦٢٠٩٢ www.cel-egypt.com















Contractor Company	Orange For Import & I	export and General Contracting	Designer Company			(KK) Engineering Consulting Office					
	Name	Sign		Date/Serial Number		Time					
Issued by Contractor Eng. Abdul	Eng. Abdullah Kamal	10,10,00	4			/2023 (-011-1)			10	0:00	
Deschard by CADD		11 1 1-1		C1	C2	C3	DD	MM	YY	НН	MM
Received by GARB CONSULTANT Eng. Saled Saif	chaled aki MAR	345	EW	CS	10	11	23	10	0		

	S1 to S21	D1 to 53	Kp XXX Note
CODE-1	Station Reference	Depot Reference	For Kilometer point only Start Km is used
CODE - 2		Work Activity	
0000 - 3		Sub Element of Activity	

Description of Materials	Crushed Dolomotic Aggregat	es For Filter Layer				
Location to be Used	From Station (345+960) to St	ation (347+460)				
Sample only	Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer			
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached			
Reference in BoQ		Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG21- 41.2) VERSION 2 BY CIVECON GROUP			
Prequalification reference		Test Samples Results				
Reference Photos	No	Other				
Comments by: Eng.	Saied Saif (K.K)	Comments by: Eng. Alaa Abd-Allatif (ER)				
1-Quality test Result By Third Party Laboratory is Ap	proved.	1-All tests were carried-out by Third Party Lab (CEL).  2-Results report attached and acceptable with the project specifications.				
2-This Sample Representive ( 5000 m3 ) only.						
			chemical test			

• APPROVAL STATUS						
Organisation	Name	Sign	Date	A-AWC-R		
Contractor	Eng. Abdullah Kamal	10,20,	-li	A		
IA/QC *	Eng. Saled Salf	Khaled	Gki	A		
ARB**	Eng. Margret Magdy					
mployers Representative	Eng. Alaa Abd-Allatif	T-	- 28-11-2	23 AWC		
Designer Alignment/Bridges: Culvert only	-					

**CS** CamScanner



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 001 Sample No. : 01

Dear Gentleman,

Attached here with the Water Backfill delivered on 10-11-2023

#### Materials test

1. Sieve analysis according to ASTM D-422.

- 2. Material finer than sieve No. 200 according ASTM D-1140.
- 3. Specific Gravity & Absorption according to ASTM C-127 & D 6473.
- 4. Los Anglos according to ASTM C-131.
- 5. Organic Content according to ASTM D-2974.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken.

Signature

1

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093







Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

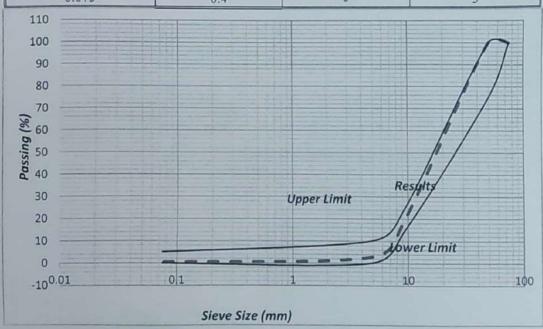
Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 001 Sample No. : 01

#### Results of sieve analysis according to ASTM D-422.

Sieve Size	Passing %		cation limits ( D-422)
(mm)	rassing 70	Min.	Max.
75	100	100	100
50	100	75	100
10	20.0	15	25
4.75	2.7	0	10
0.075	0.4	0	5



The test results are ( Comply - Not Comply) with specifications limits.

Signature /..

ما و ما دولیسی: \* شارع اللك الأخشل ، الأمالك . التكامزه

2

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



٣ ش الهلك الأفضل الزمالك - القاهرة تليفون + فاكس : ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣ www.cel\_eount.com





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 001 Sample No. : 01

#### Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)	
Percentage of material finer than Sieve Size 75 μΜ (No.200)	0.4	

مكتب معامل الإستشارات الهندسية المساحل السنطارات الهندسية الساحل الشعال Signature 7...

3





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023

Reporting Date : 28-11-2023

Reporting No. : 001 Sample No. : 01

## Results of Specific Gravity and Absorption of Course Aggregate ASTM C127 & D 6473

Test	Results
Bulk Specific Gravity (OD)	2.65
Bulk Specific Gravity (SSD)	2.67
Apparent Specific Gravity.	2.71
Absorption %	0.87

#### Note:

• (OD) Refer to Oven Dry.

• (SSD) Refer to Saturated Surface Dry.

Signature /

4

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093



٣ ش العلك الأفضل الزمالك - القاهرة تليفون + فاكس : ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣ www.cel-egypt.com





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023

Reporting Date : 28-11-2023

Reporting No. : 001 Sample No. : 01

# RESISTANCE TO DEGRADATION OF SMALL SIZE AGGREGATE BY ABRASION AND IMPACT IN LOS ANGELES MACHINE ASTM C-131

Test	Results
Amount of loss by abrasion and impact (%)  Coarse aggregate	26.8

According to Project Specs:
 The amount of loss by abrasion and impact for moderate weathering

• Shall not exceed 45% (when Subjected to 500 revolutions)

The test results is ( Ty Comply - I Nots Comply ) with specifications limits.

Signature

5

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093







Company Name : Orange Company

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 30-11-2023

Reporting No. : 001 Sample No. : 01

## Organic of Soil ASTM D-2974 Method Type D

Test	Results
Amount of organic content %	Nil

Signature I



3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093





## COMIBASSAL International Controllers Internal inspection and laboratories sector

Accredited by: Egyption General Authority for Petroleum under No. 34/29-11-2011

Report :	903 - 1 - Center
	02/12/2023
Date :	UZITA

#### **CHEMICAL ANALYSIS**

General Consultant

SYSTRA

DR/ Khaied Kandil

Consultant

Contractor

شركة اورانج للاستيراد والتصدير والمقاولات العامة

Project

Electric express train

Sample

Coarse Aaggregate Fillter Layer

Station

ST (345 + 960): (347 + 460)

Date of Test

2/12/2023

Temperature : 24 °C

Humidity: 50%

ANALYSIS	RESULTS	METHOD REFERENCE
CHLORIDE ( CL )	0.0014%	
SULPHATE (SO3)	0.0038%	ASTM D 2974
ORGANIG MATTER	NEGATIVE	

LAB DIRECTOR CH/ Mostafa Asker

Kilo 23 Alexandria - Cairo Desert Road - Merghem

Tel: 002 03 4704595 - 002 034701191 Email: civdept@comibassal.com WebSite: www.comibassal.com



49 El Horria Ave. Alex, Egypt

Tel: 002 033920176 - 002 033931482

Fax:002 033900476

Email: internal-inspection@comibassal.c

















Contractor Company	Orange For Import & 8	xport and General Contracting	Designer	Company			(KK) Er	ngineering	Consulting	g Office
	Name	Sign		Date/Seri	al Number			Ti	me	
Issued by Contractor	Eng. Abdullah Kamal	10, 10 pds			/2023 R-012-1)			10	0:00	
Desired to CARD		. 1	C1	C2	C3	DD	MM	YY	НН	MM
Received by GARB CONSULTANT	Eng. Saied Saif	Chaled a ki MA	345	EW	cs	10	11	23	10	0

	\$1 to \$21	D1 to 53	Kp XXX Note
CODE-1	Station Reference	Depot Reference	For Kilometer point only Start Km is used
CODE-2		Work Activity	
C004 ->		Sub Element of Activity	

Description of Materials	Crushed Dolomotic Aggregat	es For Filter Layer	
Location to be Used	From Station (345+960) to St	ation (347+460)	
Sample only	Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached
Reference in BoQ		Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG21- 41.2) VERSION 2 BY CIVECON GROUP
Prequalification reference		Test Samples Results	
Reference Photos	No	Other	
Comments by: Eng.	Saled Salf (K.K)	Comment	ts by: Eng. Alaa Abd-Allatif (ER)
1-Quality test Result By Third Party Laboratory is A	pproved.	1-All tests were carried-out	by Third Party Lab (CEL).
2-This Sample Representive ( 5000 m3 ) only.		2-Results report attached a	nd acceptable with the project specifications.
		3-Final approval is subject to 4- Remaining	chemical lests

APPR	OVAL STATUS		
Name	Sign	Date	A-AWC-R
Eng. Abdullah Kamal	70, Ub,	-ls	A
Eng. Saled Salf	khaledi	Zaki	A
Eng. Margret Magdy			
Eng. Alaa Abd-Allatif	( of F	7 28-11-20	23 AWC
	Name  Eng. Abdullah Kamal  Eng. Saied Saif  Eng. Margret Magdy	Eng. Abdullah Kamal  Eng. Saied Saif  Eng. Margret Magdy  Eng. Alaa Abd-Allatif	Name Sign Date  Eng. Abdullah Kamal  Eng. Saied Saif  Eng. Margret Magdy  Eng. Alaa Abd-Allatif

\* Designer

<sup>\*\*</sup> Alignment/Bridges: Culvert only



Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 002

Sample No. : 02

Dear Gentleman,

Attached here with the Water Backfill delivered on 10-11-2023

#### Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according ASTM D-1140.
- 3. Specific Gravity & Absorption according to ASTM C-127 & D 6473.
- 4. Los Anglos according to ASTM C-131.
- 5. Organic Content according to ASTM D-2974.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken.

Signature / المسلم المرافق الانسار المرافق الانسار المرافق المسلم الونسار المرافق الم

1





Company Name : Orange Company

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

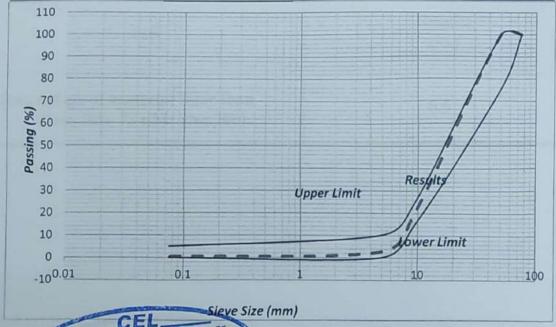
Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 002 Sample No. : 02

#### Results of sieve analysis according to ASTM D-422.

Sieve Size	Passing %	Job specific (ASTM		
(mm)	1 433711 6 7 7	Min.	Max.	
75	100	100	100	
50	100	75	100	
10	20.4	15	25	
4.75	2.6	0	10	
0.075	0.5	0	5	



The test results are tunu Comply - Not Comply) with specifications limits.

Signature

2

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023

Reporting Date : 28-11-2023

Reporting No. : 002 Sample No. : 02

### Materials finer than 75 μm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μΜ (No.200)	0.5



3





Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 002 Sample No. : 02

## Results of Specific Gravity and Absorption of Course Aggregate ASTM C127 & D 6473

Test	Results
Bulk Specific Gravity (OD)	2.68
Bulk Specific Gravity (SSD)	2.70
Apparent Specific Gravity.	2.74
Absorption %	0.80

#### Note:

• (OD) Refer to Oven Dry.

• (SSD) Refer to Saturated Surface Dry.

وكل الوفيلس ٢ مُكل الك الأختل والوَّمالك الك

Signature/.

4

3 El Malek El Afdal Street Zamalek, Cairo.

Tel.& Fax: 27367231 - 27363093







Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

**Delivery Date** : 10-11-2023 Reporting Date : 28-11-2023

Reporting No. : 002

Sample No. : 02

#### RESISTANCE TO DEGRADATION OF SMALL SIZE AGGREGATE BY ABRASION AND IMPACT IN LOS ANGELES MACHINE **ASTM C-131**

Test	Results
Amount of loss by abrasion and impact (%)  Coarse aggregate	27.9

• According to Project Specs: The amount of loss by abrasion and impact for moderate weathering

• Shall not exceed 45% (when Subjected to 500 revolutions)

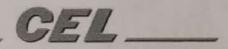
ot Comply) with specifications limits. The test results is

Signature

Tel.& Fax: 27367231 - 27363093







Company Name : Orange Company

Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh

Location : St. 347+460

Type of sample : Water Backfill

Delivery Date : 10-11-2023 Reporting Date : 30-11-2023

Reporting No. : 002 Sample No. : 02

## Organic of Soil ASTM D-2974 Method Type D

Test	Results
Amount of organic content %	Nil

Signature I







## **BASSAL** International Controllers

### Internal inspection and laboratories sector

Accredited by : Egyption General Authority for Petroleum under No. 34/29-11-2011

903 - 2 - Center Report 02/12/2023 Date

#### **CHEMICAL ANALYSIS**

SYSTRA

General Consultant

DR/ Khaied Kandil

Consultant

شركة اورانج للاستيراد والتصدير والمقاولات العامة

Contractor

Electric express train

Project

Sample

Coarse Aaggregate Fillter Layer

ST (345 + 960): (347 +460)

Station Date of Test

2/12/2023

Temperature : 24 °C

Humidity: 50%

ANALYSIS	RESULTS	METHOD REFERENCE
CHLORIDE ( CL )	0.0017%	
SULPHATE ( SO3 )	0.0042%	ASTM D 2974
ORGANIG MATTER	NEGATIVE	



LAB DIRECTOR CH/ Mostafa Asker

lo 23 Alexandria - Cairo Desert Road - Merghem

: 002 03 4704595 - 002 034701191

ail: civdept@comibassal.com Site: www.comibassal.com





49 El Horria Ave. Alex, Egypt

Tel: 002 033920176 - 002 033931482

Fax:002 033900476

Email: internal-inspection@comibassal.com















Contractor Company	ntractor Company Orange For Import & Export and General Contracting		Designer Company				(KK) Engineering Consulting Office				
	Name	Sign	1	Date/Seria	al Number			Tir	me	0.375	
ssued by Contractor Eng. Abdullah Kamal		عبد الله كهال		9/19/2023 (M.A.R-008-1)			10:00				
			C1	C2	СЗ	DD	MM	YY	нн	MM	
Received by GARB CONSULTANT	Eng. Saied Saif	Chailed Ed MAI	345	EW	CS	20	9	23	10	0	

			Kp XXX Note		
Part of the Control o	51 to 521	D1 to 53	574 650 550 550 550 550 550 550 550 550 550		
CODE-1	Station Reference	Depot Reference	For Kilometer point only Start Km is us		
CODE -2		Work Activity			
coof 3		Sub Element of Activity	4/405		

Description of Materials	Crushed Dolomotic Aggregate	Crushed Dolomotic Aggregates For Filter Layer					
Location to be Used	From Station (345+960) to Sta	ation (347+460)					
Sample only	Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer				
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached				
Reference in BoQ	Supplier Name		EARTHWORK SPECIFICATIONS & TESTING REPORT (CG 41.2) VERSION 2 BY CIVECON GROUP				
Prequalification reference		Test Samples Results					
Reference Photos	No	Other					
Comments by: Eng.	Saied Saif (K.K)	The second secon	ts by: Eng. Alaa Abd-Allatif (ER)				
Quality test Result By Third Party Laboratory is A		ALEXANDRIA UNIVERSITY).					
his Sample Representive ( 5000 m3 ) only.		2-Results report attached and acceptable with the project specifications.					
	- تم الاعتماد على الصلاحية الداخلية للمشون.	3 3-Final approval is subject	to above mentioned comments.				
		Me All					

A SOCIETY OF THE WAR	APP	ROVAL STATUS			1 - 13-30 V2 V2 V2 V3 V4
Organisation	Name	Sign		Date	A-AWC-R
Contractor	Eng. Abdullah Kamal	عال ا	عبدالله		A
QA/QC *	Eng. Saled Salf	chase	daki		HUC
GARB**	Eng. Margret Magdy			years to	
Employers Representative	Eng. Alaa Abd-Allatif	for	Sely	16-11-2023	Awc

<sup>•</sup> Designer

<sup>\*\*</sup> Alignment/Bridges: Culvert only

# andria University

Engineering Center for Community Development Roads Soils & Materials Laboratory

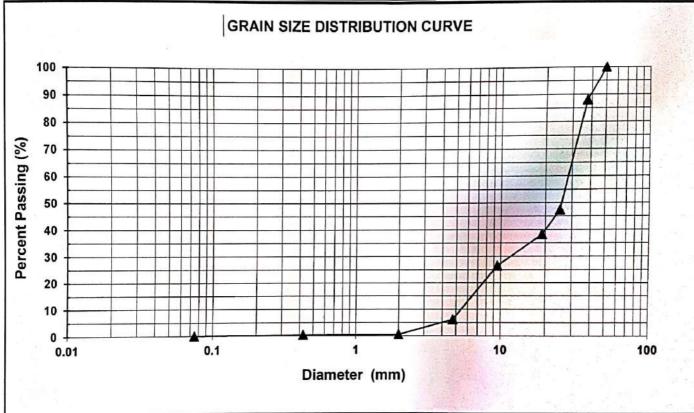


جامعة الإسكندرية كلية الهندسة المركز الهندسي للخدمة العامة معمل تربة ومواد الطرق

#### **Grain Size Distribution Curve**

CLIENT	لمقاولات العمومية	شركة اورانج للاستيراد والتصدير وال
PROJECT	مس	القطار الكهربانى السريع القطاع الخاه
LOCATION	71	من محطة ٩٦٠ ١٣٤٥ الى ٧+٩٦٠
LAYER TYPE	عينة ١٣٥٥	طبقة سن فلتر

	10 to
Receiving Date	19/09/2023
Cheque Date	19/09/2023
Reciept Number	117525
Report Date	30/09/2023
Lab. Ref.	G 141/09



Sieve No.	PERCENT PASSING								
	No. 200	No. 40	No. 10	No. 4	3/8"	3/4"	1"	1 1/2"	2"
Test Results	0.1	0.4	0.5	6.2	26.4	38.2	47.4	88.1	100.0

وردت العينــة التي اجري عليها الاختبــار الى المعمــل بمعرفــة مندوب الاستشارى ا.د / خالد قنديل

Laboratory Director

Dr. Wael Bekheet

رقم بریدی ۲۱۰۶۶ الاسکندریة – تلیفاکس ۹۱۷۲۰۳ (۲۰۳)+

P.O. Box 21544, Alexandria, Egypt. Tele-Fax +(203) 5917203

## ALEXANDRIA UNIVERSITY

### Faculty of Engineering



Roads Soils & Materials Laboratory



جامعة الإسكندرية كلية الهندسة المركز الهندسى للخدمة العامة معمل تربة ومواد الطرق

### نتانج تجارب لوس أنجلوس و الامتصاص

	تاريخ توريد	ال.١٠٥١)٠	قرير رقم
7.77/.9/19	العينة		اختبارات
7.78/.9/19	امر دفع	لوس انجلوس و الامتصاص	مقاول
114040	امر دفع	شركة اورانج للاستيراد والتصدير والمقاولات العمومية	مشروع
7.77/.9/7.	تاريخ التقرير	القطار الكهرياني السريع القطاع الخامس	الموقع
طبقة سن فلتر (٣)	العينة	من محطة ، ۹۱-۳۴۹ الى ، ۹۱-۳۴۷	

تناتج اختبار لوس انجلوس و الامتصاص

نوس انجلوس	ناه د د انه د د د د د د د د د د د د د د د د د د د
عدد كرات الاختبار	
وزن العينة قبل التجربة	۱۲ کورة
- 1/3/09/0	٥٠٠٠ جم
وزن العينة بعد التجرية	۳۹۹۹ جم
نسبة التأكل	and the state of t
نسبه الامتصاص بعد ٢٤ ساعه غمر	%٢٠,٠٢
A MARKET	%١,٦٠
نسبة التقتت في الماء	%·,YA
الوزن النوعي	۲,۱۸جم/سم۳
A THE PARTY OF THE	

تم توريد العينة بمعرفة مندوب الاستشاري ا.د / خالد قنديل

مدير المعمل د. / وائل بذيت د. / وائل بذيت المعدد ال

The laboratory is **only responsible** for the test results and its correctness. The laboratory is **not responsible** for the interpretation of the test results.

المعمل مستول فقط عن نتائج الاختبارات و صحتها. المعمل غير مستول عن كيفيه استخدام نتائج الاختبارات او اى نتائج مبنيه على ذلك



# Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company
Project
Delivery Date
Report Date
Sample Id
Report No.

- : Orange company.
- : Electric express train.
- : 08/11/2023
- : 16/11/2023
- : Mixed Aggregate
- : 08

# ORGANIC OF SOIL ASTM D 2974 METHOD TYPE D

Test		Results
Amount of organic Content	%	Nil

مكتب معامل الاعتبارات الهندسل Signature مكتب معامل الاعتبارات المعملية الاعتبارات المعملية المنسب المعربية الم

CEL Jahranian CEL Jahranian Jahrania

3 El Malck El Afdal Street Zamalck, Cairo.

QA,

GAR

Empl

Tel.& Fax: 27367231 - 27363093



۳ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ۲۷۳۲۷۲۲۱ - ۲۷۳۲۳۰۹۳ www.cel-egypt.com



#### MATERIAL APPROVAL REQUEST













Contractor Company	Orange For Import & Export and General Contracting		Designer Company				(KK) Engineering Consulting Office				
	Name	Sign		Date/Seria	al Numbe	r		Ti	me		
Issued by Contractor	Eng. Abdullah Kamal	عبد الله كمال		9/19/2023 (M.A.R-009-1)			10:00				
n - i - d b - CARR		. 1	C1	CZ	C3	DD	ММ	YY	нн	MM	
Received by GARB CONSULTANT	Eng. Saled Salf	Kha led Zet MAI	345	EW	cs	20	9	23	10	0	

	S1 to S21	D1 to 53	Kp XXX Note		
CODE-1	Station Reference	Depot Reference	For Kilometer point only Start Km is us		
COOF- 2		Work Activity	万斯 一种 的		
(ODE 3		Sub Element of Activity	national state of the state of		

Crushed Dolomotic Aggregates For Filter Layer				
From Station (345+960) to Sta	ation (347+460)			
Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer		
AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached		
	Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG21 41.2) VERSION 2 BY CIVECON GROUP		
	Test Samples Results			
No	Other	1140 H		
Saied Saif (K.K)	Comment	s by: Eng. Alaa Abd-Allatif (ER)		
pproved.	1-All tests were carried-out ALEXANDRIA UNIVERSITY).	by Third Party Lab (Faculty of Engineering -		
	2-Results report attached and acceptable with the project specifications.			
- تم الاعتماد على الصلاحية الداخلية للمشون	3-Final approval is subject t	to above mentioned comments.		
		TANK A NAME OF THE PARTY OF THE		
	From Station (345+960) to State Yes  AL-Salam & AL-Howayeg  No  Saled Salf (K.K)	From Station (345+960) to Station (347+460)  Yes Materials Type  AL-Salam & AL-Howayeg Data Sheet provided  Specification  Test Samples Results  No Other  Saled Saif (K.K)  Comment  1-All tests were carried-out ALEXANDRIA UNIVERSITY).		

Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Abdullah Kamal	م کمال	عبد الل	A
QA/QC *	Eng. Saled Salf	khale	elgki	Awc
GARB**	Eng. Margret Magdy		9 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
Employers Representative	Eng. Alaa Abd-Allatif	for 1	ESS 16-11-2023	P Awc

<sup>•</sup> Designe

<sup>\*\*</sup> Alignment/Bridges: Culvert only

### ndria University ulty of Engineering

ngineering Center for Community Development Roads Soils & Materials Laboratory

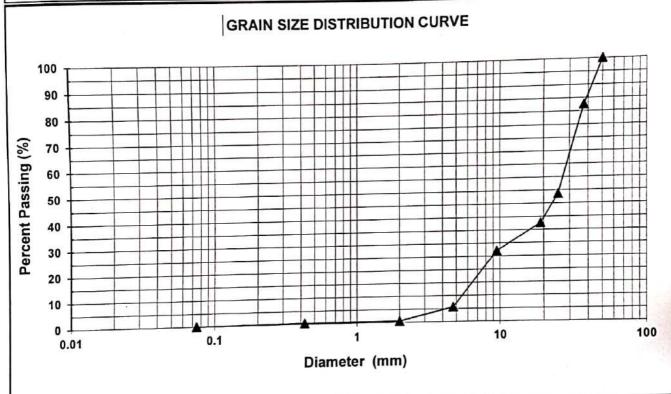


جامعة الإسكندرية كلية الهندسة المركز الهندسي للخدمة العامة معمل تربة ومواد الطرق

#### **Grain Size Distribution Curve**

CLIENT	لمركة اورانج للاستيراد والتصدير والمقاولات العمومية			
PROJECT	لقطار الكهربانى السريع القطاع الخامس			
LOCATION	٣	من محطة . ٩٦٠ ١٦ الى ٩٦٠ ٢٤		
LAYER TYPE	عينة ؛ / ٥	طبقة سن فلتر		

Receiving Date	19/09/2023
Cheque Date	19/09/2023
Reciept Number	117525
Report Date	30/09/2023
Lab. Ref.	G 142/09



				PI	RCENT F	PASSING			
O' No	No. 200	No. 40	No. 10	No. 4	3/8"	3/4"	1"	1 1/2"	2"
Sieve No.	140. 200	110. 40		F.C.	27.0	37.6	48.6	82.5	100.0
Test Results	0.0	0.3	0.5	5.6	21.0	37.0	70.0	02.0	100.0

وردت العينة التي اجري عليها الاختبار الى المعمل معرف مندوب الاستشارى ا.د / خالد قنديل

المالية البيلية

Dr. Wael Bekheet

**Laboratory Director** 

The laboratory is only responsible for the test results and its correctness. The laboratory is not responsible for the interpretation of the test results.

المعمل مسئول فقط عن نتائج الاختبارات و صحتها. المعمل غير مسئول عن كيفيه استخدام نتائج الاختبارات او اى نتائج مبنيه على ذلك

رقم بریدی ۲۱۵۶۶ الاسکندریة - تلیفاکس ۹۱۷۲۰۳ (۲۰۳)+

P.O. Box 21544, Alexandria, Egypt. Tele-Fax +(203) 5917203

## LEXANDRIA UNIVERSITY

Faculty of Engineering



جامعة الإسكندرية كلية الهندسة

المركز الهندسى للخدمة العامة

معمل تربة ومواد الطرق

## **Engineering Center for Community Development**

Roads Soils & Materials Laboratory

## نتانج تجارب لوس أنجلوس و الامتصاص

ير رقم	.1/17.1.0	1 5 4 . 35	
فتبارات		تاريخ توريد العينة	7.77/.9/19
	لوس انجلوس و الامتصاص	امر دفع	7.77/.9/19
شروع	شركة اورانج للاستيراد والتصدير والمقاولات العمومية	امر دفع	117070
الموقع	القطار الكهربائي السريع القطاع الخامس	تاريخ التقرير	۲. ۲۲/۰۹/۳۰
•	من معطة ، ۹۶-۱۹، ۱۱ الى ، ۹۱-۲۹ ۳۴۷ وس انجلوس و الامتصاص	العينة	طبقة سن فلتر (٤)

لوس انجلوس	F 10 55	
عدد كرات الاختبار	1 il 0 · ·	
	۱۲ کورة	
وزن العينة قبل التجربة	٥٠٠٠ جم	
وزن العينة بعد التجرية	W 15 207	
نسبة التآكل	٤٠٢٢ جم	
نسبه الامتصاص بعد ٢٤ ساعه غمر	%14,07	
	%1,7.	3131
نسبة التفتت في الماء	%., ۲۲۳	50.00 50.00
الوزن النوعى	۲,۱۲ جم/سم۳	EAST COMMENTS
ته تدرید الحری ا		Fig. Lat. 15

تم توريد العينة بمعرفة مندوب الاستشاري ا.د / خالد قنديل



فنى المعمل ا/احمد عادل

المعمل مستول فقط عن نتائج الاختبارات و صحتها. المعمل غير مستول عن The laboratory is only responsible for the test results and its كيفيه استخدام نتائج الاختبارات او اى نتائج مبنيه على ذلك correctness. The laboratory is not responsible for the interpretation of the test results.



#### Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company

: Orange company.

Project

: Electric express train.

**Delivery Date** 

: 08/11/2023 : 16/11/2023

Report Date Sample Id

: Mixed Aggregate

Report No.

: 09

## ORGANIC OF SOIL ASTM D 2974 METHOD TYPE D

The second of th	The second state of the se	Results
Amount of organic Content	%	Nil

Signatur

كتب معامل الاستشارات البهمسية الاختيارات المعملية بدرسيريشسيس 537ء - 991 - 219 العنون دولية الالار - الزمانة



3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093



٣ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ٢٧٣٦٧٢١ - ٢٧٣٦٣٠٩٣ www.cel-egypt.com

















Contractor Company	Orange For Import & Export and General Contracting		Designer Company				(KK) Engineering Consulting Office			
	Name	Sign		Date/Seria	al Number			Ti	me	
ssued by Contractor	Eng. Abdullah Kamal المحكمال المحكمال			9/19/2023 (M.A.R-010-1)			10:00			
Received by GARB		11 15	C1	C2	C3	DD	MM	YY	нн	ММ
CONSULTANT	Eng. Saled Saif	Kraled g & MAR	345	EW	cs	20	9	23	10	0

	51 to 521	D1 to 53	Kp XXX Note
CODE-1	Station Reference	Depot Reference	For Kilometer point only Start Km is used
C00E - 2		Work Activity	
CODE - 3		Sub Element of Activity	

Description of Materials	Crushed Dolomotic Aggregate	Crushed Dolomotic Aggregates For Filter Layer				
Location to be Used	From Station (345+960) to Sta	From Station (345+960) to Station (347+460)				
Sample only	Yes	Yes Materials Type Crushed Dolomotic Aggrega Layer				
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached			
Reference in BoQ		Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG21- 41.2) VERSION 2 BY CIVECON GROUP			
Prequalification reference		Test Samples Results				
Reference Photos	No	Other				
Comments by: Eng.	Saled Saif (K.K)	Comments by: Eng. Alaa Abd-Allatif (ER)				
1-Quality test Result By Third Party Laboratory is A	pproved.	ALEXANDRIA UNIVERSITY).	by Third Party Lab (Faculty of Engineering -			
This Sample Representive ( 5000 m3 ) only.		2-Results report attached and acceptable with the project specifications.				
	- تم الاعتماد على الصلاحية الداخلية للمشون	3-Final approval is subject t	to above mentioned comments.			
		100				

Which are to the total above a larger many	APPR	OVAL STATUS	W-1805-75	题 传统主义的现在分词 P. 2000年 500 年
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Abdullah Kamal	مال	ح ملابع	A
QA/QC*	Eng. Saled Salf	Ong	leol 4ki	Auc
GARB**	Eng. Margret Magdy			
Employers Representative	Eng. Alaa Abd-Allatif	for my	EUS 16.	-11-2028 Aure

<sup>•</sup> Designer

<sup>\*\*</sup> Alignment/Bridges: Culvert only

#### andria University culty of Engineering

Engineering Center for Community Development Roads Soils & Materials Laboratory

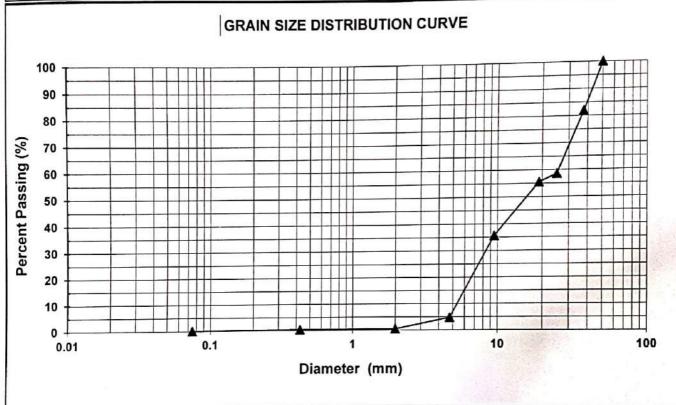


جامعة الإسكندرية المركز الهندسى للخدمة العامة معمل تربة ومواد الطرق

#### **Grain Size Distribution Curve**

CLIENT	مقاولات العمومية	شركة اورانج للاستيراد والتصدير وال
PROJECT	س	القطار الكهربانى السريع القطاع الخام
LOCATION	Υ.	من محطة ۲۰+۹۱۰ الى ۲۲۰+۲۰
LAYER TYPE	عينة ١٥	طبقة سن فلتر

Receiving Date	19/09/2023
Cheque Date	19/09/2023
Reciept Number	117525
Report Date	30/09/2023
Lab. Ref.	G 143/09



Sieve No.				PI	ERCENT F	PASSING			
	No. 200	No. 40	No. 10	No. 4	3/8"	3/4"	177.1"	1 1/2"	2"
Test Results	0.0	0.3	0.4	4.7	35.6	55.5	58.6	81.9	100.0

فــة مندوب الاستشاري ا.د / خالد قنديل وردت العينــــة التي اجري عليها الاختبـ

Laboratory Director

Dr. Wael Bekheet

المعمل مسئول فقط عن نقائج الاختيارات و صحتها. المعمل غير مسئول عن كيليه المعمل عير مسئول عن كيليه المعمل على مسئول عن كيليه المعمل على مسئول المعمل على المعمل المعم laboratory is not responsible for the interpretation of the test results.

ستخدام نتائج الاختبارات او اى نتائج مبنيه على ذلك

رقم بریدی ۲۱۵۱۶ الاسکندریة - تلیفاکس ۹۱۷۲۰۳ (۲۰۳)+

P.O. Box 21544, Alexandria, Egypt. Tele-Fax +(203) 5917203

## LEXANDRIA UNIVERSITY

Faculty of Engineering



Roads Soils & Materials Laboratory



جامعة الإسكندرية كلية الهندسة المركز الهندسي للخدمة العامة معمل تربة ومواد الطرق

## نتائج تجارب لوس أنجلوس و الامتصاص

ررقم	ل.١.٧٢ /٩٠	تاريخ توريد	7.77/.3/13
تبارات	لوس انجلوس و الامتصاص	العينة امر دفع	7.77/.9/19
اول	شركة اورائح للاستيراد والتصدير والعقاولات العمومية	امر دفع	114040
روع	القطار الكهزبائي السريع القطاع الخامس	تاريخ التقرير	7.77/.9/7.
الموقع ج اختداد له	من معطهٔ . ۹۲+۳۶۰ الى . ۹۲+۳۴۷ وس انجلوس و الامتصاص	العينة	طبقة سن فلتر (٥)

لوس انجلوس	10 0 = 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
عدد كرات الاختبار	40 011
وزن العينة قبل التجرية	۱۲ کورة
	۰۰۰۰ جم
وزن العينة بعد التجرية	٤٠١٨ جم
نسبة التآكل	
نسبه الامتصاص بعد ٢٤ ساعه غمر	%19,75
	%1,19
نسبة التفتت في الماء	%·, Y Y
الوزن النوعى	۲,۲۶م/سم۳
The second secon	

تم توريد العينة بمعرفة مندوب الاستشاري ا.د / خالد قنديل

correctness. The laboratory is not responsible for the interpretation of the test results.

المعمل معنول فقط عن نتائج الاختبارات و صحتها. المعمل غير معنول عن عن المعمل عن نتائج الاختبارات و صحتها. المعمل على عن المعمل على المعمل المعمل المعمل المعمل على المعمل على المعمل كيفيه استخدام نتائج الاختبارات او اى نتائج مبنيه على ذلك

> رقم بریدی ۲۱۰۶۶ الاسکندریة - تلیفاکس ۹۱۷۲۰۳ (۲۰۳)+ P.O. Box 21544, Alexandria, Egypt. Tele-Fax +(203) 5917203



#### Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company

: Orange company.

Project

: Electric express train.

Delivery Date Report Date

: 08/11/2023

: 16/11/2023 : Mixed Aggregate

Sample Id Report No.

: 10

#### ORGANIC OF SOIL ASTM D 2974 METHOD TYPE D

The state of the s		Results
Amount of organic Content	%	Nil

















Contractor Company	r Company Orange For Import & Export and General Contracting Designer Company			(KK) Engineering Consulting Office						
Issued by Contractor Eng. Abdullah M	Name	Sign		Date/Seri	al Number	1.		Ti	me	
	Eng. Abdullah Kamal	عبدالله كمال	9/16/2023 (M.A.R-008)				14:00			
Received by GARB		in the	C1	C2	C3	DD	ММ	YY	нн	ММ
CONSULTANT	Eng. Saied Saif	Chaledas MAR	345	EW	cs	17	9	23	14	0

CODE-1	51 to 521	D1 to 53	Kp XXX Note
	Station Reference	Depot Reference	For Kilometer point only Start Km is used
(100)7-7		Work Activity	
(CD) (C - 3)		Sub Element of Activity	

Description of Materials	Crushed Dolomotic Aggregate	es For Filter Layer				
Location to be Used	المشون					
Sample only	Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer			
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached			
Reference in BoQ		Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG21 41.2) VERSION 2 BY CIVECON GROUP			
Prequalification reference		Test Samples Results	>			
Reference Photos	No	Other				
Comments by: Eng. 5	Saied Saif (K.K)	Comment	s by: Eng. Alaa Abd-Allatif (ER)			
1-Quality test Result By Site Laboratory is A	pproved.	1-All tests were carried-out by material engineer for both contractor and GARB Consultant.				
2-This Sample Representive (5000 m3) Only		2-Results report attached and acceptable with the project specifications.				
		3-Final approval is subject t	to above mentioned comments.			
and Contrain	to a well	4- Fr Inf	Smalier prolu			

The same of the same of the	APP	ROVAL STATUS	CORNESSE AND LO	A STATE OF THE STA
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Eng. Abdullah Kamal	اكمال	عبداله	<b>A</b>
QA/QC *	Eng. Saled Saif	Engl4	ngei	A
GARB**	Eng. Margret Magdy		$\Omega$	
Employers Representative	Eng. Alaa Abd-Allatif	25 Alas H	R	Au

Designer

<sup>\*\*</sup> Alignment/Bridges: Culvert only











Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein
Section - 5 From Borg Elarab To El Alamein "
From Station 345+960 To Station 347+460

#### Seive Analysis of Fine and Coarse Aggregats (T-27)

Date:	9/17/2023		Station:	لمشون	عينة من ا
From / To :	345+960/347+460		Sample type :	3# & 2# & 1	خليط من سن #
Sieve size ( mm )	Retained	Passing	Passing %		
				MIN	MAX
75	0	17224	100.0	100	100

11121111111111111111111111111111111111				MIN
75	0	17224	100.0	100
50	0	17224	100.0	75
10	13628	3596	20.9	15
4.75	2600	996	5.78	0
0.075	891	105	0.6	0
Passing	105			
Total	17224			

Asiem Peci Kurther

مهندس الشركة عبد اللم كمال















Contractor Company	Orange For Import & Export and General Contracting		<b>Designer Company</b>			(KK) Engineering Consulting Office				
	Name	Sign	Date/Serial Number			Time				
Issued by Contractor	Eng. Abdullah Kamal	عبدالله كمال	9/16/2023 (M.A.R-009)			14:00				
Received by GARB CONSULTANT	San Salad Sal	10/1/12	C1	C2	C3	DD	ММ	YY	нн	ММ
	Eng. Saied Saif	CHOI COLGE MAR	345	EW	cs	17	9	23	14	0

CODE-1	51 to 521	D1 to 53	Kp XXX Note	
	Station Reference	Depot Reference	For Kilometer point only Start Km is used	
( 0.0E - 7		Work Activity		
ECDE - 3		Sub Element of Activity		

Description of Materials	Crushed Dolomotic Aggregat	es For Filter Layer			
Location to be Used	المشون	at			
Sample only	Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer		
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached		
Reference in BoQ		Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG2: 41.2) VERSION 2 BY CIVECON GROUP		
Prequalification reference		Test Samples Results			
Reference Photos	No	Other			
Comments by: Eng.	Saied Saif (K.K)	Comment	s by: Eng. Alaa Abd-Allatif (ER)		
Quality test Result By Site Laboratory is Approved.		1-All tests were carried-out by material engineer for both contractor and GARB Consultant.			
This Sample Representive (5000 m3) Only.		2-Results report attached a	nd acceptable with the project specifications.		
<b>N</b> 0		R-Final approval is subject t	a shows mentioned comments		

APPROVAL STATUS

Organisation Name Sign Date A-AWC-R

Contractor Eng. Abdullah Kamal はよる場合に A

QA/QC \* Eng. Saied Saif bly としるが A

GARB\*\* Eng. Margret Magdy

Employers Representative Eng. Alaa Abd-Allatif

Designer

<sup>\*\*</sup> Alignment/Bridges: Culvert only











Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein
Section - 5 From Borg Elarab To El Alamein "
From Station 345+960 To Station 347+460

#### Seive Analysis of Fine and Coarse Aggregats (T-27)

Date:	9/17/2023		من المشون Station:		عينة من ا	
From / To :	345+960/347+460		Sample type :	خليط من سن #1 & #2 & #3		
Sieve size ( mm )	Retained	Passing	Passing %			
				MIN	MAX	
75	0	10968	100.0	100	100	
50	0	10968	100.0	75	90	
10	8712	2256	20.6	15	25	
4.75	1644	612	5.58	0	10	
0.075	514	98	0.9	0	5	
Passing	98					
Total	10968					

مهندس الجودة الاستشاري ENgledlaty\*

مهندس الشرقة عبد الله كمال















Contractor Company	Orange For Import & Export and General Contracting		Designer Company			(KK) Engineering Consulting Office				
Issued by Contractor	Name	Sign	Date/Serial Number			Time				
	Eng. Abdullah Kamal	عبد الله كمال	9/16/2023 (M.A.R-010)		14:00					
Received by GARB CONSULTANT		1 1 /	а	CZ	C3	DD	MM	YY	нн	MM
	Eng. Saied Saif	Chales lak MAR	345	EW	cs	17	9	23	14	0

Appendix 1	51 to 521	D1 to 53	Kp XXX Note
CODE-1	Station Reference	Depot Reference	For Kilometer point only Start Km is used
EDOK -3		Work Activity	
E00E-3		Sub Element of Activity	

Description of Materials	Crushed Dolomotic Aggregate	es For Filter Layer	
Location to be Used	المشون		
Sample only	Yes	Materials Type	Crushed Dolomotic Aggregates For Filter Layer
Supplier Name	AL-Salam & AL-Howayeg	Data Sheet provided	Yes attached
Reference in BoQ		Specification	EARTHWORK SPECIFICATIONS & TESTING REPORT (CG21 41.2) VERSION 2 BY CIVECON GROUP
Prequalification reference		Test Samples Results	
Reference Photos	No	Other	
Comments by: Eng.	Saled Saif (K.K)	Comment	s by: Eng. Alaa Abd-Allatif (ER)
-Quality test Result By Site Laboratory is A	pproved.	1-All tests were carried-out GARB Consultant.	by material engineer for both contractor and
2-This Sample Representive (5000 m3) Only		2-Results report attached a	nd acceptable with the project specifications.
$a \wedge x = A_0$	matin - w	3-Final approval is subject t	o above mentioned comments.

APPE	OVAL STATUS		
Name	Sign	Date	A-AWC-R
Eng. Abdullah Kamal	له کمال	عبدال	A
Eng. Saled Saif	pholed	Gk	4
Eng. Margret Magdy	05		
Eng. Alaa Abd-Allatif	Alan /	The state of the s	Awe
	Name  Eng. Abdullah Kamal  Eng. Saled Saif  Eng. Margret Magdy	Eng. Abdullah Kamal  Eng. Saied Saif  Eng. Margret Magdy  Eng. Alaa Abd-Allatif	Name Sign Date  Eng. Abdullah Kamal  Eng. Saled Saif  Eng. Margret Magdy  Eng. Alaa Abd-Allatif











Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein
Section - 5 From Borg Elarab To El Alamein
From Station 345+960 To Station 347+460

#### Selve Analysis of Fine and Coarse Aggregats (T-27)

Date:	9/17/2023		Station:	لمشون	عينة من ا	
From / To :	345+960/347+460		Sample type :	خليط من سن #1 & 2# & 3#		
Sleve size ( mm )	Retained	Passing	Passing %			
			, ass., g	MIN	MAX	
75	0	20280	100.0	100	100	
50	0	20280	100.0	75	90	
10	16415	3865	19.1	15	25	
4.75	2809	1056	5.21	0	10	
0.075	921	135	0.7	0	5	
Passing	135					
Total	20280					

مهندس الجودة الاستشاري الما المحالي المالي المالي

مهندس الشركة