الهيئة العامة
للطرق والكباري

محضر استلام موقع

مشروع:أعمال الجسر الترابيّ لمشروع القطار الكهربائى السريع قطاع فوكة - مطروح فى المسافة من كم ٥٣٨+٠٠٠ الى كم ٥٤٨+٠٠٠ بطول ١٠ كم بالإتجاهين

تنفيذ: شركة صالح نوبي جروب للمقاولات

إشراف : المنطقة الخامسة – منطقة غرب الدلتا

طبقاً للعقد رقم (٢٠٢٣/٢٠٢٢/١٠٨٢) بتاريخ : ٢٠٢٢/١٢/٢٧

إنه في يوم الأحد الموافق ٢٠٢٢/١٢/٢٩ اجتمع كل من:-

١- السيد المهندس /إبراهيم عبد الله الحناوي مهندس العملية - الهيئة العامة للطرق والكباري

٢- السيد المهندس / محمد سمير عبد العظيم مدير مشروع - شركة صالح نوبي جروب للمقاولات

وذلك للمرور على مسار العملية المذكورة عاليه لاستلام الموقع :-

وقد تبين أن الموقع خالياً من العوائق الظاهرية ويسمح بالبدء في التنفيذ وبناء عليه يعتبر تاريخ ٢٠٢٢/١٢/٢٩ هو تاريخ استلام الموقع وبدء الأعمال بالعملية.

واقفل المحضر على ذلك ووقع الحضور

التوقيعات

١-

٢-

رئيس الإدارة المركزية
منطقة غرب الدلتا
الاسكندرية - مرسى مطروح
عقيد / مهندس
"هاني محمد محمود طه"

الهيئة العامة
للطـرق والكبـاري

قائمة الكميات الواردة بالمستخلص جاري (١٠)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٠٠٠+٥٣٨ الى الكم ٠٠٠+٥٤٨ بطول ١٠,٠ كيلو متر بالإتجاهين

رقم البند و بيانه : (٤ - ٢) بالمتر المكعب اعمال توريد وفرش طبقة أساس (Sub Ballast) من الاحجار الصلبة المتدرجة ناتج تكسير الكسارات والمطابقة للمواصفات

تـــنفيـــذ : شركة صالح نوبي جروب لنمقاولات

مقدار العمل السابق : 0 م٣

بيان الاعمال بالمقايسة	الموقع الكيلومتري		الابعاد (متر)		الكمية
	من	الى	طول	مساحة القطاع	
القطاع الأول	541+000	541+400	400	9.76185	3904.74
القطاع الثاني	542+300	542+600	300	15.5200	4656
القطاع الثالث	542+680	543+220	540	13.18963	7122.4
القطاع الرابع	543+340	544+160	820	5.85437	4800.58
القطاع الخامس	544+240	544+840	600	5.85532	3513.19
القطاع السادس	544+920	545+000	80	5.13938	411.15
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)					24408.06
الاجمالـي الكلـي (م٣)					24408.06

مهندس الشركة	مهندس الإستشاري (xyz)	مهندس الإستشاري	مهندس الهيئة العامة
م / وليد محمد عقاب	م / محمد خليل	مكتب د/خالد قنديل	للطرق والكباري
		م / خالد فوزي	م / ابراهيم الحناوي

الهيئة العامة
للطـرق والكبـاري

قائمة كميات بالمستخلص جارى (١٠)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٠٠٠+٥٣٨ الى الكم ٠٠٠+٥٤٨ بطول ١٠,٠ كيلو متر بالإتجاهين

رقم البند و بيانه : (٤-٢) علاوة مسافة النقل ٢٥١ كم لأعمال (Sub Ballast)

علاوة مسافة النقل

تـنفيـذ : شركة صالح نوبي جروب للمقاولات

مقدار العمل السابق : 0 م٣

بيان بالكميات	الكمية	
الكمية طبقاً لقوائم الكميات	24408.06	
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)		24408.06
الاجمالـي الكلي (م٣)		24408.06

مهندس الشركة	مهندس الإستشاري (xyz)	مهندس الإستشاري مكتب د/خالد قنديل	مهندس الهيئة العامة للطرق والكباري
م / وليد محمد عقاب	م / محمد خليل	م / خالد فوزي	م / ابراهيم الحناوي

الهيئة العامة
للطـرق والكبـاري

قائمة كميات بالمستخلص جارى (١٠)

مشروع : القطار الكهربائى السريع (العين السخنة -العاصمة الادارية -العلمين -مطروح) قطاع فوكة - مطروح فى المسافة من الكم ٠٠٠+٥٣٨ الى الكم ٠٠٠+٥٤٨ بطول ١٠,٠ كيلو متر بالإتجاهين

رقم البند وبيانه : (٢٠٤) رسوم الكارتة والموازين طبقاً للمادة(٢٦) من الشروط العامة والمواصفات طبقاً لما جاء بالقائمة الموحدة لاسعار الطرق لاعمال طبقة (Sub Ballast)

الكارتات والموازين

تـنفيـذ : شركة صالح ذيني جوزيب للمقاولات

مقدار العمل السابق : 0 م٣

بيان بالكميات	الكمية
الكمية طبقاً لقوائم الكميات	24408.06
اجمالي الكميات خلال فترة المستخلص الحالية (م٣)	24408.06
الاجمالـي الكلي (م٣)	24408.06

مهندس الشركة
م / وليد محمد عقاب

مهندس الإستشاري (xyz)
م / محمد خليل

مهندس الإستشاري
مكتب د/خالد فنديل
م / خالد فوزي

مهندس الهيئة العامة
للطرق والكباري
م / إبراهيم الحناوي

ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد فتحي SYSTRA 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 568+177	الهيئة القومية للأنفاق (CAPELI)

Opreating Lab.	AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	22-07-2023	Code	Zone	543+000	545+000
LOCATION	K,P (543+800)	NWB (S.B -1)	Material	Sub Ballast (4000m3)	
NAME COMPANY	AL Nuby Group		Layer Thickness	20	

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		36923.00		gm
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS
Mass retained (g)	0.0	478.0	0.0	10560.0	0.0	6871.0	9420.0	
Cumulative Retained (g)	0.0	478.0	478.0	11038.0	11038.0	17909.0	27329.0	
Cumulative Retained %	0.0	1.3	1.3	29.9	29.9	48.5	74.0	
Cumulative Passing %	100.0	98.7	98.7	70.1	70.1	51.5	26.0	

Table classify	
Soil Classify	A-1-a
PRO	2.225
WC	6.40
CBR	95.40
Los Angles	26.30
Specific gravity	2.589

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	183.00	349.00	414.00					
Cumulative Retained %	36.60	69.80	82.80					
Cumulative Passing %	63.40	30.20	17.20					

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	98.7	98.7	70.1	70.1	51.5	26.0	16.5	7.8	4.5
Limits		100-75	100-50	70-75		60-15		0-35	30-0	0-7

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

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

	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	

PROCTOR TEST

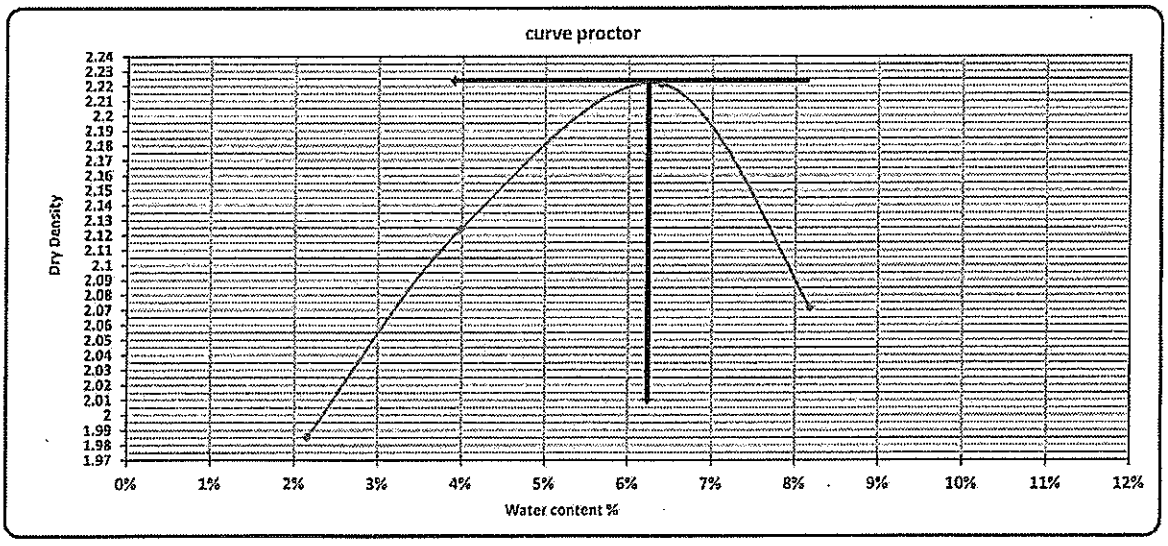
TESTING DATE:	23-07-203	Code	zone	543+000	545+000
LOCATION	K,P (543+800)	NWB (S.B -1)			
NAME COMPANY	AL Nuby Group				

Weight of empty mold :	6290.0
Mold Volume:	2142.0

MAX Dry Density	2.225
Water content %	6.4

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10635.0	11021.0	11353.0	11091	
WT. WET SOIL	4345.0	4731.0	5063.0	4801.0	
Wt. Density	2.028	2.209	2.364	2.241	

Tare No.	35	50	10	34	19	18	22	11		
Tare wt.	82.1	81	41.8	81.4	44	52.8	60.8	58		
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	148.6	148.5	145.8	147.4	143.8	144.0	143.1	143.2		
Wt. Of water	1.4	1.5	4.2	2.6	6.2	6.0	6.9	6.8		
Wt. Of dry soil	66.5	67.5	104.0	66.0	99.8	91.2	82.3	85.2		
Water content %	2.1%	2.2%	4.0%	3.9%	6.2%	6.6%	8.4%	8.0%		
AV.Water content %	2.2%		4.0%		6.4%		8.2%			
Dry Density	1.986		2.124		2.222		2.072			



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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	23-07-2023	code	zone	543+000	545+000
LOCATION	K.P (542+800)	NWB (S.B -1)			
NAME COMPANY	AL Nuby Group				

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2516	gm
Weight of saturated sample in water (C)	1560	gm
Weight of dry sample after heating (A)	2475	gm

Results:-

Bulk Specific gravity = A / (B-C)	2.589	
Apparent specific gravity = A /(A-C)	2.705	
Asorbtion = (B-A)/A	1.657	%

Los Angios abrasion AASHTO-T96

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%
5000	3685	26.3

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

Electric Express Train - HSR

Operating Lab: AL Nuby Central Lab

California Bearing Ratio TEST

Testing Date :	25-7-2023	Code	FROM STA :	543+000	545+000
Location :	K,P (543+800)	NWB (S.B -1)			
Company Name	AL Nuby Group				

- : Test Results

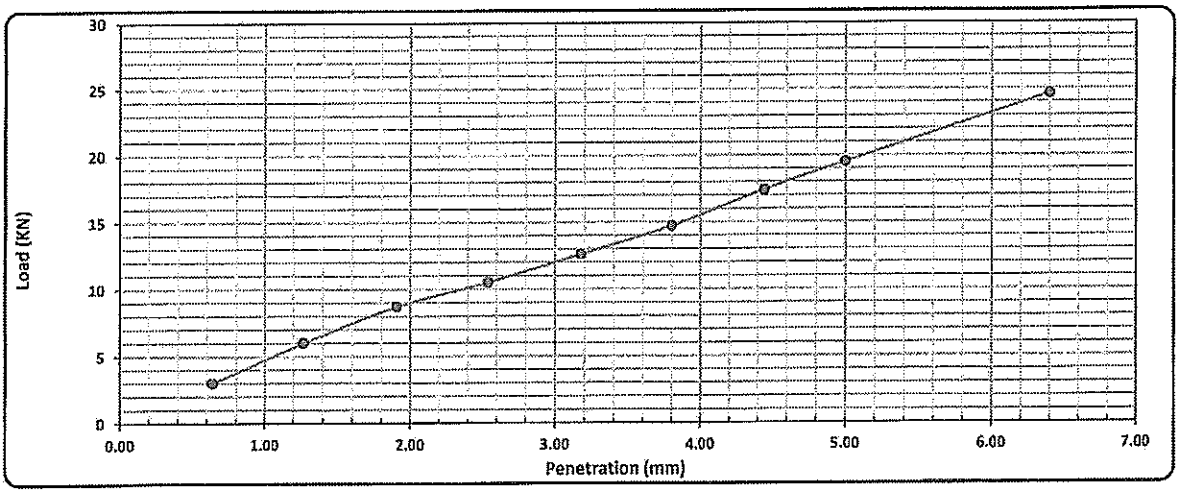
Compaction % for Mold	
Mold No.	5
Mold Vol. (cm^3)	2122
Mold WT. (gm)	4934
Mold WT. + Wet WT. (gm)	9945
Wet WT. (gm)	5011
Wet Density (g/cm^3)	2.361
Dry Density (g/cm^3)	2.220
Proctor Density (g/cm^3)	2.220
Compaction %	100.0

Mositure Ratio After Compacted Mold	
Tare No.	40
Tare WT. (gm)	46.4
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	143.8
3398	6.2
Dry WT. (gm)	97.4
Moisture Content %	6.4

Swelling	
Mold No.	5
Date	25-7-2023
Intial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	119.00
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.10	0.20	0.29	0.35	0.42	0.49	0.58	0.65	0.82
Load (KN)	3.0	6.0	8.7	10.5	12.6	14.7	17.4	19.5	24.6



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	98 عند نسبة %
2.50	10.50	13.4	78.7%	100	98	77.1%
5.00	19.50	20.0	97.4%			95.4%

Contractor Engineer	Lab Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 25/7/2023

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

Opreating Lab.	AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	27-07-2023	Code	Zone	541+000	545+000
LOCATION	K,P (543+800)	NWB (S.B -2)	Material	Sub Ballast (4000m3)	
NAME COMPANY	AL Nuby Group		Layer Thickness	20	

visual inspection test

Gradient test

-gradation of bulk materials				SAMPLE WEIGHT [g]		17933.00		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	404.0	1100.0	3335.0	2900.0	2944.0	3000.0		PRO	2.220
Cumulative Retained (g)	0.0	404.0	1504.0	4839.0	7739.0	10683.0	13683.0		WC	7.80
Cumulative Retained %	0.0	2.3	8.4	27.0	43.2	59.6	76.3		CBR	98.40
Cumulative Passing %	100.0	97.7	91.6	73.0	56.8	40.4	23.7		Los Angles	24.54
									Specific gravity	2.591

soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	178.00	325.00	420.00					
Cumulative Retained %	35.60	65.00	84.00					
Cumulative Passing %	64.40	35.00	16.00					

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	97.7	91.6	73.0	56.8	40.4	23.7	15.3	8.3	3.8
Limits		100-75	100-50	70-75		60-15		0-35	30-0	0-7

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

ntractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
me :	Name : م/ عبد العزيز ضربان ابراهيم	Name : Hassan
n :	Sign :	Sign : 30/7/2023

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

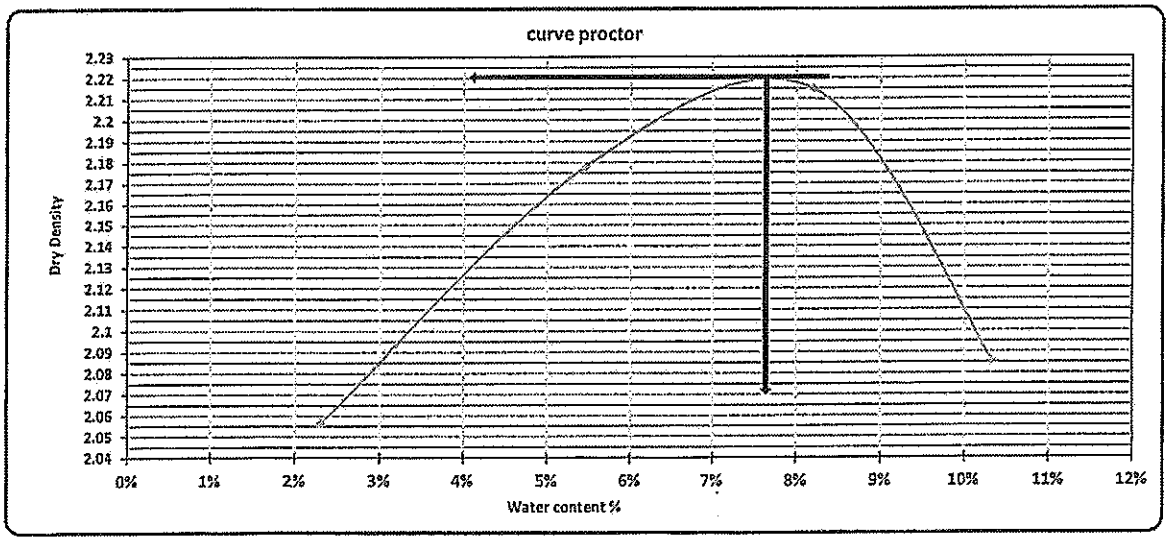
TESTING DATE:	27-7-2023	Code	zone	541+000	545+000
LOCATION	K,P (543+800)	NWB (S.B -2)			
NAME COMPANY	AL Nuby Group				

Weight of empty mold :	6290.0
Mold Volume:	2142.0

MAX Dry Density	2.220
Water content %	7.8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10797.0	11210.0	11423.0	11218	
WT. WET SOIL	4507.0	4920.0	5133.0	4928.0	
Wt. Density	2.104	2.297	2.396	2.301	

Tare No.	32	34	36	50	88	33	40	11		
Tare wt.	82.2	80.9	80.4	80.6	79.7	81.7	46.4	58		
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	148.6	148.3	146.4	146.4	144.9	144.6	140.5	141.2		
Wt. Of water	1.4	1.7	3.6	3.6	5.1	5.4	9.5	8.8		
Wt. Of dry soil	66.4	67.4	66.0	65.8	65.2	62.9	94.1	83.2		
Water content %	2.1%	2.5%	5.5%	5.5%	7.8%	8.6%	10.1%	10.6%		
A.V.Water content %	2.3%		5.5%		8.2%		10.3%			
Dry Density	2.056		2.178		2.215		2.085			



Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign :

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	27-7-2023	code	zone	541+000	545+000
LOCATION	K.P (543+800)	NWB (S.B -2)			
NAME COMPANY	AL Nuby Group				

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2517	gm
Weight of saturated sample in water (C)	1557	gm
Weight of dry sample after heating (A)	2487	gm

Results:-

Bulk Specific gravity = A / (B-C)	2.591	
Apparent specific gravity = A /(A-C)	2.674	
Asorbtion = (B-A)/A	1.206	%

Los Anglos abrasion AASHTO-T96

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%
5000	3773	24.54

Contractor Engineer :-	Lab. Engineer :	Consultant Engineer :-
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 30/7/2023

Electric Express Train - HSR

Operating Lab: AL Nuby Central Lab

California Bearing Ratio TEST

Testing Date :	30-7-2023	Code	FROM STA :	541+000	545+000
Location :	K,P (543+800)	NWB (S.B -2)			
Company Name	AL Nuby Group				

-: Test Results

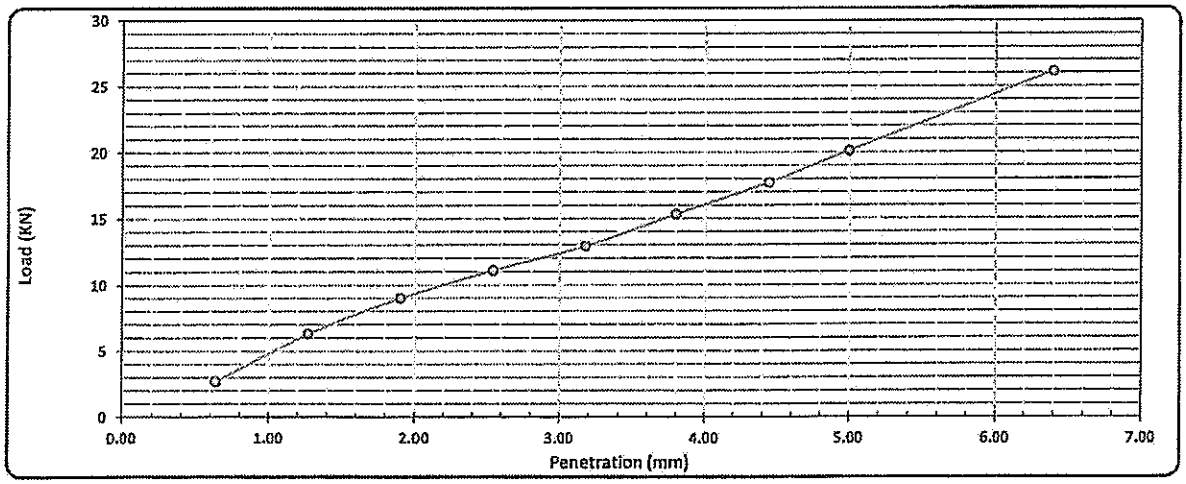
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2205
Mold WT. (gm)	5034
Mold WT. + Wet WT. (gm)	10305
Wet WT. (gm)	5271
Wet Density (g/cm^3)	2.390
Dry Density (g/cm^3)	2.219
Proctor Density (g/cm^3)	2.220
Compaction %	100.0

Mositure Ratio After Compacted Mold	
Tare No.	33
Tare WT. (gm)	81.7
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	145.1
Wet WT	4.9
Dry WT. (gm)	63.4
Moisture Content %	7.7

Swelling	
Mold No.	1
Date	30-7-2023
Intial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.09	0.21	0.30	0.37	0.43	0.51	0.59	0.67	0.87
Load (KN)	2.7	6.3	9.0	11.1	12.9	15.3	17.7	20.1	26.1



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	98 عند نسبة %
2.50	11.10	13.4	83.1%	100	98	81.5%
5.00	20.10	20.0	100.4%			98.4%

Contractor Engineer	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 30/7/2023

ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. فاد قنديل — SYSTRA 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 568+177	الهيئة العامة للطرق والكباري والنقل البري (GARBLT) — الهيئة القومية للأنفاق

Operational Lab: AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	03-08-2023	Code	Zone	541+000	543+300
LOCATION	K,P (542+600)	NWR (S.B -3)	Material	Sub Ballast (4000m3)	
NAME COMPANY	AL Nuby Group		Layer Thickness	20	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		63684.00		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	562.0	8116.0	7360.0	7140.0	3644.0	13528.0		PRO	2.230
Cumulative Retained (g)	0.0	562.0	8678.0	16038.0	23178.0	26822.0	40350.0		WC	6.80
Cumulative Retained %	0.0	0.9	13.6	25.2	36.4	42.1	63.4		CBR	96.50
Cumulative Passing %	100.0	99.1	86.4	74.8	63.6	57.9	36.6		Los Angles	24.54
									Specific gravity	2.591

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	113.00	295.00	415.00					
Cumulative Retained %	22.60	59.00	83.00					
Cumulative Passing %	77.40	41.00	17.00					

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	99.1	86.4	74.8	63.6	57.9	36.6	28.4	15.0	6.2
Limits		100-75	100-50	70-75		60-15		0-35	30-0	0-7

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

Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 7/8/2023

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

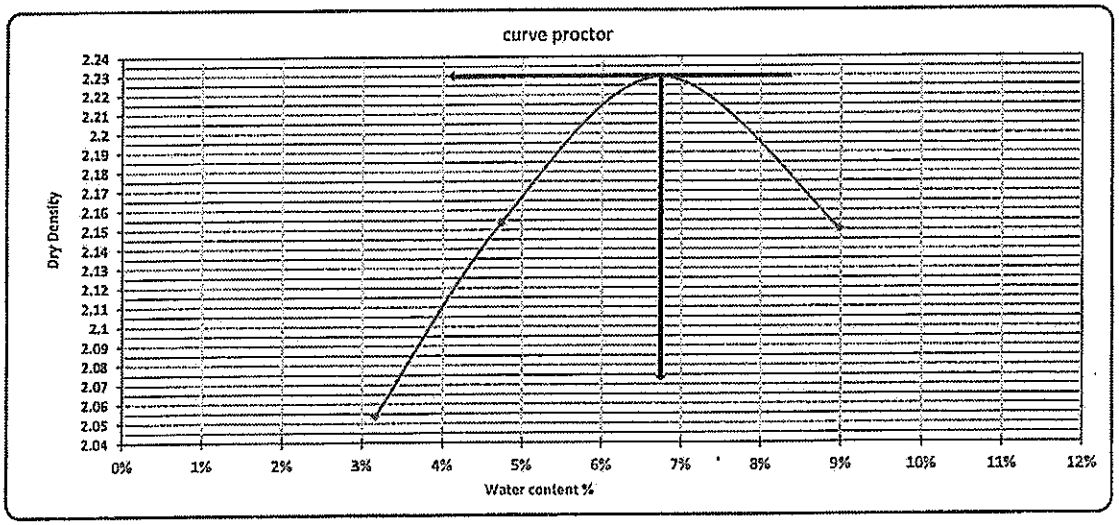
TESTING DATE:	03-08-2023	Code	zone	541+000	543+300
LOCATION	K.P (542+600)	NWB (S.B -3)			
NAME COMPANY	AL Nuby Group				

Weight of empty mold :	6275.0
Mold Volume:	2158.0

MAX Dry Density	2.230
Water content %	6.8

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10847.0	11142.0	11411.0	11331	
WT. WET SOIL	4572.0	4867.0	5136.0	5056.0	
Wt. Density	2.119	2.255	2.380	2.343	

Tare No.	15	4	32	19	40	7	31	16		
Tare wt.	31	58.3	82.7	44.1	46.2	42.2	80.7	41.5		
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	146.2	147.3	146.9	145.3	143.2	143.4	144.2	141.2		
Wt. Of water	3.8	2.7	3.1	4.7	6.8	6.6	5.8	8.8		
Wt. Of dry soil	115.2	89.0	64.2	101.2	97.0	101.2	63.5	99.7		
Water content %	3.3%	3.0%	4.8%	4.6%	7.0%	6.5%	9.1%	8.8%		
AV.Water content %	3.2%		4.7%		6.8%		9.0%			
Dry Density	2.054		2.153		2.229		2.150			



Contractor Engineer :-

Name :

Sign :

Lab. Engineer :-

Name :

Sign :

Consultant Engineer :-

Name : Hassan

Sign : 7/8/2023

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	05-08-2023	code	zone	541+000	543+300
LOCATION	K.P (542+600)	NWB (S.B -3)			
NAME COMPANY	AL Nuby Group				

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2525	gm
Weight of saturated sample in water (C)	1558	gm
Weight of dry sample after heating (A)	2476	gm

Results:-

Bulk Specific gravity = A / (B-C)	2.560	
Apparent specific gravity = A /(A-C)	2.697	
Asorbtion = (B-A)/A	1.979	%

Los Angles abrasion AASHTO-T96

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%
5000	3750	25

Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 7/8/2023

Electric Express Train - HSR

AL Nuby Central Lab

California Bearing Ratio TEST

Testing Date :	06-08-2023	Code	FROM STA :	541+000	543+300
Location :	K,P (542+600)	NWB (S.B -3)			
Company Name	AL Nuby Group				

-: Test Results

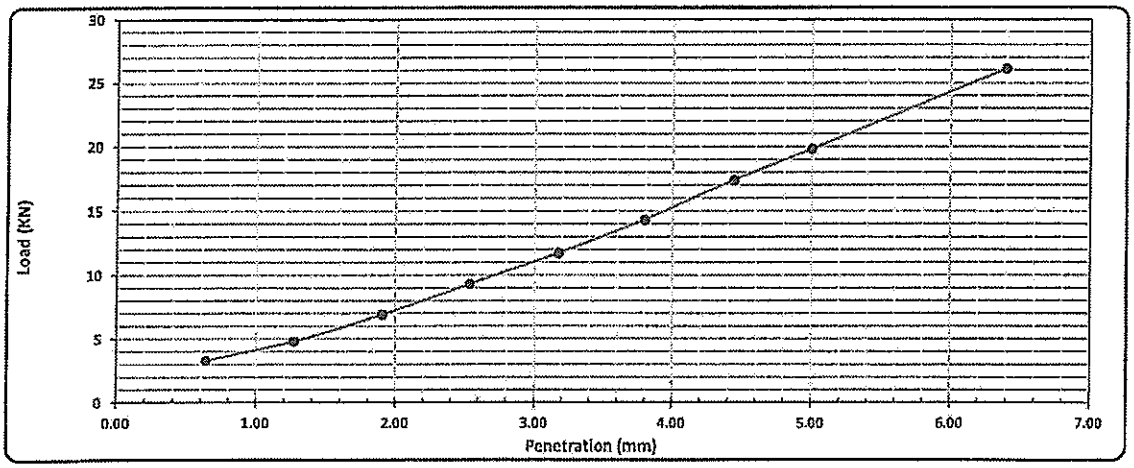
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2122
Mold WT. (gm)	4934
Mold WT. + Wet WT. (gm)	9982
Wet WT. (gm)	5048
Wet Density (g/cm^3)	2.379
Dry Density (g/cm^3)	2.230
Proctor Density (g/cm^3)	2.220
Compaction %	100.4

Mositure Ratio After Compacted Mold	
Tare No.	11
Tare WT. (gm)	59.2
Tare WT.+Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	144.3
Wet WT	5.7
Dry WT. (gm)	85.1
Moisture Content %	6.7

Swelling	
Mold No.	1
Date	06-08-2023
Intial Height (mm)	6.50
Final Height (mm)	6.50
Difference	0
Sample Height (mm)	119.00
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.11	0.16	0.23	0.31	0.39	0.48	0.58	0.66	0.87
Load (KN)	3.3	4.8	6.9	9.3	11.7	14.3	17.4	19.8	26.1



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% حلد نسبة 98
2.50	9.30	13.4	69.7%	100	98	68.0%
5.00	19.80	20.0	98.9%			96.5%

Contractor Engineer	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 7/8/2023

	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	

Operating Lab.	AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	06-08-2023	Code	Zone	541+000	543+300
LOCATION	K,P (542+600)	NWB (S.B -4)	Material	Sub Ballast (5000m3)	
NAME COMPANY	AL Nuby Group		Layer Thickness	20	

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		34173,00		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	575.0	1140.0	7998.0	10110.0	1120.0	1010.0		PRO	2.235
Cumulative Retained (g)	0.0	575.0	1715.0	9713.0	19823.0	20943.0	21953.0		WC	6.40
Cumulative Retained %	0.0	1.7	5.0	28.4	58.0	61.3	64.2		CBR	108.10
Cumulative Passing %	100.0	98.3	95.0	71.6	42.0	38.7	35.8		Los Angles	24.90
									Specific gravity	2.550

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	174.50	336.00	433.00					
Cumulative Retained %	34.90	67.20	86.60					
Cumulative Passing %	65.10	32.80	13.40					

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	98.3	95.0	71.6	42.0	38.7	35.8	23.3	11.7	4.8
Limits		100-75	100-60	70-75		60-15		0-35	30-0	0-7

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

Contractor Engineer :-	
Name :	
Sign :	

Lab Engineer :-	
Name :	
Sign :	

Consultant Engineer :-	
Name :	Hassan
Sign :	10/8/2023

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 668+177	

PROCTOR TEST

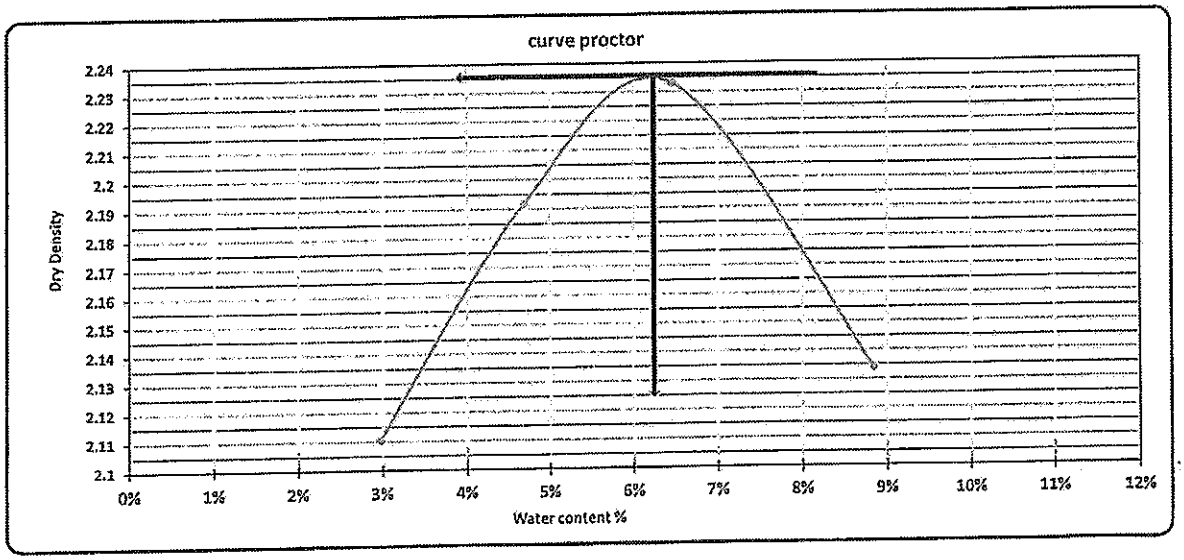
TESTING DATE:	06-08-2023	Code	zone	541+000	543+300
LOCATION	K,P (542+600)	NWB (S.B -4)			
NAME COMPANY	AL Nuby Group				

Weight of empty mold :	6275.0
Mold Volume:	2158.0

MAX Dry Density	2,235
Water content %	6.4

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10965.0	11226.0	11405.0	11287	
WT. WET SOIL	4690.0	4951.0	5130.0	5012.0	
Wt. Density	2.173	2.294	2.377	2.323	

Tare No.	11	22	18	7	15	47	17	25		
Tare wt.	56.5	56.5	45	40.5	31.4	47.4	41.5	56.5		
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	146.6	148.0	145.3	145.1	143.0	143.6	140.5	143.0		
Wt. Of water	3.4	2.0	4.7	4.9	7.0	6.4	9.5	7.0		
Wt. Of dry soil	90.1	91.5	100.3	104.6	111.6	96.2	99.0	86.5		
Water content %	3.8%	2.2%	4.7%	4.7%	6.3%	6.7%	9.6%	8.1%		
AV.Water content %	3.0%		4.7%		6.5%		8.8%			
Dry Density	2.110		2.192		2.233		2.134			



Contractor Engineer :-

Name :

Sign :

Lab. Engineer :-

Name :

Sign :

Consultant Engineer :-

Name : Hassan

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 568+177

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	07-08-2023	code	zone	541+000	543+300
LOCATION	K.P (542+600)	NWB (S.B -4)			
NAME COMPANY	AL Nuby Group				

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2505	gm
Weight of saturated sample in water (C)	1540	gm
Weight of dry sample after heating (A)	2466	gm

Results:-

Bulk Specific gravity = A / (B-C)	2.555	
Apparent specific gravity = A /(A-C)	2.663	
Asorbtion = (B-A)/A	1.582	%

Los Anglos abrasion AASHTO-T96

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%
5000	3755	24.9

Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 10/8/2023

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	10-08-2023	Code	FROM STA :	541+000	543+300
Location :	K,P (542+600)	NWB (S.B -4)			
Company Name	AL Nuby Group				

- : Test Results

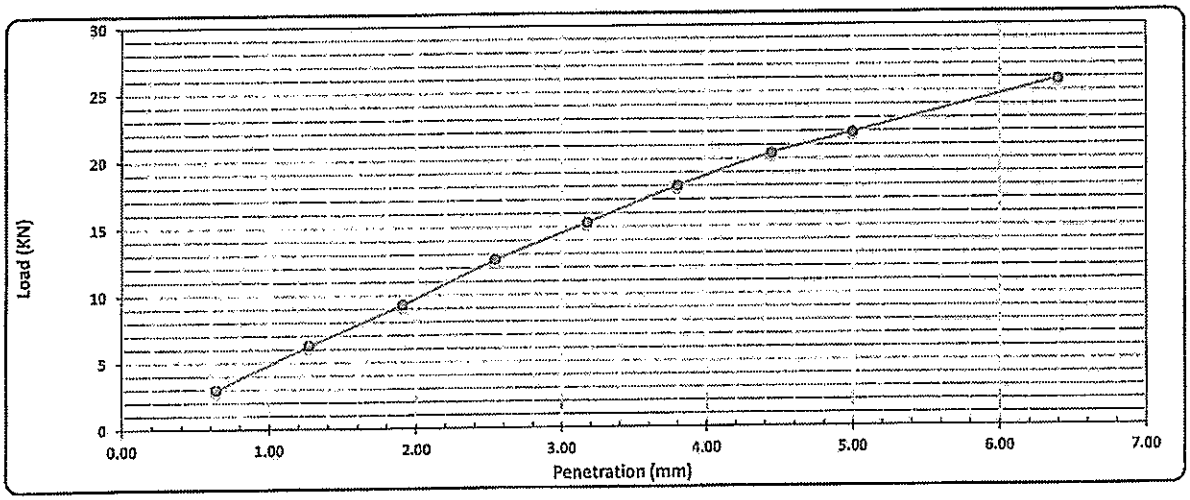
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	2205
Mold WT. (gm)	5034
Mold WT. + Wet WT. (gm)	10213
Wet WT. (gm)	5179
Wet Density (g/cm^3)	2.349
Dry Density (g/cm^3)	2.216
Proctor Density (g/cm^3)	2.235
Compaction %	99.1

Mositure Ratio After Compacted Mold	
Tare No.	22
Tare WT. (gm)	58.1
Tare WT. +Wet WT. (gm)	158
Tare WT. +Dry WT. (gm)	144.8
Wet WT	5.2
Dry WT. (gm)	86.7
Moisture Content %	6.0

Swelling	
Mold No.	1
Date	10-08-2023
Intial Height (mm)	5.50
Final Height (mm)	5.50
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.10	0.21	0.31	0.42	0.51	0.60	0.68	0.73	0.86
Load (KN)	3.0	6.3	9.3	12.6	15.3	18.0	20.4	21.9	25.8



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% عند نسبة 98
2.50	12.60	13.4	94.4%	99	98	93.3%
5.00	21.90	20.0	109.4%			108.1%

Contractor Engineer	Lab Engineer	Consultant Engineer
Name :	Name :	Name : Hassan
Sign :	Sign :	Sign : 10-8-2023

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	

Operating Lab.	AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	13-8-2023	Code	Zone	542+000	545+000
LOCATION	K,P (543+800)	NWB (S.B -5)	Material	Sub Ballast (5000m3)	
NAME COMPANY	AL Nuby Group		Layer Thickness	20	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		29887.00		gm
sieve size	2	1.5	1	4/3	2/1	3/3	# 4	PASS
Mass retained (g)	0.0	820.0	1544.0	5655.0	6577.0	4499.0	3720.0	
Cumulative Retained (g)	0.0	820.0	2364.0	8019.0	13596.0	18095.0	21815.0	
Cumulative Retained %	0.0	2.7	7.9	26.8	45.5	60.5	73.0	
Cumulative Passing %	100.0	97.3	92.1	73.2	54.5	39.5	27.0	

Table classify	
Soil Classify	A-1-a
PRO	2.25
WC	6.30
CBR	96.90
Los Angles	25.10
Specific gravity	2.554

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	140.00	320.00	430.00					
Cumulative Retained %	28.00	64.00	86.00					
Cumulative Passing %	72.00	36.00	14.00					

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	97.3	92.1	73.2	54.5	39.5	27.0	19.4	9.7	3.8
Limits		100-75	100-60	70-75		60-15		0-35	30-0	0-7

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

Contractor Engineer :-	
Name :	
Sign :	

Lab. Engineer :-	
Name :	
Sign :	

Consultant Engineer :-	
Name :	Hassan
Sign :	15/8/2023

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

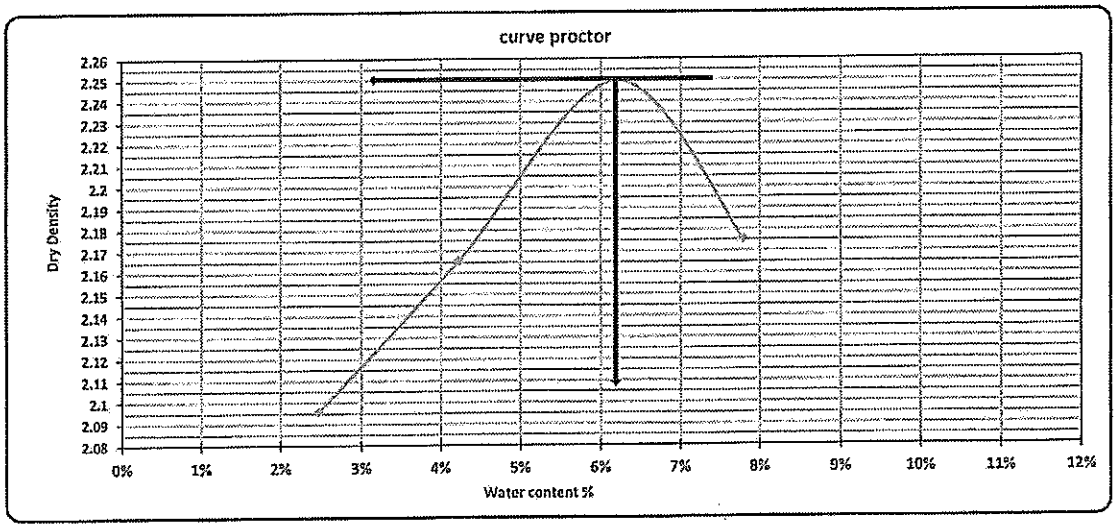
TESTING DATE:	13-8-2023	Code	zone	542+000	545+000
LOCATION	K,P (543+800)	NWB (S.B -6)			
NAME COMPANY	AL Nuby Group				

Weight of empty mold :	6275.0
Mold Volume:	2158.0

MAX Dry Density	2.25
Water content %	6.3

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10910.0	11146.0	11430.0	11335	
WT. WET SOIL	4635.0	4871.0	5155.0	5060.0	
Wt. Density	2.148	2.257	2.389	2.345	

Tare No.	31	32	35	88	34	36	15	12		
Tare wt.	80.5	82.6	81.5	75.5	80.7	80.4	33	52.6		
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	148.5	148.2	147.2	147.0	146.0	145.9	141.5	143.0		
Wt. Of water	1.5	1.8	2.8	3.0	4.0	4.1	8.5	7.0		
Wt. Of dry soil	68.0	65.6	65.7	71.5	65.3	65.5	108.5	90.4		
Water content %	2.2%	2.7%	4.3%	4.2%	6.1%	6.3%	7.8%	7.7%		
AV.Water content %	2.5%		4.2%		6.2%		7.8%			
Dry Density	2.096		2.166		2.249		2.175			



Contractor Engineer :-

Name :

Sign :

Lab. Engineer :-

Name :

Sign :

Consultant Engineer :-

Name : Hassan

Sign : 15-8-2023

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

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	13-08-2023	code	zone	542+000	544+000
LOCATION	K.P (542+600)	NWB (S.B -5)			
NAME COMPANY	AL Nuby Group				

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2520	gm
Weight of saturated sample in water (C)	1545	gm
Weight of dry sample after heating (A)	2490	gm

Results:-

Bulk Specific gravity = A / (B-C)	2.554	
Apparent specific gravity = A /(A-C)	2.635	
Asorbtion = (B-A)/A	1.205	%

Los Angios abrasion AASHTO-T96

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%
5000	3745	25.1

Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name :	Name :	Name : 15/8/2023
Sign :	Sign :	Sign :

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	15-8-2023	Code	FROM STA :	542+000	545+000
Location :	K,P (543+800)	NWB (S.B -5)			
Company Name	AL Nuby Group				

- : Test Results

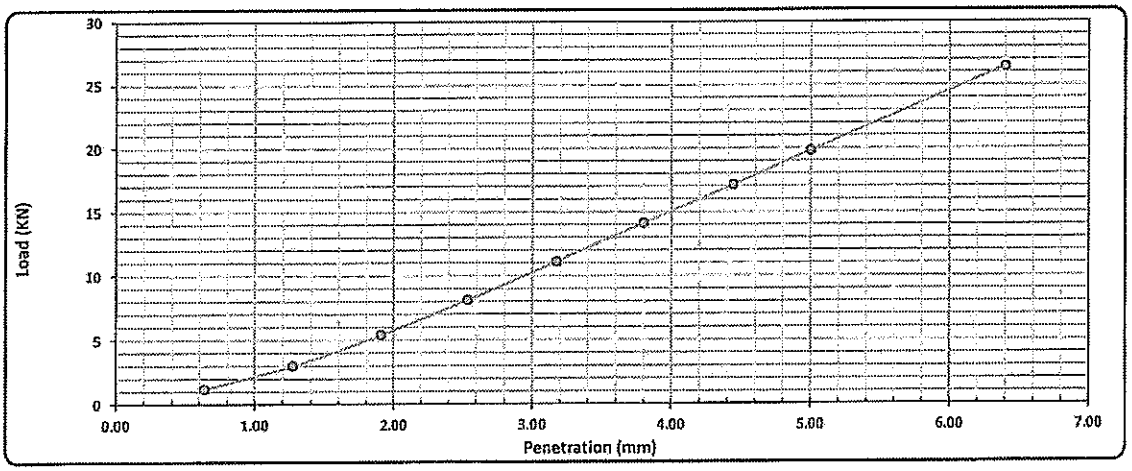
Compaction % for Mold	
Mold No.	2
Mold Vol. (cm^3)	2122
Mold WT. (gm)	4803
Mold WT. + Wet WT. (gm)	9875
Wet WT. (gm)	5072
Wet Density (g/cm^3)	2.390
Dry Density (g/cm^3)	2.249
Proctor Density (g/cm^3)	2.250
Compaction %	100.0

Mositure Ratio After Compacted Mold	
Tare No.	40
Tare WT. (gm)	46.4
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	143.9
Wet WT	6.1
Dry WT. (gm)	97.5
Moisture Content %	6.3

Swelling	
Mold No.	2
Date	15-8-2023
Intial Height (mm)	6.00
Final Height (mm)	6.00
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.04	0.10	0.18	0.27	0.37	0.47	0.57	0.66	0.88
Load (KN)	1.2	3.0	5.4	8.1	11.1	14.1	17.1	19.8	26.4



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	98 عند نسبة %
2.50	8.10	13.4	60.7%	100	98	59.5%
5.00	19.80	20.0	98.9%			96.9%

Contractor Engineer	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : 15/8/2023
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 568+177	

Operating Lab.	AL Nuby Central Lab

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	16-8-2023	Code	Zone	542+000	545+000
LOCATION	K,P (542+600)	NWB (S.B -6)	Material	Sub Ballast (5000m3)	
NAME COMPANY	AL Nuby Group		Layer Thickness	20	

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		30264.00		gm
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS
Mass retained (g)	0.0	799.0	2500.0	5420.0	5190.0	3255.0	3600.0	
Cumulative Retained (g)	0.0	799.0	3299.0	8719.0	13909.0	17164.0	20764.0	
Cumulative Retained %	0.0	2.6	10.9	28.8	46.0	56.7	68.6	
Cumulative Passing %	100.0	97.4	89.1	71.2	54.0	43.3	31.4	

Table classify	
Soil Classify	A-1-a
PRO	2.23
WC	7.00
CBR	98.40
Los Angles	24.96
Specific gravity	2.574

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	118.00	299.00	417.00					
Cumulative Retained %	23.60	59.80	83.40					
Cumulative Passing %	76.40	40.20	16.60					

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	97.4	89.1	71.2	54.0	43.3	31.4	24.0	12.6	5.2
Limits		100-75	100-60	70-75		60-15		0-35	30-0	0-7

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

Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name : ahmed abdelmoaty	Name :	Name : mohamed elsaid
Sign : abdelmoaty	Sign :	Sign : m.elsaid

21-8-2023

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

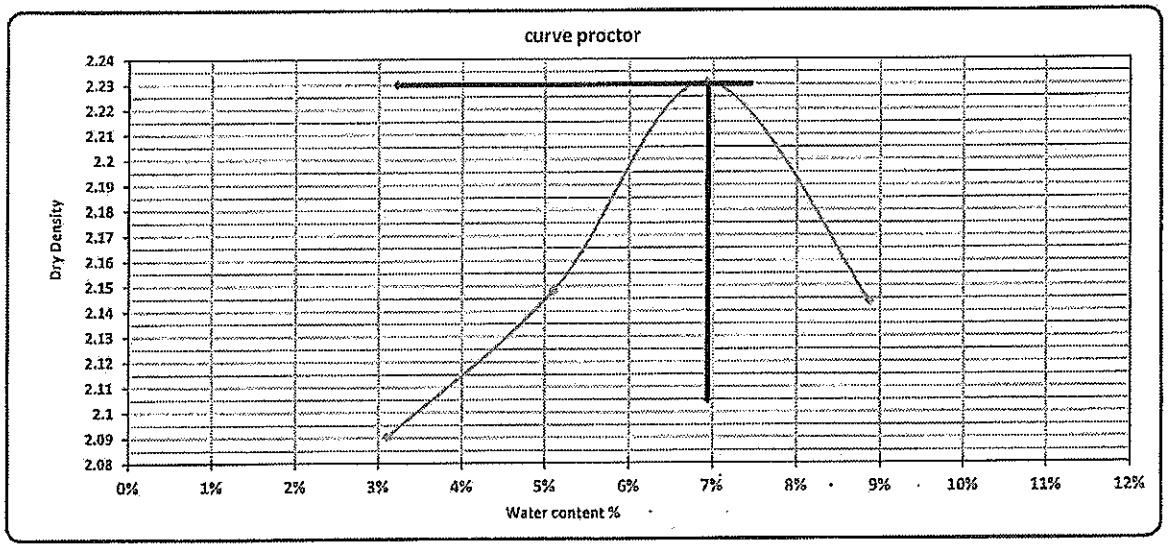
TESTING DATE:	17-8-2023	Code	zone	542+000	545+000
LOCATION	K,P (542+600)	NWB (S.B -6)			
NAME COMPANY	AL Nuby Group				

Weight of empty mold :	6284.0
Mold Volume:	2158.0

MAX Dry Density	2.23
Water content %	7

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10935.0	11156.0	11431.0	11320	
WT. WET SOIL	4651.0	4872.0	5147.0	5036.0	
Wt. Density	2.155	2.258	2.385	2.334	

Tare No.	10	31	8	4	32	33	34	7		
Tare wt.	73.7	70.2	60.1	46.1	42.8	75.8	60.9	73.6		
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	147.7	147.6	145.6	145.0	143.2	145.1	142.6	143.9		
Wt. Of water	2.3	2.4	4.4	5.0	6.8	4.9	7.4	6.1		
Wt. Of dry soil	74.0	77.4	85.5	98.9	100.4	69.3	81.7	70.3		
Water content %	3.1%	3.1%	5.1%	5.1%	6.8%	7.1%	9.1%	8.7%		
AV.Water content %	3.1%		5.1%		6.9%		8.9%			
Dry Density	2.090		2.148		2.231		2.144			



Contractor Engineer :-

Name : ahmed abd elmoaty

Sign :

Lab. Engineer :-

Name :

Sign :

Consultant Engineer :-

Name : mohamed elsaied

Sign :

21-8-2023

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 668+177	

Absorbtion & Aggregate specific gravity AASHTO-T85

TESTING DATE:	16-08-2023	code	zone	542+000	545+000
LOCATION	K.P (542+600)	NWB (S.B -6)			
NAME COMPANY	AL Nuby Group				

Weight of sample	2500	gm
Weight of saturated -dry surface sample (B)	2513	gm
Weight of saturated sample in water (C)	1548	gm
Weight of dry sample after heating (A)	2484	gm

Results:-

Bulk Specific gravity = A / (B-C)	2.574	
Apparent specific gravity = A /(A-C)	2.654	
Asorbtion = (B-A)/A	1.167	%

Los Anglos abrasion AASHTO-T96

Weight of sample before test (gm)	Weight of sample after test (gm)	Abrasion ratio (%
5000	3752	24.96

Contractor Engineer :-	Lab. Engineer :-	Consultant Engineer :-
Name : Ahmed abdelmoaty	Name :	Name : mohamed elsaied
Sign :	Sign :	Sign :

21-8-2023.

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	19-8-2023	Code	FROM STA :	542+000	545+000
Location :	K,P (542+600)	NWB (S.B -6)			
Company Name	AL Nuby Group				

- : Test Results

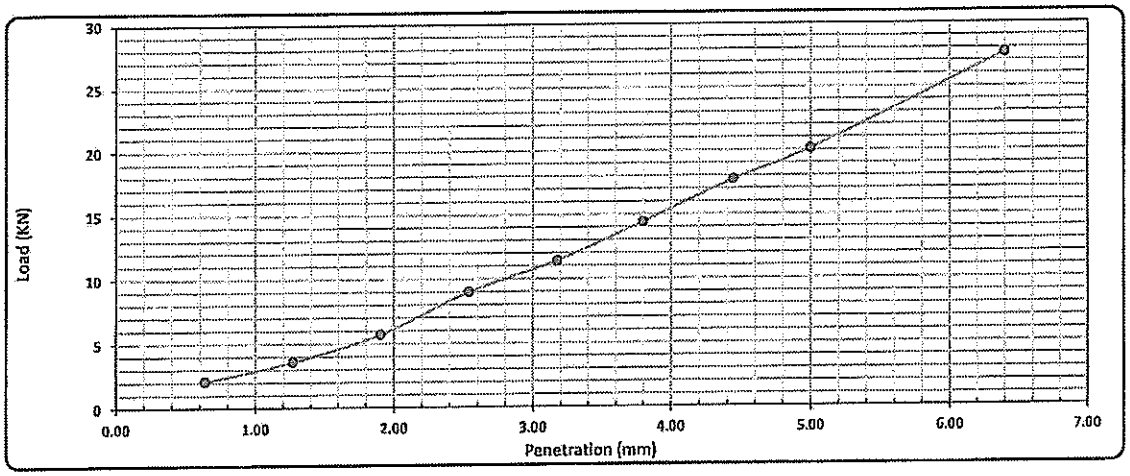
Compaction % for Mold	
Mold No.	4
Mold Vol. (cm^3)	2140
Mold WT. (gm)	4900
Mold WT. + Wet WT. (gm)	10050
Wet WT. (gm)	5150
Wet Density (g/cm^3)	2.407
Dry Density (g/cm^3)	2.249
Proctor Density (g/cm^3)	2.258
Compaction %	100.0

Moisture Ratio After Compacted Mold	
Tare No.	27
Tare WT. (gm)	59.6
Tare WT. +Wet WT. (gm)	150
Tare WT. +Dry WT. (gm)	144.1
Wet WT	5.9
Dry WT. (gm)	84.5
Moisture Content %	7.0

Swelling	
Mold No.	4
Date	19-8-2023
Infint Height (mm)	5.00
Final Height (mm)	5.00
Difference	0
Sample Height (mm)	120.00
Swelling Ratio %	0.0%

Loading Reading :

Penetration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (mm)	0.07	0.12	0.19	0.30	0.38	0.48	0.59	0.67	0.92
Load (KN)	2.1	3.6	5.7	9.0	11.4	14.4	17.7	20.1	27.6



Calculations : -

Penetration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR % عند نسبة 98
2.50	9.00	13.4	67.4%	100	98	66.1%
5.00	20.10	20.0	100.4%			98.4%

Contractor Engineer	Lab. Engineer	Consultant Engineer
Name : ahmed abdelmoaty	Name :	Name : mohamed elsaied
Sign : abdelmoaty	Sign :	Sign : m.elsaied

21-8-2023