

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة وبعد ،،،

بالاحالة الى مشروع اعمال الجسر الترابى القطار الكهربائى السريع قطاع (فوكة / مطروح) -- استكمال اعمال الردم والتأسيس والاساس .

نتشرف بان نرفق لسيادتكم طيه المقاييس المعدلة بعد اعتماد لجنة المفاوضة للقطاعات الاتية :-

م	اسم الشركة	من المحطة	الى المحطة	اتجاه
١	مكتب الفيروز للمقاولات العامة والتوريدات	٥٠٦+٦٢٠	٥٠٦+٧٦٠	قطاع (فوكة / مطروح)

برجاء من سيادتكم التفضل بالاعاطة والتوجيه باللائم

وتفضلوا بقبول فائق الاحترام ،،،

رئيس الإدارة المركزية
منطقة غرب الدلتا
(بالإسكندرية/ مرسى مطروح)
٢٠٢٣ / ١١ / ٨
عميد مهندس / هاني محمد محمود طه

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA To MARSА MATROUH

From Station 504+000 To Station 568+177

Opreating lap

Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	26-02-2023	code	ZONE	506+000	507+000
LOCATION	KP (506)	FZ (34)	Material		
NAME COMPANY	الفيروز		layer thickness		

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		29630.00		gm	table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	soil classify	
Mass retained (g)	2136.0	2351.0	2563.0	2469.0	2863.0	1874.0	2564.0		A-1-a	
Cumulative Retained (g)	2136.0	4487.0	7050.0	9519.0	12382.0	14256.0	16820.0		PRO	2.15
Cumulative Retained %	7.2	15.1	23.8	32.1	41.8	48.1	56.8		WC	6.8
Cumulative Passing %	92.8	84.9	76.2	67.9	58.2	51.9	43.2		CBR	58.6

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	50.00	165.00	345.00					
Cumulative Retained %	10.00	33.00	69.00					
Cumulative Passing %	90.00	67.00	31.00					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	92.8	84.9	76.2	67.9	58.2	51.9	43.2	38.9	29.0	13.4

ATTERBERG LIMTS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	N.L	N.P	N.PI

Contractor

Imed Rahmeh

Consultant

Abdallahomar

26/2/23

	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+000 To Station 568+177		

PROCTOR TEST

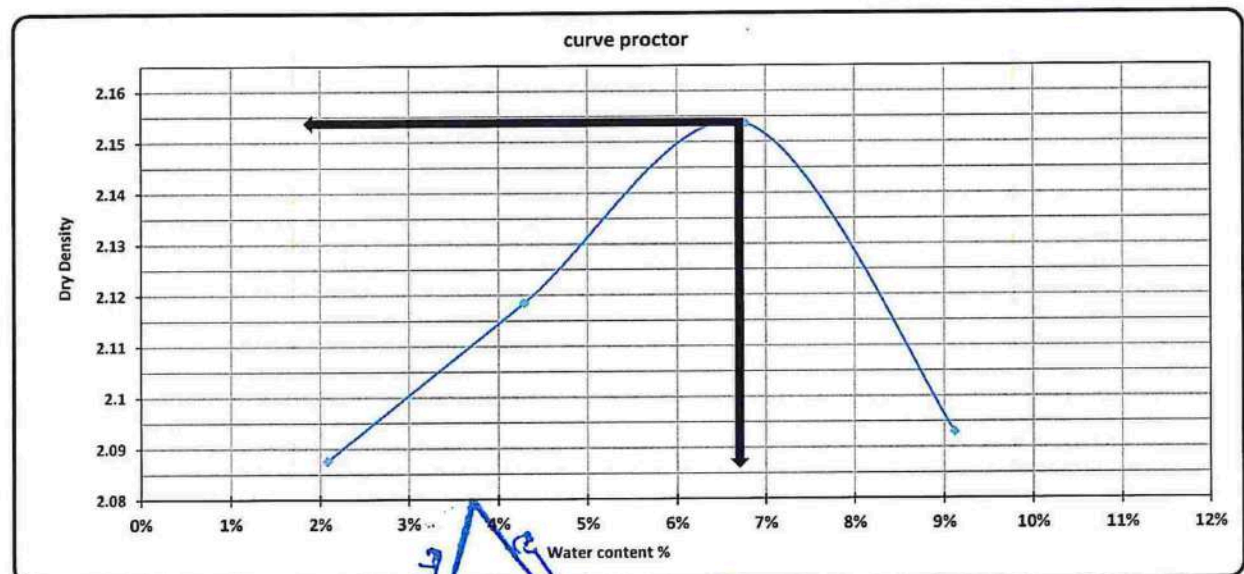
TESTING DATE:	26-02-2023	code	Station	506+000	507+000
LOCATION	KP (506)	FZ (34)	Material		
NAME COMPANY	القنوز		layer thickness		

Weight of empty mold :	5620.0
Mold Volume:	2030.0

MAX Dry Density	2.15
Water content %	6.8%

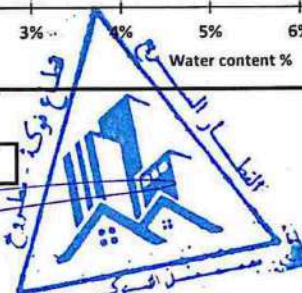
trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	9946.0	10105.0	10288.0	10256	
WT. WET SOIL	4326.0	4485.0	4668.0	4636.0	
Wt. Density	2.131	2.209	2.300	2.284	

Tare No.	3	2	4	20	1	21	17	18		
Tare wt.	55.72	52.81	55.33	55.02	57.94	54.44	56.68	55.41		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	148.0	148.1	146.0	146.2	144.1	144.0	142.3	142.0		
Wt. Of water	2.0	1.9	4.0	3.8	5.9	6.0	7.7	8.0		
Wt. Of dry soil	92.3	95.3	90.7	91.2	86.2	89.6	85.6	86.6		
Water content %	2.2%	2.0%	4.4%	4.2%	6.8%	6.7%	9.0%	9.2%		
AV. Water content %	2.1%		4.3%		6.8%		9.1%			
Dry Density	2.088		2.118		2.154		2.093			



Contractor

Amal halout



Consultant

Abdallahomar

26/2/2023

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ. د. خالد قنديل	 SVS TRA	Electric Express Train - HSR	 الهيئة العامة للطرق والمواصلات وزارة النقل (GAFEL)
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California Bearing Ratio TEST

Testing Date :	3/3/2023	Code	FROM STA :	506+000	507+000
Location :	K.P (506)	FZ (34)	: Material		
Company Name	الفيروز		: Layer Thickness		

- : Test Results

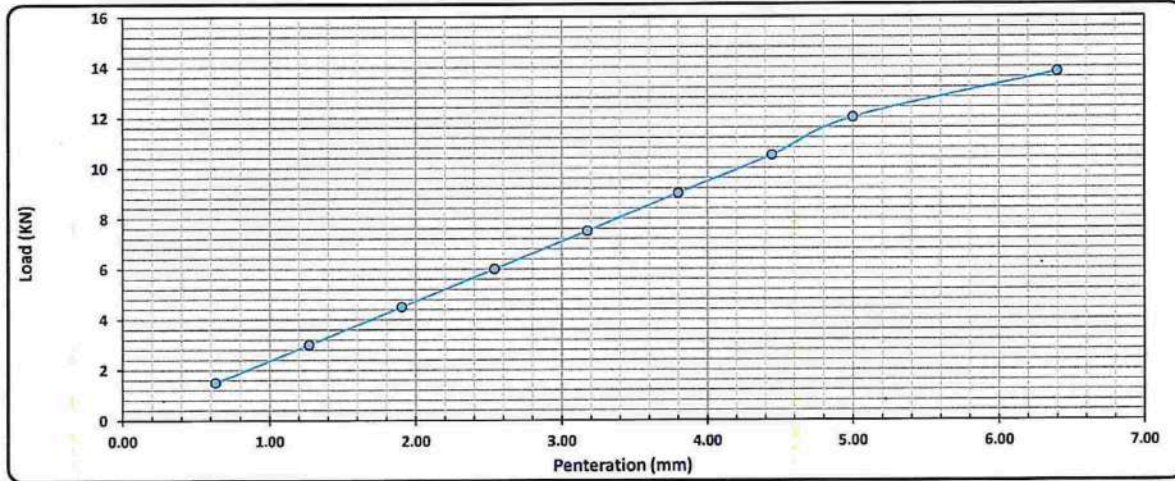
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm ³)	2215
Mold WT. (gm)	5170
Mold WT. + Wet WT. (gm)	10270
Wet WT. (gm)	5100
Wet Density (g/cm ³)	2.302
Dry Density (g/cm ³)	2.151
Proctor Density (g/cm ³)	2.150
Compaction %	100.0

Mositure Ratio After Compacted Mold	
Tare No.	2
Tare WT. (gm)	52.81
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	143.6
Water WT. (gm)	6.4
Dry WT. (gm)	90.8
Moisture Content %	7.0

Swelling	
Mold No.	2
Date	3/3/2023
Intial Height (mm)	6.00
Final Height (mm)	6.50
Difference	1
Sample Height (mm)	12.50
Swelling Ratio %	4%

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.46
Load (KN)	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.8



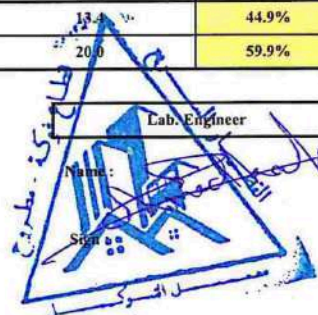
Calculations :-

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% عند نسبة 98
2.50	6.00	13.2	44.9%	100	98	44.0%
5.00	12.00	20.0	59.9%			58.7%

Lab. Specialist

Name :

Sign :



Lab. Engineer

Name :

Sign :

Consultant Engineer

Name :

Sign :

Abdallahomar
26/2/2023

MATERIAL INSPECTION REQUEST



Contractor Company	AL-FAYROUZ COMPANY			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ MOHAMED TAHA	Mohamed Taha									
Received by ER			MIR	C1 K.P 506	C2 EW	C3 CS	DD 26	MM 2	YY 23	HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp 506 Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS				
Location to be Used	FROM	TO	LEVEL		
	506+000	506+200	(-0.5)		
	506+200	506+400	(-0.75)		
	506+000	506+200	(-0.25)		
MAR Approval No				Date	
Supplier Name					
Test Requirement	Specification			Clause	
Reference Photos	Yes attached / No		Other		
Item	Description	Unit	Quantity	Arrival Date	Note
1	SEIVE ANALYSIS	M ³	5000	26/2/2023	
2	ATTERBERG	M ³	5000	26/2/2023	
3	PROCTOR	M ³	5000	26/2/2023	
4	CBR	M ³	5000	3/3/2023	
Comments by:			Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mohammed Mstafa	Mohammed		
QA/QC *				
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



Contractor Company	AL-FAYROUZ		Designer Company								
Issued by Contractor	Name	Sign	Date	Time							
	ENG/ MOHAMED TAHA	<i>Mohamed Taha</i>									
Received by ER			MAR	C1 KP. 506	C2 EW	C3 CS	DD 3	MM 3	YY 23	HH	MM

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		

Description of Materials	PREPARED SUBGRADE			
Location to be Used	FROM	TO	LEVEL	
	506+000	506+200	(-0.5)	
	506+200	506+400	(-0.75)	
	506+000	506+200	(-0.25)	
ITEM	SPECIFICATION	TEST REQUIRMENT	TEST RESULT ATTACHMENT	REMARKS
1	ASTM D 6913	SEIVE ANALYSIS	ACCORDING TO SPECIFICATION	
2	ASTM D 4318	ATTERBERG	N.P.L	
3	ASTM D 1557	PROCTOR	2.15	
4	ASTM D 18832	CBR	58.6%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Mohammed Mostafa</i>	<i>Mohammed</i>		
QA/QC *				
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA To MARSА MATROUH

From Station 504+000 To Station 568+177

Operating Lab

AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	2-3-2023	Code			
LOCATION	K,P (506+550)		zone	506+000	507+000
NAME COMPANY	AL Fauroz	FW (35)			

-visual inspection test

-Gradient test

-gradation of bulk materials				SAMPLE WEIGHT [g]		21286.00		gm	table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	soil classify
Mass retained (g)	0.0	1325.0	1785.0	1878.0	1968.0	2090.0	1926.0		A-1-a
Cumulative Retained (g)	0.0	1325.0	3110.0	4988.0	6956.0	9046.0	10972.0	PRO	2.15
Cumulative Retained %	0.0	6.2	14.6	23.4	32.7	42.5	51.5	WC	6.60
Cumulative Passing %	100.0	93.8	85.4	76.6	67.3	57.5	48.5	CBR	57.30

-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	71.00	197.60	357.50					
Cumulative Retained %	14.20	39.52	71.50					
Cumulative Passing %	85.80	60.48	28.50					

General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	93.8	85.4	76.6	67.3	57.5	48.5	41.6	29.3	13.8

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	22.94%	19.20%	3.74%

Contractor

Consultant



Abdallahomar
2/3/2023

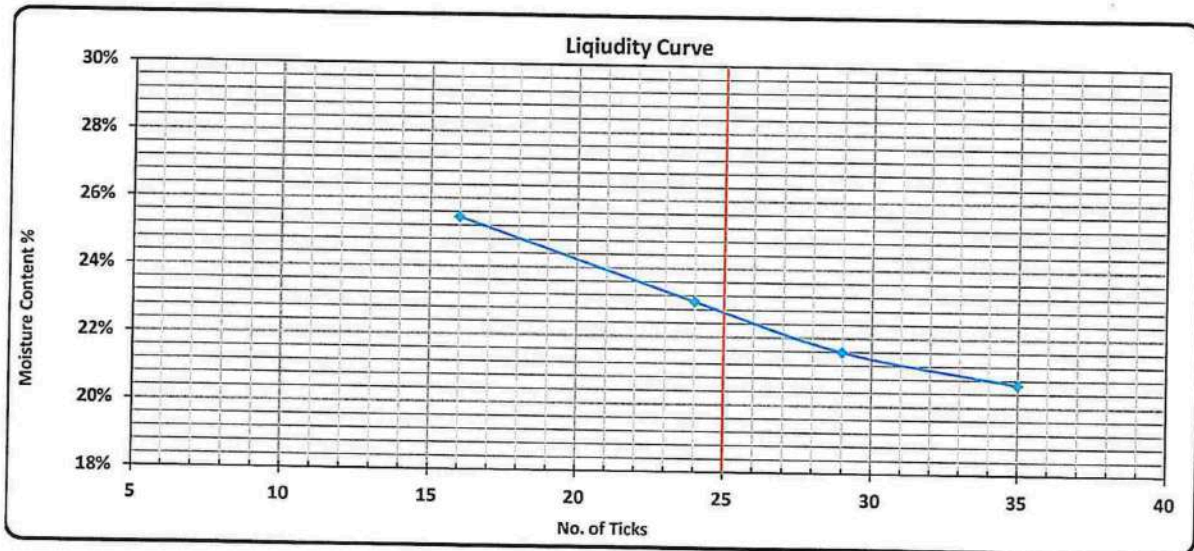
 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد فهد	 SVSCEA SHAKER	Electric Express Train - HSR	 الهيئة العامة للغذاء والدواء SAR
Opreating Lab	AL Nuby Central Lab		

Plasticity and Liquidity Test -Atterberg Limits

:Testing Date	2-3-2023	:Code	Zone	506+000	507+000
:Location	K,P (506+550)	FW (35)			
: .Layer No	AL Fauroz				

-: Testing Results

Test	Liqud Limit				Plastic Limit	
No. of Ticks	35	29	24	16	-	-
Tare No.	17	19	73	33	8	7
Tare WT. (gm)	59.50	44.60	42.10	73.60	47.00	43.00
Tare WT. + Wet WT. (gm)	77.60	55.30	62.40	101.20	49.50	46.70
Tare WT. + Dry WT. (gm)	74.50	53.40	58.60	95.60	49.1	46.10
Water WT. (gm)	3.10	1.90	3.80	5.60	0.40	0.60
Dry WT. (gm)	15.00	8.80	16.50	22.00	2.10	3.10
Moisture Content %	20.7%	21.6%	23.0%	25.5%	19.0%	19.4%
Average %					19.2%	



L.L	P.L	P.I
22.9%	19.2%	3.7%

Lab. Specialist	Lab. Engineer	Consultant Engineer
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Name :

Sign :

Name :

Sign :

Name :

Sign :



Abdallah Omar
2/3/2023

	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSА MATROUH From Station 504+000 To Station 568+177		

PROCTOR TEST

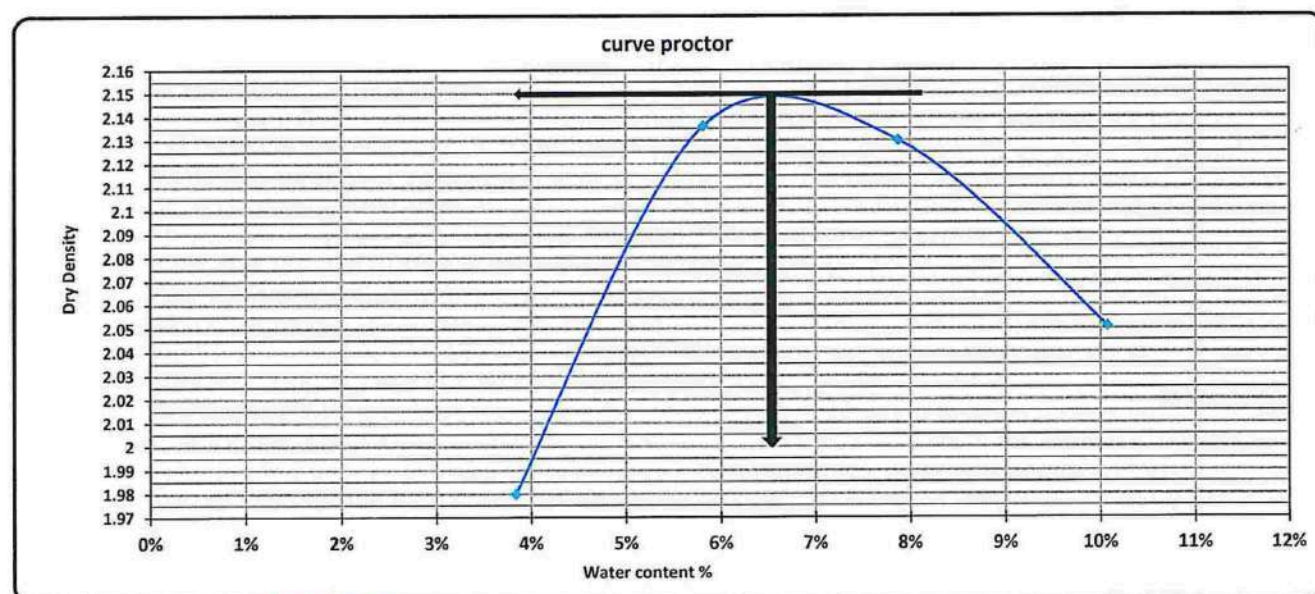
TESTING DATE:	2-3-2023	Code	zone	506+000	507+000
LOCATION	K,P (506+550)	FW (35)			
NAME COMPANY	AL Fauroz				

Weight of empty mold :	6034.0
Mold Volume:	2113.0

MAX Dry Density	2.15
Water content %	6.6

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10378.0	10810.0	10889.0	10804	
WT. WET SOIL	4344.0	4776.0	4855.0	4770.0	
Wt. Density	2.056	2.260	2.298	2.257	

Tare No.	73	21	26	8	20	11	90	35		
Tare wt.	42.9	55.1	55	46.8	60.9	46.1	62.5	73.9		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.1	140.1	144.8	144.3	143.5	142.4	141.8	143.2		
Wt. Of water	4.9	9.9	5.2	5.7	6.5	7.6	8.2	6.8		
Wt. Of dry soil	123.0	267.8	89.8	97.5	82.6	96.3	79.3	69.3		
Water content %	4.0%	3.7%	5.8%	5.8%	7.9%	7.9%	10.3%	9.8%		
AV. Water content %	3.8%		5.8%		7.9%		10.1%			
Dry Density	1.980		2.136		2.130		2.051			



Consultant

Abdallah Omar
21/3/2023

Opreating Lab

AL Nuby Central Lab

California Bearing Ratio TEST

Testing Date :	5-3-2023	Code	FROM STA :	506+000	507+000
Location :	K,P (506+550)	FW (35)			
Company Name	AL Fauroz				

- : Test Results

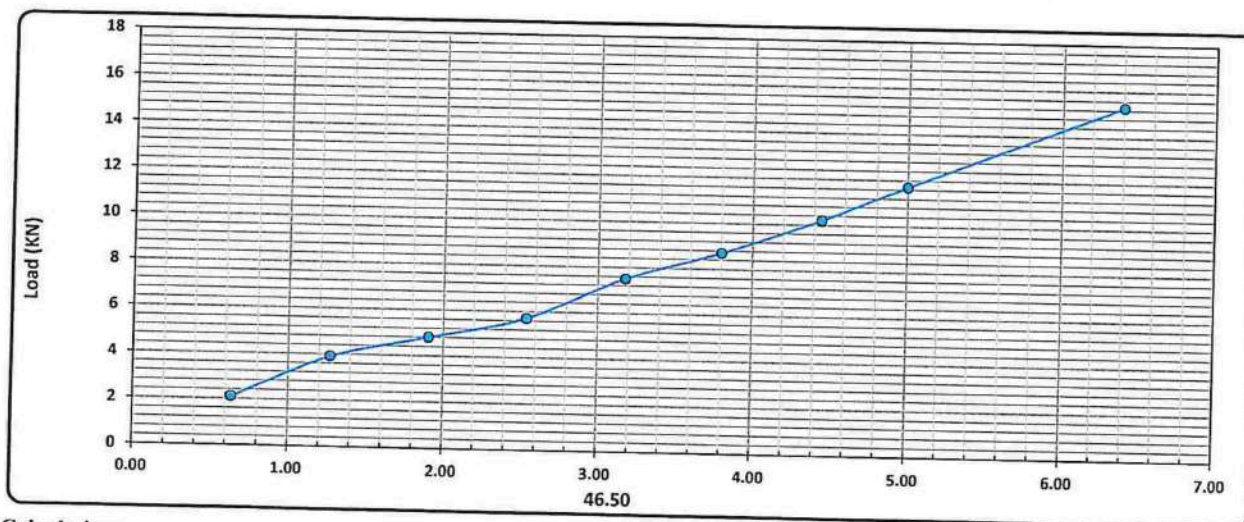
Compaction % for Mold	
Mold No.	3
Mold Vol. (cm ³)	2025
Mold WT. (gm)	5034
Mold WT. + Wet WT. (gm)	9670
Wet WT. (gm)	4636
Wet Density (g/cm ³)	2.289
Dry Density (g/cm ³)	2.149
Proctor Density (g/cm ³)	2.150
Compaction %	99.9

Mositure Ratio After Compacted Mold	
Tare No.	22
Tare WT. (gm)	54.1
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	144.1
3398	5.9
Dry WT. (gm)	90.0
Moisture Content %	6.6

Swelling	
Mold No.	3
Date	5-3-2023
Intial Height (mm)	4.00
Final Height (mm)	4.00
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Loading Reading :

46.50	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.07	0.13	0.16	0.19	0.25	0.29	0.34	0.39	0.51
Load (KN)	2.1	3.9	4.8	5.7	7.5	8.7	10.2	11.7	15.3



Calculations :-

Penteration (mm)	Load (Kn)	Standard Load (Ib)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR
2.50	5.70	13.4	42.7%			98 % عند نسبة 98
5.00	11.70	20.0	58.4%	100	98	41.9%
						57.3%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name :

Sign :

Abdallahomar
5/3/2023

MATERIAL INSPECTION REQUEST



Contractor Company	AL-FAYROUZ COMPANY			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ MOHAMED TAHA	<i>Mohamed Taha</i>									
Received by ER			MIR	C1 K.P 506	C2 EW	C3 CS	DD 2	MM 3	YY 23	HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp 506 Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS					
Location to be Used	FROM	TO	LEVEL			
	506+400	506+600	(-0.75)			
	506+000	506+200	(FERMA)			
	506+200	506+400	(-0.5)			
MAR Approval No				Date		
Supplier Name						
Test Requirement	Specification			Clause		
Reference Photos	Yes attached / No		Other			
Item	Description	Unit	Quantity	Arrival Date	Note	
1	SEIVE ANALYSIS	M ³	5000	2/3/2023		
2	ATTERBERG	M ³	5000	2/3/2023		
3	PROCTOR	M ³	5000	2/3/2023		
4	CBR	M ³	5000	5/3/2023		
Comments by:			Comments by:			

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Mohammed Mostafa</i>	<i>Mohammed</i>		
QA/QC *	<i>Abdallah Omar</i>	<i>Abdallah Omar</i>		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL INSPECTION REQUEST



Contractor Company	AL-FAYROUZ COMPANY			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ MOHAMED TAHA	<i>Mohamed Taha</i>									
Received by ER			MIR	C1 K.P 506	C2 EW	C3 CS	DD 2	MM 3	YY 23	HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp 506 Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS				
Location to be Used	FROM	TO	LEVEL		
	506+400	506+600	(-0.75)		
	506+000	506+200	(FERMA)		
	506+200	506+400	(-0.5)		
MAR Approval No				Date	
Supplier Name					
Test Requirement	Specification			Clause	
Reference Photos	Yes attached / No	Other			
Item	Description	Unit	Quantity	Arrival Date	Note
1	SEIVE ANALYSIS	M ³	5000	2/3/2023	
2	ATTERBERG	M ³	5000	2/3/2023	
3	PROCTOR	M ³	5000	2/3/2023	
4	CBR	M ³	5000	5/3/2023	
Comments by:		Comments by:			

APPROVAL STATUS

Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Mohammed M. S. H.</i>	<i>Mohammed</i>		
QA/QC *	<i>Abdallah omor</i>	<i>Abdallah omor</i>		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

(36)



ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.د. خالد منديل



Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA To MARSА MATROUH

From Station 504+000 To Station 568+177



Operating Lab

AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	5-3-2023	Code			
LOCATION	K.P (506+500)				
NAME COMPANY	AL Fauroz	FW (36)	zone	506+000	507+000

-visual inspection test

-Gradient test

-gradation of bulk materials

				SAMPLE WEIGHT [g]		27456.00		gm		
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	table classify	soil classify
Mass retained (g)	526.0	2452.0	2982.0	3214.0	2452.0	2687.0	2590.0			
Cumulative Retained (g)	526.0	2978.0	5960.0	9174.0	11626.0	14313.0	16903.0			
Cumulative Retained %	1.9	10.8	21.7	33.4	42.3	52.1	61.6		PRO	2.15
Cumulative Passing %	98.1	89.2	78.3	66.6	57.7	47.9	38.4		WC	7.80
									CBR	54.50

soft material gradation

sieve size	10	40	200	WT.OF sample		500.00		gm
Cumulative Retained (g)	36.60	213.80	381.00					
Cumulative Retained %	7.32	42.76	76.20					
Cumulative Passing %	92.68	57.24	23.80					

General gradient

sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	98.1	89.2	78.3	66.6	57.7	47.9	38.4	35.6	22.0	9.1

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	24.37%	18.99%	5.38%

Contractor

Consultant



Abdellahomar
5/3/2023

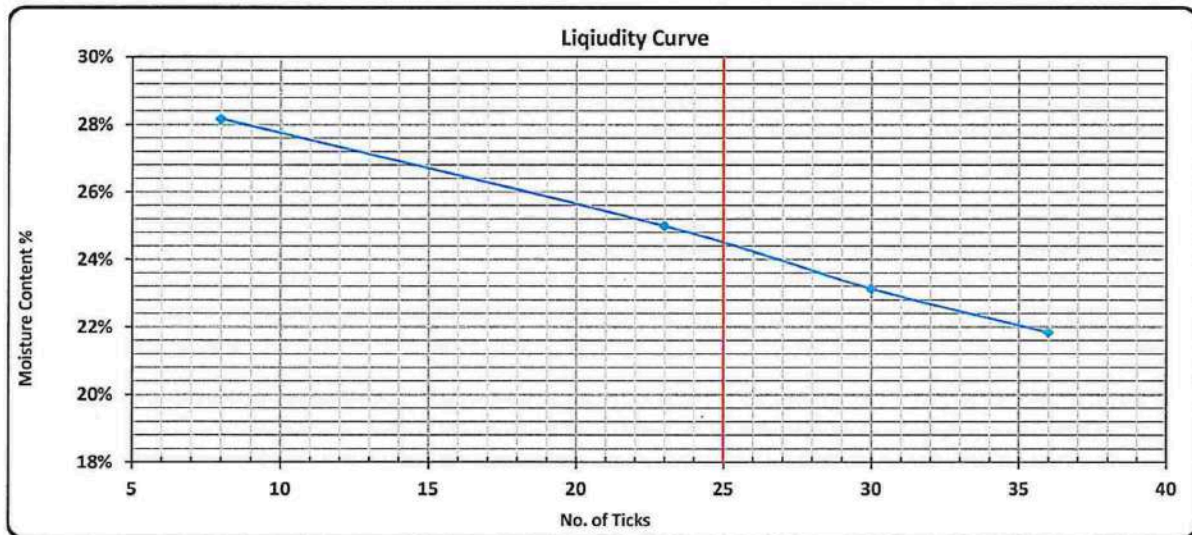
 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد قنديل	 SVS TRA SHAKER	Electric Express Train - HSR	 SASBIT الهيئة القومية للإنتاج والخدمات والبنية التحتية والتجارة والسياحة (SASBIT)
Operating Lab	AL Nuby Central Lab		

Plasticity and Liquidity Test -Atterberg Limits

:Testing Date	5-3-2023	:Code	Zone	506+000	507+000
:Location	K.P (506+500)	FW (36)			
: .Layer No	AL Fauroz				

-: Testing Results

Test	Liqud Limit				Plastic Limit	
No. of Ticks	8	23	30	36	-	-
Tare No.	10	19	73	45	8	7
Tare WT. (gm)	44.00	44.60	42.10	41.60	47.00	43.00
Tare WT. + Wet WT. (gm)	58.10	54.10	60.20	52.20	49.10	46.60
Tare WT. + Dry WT. (gm)	55.00	52.20	56.80	50.30	48.8	46.00
Water WT. (gm)	3.10	1.90	3.40	1.90	0.32	0.60
Dry WT. (gm)	11.00	7.60	14.70	8.70	1.78	3.00
Moisture Content %	28.2%	25.0%	23.1%	21.8%	18.0%	20.0%
Average %					19.0%	



L.L	P.L	P.I
24.4%	19.0%	5.38%

Lab. Specialist	Lab. Engineer	Consultant Engineer
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Name :

Name :

Name :

Sign :

Sign :

Sign :



Abdallah Omar
5/3/2023

PROCTOR TEST

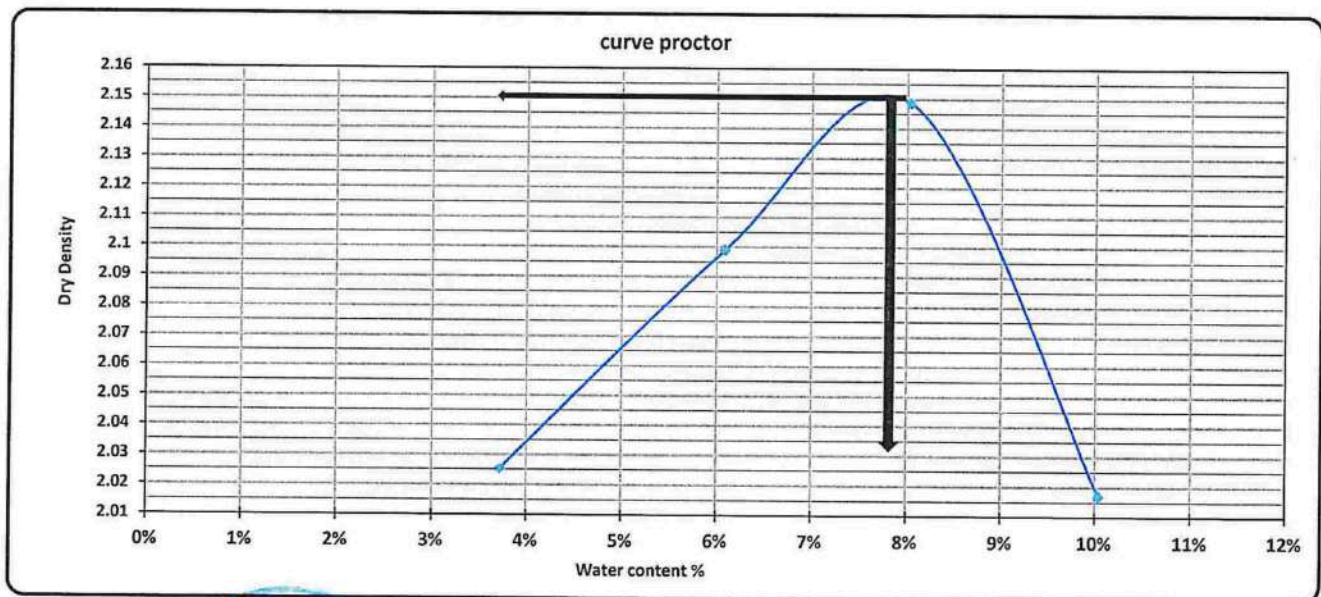
TESTING DATE:	5-3-2023	Code			
LOCATION	K.P (506+500)		zone	506+000	507+000
NAME COMPANY	AL Fauroz	FW (36)			

Weight of empty mold :	5764.0
Mold Volume:	2169.0

MAX Dry Density	2.15
Water content %	7.8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10321.0	10594.0	10799.0	10578	
WT. WET SOIL	4557.0	4830.0	5035.0	4814.0	
Wt. Density	2.101	2.227	2.321	2.219	

Tare No.	17	16	33	32	10	19	26	70		
Tare wt.	54.7	33.3	75.5	74.7	43.2	44.5	33.1	42.2		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.2	140.5	145.8	145.6	142.1	142.1	139.4	140.1		
Wt. Of water	4.8	9.5	4.2	4.4	7.9	7.9	10.6	9.9		
Wt. Of dry soil	123.0	267.8	70.3	70.9	98.9	97.6	106.3	97.9		
Water content %	3.9%	3.5%	6.0%	6.2%	8.0%	8.1%	10.0%	10.1%		
AV. Water content %	3.7%		6.1%		8.0%		10.0%			
Dry Density	2.026		2.099		2.149		2.017			

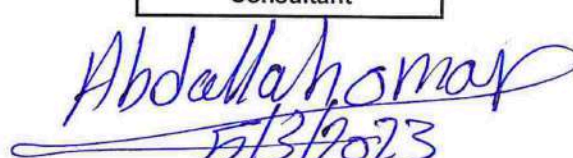


Contractor



 المهندس محمد عبد الحليم
 مدير العمل بالوكالة
 شركة فوكا

Consultant



 Abdallah Omar
 5/3/2023

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد فؤاد	 SVSTRA SHAKER	Electric Express Train - HSR	 الهيئة العامة للنقل وزارة النقل
Operating Lab	AL Nuby Central Lab		

California Bearing Ratio TEST

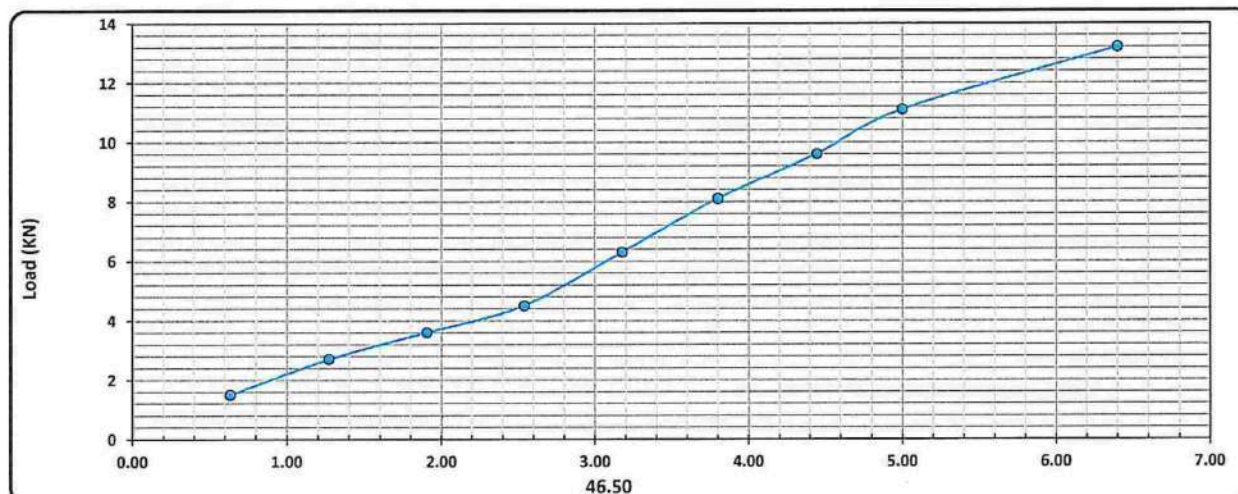
Testing Date :	8-3-2023	Code			
Location :	K.P (506+500)	FW (36)	FROM STA :	506+000	507+000
Company Name	AL Fauroz				

- : Test Results

Compaction % for Mold		Moisture Ratio After Compacted Mold		Swelling	
Mold No.	2	Tare No.	11	Mold No.	2
Mold Vol. (cm ³)	2122	Tare WT. (gm)	46.1	Date	8-3-2023
Mold WT. (gm)	4803	Tare WT. +Wet WT. (gm)	150	Initial Height (mm)	6.00
Mold WT. + Wet WT. (gm)	9710	Tare WT. +Dry WT. (gm)	142.6	Final Height (mm)	6.00
Wet WT. (gm)	4907	3398	7.4	Difference	0
Wet Density (g/cm ³)	2.312	Dry WT. (gm)	96.5	Sample Height (mm)	120.00
Dry Density (g/cm ³)	2.148	Moisture Content %	7.7	Swelling Ratio %	0.0%
Proctor Density (g/cm ³)	2.150				
Compaction %	99.9				

Loading Reading :

46.50	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.05	0.09	0.12	0.15	0.21	0.27	0.32	0.37	0.44
Load (KN)	1.5	2.7	3.6	4.5	6.3	8.1	9.6	11.1	13.2



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% عند نسبة 98
2.50	4.50	13.4	33.7%	100	98	33.1%
5.00	11.10	20.0	55.4%			54.4%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :

Consultant Engineer

Name :

Sign :

Abdallahomar

8/3/2023

MATERIAL INSPECTION REQUEST



Contractor Company	AL-FAYROUZ COMPANY		Designer Company	
Issued by Contractor	Name	Sign	Date	Time
	Eng/ MOHAMED TAHA	<i>Mohamed Taha</i>		
Received by ER			MIR	
	C1	C2	C3	DD
	K.P 506	EW	CS	4
				MM
				YY
				HH
				MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp 506 Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS				
Location to be Used	FROM	TO	LEVEL		
	506+200 506+600	506+400 506+860	(-0.25) (-0.75)		
MAR Approval No				Date	
Supplier Name					
Test Requirement	Specification			Clause	
Reference Photos	Yes attached / No	Other			
Item	Description	Unit	Quantity	Arrival Date	Note
1	SEIVE ANALYSIS	M ³	5000	4/3/2023	
2	ATTERBERG	M ³	5000	4/3/2023	
3	PROCTOR	M ³	5000	4/3/2023	
4	CBR	M ³	5000	7/3/2023	
Comments by:			Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Mohammed H. Stafa</i>	<i>Mohammed</i>		
QA/QC *	<i>Abdallah omor</i>	<i>Abdallah omor</i>		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



Contractor Company	AL-FAYROUZ			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	ENG/ MOHAMED TAHA	<i>Mohamed Taha</i>									
Received by ER			MAR	C1 KP. 506	C2 EW	C3 CS	DD 5	MM 3	YY 23	HH	MM

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		

Description of Materials	PREPARED SUBGRADE			
Location to be Used	FROM	TO	LEVEL	
	506+400	506+600	(-0.75)	
	506+000	506+200	(FERMA)	
	506+200	506+400	(-0.5)	
ITEM	SPECIFICATION	TEST REQUIRMENT	TEST RESULT ATTACHMENT	REMARKS
1	ASTM D 6913	SEIVE ANALYSIS	ACCORDING TO SPECIFICATION	
2	ASTM D 4318	ATTERBERG	3.74%	
3	ASTM D 1557	PROCTOR	2.15	
4	ASTM D 18832	CBR	55%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Mohamed Hossain</i>	<i>Mohammed</i>		
QA/QC *	<i>Abdallah Omar</i>	<i>Abdallah Omar</i>		
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

Electric Express Train - HSR

From El Ain El Sokhna City To El Alamein - MATROUH

Section - 7 From FOKA To MARS MATROUH

From Station 504+000 To Station 568+177

Operating lap

Al Tawkol Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	10-03-2023	code	ZONE	506+000	507+000
LOCATION	KP (506)	FZ (37)	Material		
NAME COMPANY	الفيروز		layer thickness		

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		20200.00		gm	table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	
Mass retained (g)	1652.0	1856.0	1796.0	1363.0	1228.0	1021.0	1182.0		soil classify
Cumulative Retained (g)	1652.0	3508.0	5304.0	6667.0	7895.0	8916.0	10098.0		A-1-b
Cumulative Retained %	8.2	17.4	26.3	33.0	39.1	44.1	50.0		2.15
Cumulative Passing %	91.8	82.6	73.7	67.0	60.9	55.9	50.0		8.7
									56.8

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	28.70	144.50	350.00					
Cumulative Retained %	5.74	28.90	70.00					
Cumulative Passing %	94.26	71.10	30.00					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	91.8	82.6	73.7	67.0	60.9	55.9	50.0	47.1	35.6	15.00

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	N.L	N.P	N.PI

Contractor

Consultant

Youssef Ragab

	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSА MATROUH From Station 504+000 To Station 568+177		

PROCTOR TEST

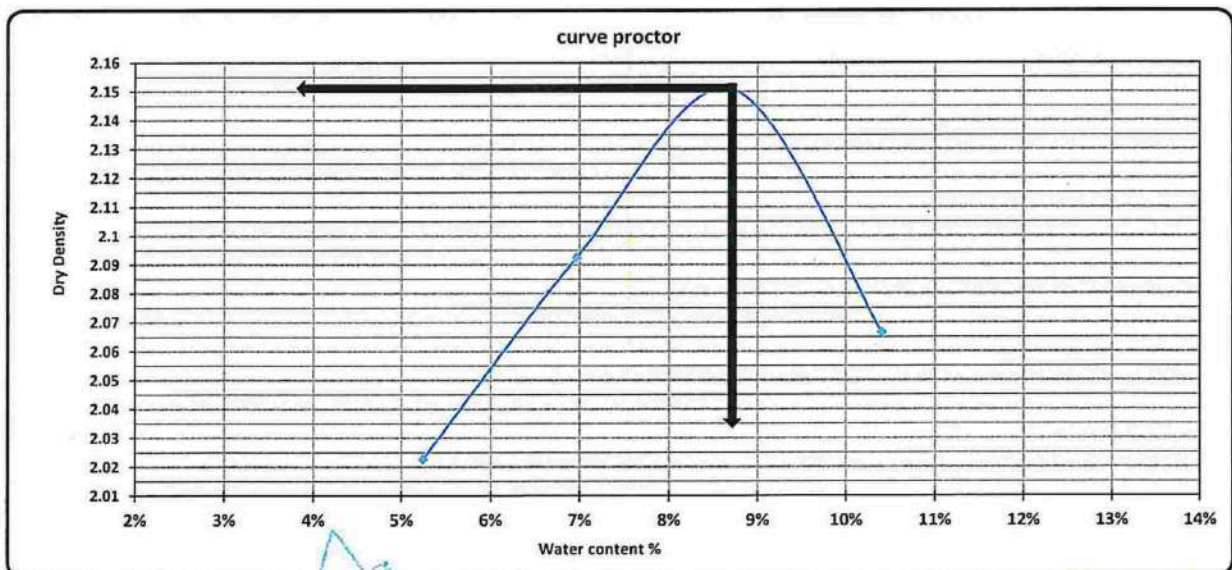
TESTING DATE:	10-03-2023	code	Station	506+000	507+000
LOCATION	KP (506)	FZ (37)	Material		
NAME COMPANY	الفيروز		layer thickness		

Weight of empty mold :	5620.0
Mold Volume:	2100.0

MAX Dry Density	2.15
Water content %	8.7%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10090.0	10320.0	10530.0	10411	
WT. WET SOIL	4470.0	4700.0	4910.0	4791.0	
Wt. Density	2.129	2.238	2.338	2.281	

Tare No.	18	3	11	17	21	6	10	12		
Tare wt.	55.45	55.66	55.26	56.52	54.42	53.97	55.66	55.41		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	145.4	145.2	144.0	143.8	142.4	142.3	141.0	141.2		
Wt. Of water	4.6	4.8	6.0	6.3	7.7	7.7	9.0	8.8		
Wt. Of dry soil	90.0	89.5	88.7	87.2	87.9	88.3	85.3	85.8		
Water content %	5.1%	5.4%	6.8%	7.2%	8.7%	8.7%	10.5%	10.3%		
AV. Water content %	5.2%		7.0%		8.7%		10.4%			
Dry Density	2.023		2.092		2.151		2.066			



Contractor

[Signature]

Consultant

Yasser Rajab

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ. د. خالد فخريل	 Electric Express Train - HSR	 الهيئة العامة للإستثمار والبنية التحتية (GASRT)
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California Bearing Ratio TEST

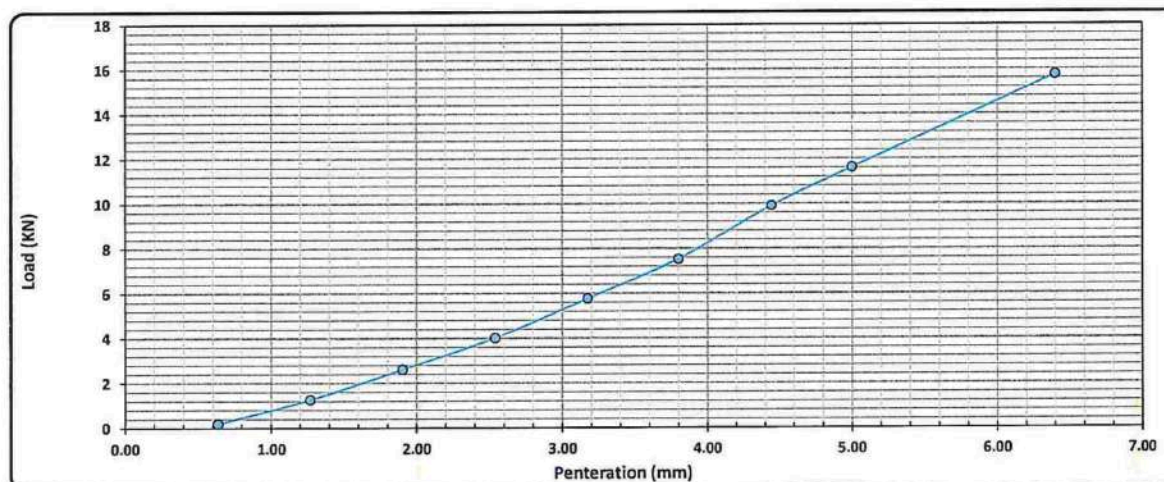
Testing Date :	14/3/2023	Code	FROM STA :	506+000	507+000
Location :	KP (506)	FZ (37)	: Material		
Company Name	الفيروز		: Layer Thickness		

- : Test Results

Compaction % for Mold		Mositure Ratio After Compacted Mold		Swelling	
Mold No.	3	Tare No.	10	Mold No.	3
Mold Vol. (cm ³)	2160	Tare WT. (gm)	54.3	Date	14/3/2023
Mold WT. (gm)	4820	Tare WT. +Wet WT. (gm)	150	Intial Height (mm)	6.00
Mold WT. + Wet WT. (gm)	9870	Tare WT. +Dry WT. (gm)	142.3	Final Height (mm)	6.00
Wet WT. (gm)	5050	Water WT. (gm)	7.7	Difference	0.00
Wet Density (g/cm ³)	2.338	Dry WT. (gm)	88.0	Sample Height (mm)	120
Dry Density (g/cm ³)	2.150	Moisture Content %	8.7	Swelling Ratio %	0.00%
Proctor Density (g/cm ³)	2.150				
Compaction %	100.0				

Loading Reading :

Pentration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (Kg)	21	140	290	445	640	835	1100	1290	1750
Load (KN)	0.2	1.3	2.6	4.0	5.8	7.5	9.9	11.6	15.8



Calculations :-

Pentration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	98 عند نسبة 98
2.50	4.01	13.4	30.0%	100	98	29.4%
5.00	11.61	20.0	58.0%			56.8%

Lab. Specialist Name : Sign :	Lab. Engineer Name : Sign :	Consultant Engineer Name : Sign :
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MATERIAL INSPECTION REQUEST



Contractor Company	AL-FAYROUZ COMPANY			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ MOHAMED TAHA	Mohamed Taha									
Received by ER			MIR	C1 K.P 506	C2 EW	C3 CS	DD 9	MM 3	YY 23	HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp 506 Note For Kilometer point only Start Km is used
CODE - 2	Work Activity		
CODE - 3	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS				
Location to be Used	FROM	TO	LEVEL		
	506+400	506+600	(-0.5)		
	506+200	506+400	(FERMA)		
	506+400	506+560	(-0.25)		
MAR Approval No				Date	
Supplier Name					
Test Requirement	Specification			Clause	
Reference Photos	Yes attached / No	Other			
Item	Description	Unit	Quantity	Arrival Date	Note
1	SEIVE ANALYSIS	M ³	5000	10/3/2023	
2	ATTERBERG	M ³	5000	10/3/2023	
3	PROCTOR	M ³	5000	10/3/2023	
4	CBR	M ³	5000	14/3/2023	
Comments by:			Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mohammed Mostafa	Mohammed		
QA/QC *	Yasser Rajab	Yasser Rajab		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



Contractor Company	AL-FAYROUZ			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	ENG/ MOHAMED TAHA	Mohamed Taha									
Received by ER			MAR	C1 KP. 506	C2 EW	C3 CS	DD 14	MM 3	YY 23	HH	MM

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		

Description of Materials	PREPARED SUBGRADE			
Location to be Used	FROM	TO	LEVEL	
	506+400	506+600	(-0.5)	
	506+200	506+400	(FERMA)	
	506+400	506+560	(-0.25)	
ITEM	SPECIFICATION	TEST REQUIRMENT	TEST RESULT ATTACHMENT	REMARKS
1	ASTM D 6913	SEIVE ANALYSIS	ACCORDING TO SPECIFICATION	
2	ASTM D 4318	ATTERBERG	N.P.L	
3	ASTM D 1557	PROCTOR	2.15	
4	ASTM D 18832	CBR	56.8%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mohammed Bstafa	Mohammed		
QA/QC *	Youssef Khab	Youssef Khab		
GARB**				
Employers Representative				

* Designer

** Alignment/Bridges: Culvert only

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد قنديل	 SASTRA SHAKER	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSA MATROUH From Station 504+000 To Station 569+177	 الوزارة المواصلات والاقتصاد جمهورية مصر العربية
Operating /ap	Al Tawkol Central Lab		

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	08-04-2023	code	ZONE	506+000	507+000
LOCATION	KP (506+500)	P.S.G.FZ (2)	Material		
NAME COMPANY	الميزوز		layer thickness		

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		22530.00		gm	table classify	
sieve size	2	15.0	1	4/3	2/1	8/3	# 4	PASS	soil classify	
Mass retained (g)	0.0	1500.0	3100.0	1885.0	3180.0	1555.0	4280.0		CLASS	A-1-a
Cumulative Retained (g)	0.0	1500.0	4600.0	6565.0	9745.0	11300.0	15580.0		PRO	2.18
Cumulative Retained %	0.0	6.7	20.4	29.1	43.3	50.2	69.2		WC	5.8
Cumulative Passing %	100.0	93.3	79.6	70.9	56.7	49.8	30.8		CBR	56.4
									L.A	32.40

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	75.00	195.00	325.00					
Cumulative Retained %	15.00	39.00	65.00					
Cumulative Passing %	85.00	61.00	35.00					

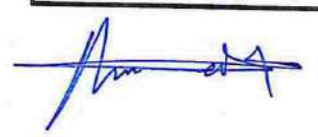
C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	93.3	79.6	70.9	56.7	49.8	30.8	26.2	18.8	10.80

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	22.62%	18.34%	5.18%

Contractor



Consultant



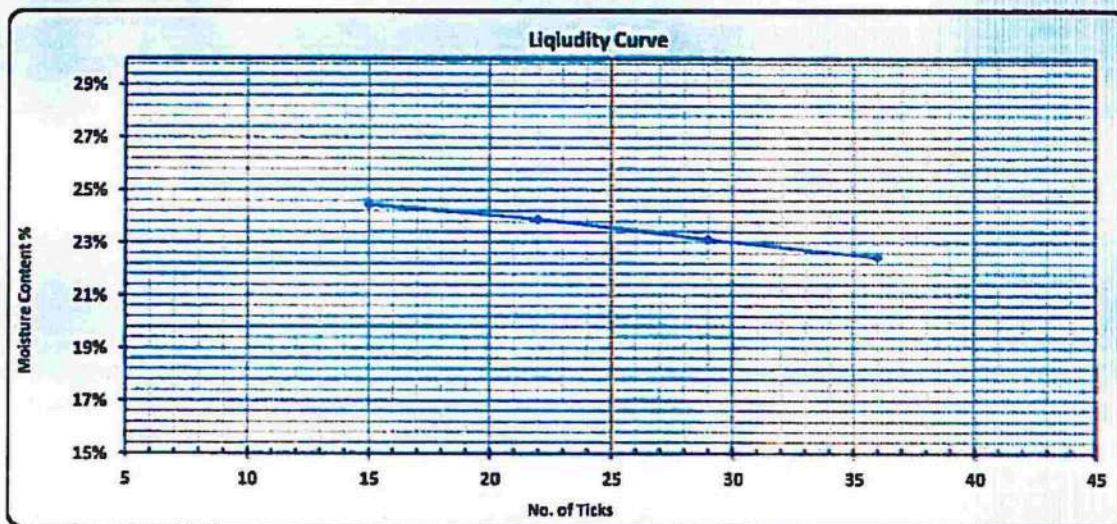
 	Electric Express Train - HSR	 
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Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	8/4/2023	Code:	FROM STA:	506+000	TO STA:	507+000
Location:	KP (506+500)	P.S.G FZ (2)	Material:			
Company Name	الفيروز		Layer Thickness :			

Testing Results :-

Test	Liquid Limit				Plastic Limit	
No. of Ticks	36	29	22	15	-	-
Tare No.	14	12	5	1	16	17
Tare WT. (gm)	53.59	54.75	56.28	57.96	56.52	56.52
Tare WT. + Wet WT. (gm)	73.83	73.17	74.07	81.08	60.58	59.89
Tare WT. + Dry WT. (gm)	70.12	69.71	70.64	76.54	60.0	59.4
Water WT. (gm)	3.71	3.46	3.43	4.54	0.62	0.53
Dry WT. (gm)	16.53	14.96	14.36	18.58	3.44	2.84
Moisture Content %	22.4%	23.1%	23.9%	24.4%	18.0%	18.7%
Average %					18.3%	



L.L	P.L	P.I
23.52%	18.34%	5.18%

Lab. Specialist	Lab. Engineer	Consultant Engineer
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Name :

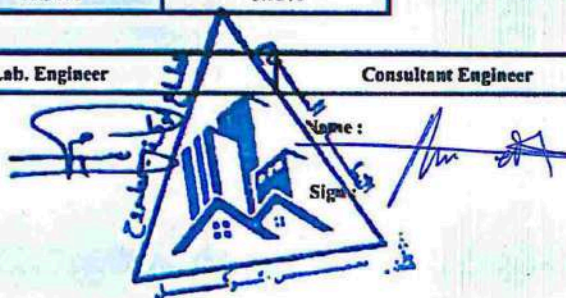
Name :

Name :

Sign :

Sign :

Sign :





Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA TO MARSA MATROUH
 From Station 504+000 To Station 508+177



PROCTOR TEST

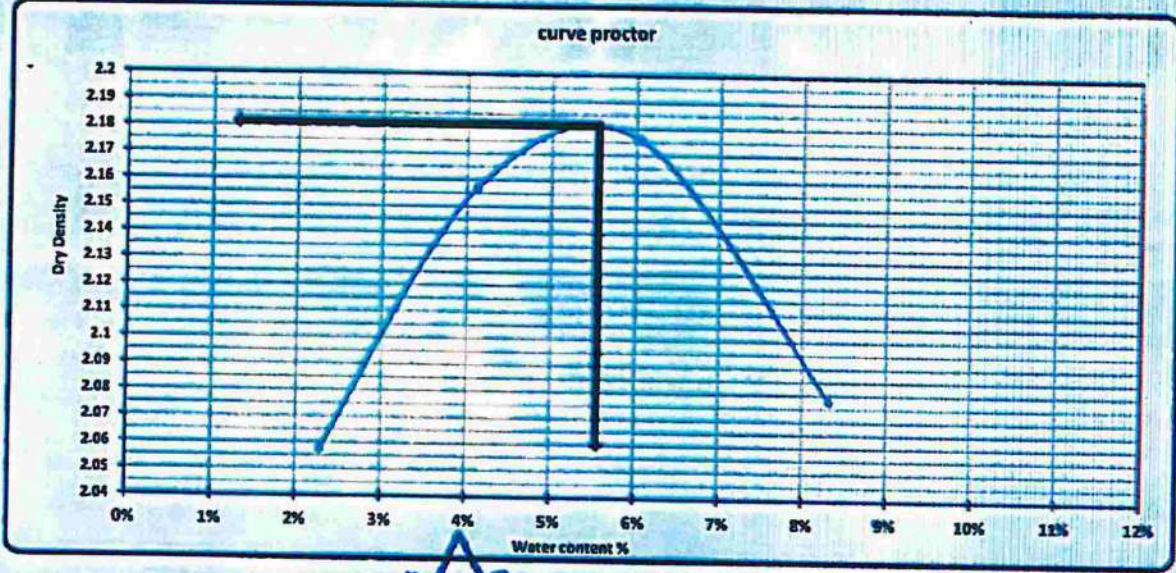
TESTING DATE:	09-04-2023	code	Station	506+000	507+000
LOCATION	KP (506+500)	P.S.G FZ (2)	Material		
NAME COMPANY	المشروع		layer thickness		

Weight of empty mold :	5620.0
Mold Volume:	2124.0

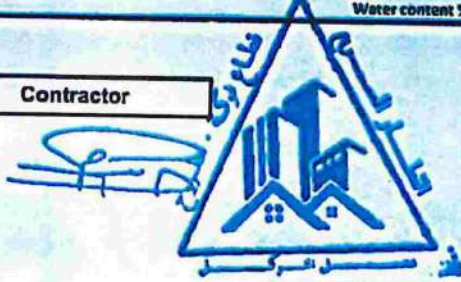
MAX Dry Density	2.18
Water content %	5.8%

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10090.0	10390.0	10521.0	10400	
WT. WET SOIL	4470.0	4770.0	4901.0	4780.0	
Wt. Density	2.105	2.246	2.307	2.250	

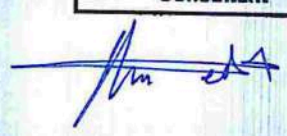
Tare No.	1	2	3	4	5	6	7	8		
Tare wt.	54.23	53.36	55.41	55.4	54.82	55.6	55.33	54.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	147.90	147.80	146.20	146.30	144.47	144.70	142.80	142.60		
Wt. Of water	2.1	2.2	3.8	3.7	5.5	5.3	7.2	7.4		
Wt. Of dry soil	93.7	94.4	90.8	90.9	89.7	89.1	87.5	87.9		
Water content %	2.2%	2.3%	4.2%	4.1%	6.2%	5.9%	8.2%	8.4%		
AV. Water content %	2.3%		4.1%		6.1%		8.3%			
Dry Density	2.057		2.157		2.176		2.078			



Contractor



Consultant



 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي ا.د. خالد فلاح	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA To MARSA MATROUH From Station 504+000 To Station 508+177		 الهيئة العامة للنقل وزارة النقل
	Absorption & Aggregate specific gravity AASHTO-T85		

TESTING DATE:	10/04/2023	code	Station	504+000	507+800
LOCATION	KP (506+500)	P.S.G FZ (2)	Material		
NAME COMPANY	البحر		layer thickness		

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2530	gm
Weight of saturated sample in water (C)	1520	gm
Weight of dry sample after heating (A)	2455	gm

Results:-

Bulk specific gravity = A / (B-C)	2.431	
Apparent specific gravity = A / (A-C)	2.626	
Absorption = (B-A)/A	3.055	%

Los Anglos Abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3380	32.40

Lab. Specialist

Name :

Sign :

Lab. Engineer

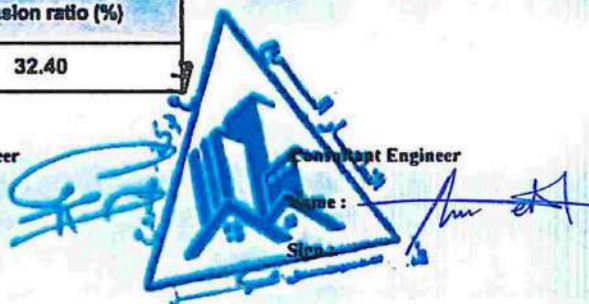
Name :

Sign :

Consultant Engineer

Name :

Sign :





Electric Express Train - HSR



California Bearing Ratio TEST

Testing Date:	4/12/2023	Code	FROM STA:	506+000	507+000
Location:	K.P (506+500)	P.S.G FZ (2)	: Material		
Company Name	الفيروز		: Layer Thickness		

-: Test Results

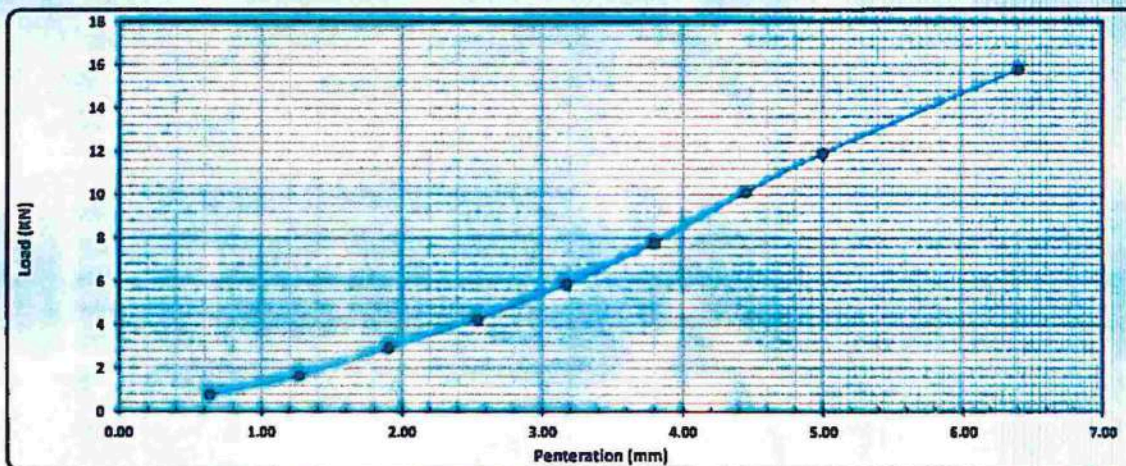
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm ³)	2120
Mold WT. (gm)	5310
Mold WT. + Wet WT. (gm)	10200
Wet WT. (gm)	4890
Wet Density (g/cm ³)	2.307
Dry Density (g/cm ³)	2.179
Proctor Density (g/cm ³)	2.180
Compaction %	100.0

Moisture Ratio After Compacted Mold	
Tare No.	3
Tare WT. (gm)	55.33
Tare WT. + Wet WT. (gm)	190
Tare WT. + Dry WT. (gm)	144.78
Water WT. (gm)	5.2
Dry WT. (gm)	89.5
Moisture Content %	5.8

Swelling	
Mold No.	1
Date	4/12/2023
Initial Height (mm)	5.00
Final Height (mm)	5.12
Difference	0.12
Sample Height (mm)	120
Swelling Ratio %	0.10%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (Kg)	85	185	325	475	654	863	1121	1321	1754
Load (KN)	0.8	1.7	2.9	4.3	5.9	7.8	10.1	11.9	15.8



Calculations :-

Penetration (mm)	Load (KN)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR (%)
2.50	4.28	13.4	32.0%	100	95	30.4%
5.00	11.89	20.0	59.4%			56.4%

Lab. Specialist

Lab. Engineer

Consultant Engineer

Name :

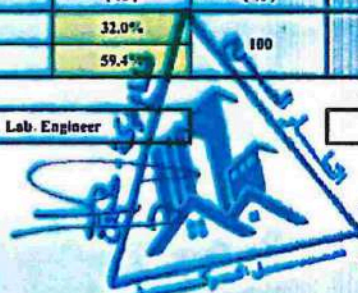
Name :

Name :

Sign :

Sign :

Sign :



MATERIAL INSPECTION REQUEST



Contractor Company	AL-FAYROUZ COMPANY			Designer Company							
Issued by Contractor	Name	Sign	Date	Time							
	Eng/ MOHAMED TAHA	Mohamed Taha									
Received by ER			MIR	C1 K.P 506	C2 EW	C3 CS	DD 18	MM 5	YY 23	HH	MM

CODE-1	S1 to S21 Station Reference	D1 to S3 Depot Reference	Kp 506 Note For Kilometer point only Start Km is used
CODE-2	Work Activity		
CODE-3	Sub Element of Activity		

Description of Materials	REPLACEMENT FILL MATERIAL RESULTS					
Location to be Used	FROM	TO	LEVEL			
	506+000	506+860	SuBBallast 1 (0.70)			
	506+000	506+860	SuBBallast 2 (0.90)			
MAR Approval No				Date		
Supplier Name						
Test Requirement	Specification			Clause		
Reference Photos	Yes attached / No			Other		
Item	Description	Unit	Quantity	Arrival Date	Note	
1	SEIVE ANALYSIS	M ³	5000	17/5/2023		
2	ATTERBERG	M ³	5000	17/5/2023		
3	LOS ANGLOS	M ³	5000	17/5/2023		
4	ABSORPTION & AGGREGATE SPECIFIC GRAVITY	M ³	5000	17/5/2023		
5	PROCTOR	M ³	5000	17/5/2023		
6	CBR	M ³	5000	17/5/2023		

Comments by:	Comments by:

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	Mohammed Mostafa	Mohammed		
QA/QC *	Youssef Ragab	Youssef Ragab		
GARB**				
Employers Representative				

* Designer

** Alignment / Bridges: Culvert Only

MATERIAL APPROVAL REQUEST



Contractor Company	AL-FAYROUZ		Designer Company																
Issued by Contractor	Name	Sign	Date	Time															
	ENG/ MOHAMED TAHA	<i>Mohamed Taha</i>																	
Received by ER			MAR																
			<table border="1"> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>DD</td> <td>MM</td> <td>YY</td> <td>HH</td> <td>MM</td> </tr> <tr> <td>KP. 506</td> <td>EW</td> <td>CS</td> <td>18</td> <td>5</td> <td>23</td> <td></td> <td></td> </tr> </table>	C1	C2	C3	DD	MM	YY	HH	MM	KP. 506	EW	CS	18	5	23		
C1	C2	C3	DD	MM	YY	HH	MM												
KP. 506	EW	CS	18	5	23														

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

Description of Materials	SUBBALLAST			
Location to be Used	FROM	TO	LEVEL	
	506+000 506+000	506+860 506+860	SuBBallast 1 (0.70) SuBBallast 2 (0.90)	
ITEM	SPECIFICATION	TEST REQUIRMENT	TEST RESULT ATTACHMENT	REMARKS
1	ASTM D 6913	SEIVE ANALYSIS	ACCORDING TO SPECIFICATION	
2	ASTM D 4318	ATTERBERG	N.P	
3	ASTM C 535	LOS ANGLOS	22	
4	ASTM C 127 ASTM D 6473	ABSORPTION & AGGREGATE SPECIFIC GRAVITY	2.502	
5	ASTM D 1557	PROCTOR	2.216	
6	ASTM D 18832	CBR	94.33%	
Comments by:		Comments by:		

APPROVAL STATUS				
Organisation	Name	Sign	Date	A-AWC-R
Contractor	<i>Mohammed M. S. S. S.</i>	<i>Mohammed M. S. S. S.</i>		
QA/QC *	<i>Youssef Rafab</i>	<i>Youssef Rafab</i>		
GARB**				
Employers Representative				

* Designer
** Alignment/Bridges: Culvert only

KK
ENGINEERING CONSULTING OFFICE
المكتب الاستشاري الهندسي
أ.د. خالد فاضل

Electric Express Train - HSR
From El Ain El Sokhna City To El Alamein - MATROUH
Section - 7 From FOKA To MARS MATROUH
From Station 504+000 To Station 568+177

الهيئة العامة للقناة
سلطة قناة السويس
(GARBL)

Operating Lab

NEGIDA CENTRAL LAB

PARTICLE SIZE DISTRIBUTION OF SUBBALLAST

TESTING DATE:	13-5-2023	Code	Zona	FROM STATION	TO STATION
LOCATION	KP 506+500	FZ-S1		506+000	507+000
NAME COMPANY	AL Fauroz				

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		23848.00		gm	Table classify	
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS	Soil Classify	A-1-a
Mass retained (g)	0.0	709.0	378.0	5838.0	3037.0	2130.0	4066.0		PRO	2.216
Cumulative Retained (g)	0.0	709.0	1087.0	6925.0	9962.0	12092.0	16158.0		WC	6.80
Cumulative Retained %	0.0	3.0	4.6	29.0	41.8	50.7	67.8		CBR	94.33%
Cumulative Passing %	100.0	97.0	95.4	71.0	58.2	49.3	32.2		Los Angles	22
									SPECIFIC .Gravity	2.502

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	141.00	322.00	426.00					
Cumulative Retained %	28.20	64.40	85.20					
Cumulative Passing %	71.80	35.60	14.80					

C-General gradient										
sieve size(in)	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
sieve size(mm)	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	97.0	95.4	71.0	58.2	49.3	32.2	23.2	11.5	4.8
SPECIFICATION	—	97	—	70 — 75	—	15 — 60	—	0 — 35	—	0 — 5

ATTERBERG LIMITS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	—	—	N.P

Contractor

Consultant

Youssef Rafab

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

 MINISTRY OF TRANSPORT AND INFRASTRUCTURE الميناء والنقل (MOT)	 RAILWAYS السكك الحديدية	Electric Express Train - HSR From El Ain El Sokhna City To El Alamein - MATROUH Section - 7 From FOKA TO MARSA MATROUH From Station 504+000 To Station 509+177		 MINISTRY OF PLANNING AND ECONOMIC DEVELOPMENT المخطط والتنمية الاقتصادية (MPE)

PROCTOR TEST (SUBBALLAST)

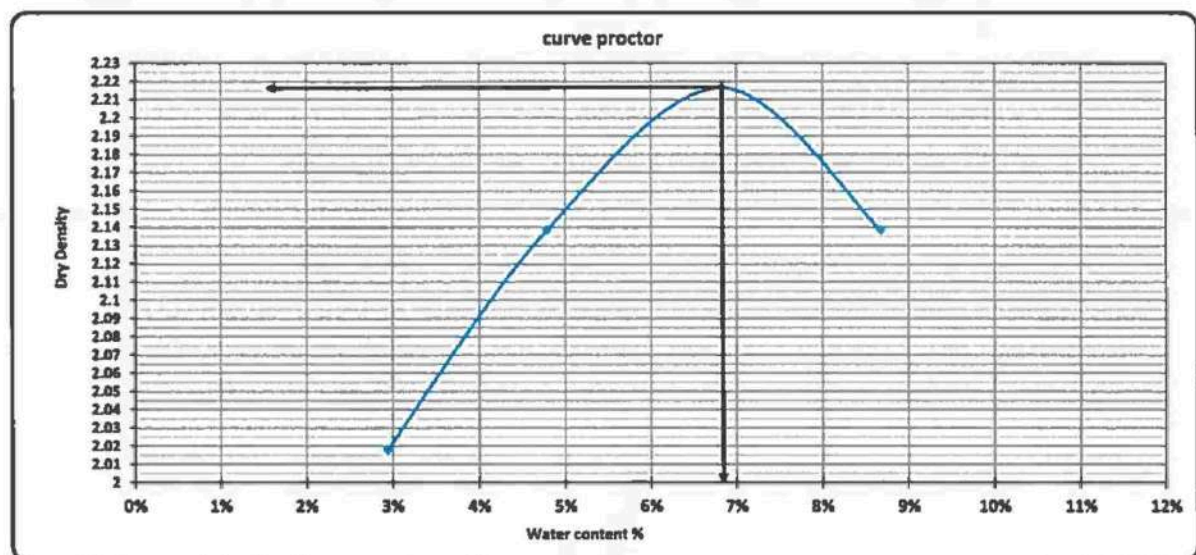
TESTING DATE:	045+060	Code	zone	FROM	TO
LOCATION	KP 508+500	FZ-S1		508+000	507+000
NAME COMPANY	AL Fauroz				

Weight of empty mold :	5698.0
Mold Volume:	2127.0

MAX Dry Density	2.216
Water content %	6.8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10117.0	10465.0	10735.0	10642	
WT. WET SOIL	4419.0	4767.0	5037.0	4944.0	
Wt. Density	2.078	2.241	2.368	2.324	

Tare No.	7	19	13	17	15	40	31	32		
Tare wt.	42.2	44.1	53.6	53.2	30.9	46.2	80.7	82.7		
Wt. Of wet soil & tare	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0		
Wt. Of dry soil & tare	146.3	146.5	144.2	144.0	141.5	141.7	139.3	139.4		
Wt. Of water	3.7	3.6	5.8	6.0	8.5	8.3	10.8	10.6		
Wt. Of dry soil	123.0	123.0	123.0	123.0	123.0	123.0	123.0	123.0		
Water content %	3.0%	2.9%	4.7%	4.9%	6.9%	6.7%	8.7%	8.6%		
AV. Water content %	2.9%		4.8%		6.8%		8.7%			
Dry Density	2.018		2.139		2.217		2.139			



Contractor

شركة نجدة للمقاولات
 العمل المركزي
 مشروع القطار السريع / فوكا - مطروح

Consultant

Youssef Rafab

 ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد قنديل	 SYSTEM	Electric Express Train - HSR	 الهيئة العامة للنقل م.د. محمد عبد الحليم م.د. محمد عبد الحليم
		From El Ain El Sokhna City To El Alamein - MATROUH	
		Section - 7 From FOKA To MARS MATROUH	
		From Station 504+000 To Station 508+177	

**Absorbtion & Aggregate specific gravity
AASHTO-T85**

SUBBALLAST

TESTING DATE:	15-05-2023	code	zone	FROM	TO
LOCATION	KP 506+500	FZ-S1		506+000	507+000
NAME COMPANY	AL Fauroz				

Weight of sample	4987	gm
Weight of saturated -dry surface sample (B)	5051	gm
Weight of saturated sample in water (C)	3077	gm
Weight of dry sample after heating (A)	4939	gm

Results:-

Bulk specific gravity = A / (B-C)	2.502	
Apparent specific gravity = A / (A-C)	2.653	
Asorbtlon = (B-A)/A	2.268	%

Los Anglos abrasion AASHTO-T96

Results:-

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%)
5000	3890	22

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :

Sign :



Consultant Engineer

Name : *Youssef Ragab*

Sign :



Electric Express Train - HSR



Operating Lab: NEGIDA CENTRAL LAB

California Bearing Ratio TEST

		SUBBALLAST			
Testing Date :	16/5/2023	Code	ZONE	FROM	TO
Location :	KP 506+500	FZ-S1		506+000	507+000
Company Name	AL Fauroz				

Test Results

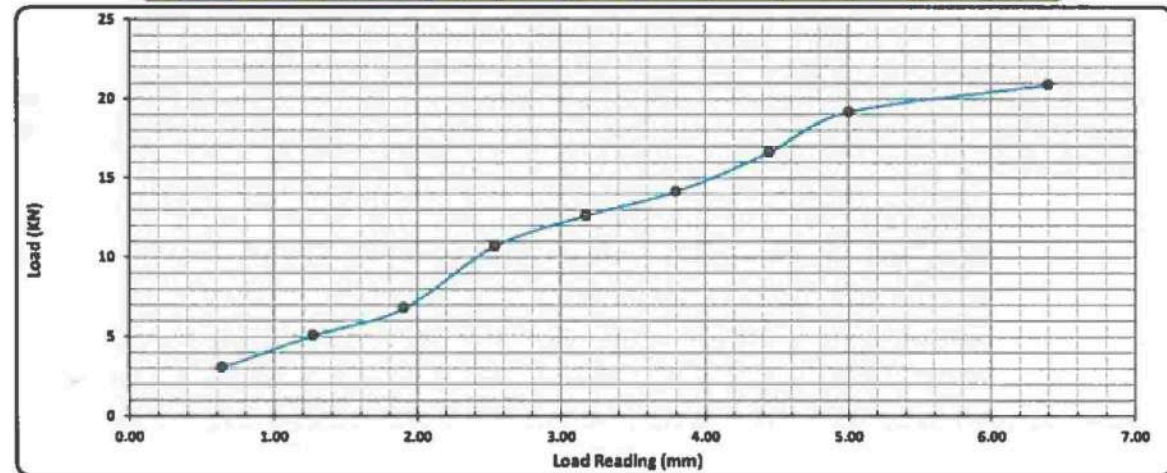
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm ³)	2134
Mold WT. (gm)	8227
Mold WT. + Wet WT. (gm)	13335
Wet WT. (gm)	5108
Wet Density (g/cm ³)	2.394
Dry Density (g/cm ³)	2.248
Proctor Density (g/cm ³)	2.316
Compaction %	101.4

Moisture Ratio After Compacted Mold	
Tare No.	15
Tare WT. (gm)	31.9
Tare WT. + Wet WT. (gm)	150
Tare WT. + Dry WT. (gm)	142.8
Water WT. (gm)	7.2
Dry WT. (gm)	110.9
Moisture Content %	6.5

Swelling	
Mold No.	2
Date	16/5/2023
Initial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Loading Reading :

Load Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load (KN)	3.1	5.1	6.8	10.7	12.6	14.2	16.6	19.2	20.9
Load (KG)	315.0	519.0	695.0	1092.0	1290.0	1444.0	1695.0	1955.0	2132.0



Calculations :-

Penetration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kpa)	(lb)	(%)	(%)	(%)	% على نسبة 100
2.50	10.70	13.4	89.3%	101.4	100	79.0%
5.00	19.16	20.0	95.7%			94.3%

Lab. Specialist

Name :

Sign :

Lab. Engineer

Name :



Consultant Engineer

Name : Youssef Ragab

Sign :