مشروع القطار الكهربائى السريع(6اكتوبر-اسوان) القطاع الرابع

البرنامج الزمني المقترح لنهو الاعمال في فترة 8 اشهر بداية من 12/11/2023 الى 11/7/2023

تنفيذ شركة مارفيل للمقاولات العامة

من الكيلو 523+940 الى الكيلو 525+440

البند	الوحدة	الكمية الاجمالية	Nov-2023			Dec-2023				Jan-2024				Feb-2024				Mar-2024				Apr-2024				May-2024				Jun-2024				Jul-2024			
			2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
اجراءات تسليم المشروع																																					
بالمتر المسطح أعمال تطهير الموقع من الأشجار والمزروعات والمخلفات والتى يستلزم لها استخدام التنفيذ ذات الطبيعة الزراعية الكثيفة بعمق حتي 30 سم و التخلص منها بالمقالب العمومية تمهيداً لأعمال الرفع المساحي لكامل حدود المشروع طبقا للشروط والمواصفات وتعليمات المهندس المشرف	م2	60900.71	12,000.0	15,000			9,901	12,000	12,000																												
بالمتر المسطح أعمال تشغيل أرض طبيعية بسمك 25 سم فى حالة ان المنسوب التصميمى يتطلب عمق الحفر أو الردم ± 50 سم عن منسوب الأرض الطبيعية لمسافة لا تقل عن 100 متر	م2	54014.00					8,000	8,000	8,000	8,000	8,000	6,014																										
المتر المكعب اعمال حفر باستخدام المعدات الميكانيكيه في التربه المتماسكه عدا التربه الصخريه (بإستخدام البلدوزر) وتسوية السطح بآلات التسوية والرش بالمياه الأصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد	م3	13898.00										5,000	5,000	3,898																								
أعمال تحميل وتوريد ونقل أتربة مطابقة للمواصفات وتشغيلها باستخدام آلات التسوية بسمك لا يزيد عن 50 سم حتى منسوب (-2 متر) اسفل منسوب الفرمه و بسمك لايزيد عن 25سم اعلي من منسوب (-2 متر) من منسوب الفرمه	م3	64747.00												5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	4,747											
بالمتر المكعب أعمال توريد وفرش طبقة تأسيس (Prepared Subgrade) من الأحجار الصلبة المتدرجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصى حجم للحبيبات 100 مم وألا تزيد نسبة المار من منخل 200 عن 12% والتدرج الوارد بالاشتراطات الخاصة بالمشروع	م3	13198.00																				2,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	2,198	1,500						
بالمتر المكعب أعمال توريد وفرش طبقة أساسSubballast من الأحجار الصلبة المتدرجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصى حجم للحبيبات ما بين 31.5 مم إلى 40 مم وألا يزيد نسبة المار من منخل 200 عن 5% والتدرج الوارد بالاشتراطات الخاصة بالمشروع	م3	9572.00																														3,000	2,000	2,000	1,000	1,000	572

الهيئة العامة
للطرق و الكبارى
(GARB)
وزارة النقل

الإداره المركزية للمنطقة الثامنة بقنا

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة وبعد،،،،،،،،،

نتشرف أن نرفق لسيادتكم المقايسة المعدلة لمشروع اعمال انشاء الجسر الترابي

للقطار الكهربائي السريع 6 اكتوبر / أبوسمبل (القطاع الرابع) على ان يتم مراجعة الاسعار بمعرفة الادارة.

من الكم 523+940 حتى الكم 525+440 بطول 1.50 كم .

اعداد المكتب الأستشارى الهندسي الأستاذ الدكتور / خالد قنديل وعلى مسئوليته

تنفيذ شركة / مارفيل للمقاولات العامة

برجاء التكرم بالعلم والتوجيه باللازم

وتفضلو بقبول وافر التحية والأحترام،،،

تحريرا فى 2023/12/24

المرفقات عدد (1) مقايسه

رئيس الأدارة المركزية

مهندس/

عمـــــاد حسين

(مقايسة معدلة)

اعمال الجسر الترابي والاعمال الصناعيه لمشروع القطار الكهربائي السريع

(أكتوبر – أسوان)

شركة / مارفيل للمقاولات العامة من ٥٢٣+٩٤٠ الي ٥٢٥+٤٤٠

بداية النطاق ٤٠٥٨٢٢,٢٨٧٧٢٩١ نهاية النطاق ٤٠٧١٩٧,٢٨٧٦٦٩٣

الهيئة القومية للأنفاق

وزارة النقل

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

SYSTRA SHAKER

رقم البند		الوحدة	الكمية	سعر الفئة	الاجمالى
١	اعمال الازالة والتطهير				
١-١	بالمتر المسطح أعمال تطهير الموقع من الأشجار والمزروعات والمخلفات والتى يستلزم لها استخدام التنفيذ ذات الطبيعة الزراعية الكثيفة بعمق حتي ٣٠ سم و التخلص منها بالمقالب العمومية تمهيداً لأعمال الرفع المساحي لكامل حدود المشروع طبقا للشروط والمواصفات وتعليمات المهندس المشرف مسافة النقل حتي ٥٠٠ متر و يتم احتساب علاوه ٠,٣ جنيه لكل ١ كم زيادة.	م٢	٦٢٥٧٤,٠٠	٦	٣٧٥٤٤٤,٠٠
٢	اعمال الحفر				
١-٢	بالمتر المكعب اعمال حفر باستخدام المعدات الميكانيكيه لجميع أنواع التربة عدا التربة الصخرية وتسوية السطح بآلات التسوية والرش بالمياه الأصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافه (95% من الكثافة الجافة القصوى) ومحمل على البند تحميل ونقل الاتربة الزائدة لمسافة ٥٠٠ متر من محور الطريق ويتم التنفيذ طبقاً للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتملاتة طبقاً لأصول الصناعة ومواصفات الهيئة العامة للطرق والكبارى وتعليمات المهندس المشرف. -علاوة ١ جنيه/كم لمسافة نقل ناتج الحفر وتصبح ١,١جنيه /كم ابتداء من ٢٠٢٣/٥/٤ .	م٣	١٠٠٠٠,٠٠	٢٣	٢٣٠٠٠٠,٠٠
١-٢-١	علاوة زيادة سولار ٠,٦ جنية / م٣ ابتدأ من ٢٠٢٣/٥/٤م	م٣	١٠٠٠٠,٠٠	٠,٦	٦٠٠٠,٠٠

مهندس الشركة والمنفذة
المهندس/
التوقيع/

مدير المشروع (الإستشاري)
المهندس/
التوقيع/

مهندس الهيئة
االمهندس/
التوقيع/

MARVEL
C.R:19039
T.C:650-663-209

٢-٢	بالمتر المكعب اعمال حفر باستخدام المعدات الميكانيكيه في السفو وتسوية السطح بألات التسوية والرش بالمياة الأصولية للوصول الى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول الى أقصى كثافة جافه (٩٥% من الكثافة الجافة القصوى) ومحمل على البند تحميل ونقل الأتربة الزائدة لمسافة ١,٥ كم من محور الطريق و الفئة تشمل استخدام المياة في تثبيت السفو و اعداد مدقات على السفو لحركة المعدات ويتم التنفيذ طبقاً للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتملاتة طبقاً لأصول الصناعة ومواصفات الهيئة العامة للطرق والكبارى وتعليمات المهندس المشرف علاوة ١ جنية / كم لمسافة نقل ناتج الحفر و تصبح ١,١ جنية / كم ابتداءا من٢٠٢٣/٥/٤.	م٣	١	٢٨	٢٨,٠٠
١-٢-٢	نفس بند رقم (٢-٢) المنفذ بعد يناير ٢٠٢٣	م٣	١	٣٣	٣٣,٠٠
٢-٢-٢	علاوة زيادة سولار١ جنية / م٣ ابتدأ من ٢٠٢٣/٥/٤	م٣	١	١	١,٠٠
٣-٢-٢	علاوة ٢ جنية / م٣ فى حالة توريد اتربة لفرشها على طبقة السفو لامكانية تحرك المعدات و ذلك فى حالة الارض الغير ثابتة	م٣	١	٢	٢,٠٠
٣	اعمال الردم Embankment				
١-٣	أعمال تحميل وتوريد ونقل أتربة مطابقة للمواصفات وتشغيلها باستخدام آلات التسوية بسمك لا يزيد عن ٥٠ سم حتى منسوب (-٢ متر) اسفل منسوب الفرمه و بسمك لايزيد عن ٢٥سم اعلي من منسوب (-٢ متر) من منسوب الفرمه لاستكمال المنسوب التصميمى لتشكيل الجسر والأكتاف (نسبة تحمل كاليفورنيا حتى ٢٠%) ورشها بالمياه الأصولية للوصول إلى نسبة الرطوبة المطلوبة والدمك الجيد بالهراسات للوصول إلى أقصى كثافة جافة (95% من الكثافة الجافة القصوى) ويتم التنفيذ طبقاً للمناسيب التصميمية والقطاعات العرضية النموذجية والرسومات التفصيلية المعتمدة والبند بجميع مشتملاته طبقاً لأصول الصناعة ومواصفات الهيئة العامة للطرق والكبارى وتعليمات المهندس المشرف. - فى حالة طلب جهاز الإشراف زيادة نسبة الدمك عن ٩٥% يحسب زيادة ١ جنيه على زيادة نسبة الدمك لكل ١%. - مسافة النقل حتى ٢ كم و يتم احتساب علاوة ١,٤ جنيه لكل كم بالزيادة او النقصان و تصبح ١,٥ جنية لكل كم اعتبارا من ٢٠٢٣/٥/٤. -السعر يشمل عمل تشوينات و تخليط و اختبارات و نقل لموقع العمل حتي مسافة ٢ كم. - و البند لا يشمل القيمة المحجرية.	م٣	١٣٨,٠٠٠	٦٠	٨٢٨٠٠٠,٠٠
١-١-٣	علاوة زيادة سولار١,٩ جنية / م٣ ابتداء من ٢٠٢٣/٥/٤	م٣	١٣٨,٠٠٠	١,٩	٢٦٢٢٠٠,٠٠
٢-٣	بالمتر المسطح أعمال تشغيل أرض طبيعية بسمك ٢٥ سم في حالة ان المنسوب التصميمي يتطلب عمق الحفر أو الردم ± ٥٠ سم عن منسوب الأرض الطبيعية لمسافة لا تقل عن ١٠٠ متر وهذا البند يشمل عمل الاختبارت اللازمة للتأكد من صلاحية الأرض الطبيعية وتسليمها واعداد الاختبارات اللازمة وذلك طبقا لتعليمات الاستشارى	م٢	١٠,٠٠٠	١٤	١٤٠٠٠٠,٠٠

مهندس الشركة المنفذة
المهندس/
التوقيع/

مدير المشروع (الإستشاري)
المهندس/
التوقيع/

مهندس الهيئة
االمهندس/
التوقيع/

٤	طبقة تأسيس Prepared Subgrade				
٤	بالمتر المكعب أعمال توريد وفرش طبقة تأسيس (Prepared Subgrade) من الأحجار الصلبة المتدرجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصى حجم للحبيبات ١٠٠ مم وألا تزيد نسبة المار من منخل ٢٠٠ عن ١٢% والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن ٢٥% وألا تزيد نسبة الفاقد بجهاز لوس أنجلوس عن ٤٠% وألا يزيد الامتصاص عن ١٥% وألا يقل معامل المرونة (Ev2) من تجربة لوح التحميل عن ٨٠ ميجابسكال ويتم فردها على طبقتين باستخدام آلات التسوية الحديثة على أن لا يزيد سمك الطبقة بعد تمام الدمك عن ٢٥ سم ورشها بالمياه الأصولية للوصول إلى نسبة الرطوبة المطلوبة والدمك الجيد للهراسات للوصول إلى أقصى كثافة جافة قصوى (لا تقل عن ٩٥%) من الكثافة المعملية والفئة تشمل إجراء التجارب المعملية والحقلية ويتم التنفيذ طبقاً لأصول الصناعة والرسومات التفصيلية والبند بجميع مشتملاته طبقاً للمواصفات الفنية للمشروع وتقرير الاستشارى وتعليمات المهندس المشرف. مسافة النقل لا تقل عن ٢٠ كم. يتم احتساب علاوة ١,٢ جنيه لكل ١ كم بالزيادة أو النقصان و تصبح ١,٣ جنية لكل كم ابتداءا من ٢٠٢٣/٥/٤. - و البند لا يشمل القيمة المحجرية.	م٣	٨,٣٢٤	١٣٠	١٠٨٢١٣٤,٣٦
٤-١	علاوة زيادة سولار١,٨ جنية / م٣ ابتدأ من ٢٠٢٣/٥/٤م	م٣	٨,٣٢٤	١,٨	١٤٩٨٣,٤٠
٤-٢	علاوة مسافة نقل ١٠٠ كم ابتدأ من ٢٠٢٣/٥/٤م	م٣	٨,٣٢٤	١٠٤	٨٦٥٧٠٧,٤٨
٤-٣	كارتة توريد أساس	م٣	٨,٣٢٤	٢٥	٢٠٨١٠٢,٧٦
٥	طبقات الاساس Subballast				
٥	بالمتر المكعب أعمال توريد وفرش طبقة أساس من الأحجار الصلبة المتدرجة ناتج تكسير الكسارات والمطابقة للمواصفات وأقصى حجم للحبيبات ما بين ٣١,٥ مم إلى ٤٠ مم وألا يزيد نسبة المار من منخل ٢٠٠ عن ٥% والتدرج الوارد بالاشتراطات الخاصة بالمشروع لا تقل نسبة تحمل كاليفورنيا عن ٨٠% وألا يقل معامل المرونة (Ev2) من تجربة لوح التحميل عن ١٢٠ ميجابسكال وألا يزيد نسبة الفاقد بجهاز لوس أنجلوس عن ٣٠% وألا يزيد الامتصاص عن ١٥% ويتم فردها على طبقتين باستخدام آلات التسوية الحديثة على أن لا يزيد سمك الطبقة بعد تمام الدمك عن ٢٠ سم ورشها بالمياه الأصولية للوصول إلى نسبة الرطوبة المطلوبة والدمك الجيد للهراسات للوصول إلى أقصى كثافة جافة قصوى (لا تقل عن ١٠٠%) من الكثافة المعملية والفئة تشمل إجراء التجارب المعملية والحقلية ويتم التنفيذ لأصول طبقاً الصناعة و الروسومات التفصيلية المعتمدة و البند بجميع مشتملاته طبقاً للمواصفات الفنية للمشروع وتقرير الاستشارى وتعليمات المهندس المشرف. - مسافة النقل لا تقل عن ٢٠ كم -يتم احتساب علاوة ١,٢ جنيه لكل ١ كم بالزيادة أو النقصان و تصبح ١,٣ جنية لكل كم ابتداءا من ٢٠٢٣/٥/٤ . - و البند لا يشمل القيمة المحجرية.	م٣	١٠٠	١٣٥	١٣٥٠٠,٠٠
٥-١	علاوة زيادة سولار١,٨ جنية / م٣ ابتدأ من ٢٠٢٣/٥/٤	م٣	١٠٠	١,٨	١٨٠,٠٠
٥-٢	علاوة مسافة نقل ١٠٠ كم ابتدأ من ٢٠٢٣/٥/٤م	م٣	١٠٠	١٠٤	١٠٤٠٠,٠٠
٥-٣	كارتة توريد أساس	م٣	١٠٠	٢٥	٢٥٠٠,٠٠
الاجمالى					١١,٤٩١,٢١٦,٠٠ ج.م.

مهندس الشركة المنفذة
المهندس/
التوقيع/

مدير المشروع (الإستشاري)
المهندس/
التوقيع/

مهندس الهيئة
المهندس/
التوقيع/

يعتمد؛؛؛
رئيس الإدارة المركزية المنطقة الثامنة (قنا)
السيد المهندس / عماد حسين
التوقيع/

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	04/06/2023	code	ZONE	524+900	(right)
LOCATION	524+900 (Right)	MF-S-01	Material	soil A-1-b	
NAME COMPANY	مارفيل		description	مشون ١	

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		29280.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	801.0	1132.0	2149.0	1074.0	2257.0	942.0	2802.0	18160.0		A-1-b
Cumulative Retained (g)	801.0	1933.0	4082.0	5156.0	7413.0	8355.0	11157.0		PRO	2.235
Cumulative Retained %	2.7	6.6	13.9	17.6	25.3	28.5	38.1		WC	5.10
Cumulative Passing %	97.3	93.4	86.1	82.4	74.7	71.5	61.9		CBR	44.1%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	57.00	168.00	391.00					
Cumulative Retained %	11.40	33.60	[illegible]					
Cumulative Passing %	88.60	66.40	21.80					

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 %	97.3	93.4	86.1	82.4	74.7	71.5	61.9	54.8	41.1	13.5

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

Contractor

Consultant

6/2023

PROCTOR TEST

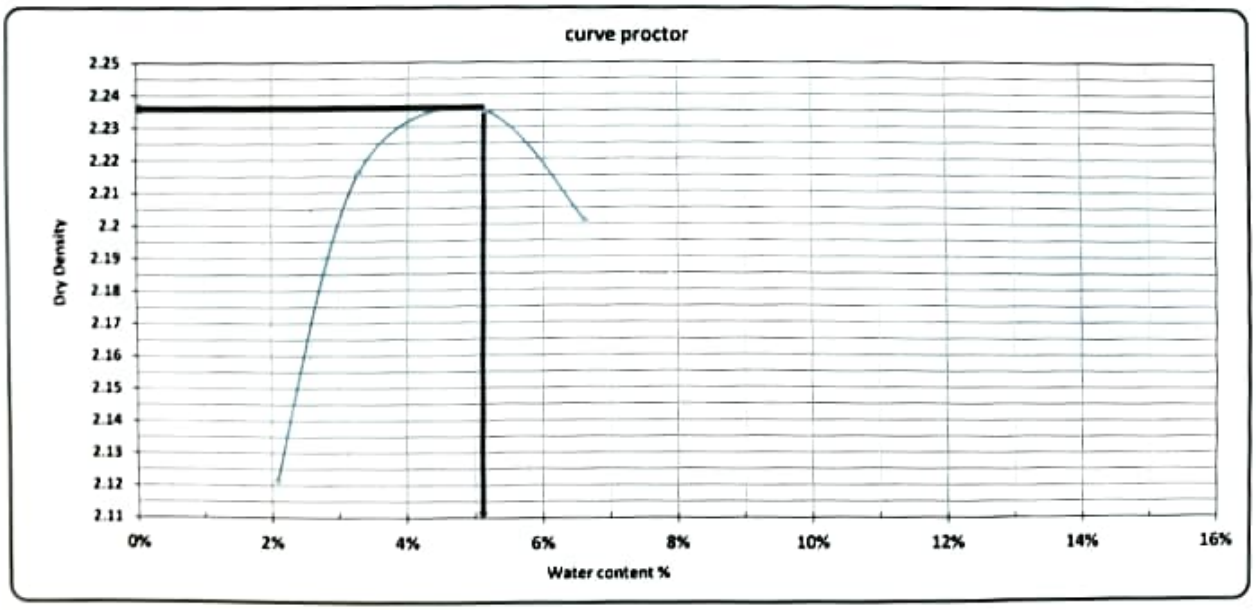
TESTING DATE:	04/06/2023	code	zone	524+900	(right)
LOCATION	524+900 (Right)	MF-S-01	Material	soil A-1-b	
NAME COMPANY	مارفيل		description	مشون ١	

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.235
Water content %	5.1

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	9892.0	10148.0	10275.0	10270	
WT. WET SOIL	4538.0	4794.0	4921.0	4916.0	
Wt. Density	2.166	2.288	2.349	2.347	

Tare No.	17	16	1	9	5	21	20	10		
Tare wt.	22	25	24	24	23	22	20	22		
Wt. Of wet soil & tare	198.0	189.0	212.0	187.0	206.0	209.0	204.0	193.0		
Wt. Of dry soil & tare	194.0	186.0	207.0	181.0	198.0	199.0	193.0	182.0		
Wt. Of water	4.0	3.0	5.0	6.0	8.0	10.0	11.0	11.0		
Wt. Of dry soil	172.0	161.0	183.0	157.0	175.0	177.0	173.0	160.0		
Water content %	2.3%	1.9%	2.7%	3.8%	4.6%	5.6%	6.4%	6.9%		
AV.Water content %	2.1%		3.3%		5.1%		6.6%			
Dry Density	2.122		2.216		2.235		2.201			



Contractor

Consultant

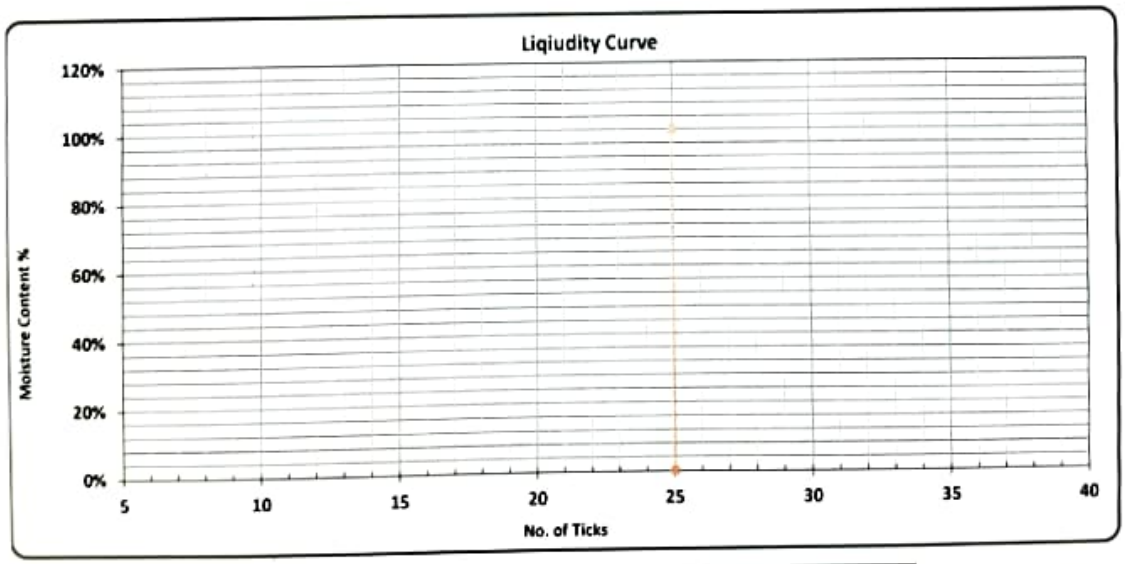
6/6/2023

	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	04/06/2023	Code:	zone	524+900 (Right)
Location:	524+900 (Right)	MF-S-01	Material:	soil A-1-b
Name company	مارفيل		description	مشون١

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %						



L.L	P.L	P.I
N.P	N.P	N.P

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name :
Sign :	Sign :	Sign : 5/6/2023

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	08/06/2023	Code	FROM STA :	524+900	(Right)
Location :	524+900 (Right)	MF-S-01	Material :	soil A-1-b	
Layer No. :	مارفيل		description	مشون ١	

-: Test Results

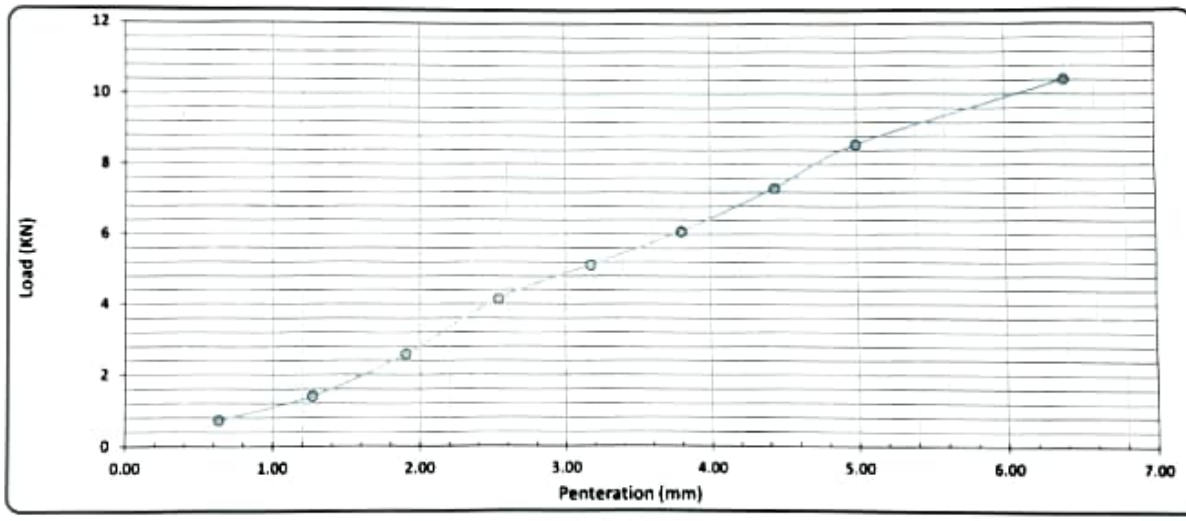
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12863
Wet WT. (gm)	6925
Wet Density (g/cm^3)	2.172
Dry Density (g/cm^3)	2.062
Proctor Density (g/cm^3)	2.240
Compaction %	92

Mositure Ratio After Compacted Mold	
Tare No.	8
Tare WT. (gm)	24
Tare WT. +Wet WT. (gm)	201
Tare WT. +Dry WT. (gm)	192
Water WT. (gm)	9.0
Dry WT. (gm)	168.0
Moisture Content %	5.4

Swelling	
Mold No.	
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	73.50	142.50	263.00	423.00	521.50	619.00	746.00	873.00	1063.00
Load (KN)	0.7	1.4	2.6	4.1	5.1	6.1	7.3	8.6	10.4



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	4.15	13.4	31.1%	92	95	32.0%
5.00	8.56	20.0	42.7%			44.1%

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

Electric Express Train - HSR

From 6 October City To Abu simbel

section -4 From Sohage To Qena

From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	11/07/2023	code	ZONE	525+800	(Left)
LOCATION	525+800 (Left)	MF-S-02	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		32512.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	1014.0	1676.0	3521.0	2438.0	3642.0	1901.0	4618.0	13802.0		A-1-a
Cumulative Retained (g)	1014.0	2690.0	6211.0	8649.0	12191.0	14092.0	18710.0		PRO	2.24
Cumulative Retained %	3.1	8.3	19.1	26.6	37.5	43.3	57.5		WC	5.20
Cumulative Passing %	96.9	91.7	80.9	73.4	62.5	56.7	42.5		CBR	43.5%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	65.00	201.00	355.00					
Cumulative Retained %	13.00	40.20	71.00					
Cumulative Passing %	87.00	59.80	29.00					

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 %	96.9	91.7	80.9	73.4	62.5	56.7	42.5	37.0	25.4	12.3

ATTERBERG LIMTS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	15.3%	11.9%	3.4%

Contractor

Consultant

PROCTOR TEST

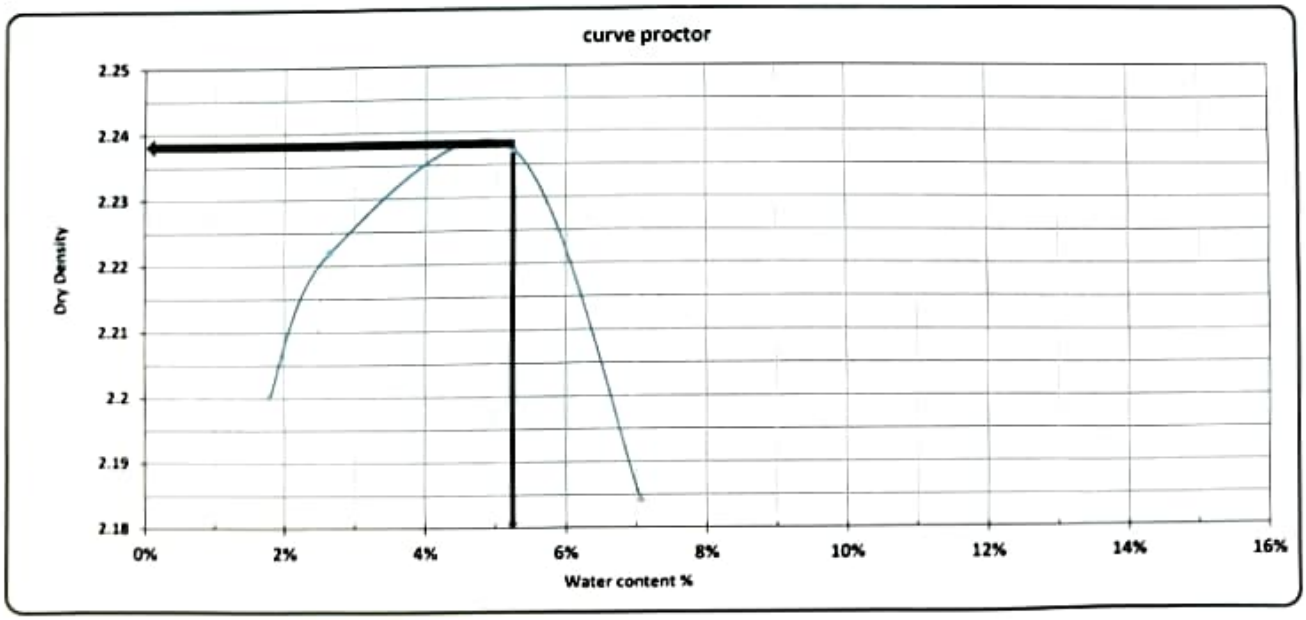
TESTING DATE:	11/07/2023	code	Station	525+800	(Left)
LOCATION	525+800 (Left)	MF-S-02	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.237
Water content %	5.2

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10046.0	10132.0	10287.0	10253	
WT. WET SOIL	4692.0	4778.0	4933.0	4899.0	
Wt. Density	2.240	2.281	2.355	2.338	

Tare No.	10	17	1	9	16	21	13	8		
Tare wt.	22	22	24	24	25	22	23	24		
Wt. Of wet soil & tare	196.0	188.0	211.0	190.0	169.0	159.0	199.0	211.0		
Wt. Of dry soil & tare	193.0	185.0	207.0	185.0	162.0	152.0	188.0	198.0		
Wt. Of water	3.0	3.0	4.0	5.0	7.0	7.0	11.0	13.0		
Wt. Of dry soil	171.0	163.0	183.0	161.0	137.0	130.0	165.0	174.0		
Water content %	1.8%	1.8%	2.2%	3.1%	5.1%	5.4%	6.7%	7.5%		
AV.Water content %	1.8%		2.6%		5.2%		7.1%			
Dry Density	2.200		2.222		2.237		2.184			



Contractor

Consultant

11/7/2023

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	15/07/2023	Code	zone	525+800	(left)
Location :	525+800 Left	MF-S-02	Material :	soil (A-1-a)	
Name c	مارفيل		description	مشون ٢	

-: Test Results

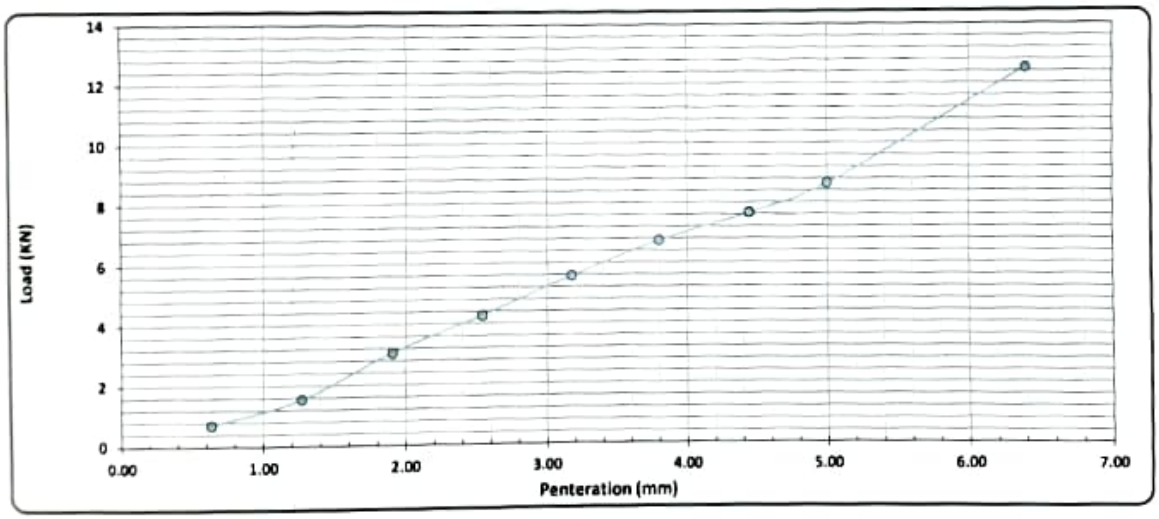
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12907
Wet WT. (gm)	6969
Wet Density (g/cm^3)	2.186
Dry Density (g/cm^3)	2.109
Proctor Density (g/cm^3)	2.240
Compaction %	94

Mositure Ratio After Compacted Mold	
Tare No.	21
Tare WT. (gm)	22
Tare WT. +Wet WT. (gm)	193
Tare WT. +Dry WT. (gm)	187
Water WT. (gm)	6.0
Dry WT. (gm)	165.0
Moisture Content %	3.6

Swelling	
Mold No.	١
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	73.00	157.50	312.00	435.50	567.00	686.00	780.00	880.50	1276.00
Load (KN)	0.7	1.5	3.1	4.3	5.6	6.7	7.6	8.6	12.5



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	4.27	13.4	32.0%	94	95	32.3%
5.00	8.63	20.0	43.1%			43.5%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name :
Sign :	Sign :	Sign : 15/7/2023

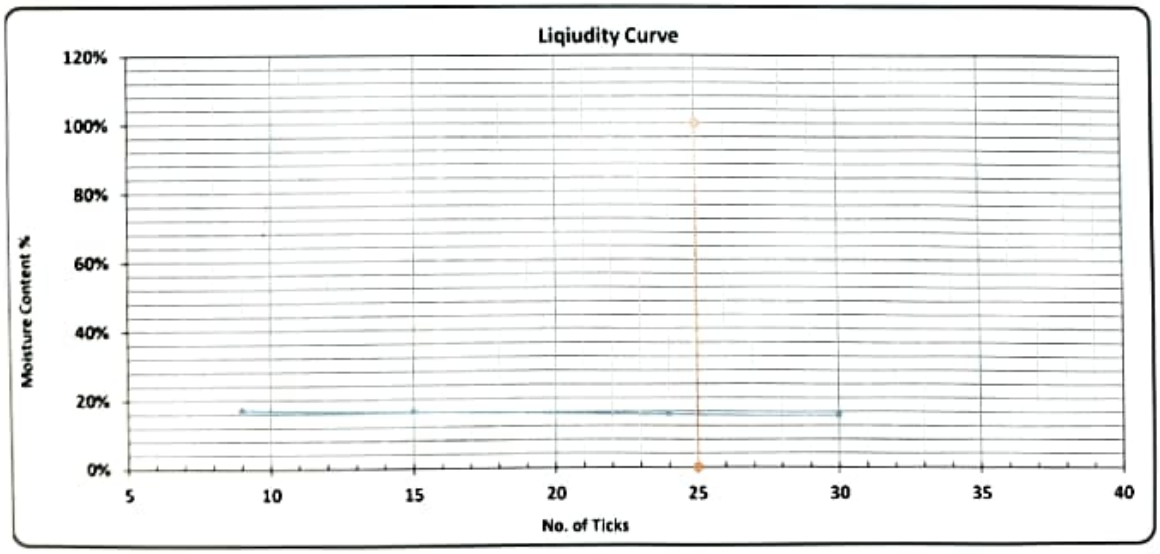
	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	11/07/2023	Code	zoe	525+800	(left)
Location:	525+800 (Left)	MF-S-02	Material:	soil (A-1-a)	
Name company	مارفيل		description	مشون ٢	

Test	Liqiud Limit				Plastic Limit	
No. of Ticks	9	15	24	30	-	-
Tare No.	19	1	12	21	5	6
Tare WT. (gm)	23.51	24.36	22.00	22.20	22.82	23.26
Tare WT. + Wet WT. (gm)	57.22	53.16	50.16	53.50	31.71	30.38
Tare WT. + Dry WT. (gm)	52.30	49.11	46.45	49.44	30.88	29.53
Water WT. (gm)	4.92	4.05	3.71	4.06	0.83	0.85
Dry WT. (gm)	28.79	24.75	24.45	27.24	8.06	6.27
Moisture Content %	17.1%	16.4%	15.2%	14.9%	10.3%	13.6%
Average %					11.9%	

15.3%



L.L	P.L	P.I
15.3%	11.9%	3.4%

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

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 523+940
To Station 525+940

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	20/07/2023	code	ZONE	525+800	(left)
LOCATION	525+800 (left)	MF-S-03	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		20940.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	424.0	1377.0	1996.0	1733.0	2219.0	1057.0	2638.0	9469.0		A-1-a
Cumulative Retained (g)	424.0	1801.0	3797.0	5530.0	7749.0	8806.0	11444.0		PRO	2.28
Cumulative Retained %	2.0	8.6	17.9	26.4	37.0	42.0	54.6		WC	5.70%
Cumulative Passing %	98.0	91.4	82.1	73.6	63.0	58.0	45.4		CBR	51.90%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	44.00	121.00	342.00					
Cumulative Retained %	8.80							
Cumulative Passing %	91.20							

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 %	98.0	91.4	82.1	73.6	63.0	58.0	45.4	41.4	34.4	14.3

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

Contractor

Consultant

20/7/2023

PROCTOR TEST

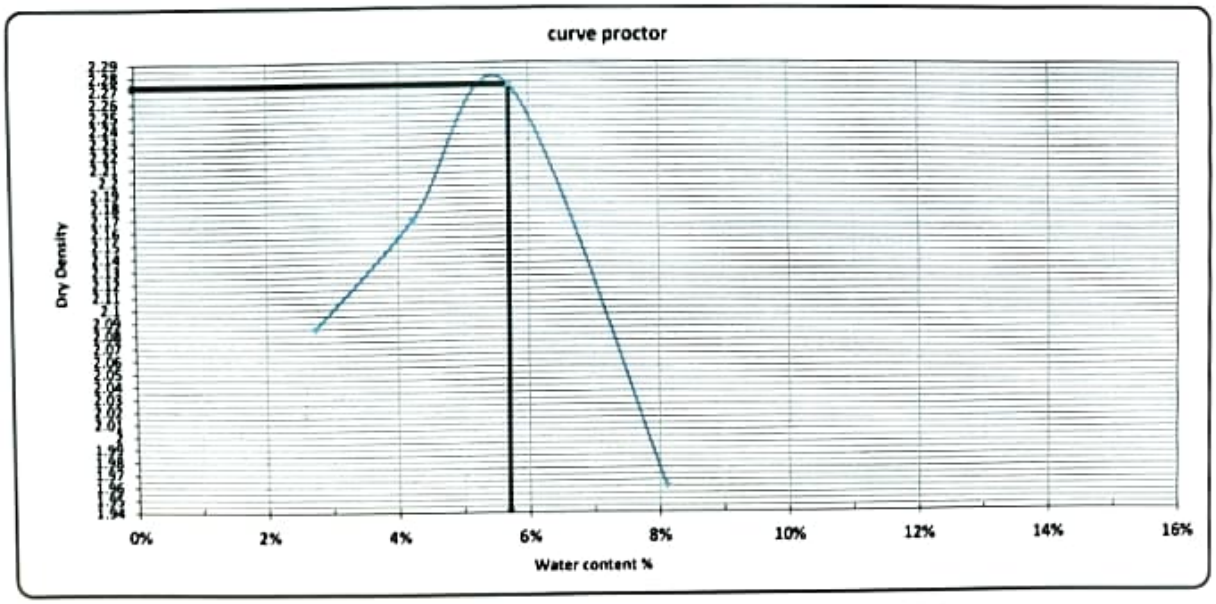
TESTING DATE:	20/07/2023	code	Station	525+800	(left)
LOCATION	525+800 (left)	MF-S-03	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

Weight of empty mold :	5719.0
Mold Volume:	2076.0

MAX Dry Density	2.28
Water content %	5.70%

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10165.0	10409.0	10705.0	10695.0	
WT. WET SOIL	4446.0	4690.0	4986.0	4399.0	
Wt. Density	2.142	2.259	2.402	2.119	

Tare No.	21	19	10	17	13	18	11	8		
Tare wt.	22	23	22	22	23	24	21	24		
Wt. Of wet soil & tare	152.0	155.0	159.0	154.0	152.0	154.0	159.0	166.0		
Wt. Of dry soil & tare	149.0	151.0	155.0	149.0	145.0	148.0	149.0	155.0		
Wt. Of water	3.0	4.0	6.0	5.0	8.0	6.0	10.0	11.0		
Wt. Of dry soil	127.0	128.0	133.0	127.0	122.0	124.0	128.0	131.0		
Water content %	2.4%	3.1%	4.5%	3.9%	6.6%	4.8%	7.8%	8.4%		
AV.Water content %	2.74%		4.22%		5.70%		8.10%			
Dry Density	2.084		2.168		2.272		1.960			



Contractor

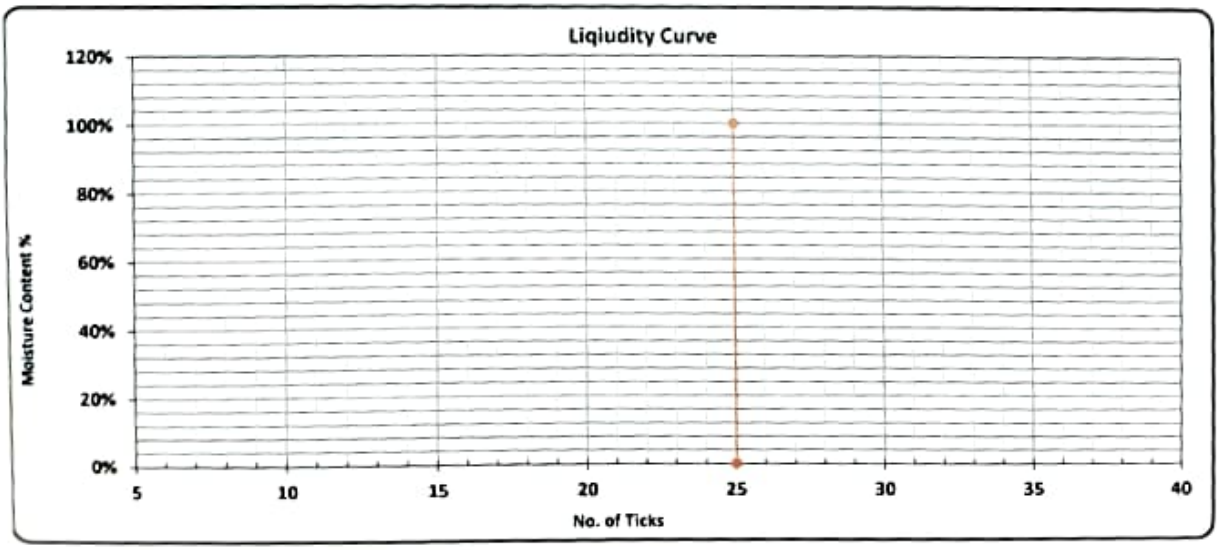
Consultant

	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	20/07/2023	Code:	FROM STA:	525+800	(left)
Location:	525+800 (left)	MF-S-03	Material:	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %					0.0%	



L.L	P.L	P.I
NP	NP	NP

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name :
Sign :	Sign :	Sign : 22/7/2023

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	24/7/2023	Code	FROM STA	525+800	(left)
Location :	525+800 (left)	MF-S-03	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

-: Test Results

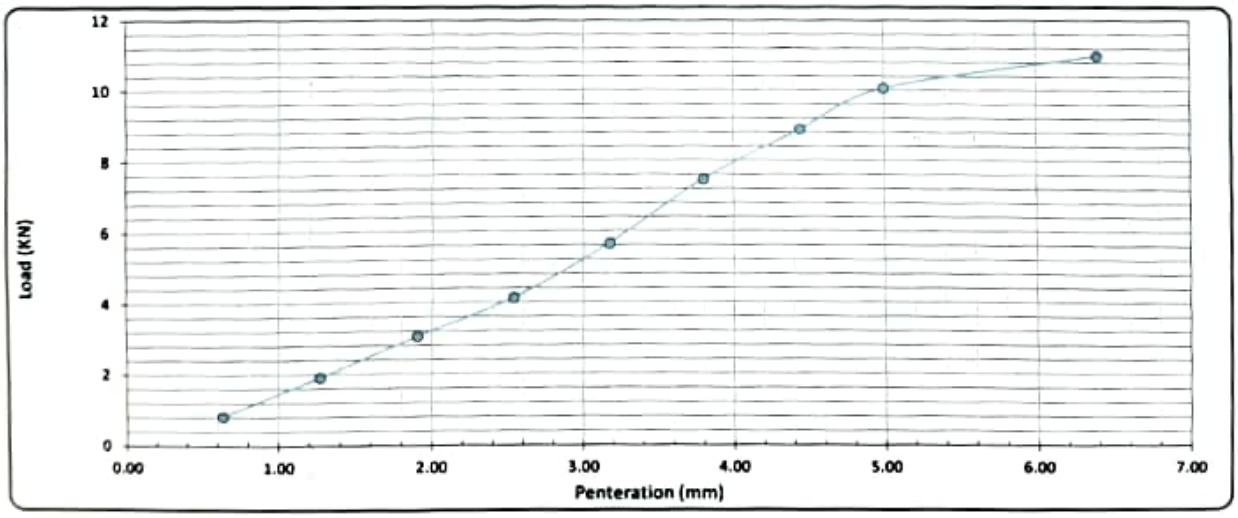
Compaction % for Mold	
Mold No.	1
Mold Vol.[(cm]'	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12554
Wet WT. (gm)	6616
Wet Density [(g/cm]'	2.075
Dry Density [(g/cm]'	1.974
Proctor Density [(g/cm]'	2.150
Compaction %	92

Mositure Ratio After Compacted Mold	
Tare No.	10
Tare WT. (gm)	22
Tare WT. +Wet WT. (gm)	145
Tare WT. +Dry WT. (gm)	139
Water WT. (gm)	6.0
Dry WT. (gm)	117.0
Moisture Content %	5.1

Swelling	
Mold No.	١
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	84.00	194.00	310.00	420.00	575.00	760.00	905.00	1025.00	1120.00
Load (KN)	0.8	1.9	3.0	4.1	5.6	7.4	8.9	10.0	11.0



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	4.12	13.4	30.8%	92	95	31.9%
5.00	10.05	20.0	50.2%			51.9%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name :
Sign :	Sign :	Sign : 24/7/2023

GES Consulting

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	01/08/2023	code	ZONE	524+900	(right)
LOCATION	524+900 (Right)	MF-S-04	Material	soil A-1-b	
NAME COMPANY	مارفيل		description	مشون ١	

1-visual inspection test

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.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		26581.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	0.0	639.0	1502.0	1016.0	1664.0	612.0	2603.0	18545.0		A-1-b
Cumulative Retained (g)	0.0	639.0	2141.0	3157.0	4821.0	5433.0	8036.0		PRO	2.16
Cumulative Retained %	0.0	8.3	19.1	11.9	18.1	20.4	30.2		WC	4.50
Cumulative Passing %	100.0	91.7	80.9	88.1	81.9	79.6	69.8		CBR	30.50

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	40.00	246.00	464.00					
Cumulative Retained %	8.00	49.20	92.80					
Cumulative Passing %	92.00	50.80	7.20					

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	91.7	80.9	88.1	81.9	79.6	69.8	64.2	35.4	5.0

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

Contractor

GPS Consulting

Consultant

م/ حسانى عبد المنعم

PROCTOR TEST

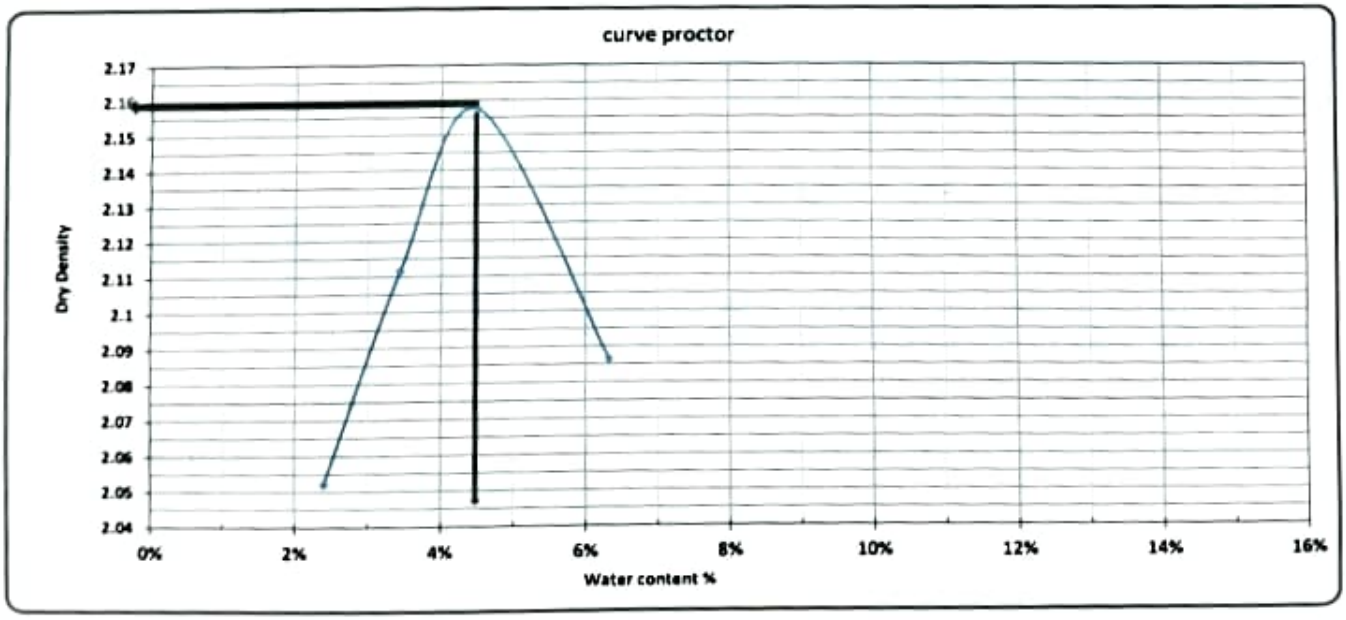
Testing date	01/08/2023	code	zone	524+900	(right)
LOCATION	524+900 (Right)	MF-S-04	Material	soil A-1-b	
NAME COMPANY	مارفيل		description	مشون١	

Weight of empty mold :	5719.0
Mold Volume:	2076.0

MAX Dry Density	2.16
Water content %	4.5

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10082.0	10254.0	10400.0	10325	
WT. WET SOIL	4363.0	4535.0	4681.0	4606.0	
Wt. Density	2.102	2.184	2.255	2.219	

Tare No.	9	20	2	15	3	5	4	12		
Tare wt.	24	25	19	22	24	23	23	22		
Wt. Of wet soil & tare	131.0	131.0	121.0	132.0	124.0	131.0	142.0	155.0		
Wt. Of dry soil & tare	128.0	129.0	117.0	129.0	120.0	126.0	135.0	147.0		
Wt. Of water	3.0	2.0	4.0	3.0	4.0	5.0	7.0	8.0		
Wt. Of dry soil	104.0	104.0	98.0	107.0	96.0	103.0	112.0	125.0		
Water content %	2.9%	1.9%	4.1%	2.8%	4.2%	4.9%	6.3%	6.4%		
AV.Water content %	2.4%		3.4%		4.5%		6.3%			
Dry Density	2.052		2.112		2.158		2.087			



Contractor

GPS Consulting

Consultant

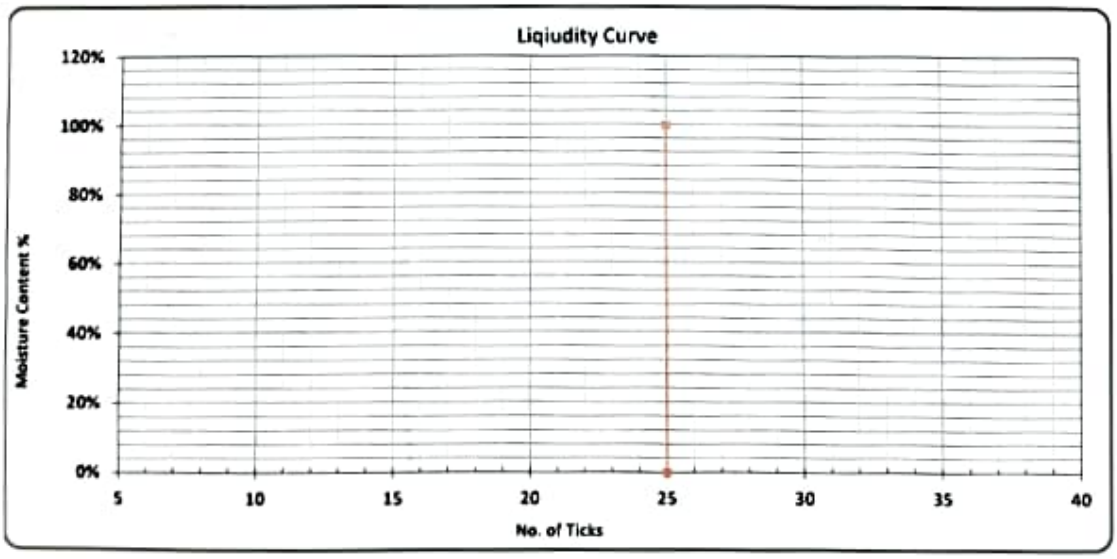
	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	01/08/2023	Code:	zone	524+900 (Right)
Location:	524+900 (Right)	MF-S-04	Material:	soil A-1-b
Name company	مارفيل		description	مشون١

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : ماجد عبد المنعم
Sign :	Sign :	Sign : Hassan

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	05/08/2023	Code	zone	524+900	(Right)
Location :	524+900 (Right)	MF-S-04	Material :	soil A-1-b	
Name company	مارفيل		description	مشون ١	

-: Test Results

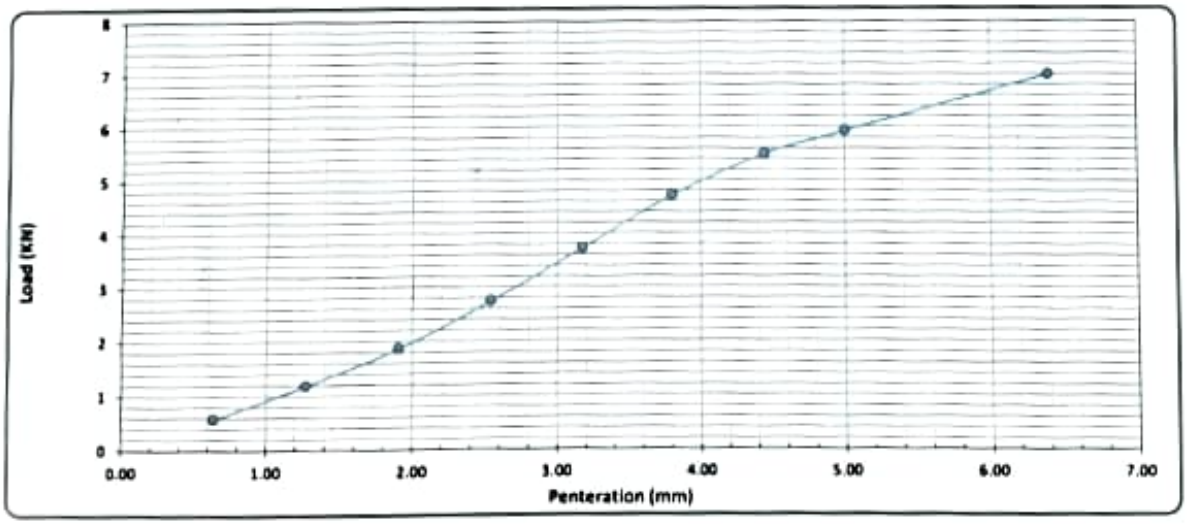
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12772
Wet WT. (gm)	6834
Wet Density (g/cm^3)	2.144
Dry Density (g/cm^3)	2.067
Proctor Density (g/cm^3)	2.240
Compaction %	92

Moisture Ratio After Compacted Mold	
Tare No.	23
Tare WT. (gm)	23
Tare WT. +Wet WT. (gm)	107
Tare WT. +Dry WT. (gm)	104
Water WT. (gm)	3.0
Dry WT. (gm)	81.0
Moisture Content %	3.7

Swelling	
Mold No.	1
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	-
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	60.00	122.00	190.50	280.00	380.00	480.80	560.00	605.00	714.00
Load (KN)	0.6	1.2	1.9	2.7	3.7	4.7	5.5	5.9	7.0



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	2.74	13.4	20.6%	92	95	21.2%
5.00	5.93	20.0	29.6%			30.5%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : حسانى عبد المنعم
Sign :	Sign :	Sign :

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	01/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-05	Material	soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

1-visual inspection test

.....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		27883.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	0.0	757.0	2466.0	1641.0	2044.0	922.0	1508.0	18545.0		A-1-a
Cumulative Retained (g)	0.0	757.0	[illegible]	4864.0	6908.0	7830.0	9338.0		PRO	2.24
Cumulative Retained %	0.0	[illegible]	[illegible]	17.4	24.8	28.1	33.5		WC	5.80
Cumulative Passing %	100.0	[illegible]	[illegible]	[illegible]	[illegible]	71.9	66.5		CBR	29.80

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	130.00	285.00	402.00					
Cumulative Retained %	26.00	57.00	80.40					
Cumulative Passing %	74.00	43.00	19.60					

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	97.3	88.4	82.6	75.2	71.9	66.5	49.2	28.6	13.0

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

Contractor	Consultant
GPS | Consulting	م/ حسانى عبد المنعم

PROCTOR TEST

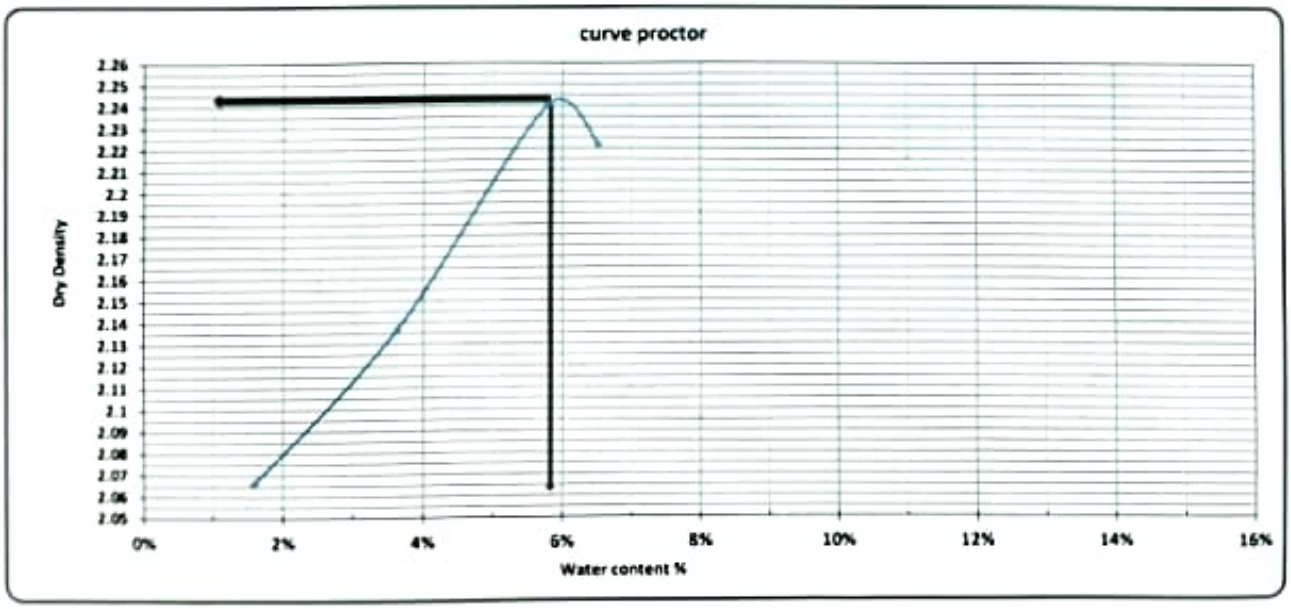
TESTING DATE:	01/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-05	Material	Soil A-1-a
NAME COMPANY	مازفيل		description	مشون ٢

Weight of empty mold :	5719.0
Mold Volume:	2876.0

MAX Dry Density	2.24
Water content %	5.8

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10077.0	10316.0	10641.0	10632	
WT. WET SOIL	4358.0	4597.0	4922.0	4913.0	
Wt. Density	2.099	2.214	2.371	2.367	

Tare No.	23	2	20	12	15	9	4	3		
Tare wt.	23	19	25	22	22	24	23	23		
Wt. Of wet soil & tare	150.0	151.0	153.0	152.0	151.0	150.0	155.0	211.0		
Wt. Of dry soil & tare	147.0	150.0	148.0	147.0	143.0	144.0	148.0	198.0		
Wt. Of water	3.0	1.0	4.0	5.0	8.0	6.0	7.0	13.0		
Wt. Of dry soil	124.0	131.0	123.0	125.0	121.0	120.0	125.0	175.0		
Water content %	2.4%	0.8%	3.3%	4.0%	6.6%	5.0%	5.6%	7.4%		
AV.Water content %	1.6%		3.6%		5.8%		6.5%			
Dry Density	2.066		2.137		2.241		2.222			



Contractor

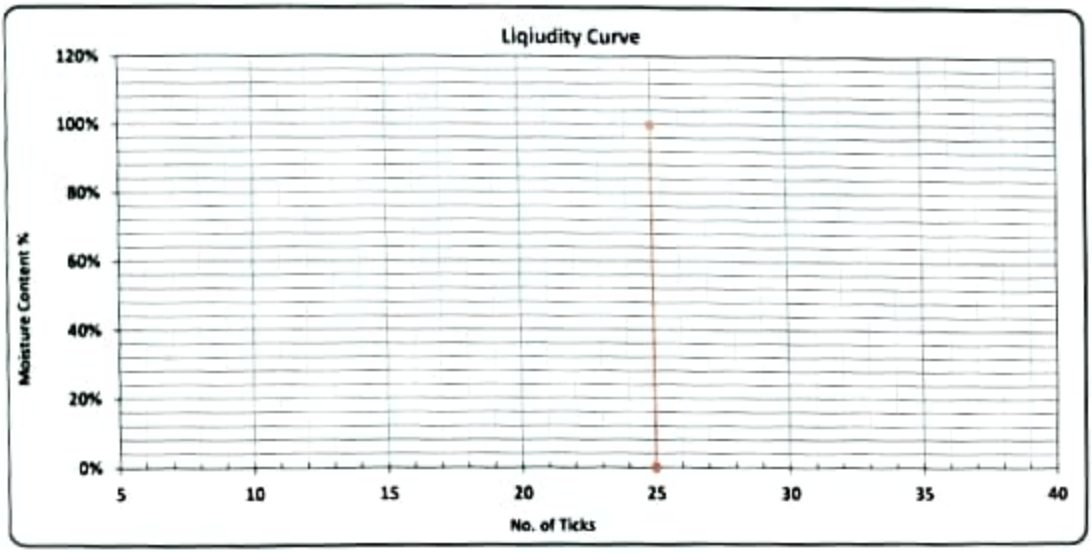
Consultant

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	01/08/2023	Code:	Station	525+800 (Left)
Location:	525+800 (Left)	MF-S-05	Material	Soil A-1-a
Name company	مارفيل		description	مشون ٢

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	5/8/2023	Code	Station	525+800 (Left)
Location :	525+800 (Left)	MF-S-06	Material	soil A-1-a
Name company	مارفين		description	مخلوط

-: Test Results

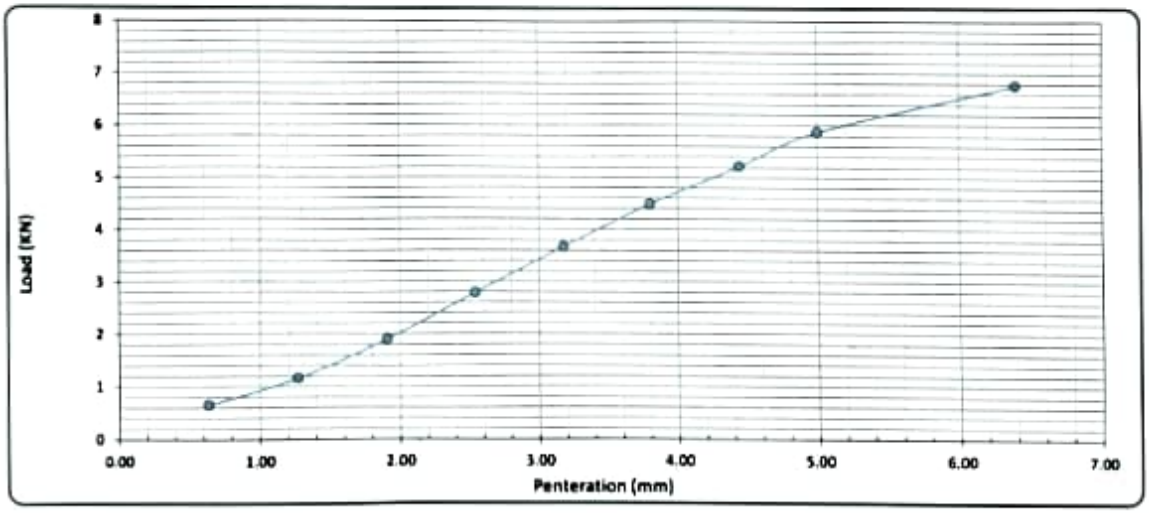
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	7205
Mold WT. + Wet WT. (gm)	14197
Wet WT. (gm)	6992
Wet Density (g/cm^3)	2.193
Dry Density (g/cm^3)	1.987
Proctor Density (g/cm^3)	2.120
Compaction %	94

Mositure Ratio After Compacted Mold	
Tare No.	23
Tare WT. (gm)	23
Tare WT. +Wet WT. (gm)	108
Tare WT. +Dry WT. (gm)	100
Water WT. (gm)	8.0
Dry WT. (gm)	77.0
Moisture Content %	10.4

Swelling	
Mold No.	
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	67.00	119.00	194.00	284.00	374.00	458.00	532.00	600.00	692.00
Load (KN)	0.7	1.2	1.9	2.8	3.7	4.5	5.2	5.9	6.8



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	2.78	13.4	20.8%	94	95	21.1%
5.00	5.88	20.0	29.4%			29.8%

Lab. Spectalist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : حسانى عبد المنعم
Sign :	Sign :	Sign : Hassanin

ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. فؤاد فديل — SYSTRA SHAKER	Electric Express Train - HSR From 6 October City To Abu simbel section -4 From Sohage To Qena From Station 503+000 To Station 509+000	الهيئة القومية للأنفاق

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	10/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-06	Material	soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

1-visual inspection test .....

2-Gradient test .....

A-gradation of bulk materials				SAMPLE WEIGHT [g]		18787.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
(g)Mass retained	0.0	1602.0	3414.0	1262.0	1823.0	877.0	2412.0	7397.0		A-1-a
(g)Cumulative Retained	0.0	1602.0	5016.0	6278.0	8101.0	8978.0	11390.0		PRO	2.23
Cumulative Retained %	0.0	8.5	26.7	33.4	43.1	47.8	60.6		WC	6.50
Cumulative Passing %	100.0	91.5	73.3	66.6	56.9	52.2	39.4		CBR	46.60

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
(g)Cumulative Retained	66.00	215.00	370.00					
Cumulative Retained %	13.20	43.00	74.00					
Cumulative Passing %	86.80	57.00	26.00					

C-General gradient										
(in)sieve size	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
(mm)sieve size	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	100.0	91.5	73.3	66.6	56.9	52.2	39.4	34.2	22.4	10.2

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

Contractor	Consultant
GPS Consulting	م/ هشام عبد المنعم

Electric Express Train - HSR

PROCTOR TEST

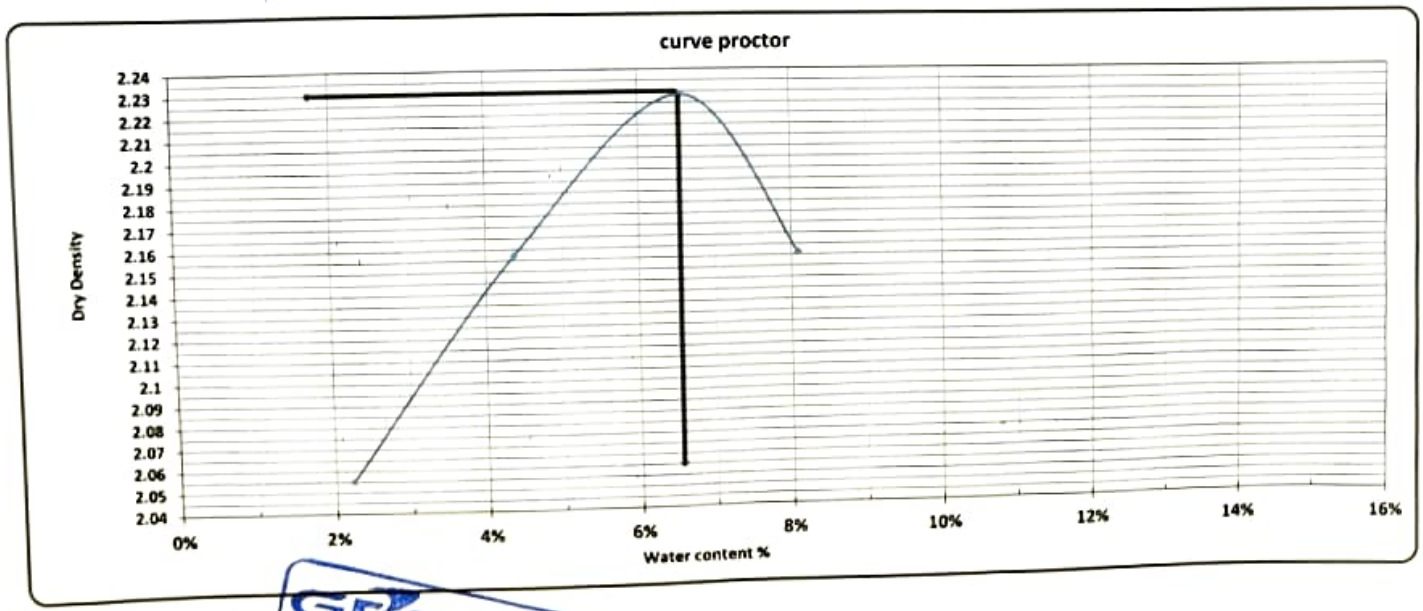
TESTING DATE:	10/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-06	Material	Soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

Weight of empty mold :	5939.0
Mold Volume:	2150.0

MAX Dry Density	2.3
Water content %	6.5

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10456.0	10780.0	11045.0	10950	
WT. WET SOIL	4517.0	4841.0	5106.0	5011.0	
Wt. Density	2.101	2.252	2.375	2.331	

Tare No.	1	2	5	9	15	13	21	3		
Tare wt.	23	19	25	22	22	24	23	23		
Wt. Of wet soil & tare	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0		
Wt. Of dry soil & tare	245.0	245.0	241.0	240.0	236.0	236.0	233.0	233.0		
Wt. Of water	5.0	5.0	9.0	10.0	14.0	14.0	17.0	17.0		
Wt. Of dry soil	222.0	226.0	216.0	218.0	214.0	212.0	210.0	210.0		
Water content %	2.3%	2.2%	4.2%	4.6%	6.5%	6.6%	8.1%	8.1%		
AV.Water content %	2.2%		4.4%		6.6%		8.1%			
Dry Density	2.055		2.157		2.228		2.156			



Contractor

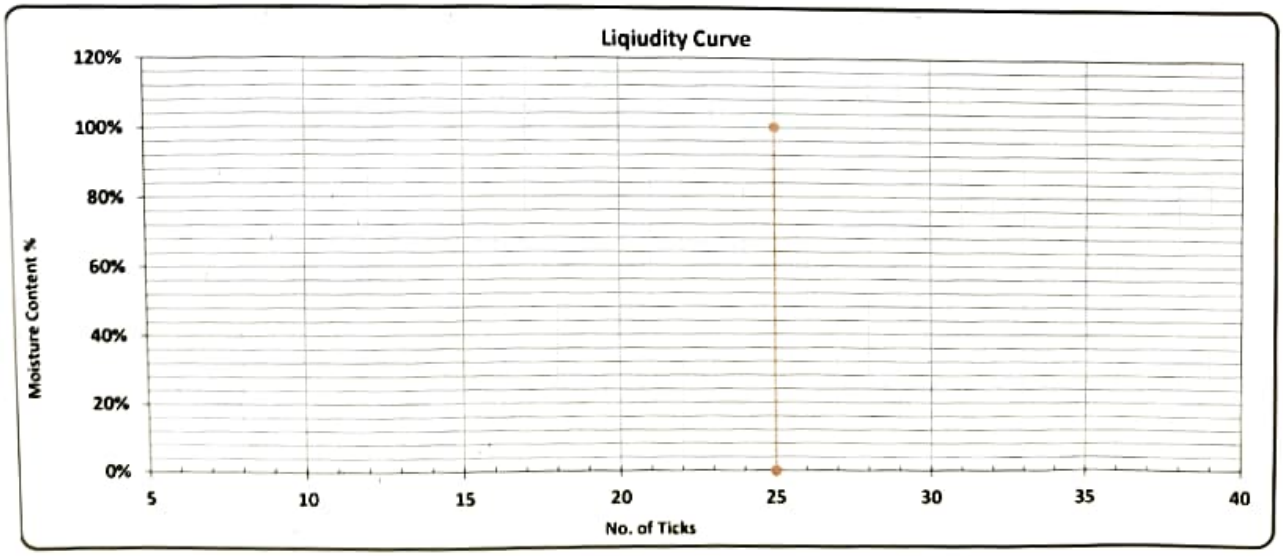
Consultant

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	10/08/2023	Code:	Station	525+800 (Left)
Location:	525+800 (Left)	MF-S-06	Material	Soil A-1-a
Name company	مارفيل		description	مشون ٢

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
(gm)Water WT.						
(gm)Dry WT.						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	14/8/2023	Code	Station	525+800 (Left)
Location :	525+800 (Left)	MF-S-06	Material	soil A-1-a
Name company	مارفيل		description	مشون ٢

- : Test Results

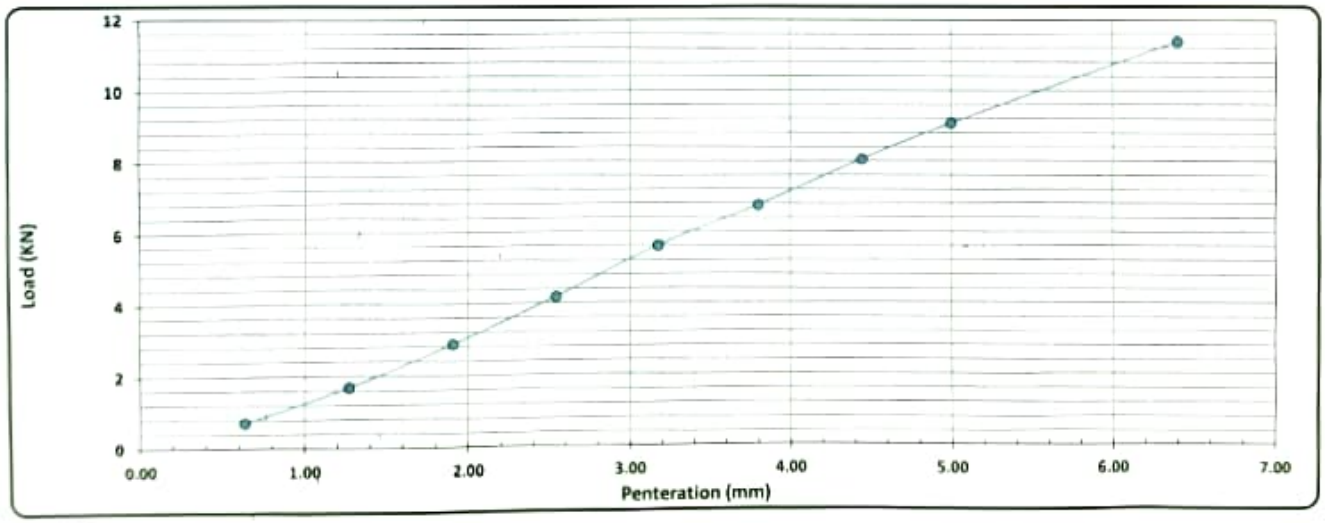
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm^3)	3060
(gm)Mold WT.	7205
(gm)Mold WT. + Wet WT.	13993
(gm)Wet WT.	6788
Wet Density (g/cm^3)	2.218
Dry Density (g/cm^3)	2.122
Proctor Density (g/cm^3)	2.300
Compaction %	92

Mositure Ratio After Compacted Mold	
Tare No.	19
Tare WT. (gm)	22
(gm)Tare WT. +Wet WT.	183
(gm)Tare WT. +Dry WT.	176
(gm)Water WT.	7.0
(gm)Dry WT.	154.0
Moisture Content %	4.5

Swelling	
Mold No.	١
Date	
(mm)Intial Height	
(mm)Final Height	
Difference	-
(mm)Sample Height	
Swelling Ratio %	

Loading Reading :

(mm)Penteration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
(kg)Load Reading	73.00	172.00	292.00	425.00	571.00	688.00	820.00	925.00	1161.00
(KN)Load	0.7	1.7	2.9	4.2	5.6	6.7	8.0	9.1	11.4



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% ٩٥ نسبة
2.50	4.17	13.4	31.2%	92	95	32.1%
5.00	9.07	20.0	45.3%			46.6%

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

Electric Express Train - HSR

From 6 October City To Abu simbel

section -4 From Sohage To Qena

From Station 503+000

To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	17/08/2023	code	ZONE	524+900	(right)
LOCATION	524+900 (Right)	MF-S-07	Material	soil (A-1-b)	
NAME COMPANY	مارفيل		description	مشون١	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		25880.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	905.0	1261.0	2183.0	1466.0	1957.0	1121.0	2366.0	14621.0		A-1-b
Cumulative Retained (g)	905.0	2166.0	4349.0	5815.0	7772.0	8893.0	11259.0		PRO	2.160
Cumulative Retained %	3.5	8.4	16.8	22.5	30.0	34.4	43.5		WC	6.00
Cumulative Passing %	96.5	91.6	83.2	77.5	70.0	65.6	56.5		CBR	38.7%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	121.00	220.00	405.00					
Cumulative Retained %	24.20	44.00	81.00					
Cumulative Passing %	75.80	56.00	19.00					

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 %	96.5	91.6	83.2	77.5	70.0	65.6	56.5	42.8	31.6	10.7

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

Contractor

Consultant

Electric Express Train - HSR

PROCTOR TEST

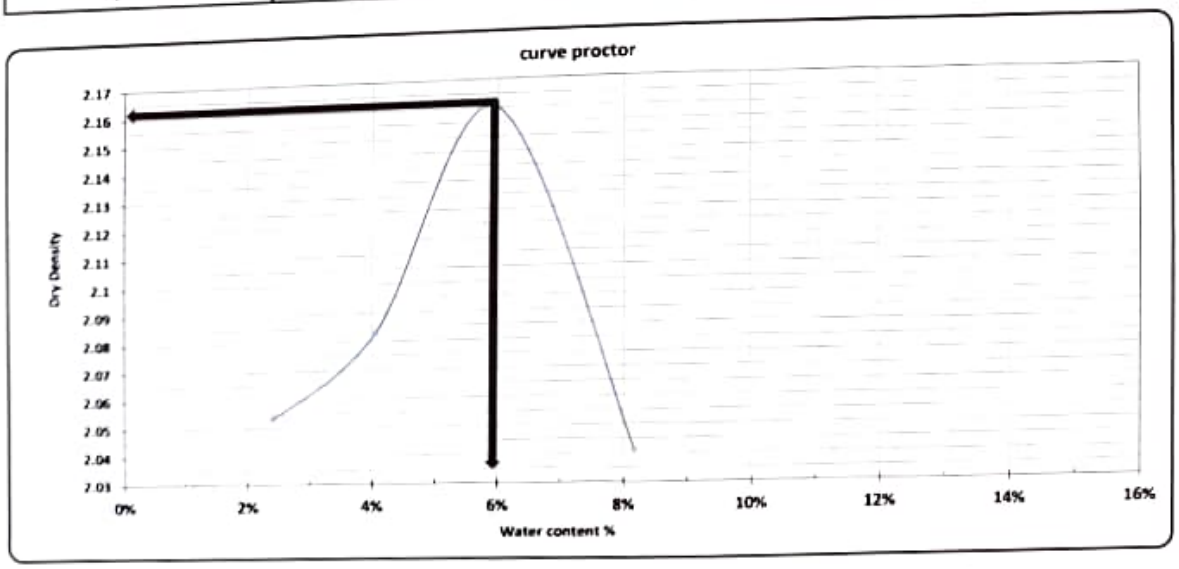
TESTING DATE:	17/08/2023	code	zone	524+900	(right)
LOCATION	524+900 (Right)	MF-S-07	Material description	soil (A-1-b)	
NAME COMPANY	مارفيل			مشون١	

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.16
Water content %	6

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	9760.0	9895.0	10150.0	9980	
WT. WET SOIL	4406.0	4541.0	4796.0	4626.0	
Wt. Density	2.103	2.168	2.289	2.208	

Tare No.	17	16	1	9	5	21	20	10		
Tare wt.	22	25	24	24	23	22	20	22		
Wt. Of wet soil & tare	187.0	163.0	182.0	174.0	166.0	183.0	176.0	171.0		
Wt. Of dry soil & tare	184.0	159.0	176.0	168.0	157.0	175.0	165.0	159.0		
Wt. Of water	3.0	4.0	6.0	6.0	9.0	8.0	11.0	12.0		
Wt. Of dry soil	162.0	134.0	152.0	144.0	134.0	153.0	145.0	137.0		
Water content %	1.9%	3.0%	3.9%	4.2%	6.7%	5.2%	7.6%	8.8%		
AV.Water content %	2.4%		4.1%		6.0%		8.2%			
Dry Density	2.053		2.083		2.160		2.041			



Contractor

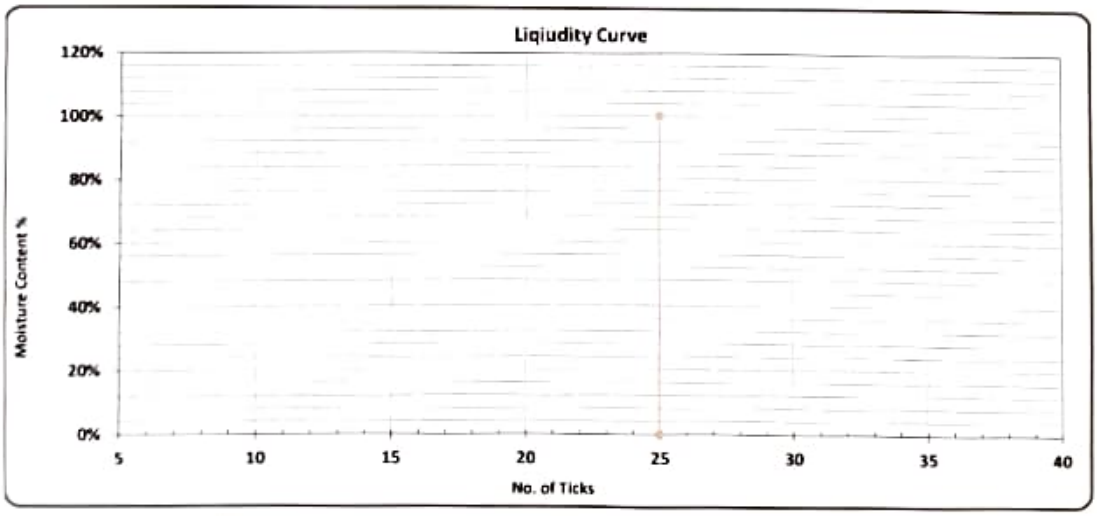
Consultant

	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	17/08/2023	Code:	zone	524+900 (Right)
Location:	524+900 (Right)	MF-S-07	Material:	soil (A-1-b)
Name company	مارفيل		description	مشون ١

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %						



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	21/08/2023	Code	zone	524+900 (Right)
Location :	524+900 (Right)	MF-S-07	Material :	soil (A-1-b)
Name company	مارفيل		description	مشون ١

- : Test Results

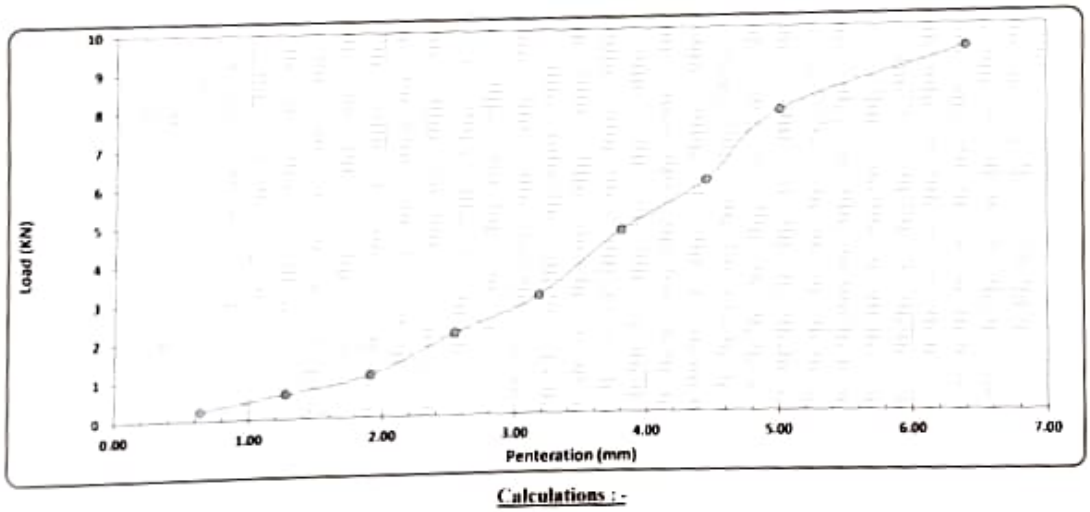
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm^3)	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12877
Wet WT. (gm)	6939
Wet Density (g/cm^3)	2.177
Dry Density (g/cm^3)	2.063
Proctor Density (g/cm^3)	2.160
Compaction %	96

Mositure Ratio After Compacted Mold	
Tare No.	8
Tare WT. (gm)	24
Tare WT. +Wet WT. (gm)	197
Tare WT. +Dry WT. (gm)	188
Water WT. (gm)	9.0
Dry WT. (gm)	164.0
Moisture Content %	5.5

Swelling	
Mold No.	1
Date	
Initial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	24.00	65.00	110.00	215.00	310.00	480.00	610.00	795.00	960.00
Load (KN)	0.2	0.6	1.1	2.1	3.0	4.7	6.0	7.8	9.4



Calculations : -

Penteration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR عند نسبة ٩٥ %
2.50	2.11	13.4	15.8%	96	95	15.7%
5.00	7.79	20.0	38.9%			38.7%

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

ENGINEERING CONSULTING OFFICE	Electric Express Train - HSR From 6 October City To Abu simbel section -4 From Sohage To Qena	
	From Station 480+000 To Station 630+000	

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	17/08/2023	code		Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-08		Material	soil A-1-a
NAME COMPANY	مارفيل			description	مشون ٢

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT (g)		24630.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	941.0	1421.0	1723.0	1367.0	1214.0	961.0	2439.0	14630.0		A-1-a
Cumulative Retained (g)	941.0	2362.0	4085.0	5452.0	6666.0	7627.0	10066.0		PRO	2.22
Cumulative Retained %	3.8	9.6	16.6	22.1	27.1	31.0	40.9		WC	7.00
Cumulative Passing %	96.2	90.4	83.4	77.9	72.9	69.0	59.1		CBR	31.70

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	77.00	247.00	392.00					
Cumulative Retained %	15.40	49.40	78.40					
Cumulative Passing %	84.60	50.60	21.60					

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 %	96.2	90.4	83.4	77.9	72.9	69.0	59.1	50.0	29.9	12.8

ATTERBERG LIMTS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	16.00	12.00	4.00

Contractor

GEB Consulting

Consultant

Electric Express Train - HSR

From 6 October City To Abu Simbel

Section - 4 From Sohage To Qena

From Station 506 + 300
To Station 509 + 300

PROCTOR TEST

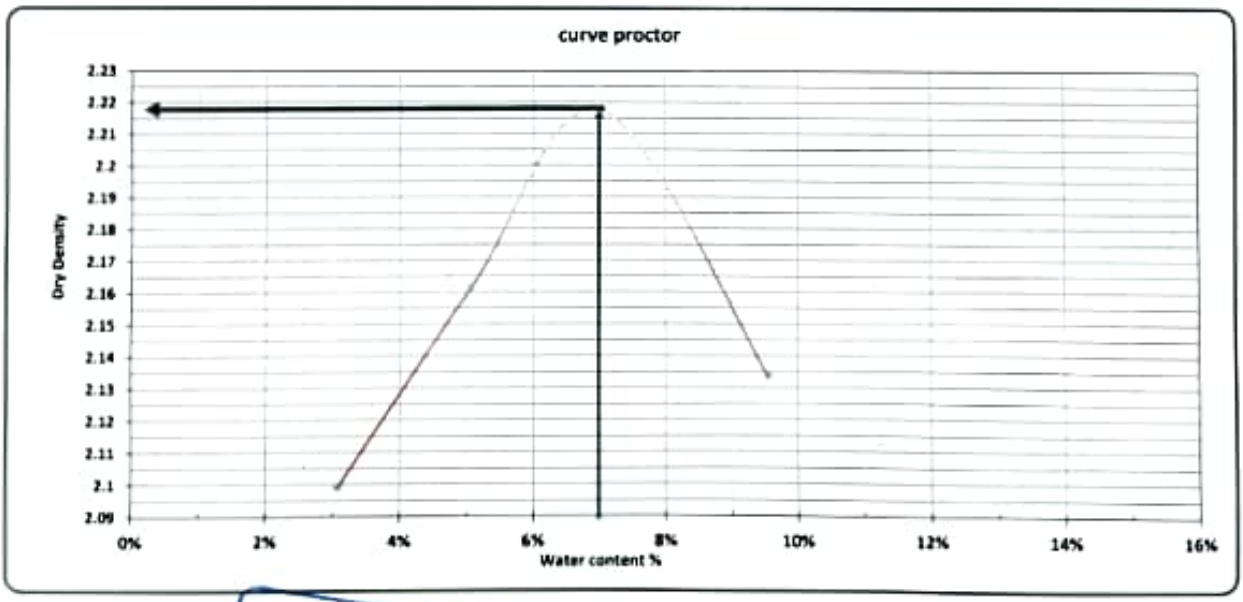
TESTING DATE:	17/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-08	Material	Soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.218
Water content %	7

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	9887.0	10112.0	10326.0	10251.0	
WT. WET SOIL	4533.0	4758.0	4972.0	4897.0	
Wt. Density	2.164	2.271	2.373	2.337	

Tare No.	14	15	16	17	18	19	20	21		
Tare wt.	23	22	25	22	24	23	25	22		
Wt. Of wet soil & tare	168.0	178.0	172.0	186.0	166.0	188.0	163.0	172.0		
Wt. Of dry soil & tare	164.0	173.0	165.0	178.0	156.0	178.0	150.0	160.0		
Wt. Of water	4.0	5.0	7.0	8.0	10.0	10.0	13.0	12.0		
Wt. Of dry soil	141.0	151.0	140.0	156.0	132.0	155.0	125.0	138.0		
Water content %	2.8%	3.3%	5.0%	5.1%	7.6%	6.5%	10.4%	8.7%		
AV. Water content %	3.1%		5.1%		7.0%		9.5%			
Dry Density	2.099		2.162		2.218		2.134			



Contractor

Consultant

From 6 October City To Abu simbel section -4 From Sohage To Qena

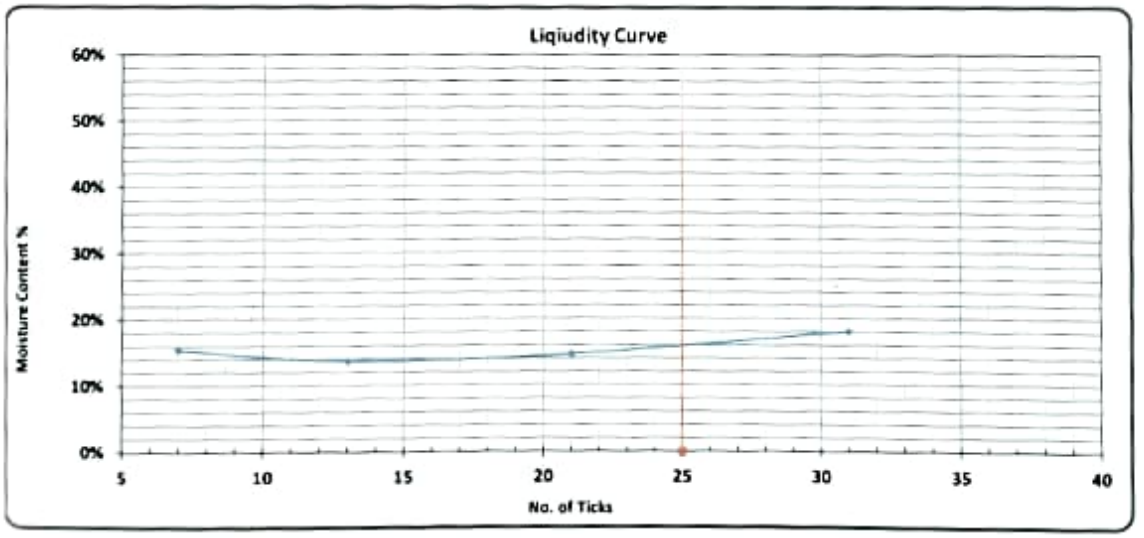
Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	17/08/2023	Code:	Station	525+800 (Left)
Location:	525+800 (Left)	MF-S-08	Material	Soil A-1-a
Name company	مارفل		description	مشون ٢

Testing Results :-

Test	Liqiud Limit				Plastic Limit	
No. of Ticks	7	13	21	31	-	-
Tare No.	9	19	17	21	16	13
Tare WT. (gm)	23.98	23.5	22.59	22.21	22.82	23.02
Tare WT. + Wet WT. (gm)	57.5	53.67	54.16	51.78	33.26	33.13
Tare WT. + Dry WT. (gm)	53.02	50.03	50.12	47.25	32.98	31.33
Water WT. (gm)	4.48	3.64	4.04	4.53	0.28	1.8
Dry WT. (gm)	29.04	26.53	27.53	25.04	10.16	8.31
Moisture Content %	15.4%	13.7%	14.7%	18.1%	3%	22%
Average %					12%	

16.4%



L.L	P.L	P.I
16%	12%	4%

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	21/8/2023	Code	Station	525+800 (Left)
Location :	525+800 (Left)	MF-S-08	Material	soil A-1-a
Name company	مارفيل		description	مشون ٢

-: Test Results

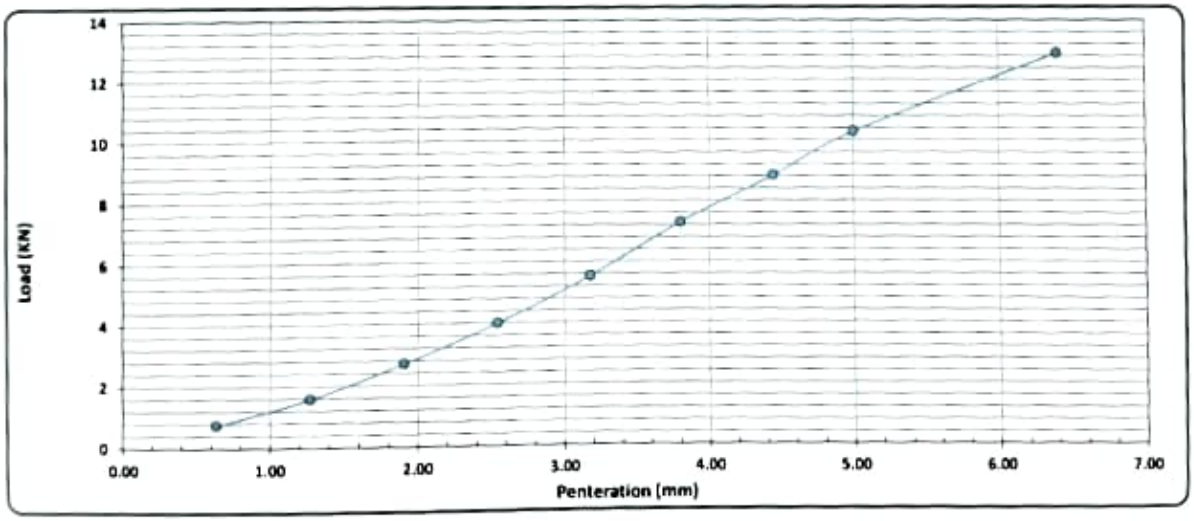
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3060
Mold WT. (gm)	7205
Mold WT. + Wet WT. (gm)	13863
Wet WT. (gm)	6658
Wet Density (g/cm^3)	2.176
Dry Density (g/cm^3)	2.039
Proctor Density (g/cm^3)	2.220
Compaction %	92

Mositure Ratio After Compacted Mold	
Tare No.	2
Tare WT. (gm)	19
Tare WT. +Wet WT. (gm)	178
Tare WT. +Dry WT. (gm)	168
Water WT. (gm)	10.0
Dry WT. (gm)	149.0
Moisture Content %	6.7

Swelling	
Mold No.	1
Date	
Intial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	0.00
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	78.00	163.00	277.50	409.00	564.00	744.00	902.00	1049.50	1316.00
Load (KN)	0.8	1.6	2.7	4.0	5.5	7.3	8.8	10.3	12.9



Calculations : -

Penteration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR عند نسبة ٩٥ %
2.50	4.01	13.4	30.0%	92	95	31.1%
5.00	10.29	20.0	51.4%			53.1%

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

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	23/08/2023	code	ZONE	525+800	(Left)
LOCATION	525+800 (Left)	MF-S-09	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		26503.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	921.0	1523.0	1687.0	2115.0	1963.0	1788.0	2451.0	14055.0		A-1-a
Cumulative Retained (g)	921.0	2444.0	4131.0	6246.0	8209.0	9997.0	12448.0		PRO	2.23
Cumulative Retained %	3.5	9.2	15.6	23.6	31.0	37.7	47.0		WC	5.70
Cumulative Passing %	96.5	90.8	84.4	76.4	69.0	62.3	53.0		CBR	43.5%

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	122.00	287.00	412.00					
Cumulative Retained %	24.40	57.40	82.40					
Cumulative Passing %	75.60	42.60	17.60					

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 %	96.5	90.8	84.4	76.4	69.0	62.3	53.0	40.1	22.6	9.3

ATTERBERG LIMTS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	16.0%	11.9%	4.1%

Contractor

Consultant

PROCTOR TEST

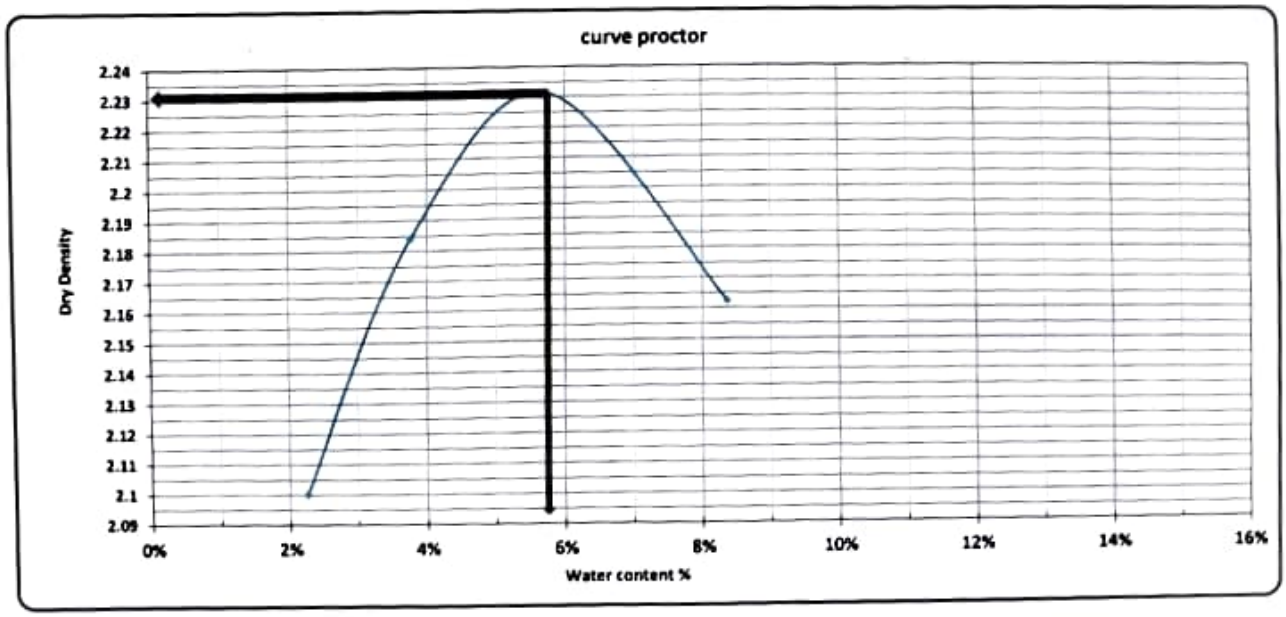
TESTING DATE:	23/08/2023	code	Station	525+800	(Left)
LOCATION	525+800 (Left)	MF-S-09	Material	soil (A-1-a)	
NAME COMPANY	مارفيل		description	مشون ٢	

Weight of empty mold :	**5354.0**
Mold Volume:	**2095.0**

MAX Dry Density	2.231
Water content %	5.7

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	**9853.0**	**10102.0**	**10297.0**	**10263**	
WT. WET SOIL	4499.0	4748.0	4943.0	4909.0	
Wt. Density	2.147	2.266	2.359	2.343	

Tare No.	10	17	1	9	16	21	13	8		
Tare wt.	22	22	24	24	25	22	23	24		
Wt. Of wet soil & tare	178.0	183.0	188.0	191.0	168.0	174.0	169.0	176.0		
Wt. Of dry soil & tare	175.0	179.0	182.0	185.0	160.0	166.0	158.0	164.0		
Wt. Of water	3.0	4.0	6.0	6.0	8.0	8.0	11.0	12.0		
Wt. Of dry soil	153.0	157.0	158.0	161.0	135.0	144.0	135.0	140.0		
Water content %	2.0%	2.5%	3.8%	3.7%	5.9%	5.6%	8.1%	8.6%		
AV.Water content %	2.3%		3.8%		5.7%		8.4%			
Dry Density	2.100		2.184		2.231		2.162			



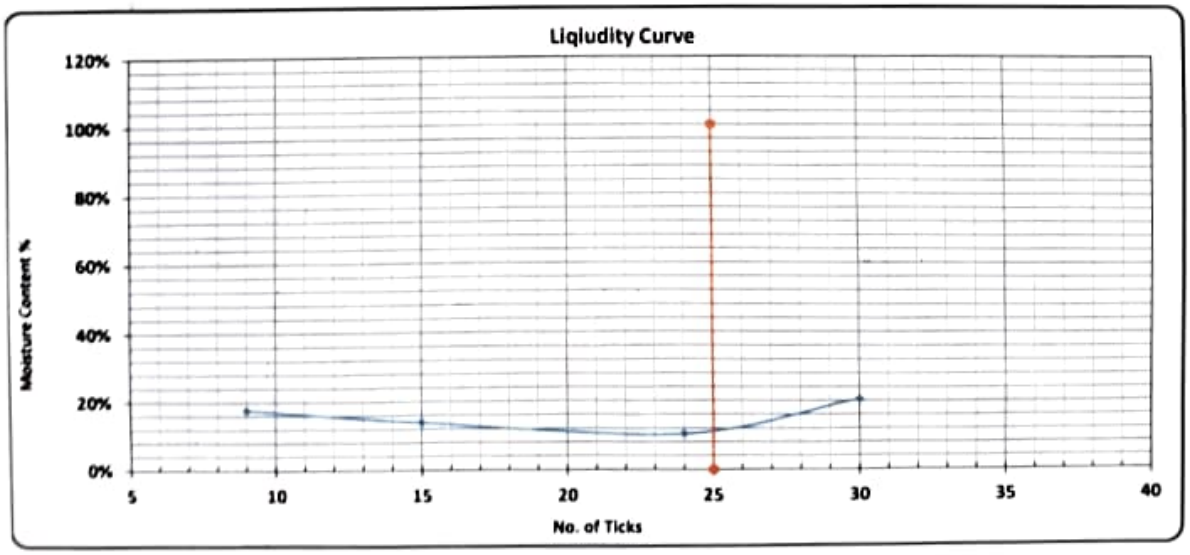
Contractor

Consultant

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	23/08/2023	Code	zoe	525+800	(left)
Location:	525+800 (Left)	MF-S-09	Material:	soil (A-1-a)	
Name company	مارفيل		description	مشون ٢	

Test	Liqiud Limit				Plastic Limit	
No. of Ticks	9	15	24	30	-	-
Tare No.	19	1	12	21	5	6
Tare WT. (gm)	23.51	24.36	22.00	22.20	22.82	23.26
Tare WT. + Wet WT. (gm)	56.31	51.16	53.16	54.12	32.74	31.71
Tare WT. + Dry WT. (gm)	51.33	47.87	50.21	48.67	31.87	30.66
Water WT. (gm)	4.98	3.29	2.95	5.45	0.87	1.05
Dry WT. (gm)	27.82	23.51	28.21	26.47	9.05	7.40
Moisture Content %	17.9%	14.0%	10.5%	20.6%	9.6%	14.2%
Average %					11.9%	
				16.0%		



L.L	P.L	P.I
16.0%	11.9%	4.1%

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

California Bearing Ratio TEST

Testing Date :	27/08/2023	Code	zone	525+800	(left)
Location :	525+800 Left	MF-S-09	Material :	soil (A-1-a)	
Name c	مارفيل		description	مشون ٢	

-: Test Results

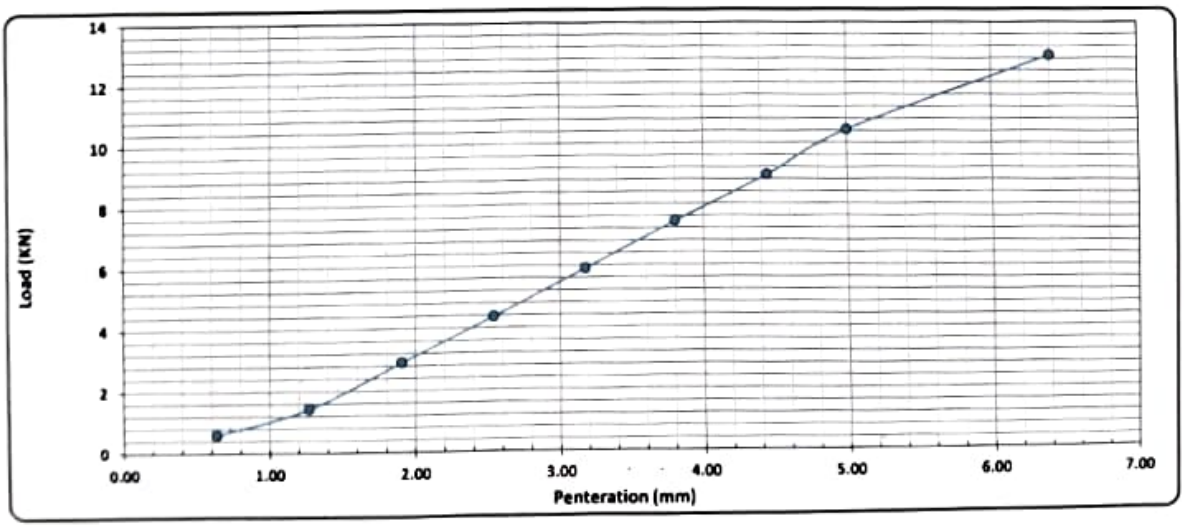
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12916
Wet WT. (gm)	6978
Wet Density (g/cm^3)	2.189
Dry Density (g/cm^3)	2.057
Proctor Density (g/cm^3)	2.220
Compaction %	93

Mositure Ratio After Compacted Mold	
Tare No.	21
Tare WT. (gm)	22
Tare WT. +Wet WT. (gm)	187
Tare WT. +Dry WT. (gm)	178
Water WT. (gm)	10.0
Dry WT. (gm)	156.0
Moisture Content %	6.4

Swelling	
Mold No.	
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	62.00	147.00	298.00	446.50	603.00	758.00	913.00	1065.50	1316.50
Load (KN)	0.6	1.4	2.9	4.4	5.9	7.4	8.9	10.4	12.9



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	4.38	13.4	32.8%	93	95	33.6%
5.00	10.44	20.0	52.1%			53.5%

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

Electric Express Train - HSR

From 6 October City To Abu simbel

section -4 From Sohage To Qena

From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	31/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-10	Material	soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		26886.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	0.0	620.0	2260.0	1441.0	1875.0	722.0	1305.0	18663.0		A-1-a
Cumulative Retained (g)	0.0	620.0	2880.0	4321.0	6196.0	6918.0	8223.0		PRO	2.23
Cumulative Retained %	0.0	2.3	10.7	16.1	23.0	25.7	30.6		WC	6.50
Cumulative Passing %	100.0	97.7	89.3	83.9	77.0	74.3	69.4		CBR	39.00

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	150.00	295.00	420.00					
Cumulative Retained %	30.00	59.00	84.00					
Cumulative Passing %	70.00	41.00	16.00					

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	97.7	89.3	83.9	77.0	74.3	69.4	48.6	28.5	11.1

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

Contractor	Consultant
	م/ حساني عبد المنعم

PROCTOR TEST

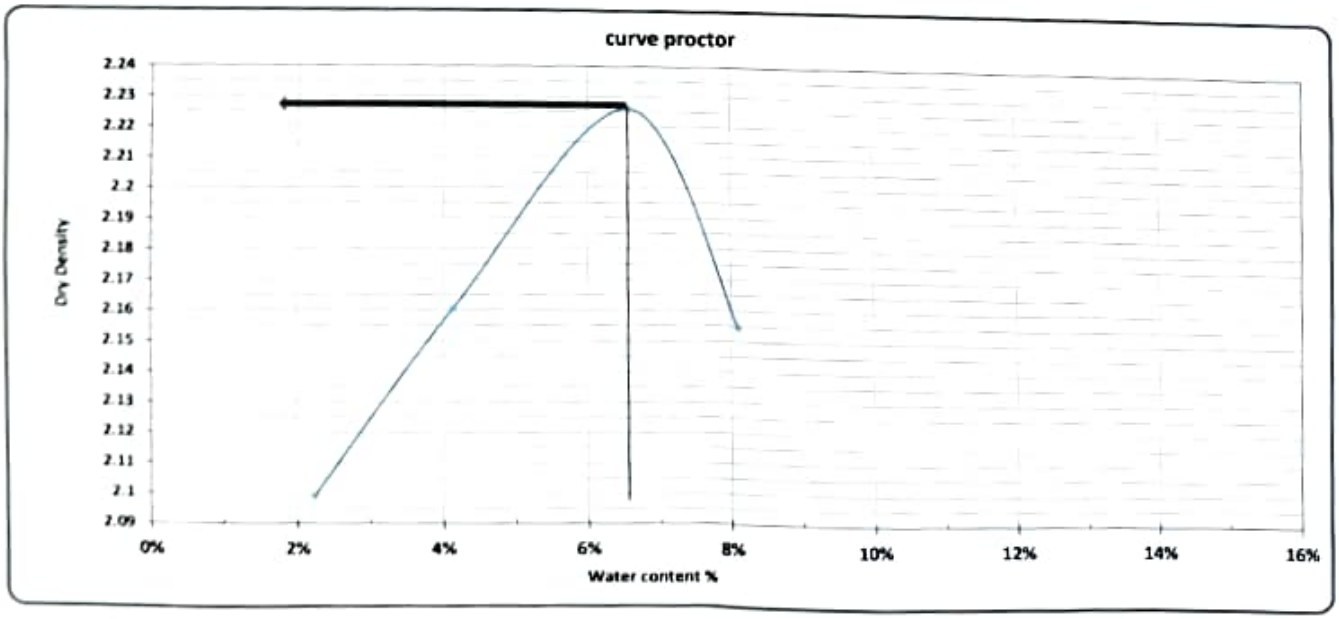
TESTING DATE:	31/08/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-10	Material	Soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

Weight of empty mold :	5719.0
Mold Volume:	2076.0

MAX Dry Density	2.225
Water content %	6.5

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10174.0	10390.0	10644.0	10554	
WT. WET SOIL	4455.0	4671.0	4925.0	4835.0	
Wt. Density	2.146	2.250	2.372	2.329	

Tare No.	23	2	20	12	15	9	4	3		
Tare wt.	23	19	25	22	22	24	23	23		
Wt. Of wet soil & tare	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0		
Wt. Of dry soil & tare	245.0	245.0	242.0	240.0	236.0	236.0	232.0	234.0		
Wt. Of water	5.0	5.0	8.0	10.0	14.0	14.0	18.0	16.0		
Wt. Of dry soil	222.0	226.0	217.0	218.0	214.0	212.0	209.0	211.0		
Water content %	2.3%	2.2%	3.7%	4.6%	6.5%	6.6%	8.6%	7.6%		
AV.Water content %	2.2%		4.1%		6.6%		8.1%			
Dry Density	2.099		2.161		2.226		2.155			



Contractor

GLS Consulting

Consultant

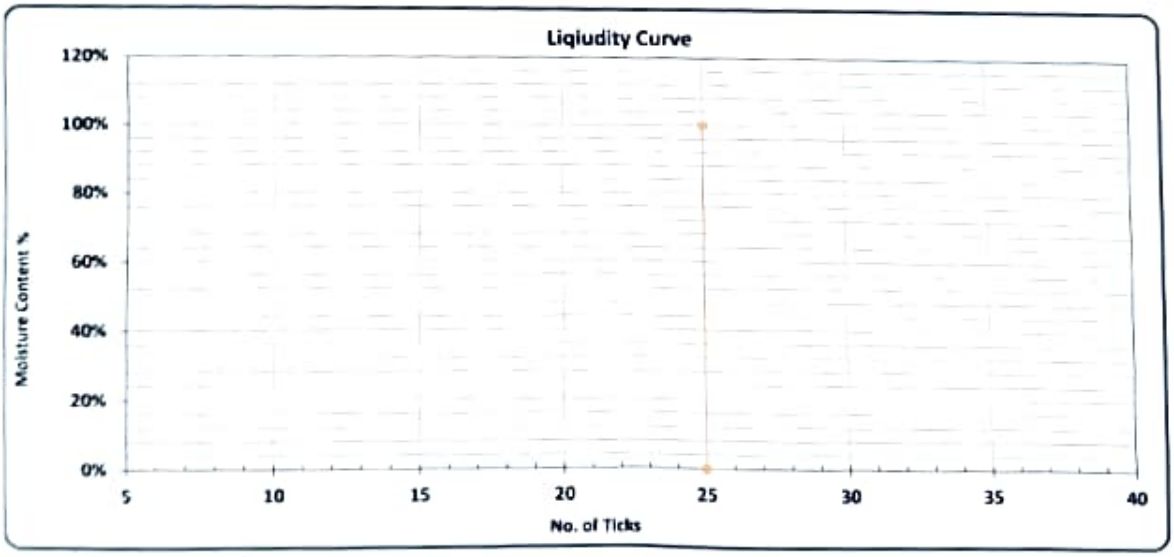
	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	31/08/2023	Code:	Station	525+800 (Left)
Location:	525+800 (Left)	MF-S-10	Material	Soil A-1-a
Name company	مازفيل		description	مشون ٢

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

California Bearing Ratio TEST

Testing Date :	4/9/2023	Code	Station	525+800 (Left)
Location :	525+800 (Left)	MF-S-10	Material	soil A-1-a
Name company	مرفق		description	مشون ٢

-: Test Results

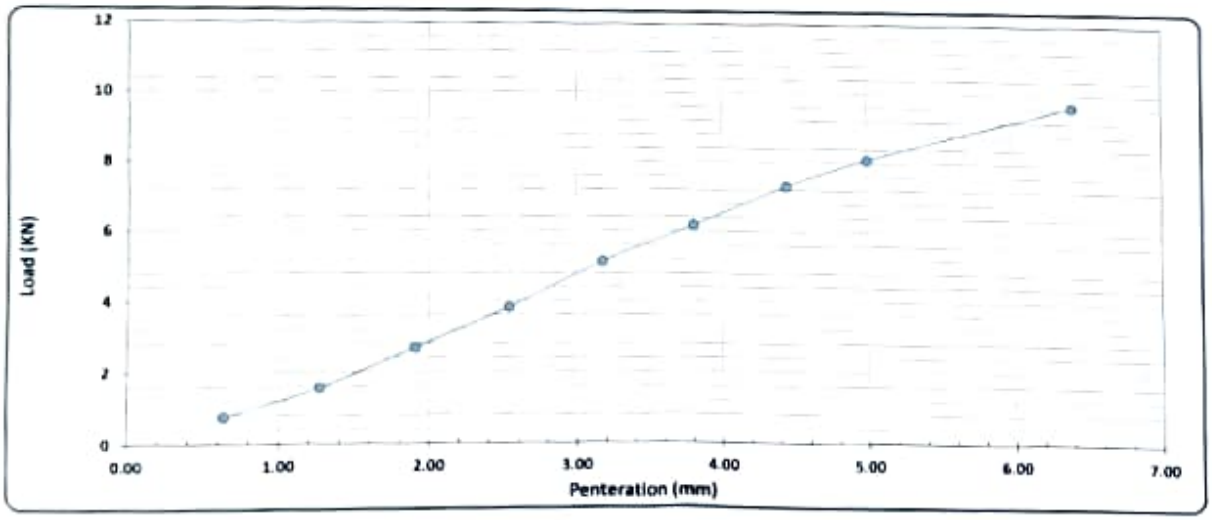
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	7205
Mold WT. + Wet WT. (gm)	14570
Wet WT. (gm)	7365
Wet Density (g/cm^3)	2.310
Dry Density (g/cm^3)	2.189
Proctor Density (g/cm^3)	2.225
Compaction %	98

Mositure Ratio After Compacted Mold	
Tare No.	19
Tare WT. (gm)	22
Tare WT. +Wet WT. (gm)	250
Tare WT. +Dry WT. (gm)	238
Water WT. (gm)	12.0
Dry WT. (gm)	216.0
Moisture Content %	5.6

Swelling	
Mold No.	١
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	-
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	77.00	160.00	274.00	390.00	522.50	630.00	745.50	825.00	987.00
Load (KN)	0.8	1.6	2.7	3.8	5.1	6.2	7.3	8.1	9.7



Calculations : -

Penteration (mm)	Load (Kn)	Standard Load (lb)	CBR (%)	Mold - Compaction (%)	Compaction (%)	CBR عند نسبة ٩٥ %
2.50	3.82	13.4	28.6%	98	95	27.6%
5.00	8.09	20.0	40.4%			39.0%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name : رشدي	Name : محمد حامد	Name : م/ سامي عبد المنعم
Sign :	Sign :	Sign :

GES Consulting

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	02/09/2023	code		Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-11		Material	soil A-1-a
NAME COMPANY	مارفيل			description	مشون ٢

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		25400.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	0.0	554.0	2145.0	1399.0	1660.0	700.0	1295.0	17647.0		A-1-a
Cumulative Retained (g)	0.0	554.0	[illegible]	4098.0	5758.0	6458.0	7753.0		PRO	2.23
Cumulative Retained %	0.0	2.2	[illegible]	16.1	22.7	25.4	30.5		WC	6.50
Cumulative Passing %	100.0	97.8	[illegible]	[illegible]	[illegible]	74.6	69.5		CBR	41.10

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	145.00	300.00	420.00					
Cumulative Retained %	29.00	60.00	84.00					
Cumulative Passing %	71.00	40.00	16.00					

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	97.8	89.4	83.9	77.3	74.6	69.5	49.3	27.8	11.1

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

Contractor

Consultant

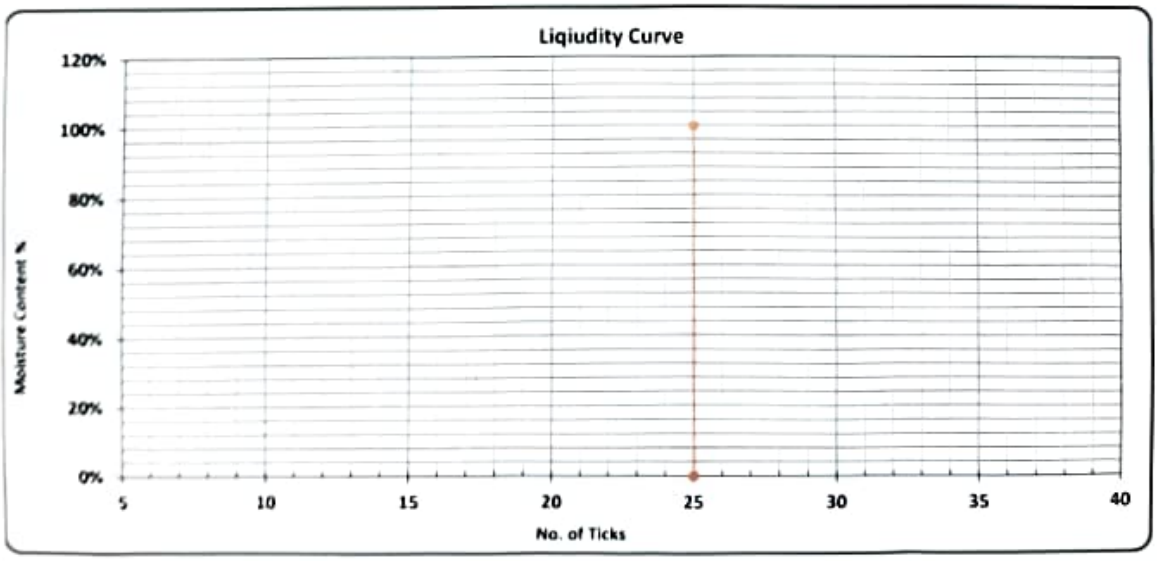
	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	02/09/2023	Code:	Station	525+800 (Left)
Location:	525+800 (Left)	MF-S-11	Material	Soil A-1-a
Name company	مارفيل		description	مشون ٢

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

PROCTOR TEST

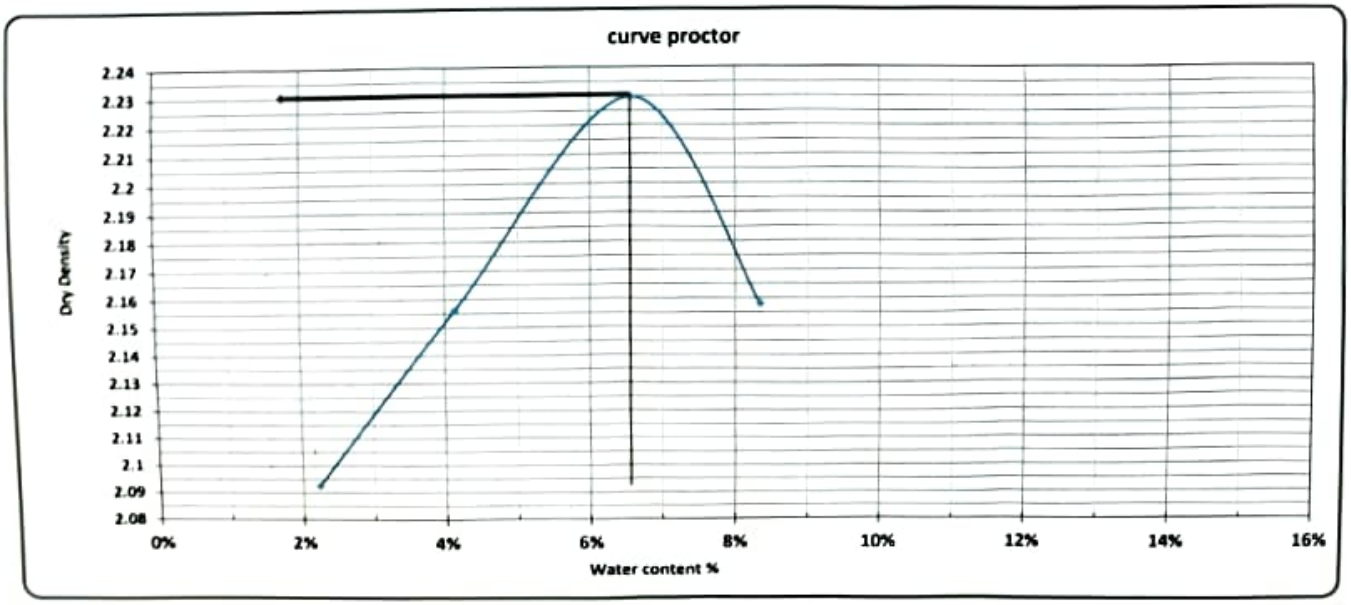
TESTING DATE:	02/09/2023	code	Station	525+800 (Left)
LOCATION	525+800 (Left)	MF-S-11	Material	Soil A-1-a
NAME COMPANY	مارفيل		description	مشون ٢

Weight of empty mold :	5719.0
Mold Volume:	2076.0

MAX Dry Density	2.23
Water content %	6.5

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	10160.0	10380.0	10652.0	10573	
WT. WET SOIL	4441.0	4661.0	4933.0	4854.0	
Wt. Density	2.139	2.245	2.376	2.338	

Tare No.	19	4	23	13	20	9	25	3		
Tare wt.	23	19	25	22	22	24	23	23		
Wt. Of wet soil & tare	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0		
Wt. Of dry soil & tare	245.0	245.0	242.0	240.0	235.0	237.0	232.0	233.0		
Wt. Of water	5.0	5.0	8.0	10.0	15.0	13.0	18.0	17.0		
Wt. Of dry soil	222.0	226.0	217.0	218.0	213.0	213.0	209.0	210.0		
Water content %	2.3%	2.2%	3.7%	4.6%	7.0%	6.1%	8.6%	8.1%		
AV.Water content %	2.2%		4.1%		6.6%		8.4%			
Dry Density	2.092		2.156		2.230		2.158			



Contractor

Consultant

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	6/9/2023	Code	Station	525+800 (Left)
Location :	525+800 (Left)	MF-S-11	Material	soil A-1-a
Name company	مارفيل		description	مشون ٢

-: Test Results

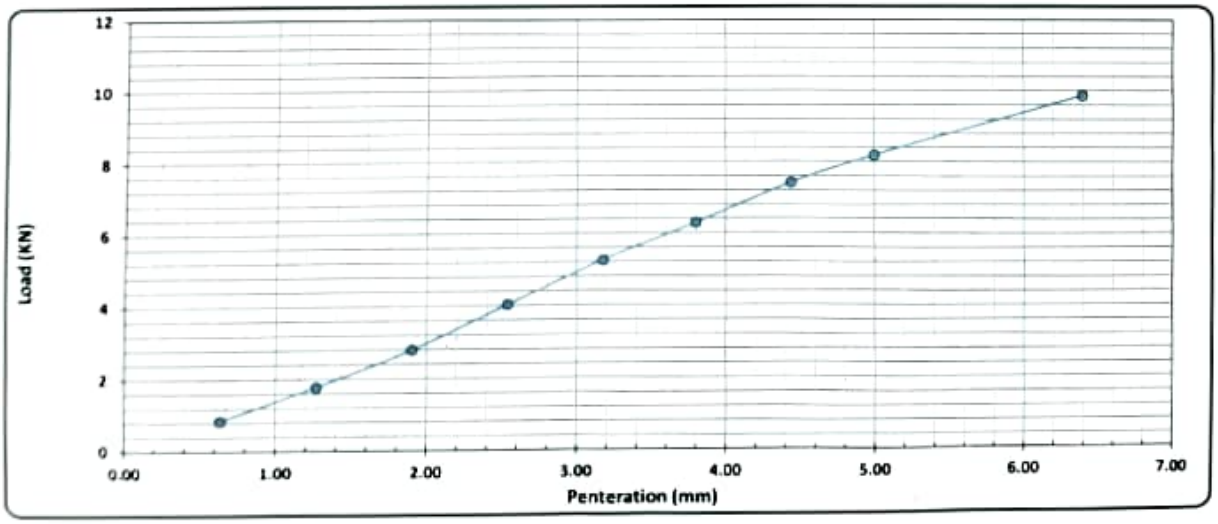
Compaction % for Mold	
Mold No.	13
Mold Vol. (cm^3)	2113
Mold WT. (gm)	7829
Mold WT. + Wet WT. (gm)	12560
Wet WT. (gm)	4731
Wet Density (g/cm^3)	2.239
Dry Density (g/cm^3)	2.101
Proctor Density (g/cm^3)	2.230
Compaction %	94

Mositure Ratio After Compacted Mold	
Tare No.	25
Tare WT. (gm)	23
Tare WT. +Wet WT. (gm)	250
Tare WT. +Dry WT. (gm)	236
Water WT. (gm)	14.0
Dry WT. (gm)	213.0
Moisture Content %	6.6

Swelling	
Mold No.	١٣
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	87.00	180.00	284.00	410.00	533.50	640.50	755.00	833.50	1005.00
Load (KN)	0.9	1.8	2.8	4.0	5.2	6.3	7.4	8.2	9.8



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	4.02	13.4	30.1%	94	95	30.3%
5.00	8.17	20.0	40.8%			41.1%

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

Electric Express Train - HSR

From 6 October City To Abu simbel

section -4 From Sohage To Qena

From Station 503+000

To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	04/09/2023	code	ZONE	524+660 (left)	
LOCATION	524+660(left)	MF-S-12	Material	Soil (A-1-b)	
NAME COMPANY	مارفيل للمقاولات		Description	مشون ٣	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		19233.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	0.0	570.0	1123.0	1345.0	1077.0	1439.0	1358.0	12321.0		A-1-b
Cumulative Retained (g)	0.0	570.0	1693.0	3038.0	4115.0	5554.0	6912.0		PRO	2.18
Cumulative Retained %	0.0	3.0	8.8	15.8	21.4	28.9	35.9		WC	6.30
Cumulative Passing %	100.0	90.3	91.2	84.2	78.6	71.1	64.1		CBR	29.40

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	102.00	283.00	463.00					
Cumulative Retained %	20.40	56.60	92.60					
Cumulative Passing %	79.60	43.40	7.40					

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	90.3	91.2	84.2	78.6	71.1	64.1	51.0	27.8	4.7

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

Contractor

GPS Consulting

Consultant

PROCTOR TEST

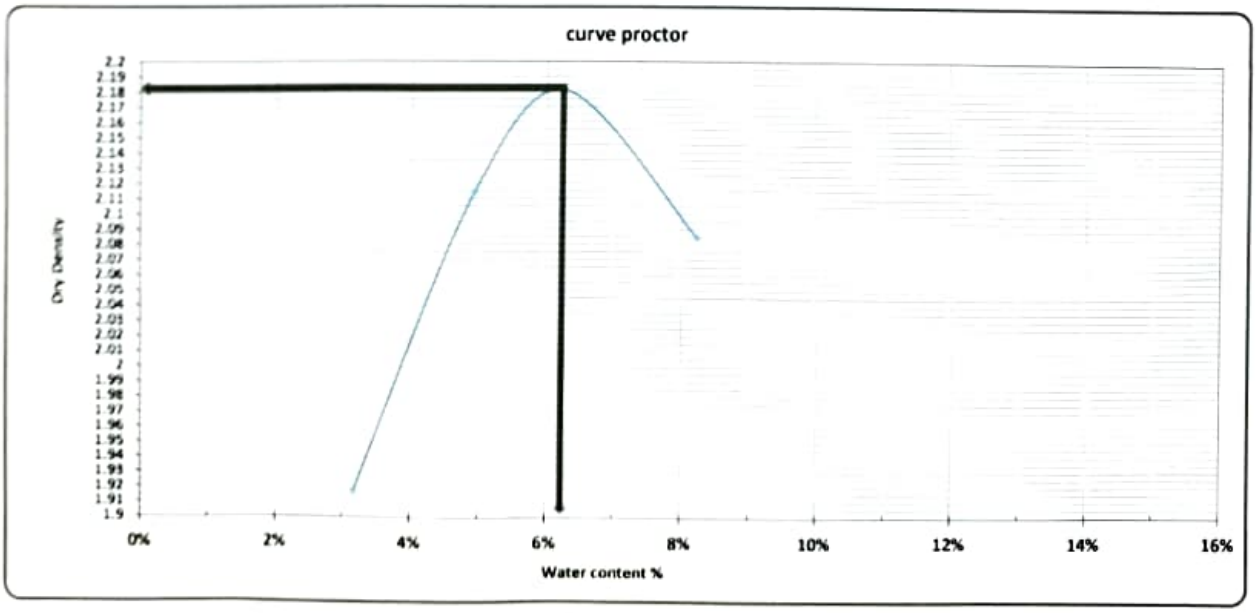
TESTING DATE	04/09/2023	code	Station	524+660 (Left)
LOCATION	524+660 (left)	MF-S-12	Material	soil (A-1-b)
NAME COMPANY	مدافيل للمقاولات		description	متون ٣

Weight of empty mold :	5934.0
Mold Volume:	2140.0

MAX Dry Density	2.181
Water content %	6.3

trial no :	1	2	3		
Wt. Of Mold+ wet soil	10169.0	10682.0	10894.0	10763.0	
WT. WET SOIL	4235.0	4748.0	4960.0	4829.0	
Wt. Density	1.979	2.219	2.318	2.257	

Tare No.	15	824	11	13	20	9	14	4		
Tare wt.	24	24	21	23	25	24	23	24		
Wt. Of wet soil & tare	166.0	174.0	158.0	163.0	179.0	192.0	184.0	192.0		
Wt. Of dry soil & tare	162.0	169.0	151.0	157.0	170.0	182.0	171.0	180.0		
Wt. Of water	4.0	5.0	7.0	6.0	9.0	10.0	13.0	12.0		
Wt. Of dry soil	138.0	145.0	130.0	134.0	145.0	158.0	148.0	156.0		
Water content %	2.9%	3.4%	5.4%	4.5%	6.2%	6.3%	8.8%	7.7%		
AV. Water content %	3.2%		4.9%		6.3%		8.2%			
Dry Density	1.918		2.114		2.181		2.085			



Contractor

Consulting

Consultant

م/ حسانى عبدالمنعم

Hassania

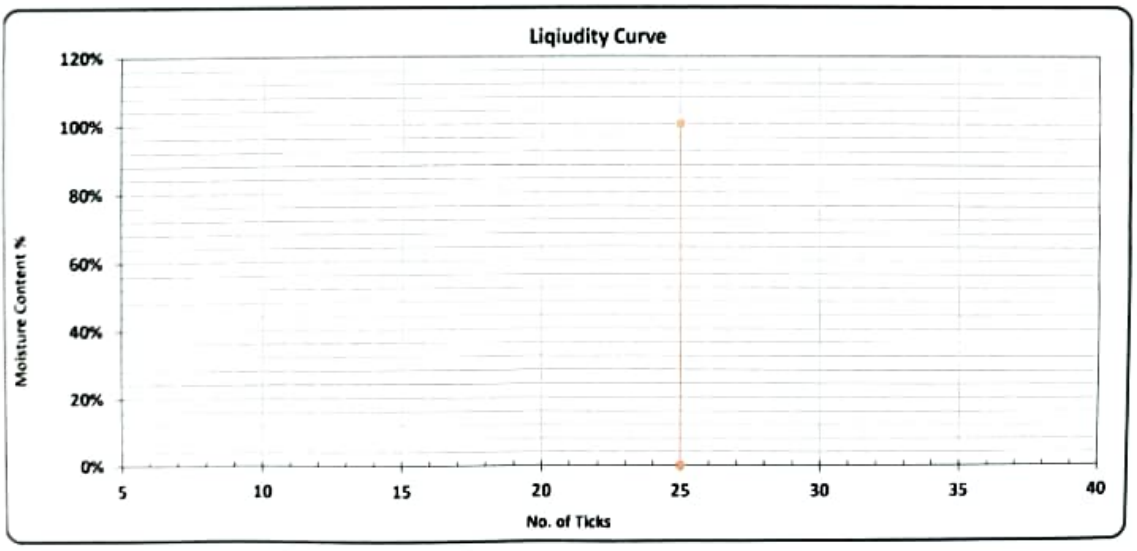
	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	04/09/2023	Code:	Zone	524+660 (Left)
Location:	524+660 (Left)	MF-S-12	Material:	Soil (A-1-b)
Name company	مارفيل للمقاولات		Description	مشون ٣

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

GES | Consulting

California Bearing Ratio TEST

Testing Date :	8/9/2023	Code	FROM STA	524+660 (left)
Location :	524+660 (left)	MF-S-12	Material	Soil(A-1-b)
COMPANY	مارفيل للمقاولات		description	مشون ٣

- : Test Results

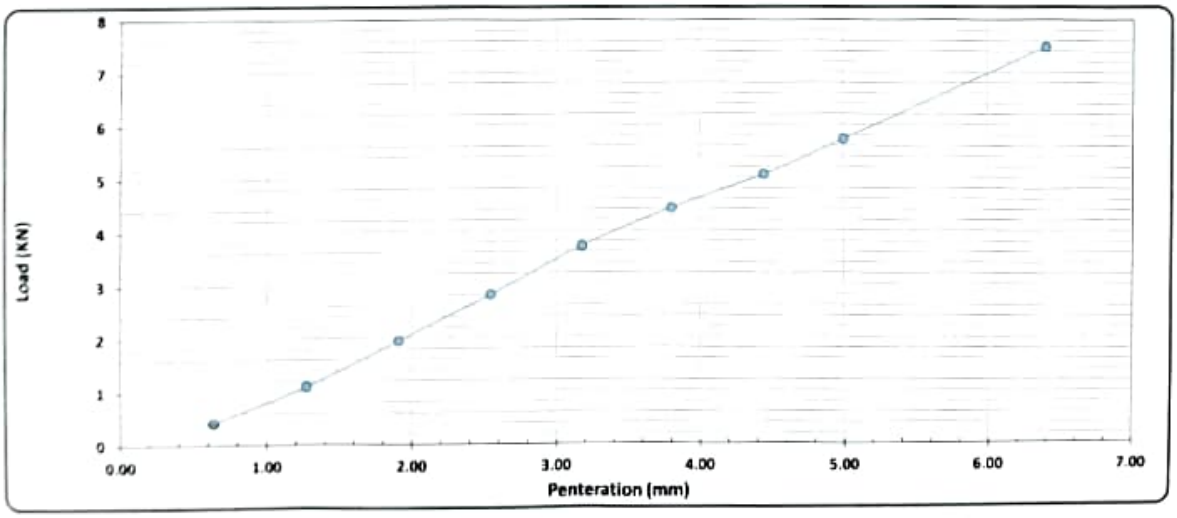
Compaction % for Mold	
Mold No.	13
Mold Vol. (cm^3)	2113
Mold WT. (gm)	7829
Mold WT. + Wet WT. (gm)	12315
Wet WT. (gm)	4486
Wet Density (g/cm^3)	2.123
Dry Density (g/cm^3)	2.016
Proctor Density (g/cm^3)	2.181
Compaction %	92

Mositure Ratio After Compacted Mold	
Tare No.	9
Tare WT. (gm)	24
Tare WT. +Wet WT. (gm)	163
Tare WT. +Dry WT. (gm)	156
Water WT. (gm)	7.0
Dry WT. (gm)	132.0
Moisture Content %	5.3

Swelling	
Mold No.	١٣
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	-
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	42.50	112.00	198.00	286.00	377.50	451.00	516.00	584.00	764.00
Load (KN)	0.4	1.1	1.9	2.8	3.7	4.4	5.1	5.7	7.5



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% ٩٥ عند نسبة
2.50	2.80	13.4	21.0%	92	95	21.6%
5.00	5.72	20.0	28.6%			29.4%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : م/ حسانى عبد المنعم
Sign :	Sign :	Sign :

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 480+000
To Station 630+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	04/09/2023	code	ZONE	525+800 (left)
LOCATION	525+800 (left)	MF-S-13	Material	soil (A-1-a)
NAME COMPANY	مارفيل		description	مشون ٢

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		24630.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	941.0	1421.0	1723.0	1367.0	1214.0	961.0	2439.0	14630.0		A-1-a
Cumulative Retained (g)	941.0	2362.0	[illegible]	5452.0	6666.0	7627.0	10066.0		PRO	2.22
Cumulative Retained %	3.8	9.6	[illegible]	22.1	27.1	31.0	40.9		WC	6.90
Cumulative Passing %	96.2	90.4	[illegible]	[illegible]	[illegible]	[illegible]	59.1		CBR	32.50

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	77.00	247.00	392.00					
Cumulative Retained %	15.40	49.40	78.40					
Cumulative Passing %	84.60	50.60	21.60					

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 %	96.2	90.4	83.4	77.9	72.9	69.0	59.1	50.0	29.9	12.8

ATTERBERG LIMTS	LIQUID LIMIT (L.L.)	PLASTIC LIMIT (P.L.)	PLASTIC INDEX (P.I.)
	16.00	12.00	4.00

Contractor

Consulting

Consultant

م/ حاتى عبد المنعم
Hassanin

Electric Express Train - HSR

From 6 October City To Abu Simbel

Section - 4 From Sohage To Qena

From Station 506 + 300
To Station 509 + 300

PROCTOR TEST

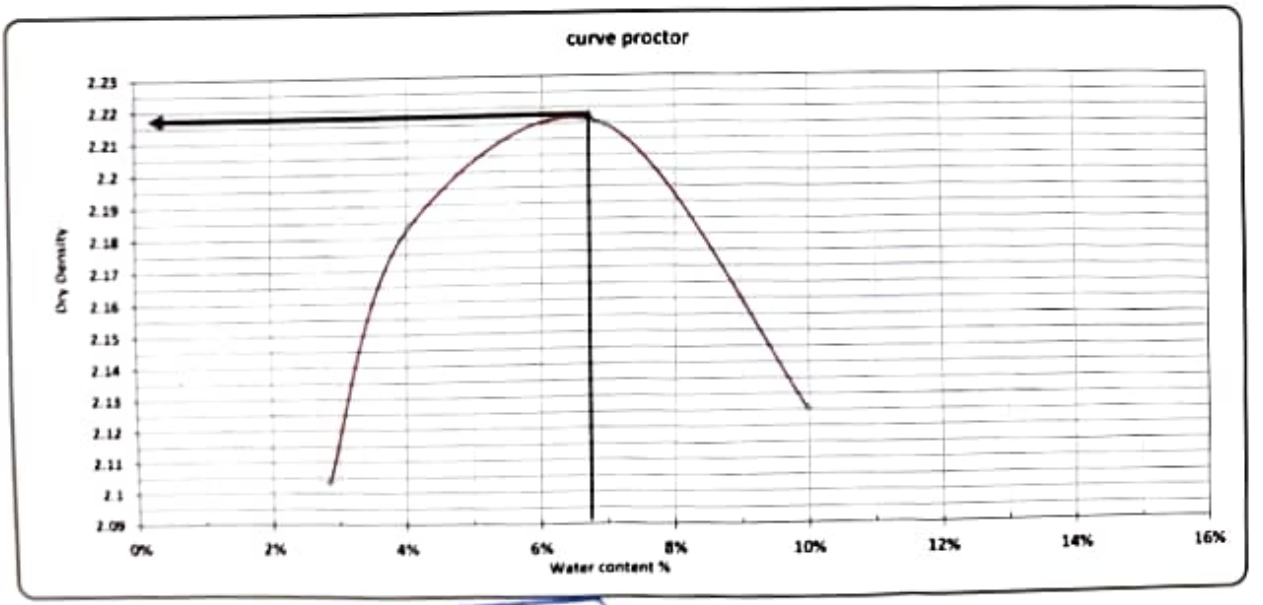
TESTING DATE:	2023/09/04	code	Station	525+800	left
LOCATION	525+800 (left)	MF-S-13	Material	Soil (A-1-a)	
NAME COMPANY	مارقيل		description	مشون ٢	

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.215
Water content %	6.9

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	9887.0	10112.0	10316.0	10251.0	
WT. WET SOIL	4533.0	4758.0	4962.0	4897.0	
Wt. Density	2.164	2.271	2.368	2.337	

Tare No.	9	8	7	6	12	11	14	1		
Tare wt.	45	47	49	50	45	47	47	45		
Wt. Of wet soil & tare	168.0	178.0	172.0	186.0	166.0	188.0	163.0	172.0		
Wt. Of dry soil & tare	164.0	175.0	167.0	181.0	158.0	179.0	152.0	161.0		
Wt. Of water	4.0	3.0	5.0	5.0	8.0	9.0	11.0	11.0		
Wt. Of dry soil	119.0	128.0	118.0	131.0	113.0	132.0	105.0	116.0		
Water content %	3.4%	2.3%	4.2%	3.8%	7.1%	6.8%	10.5%	9.5%		
AV. Water content %	2.9%		4.0%		6.9%		10.0%			
Dry Density	2.104		2.183		2.215		2.125			



Contractor

GPS Consulting

Consultant

Hassan

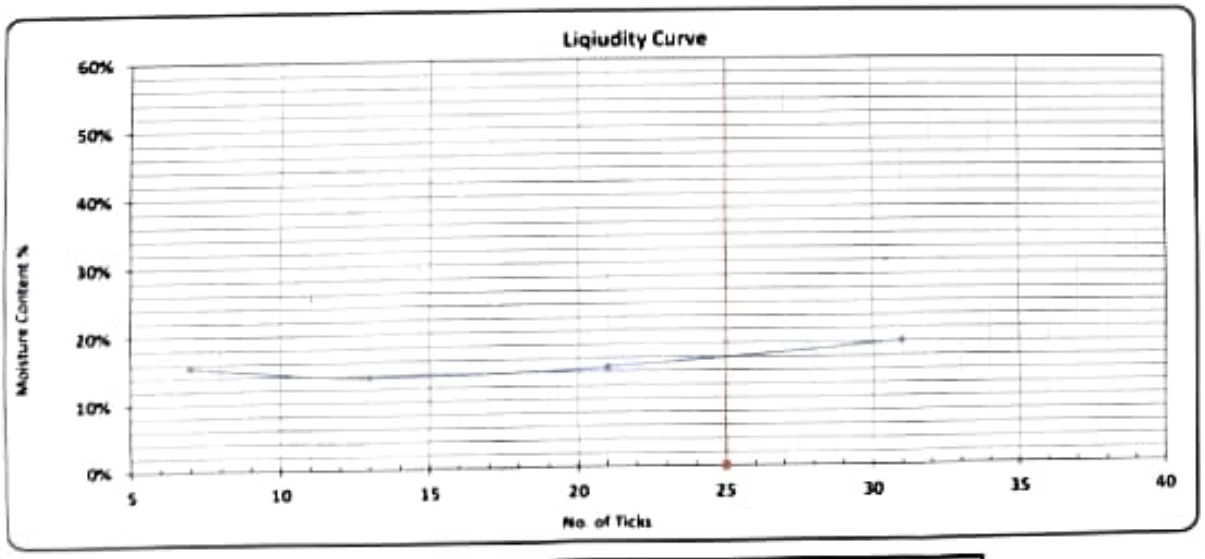
From 6 October City To Abu simbel section -4 From Sohage To Qena

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	04/09/2023	Code:	FROM STA:	525+800	left
Location:	525+800 (left)	MF-S-13	Material:	soil (A-1-a)	
NAME COMPANY	مدرفيل		description	مشون *	

Testing Results :-

Test	Liqiud Limit				Plastic Limit	
No. of Ticks	7	13	21	31	-	-
Tare No.	9	19	17	21	16	13
Tare WT. (gm)	23.98	23.5	22.59	22.21	22.82	23.02
Tare WT. + Wet WT. (gm)	57.5	53.67	54.16	51.78	33.26	33.13
Tare WT. + Dry WT. (gm)	53.02	50.03	50.12	47.25	32.98	31.33
Water WT. (gm)	4.48	3.64	4.04	4.53	0.28	1.8
Dry WT. (gm)	29.04	26.53	27.53	25.04	10.16	8.31
Moisture Content %	15.4%	13.7%	14.7%	18.1%	3%	22%
Average %					12%	
				16.4%		



L.L	P.L	P.I
16%	12%	4%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : م/ حساني عبد المنعم
Sign :	Sign :	Sign : Hassanin

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	8/9/2023	Code	FROM STA :	525+800	left
Location :	525+800 (left)	MF-S-13	Material :	Soil (A-1-a)	
company name :	مارفل		description	مشون ٢	

-: Test Results

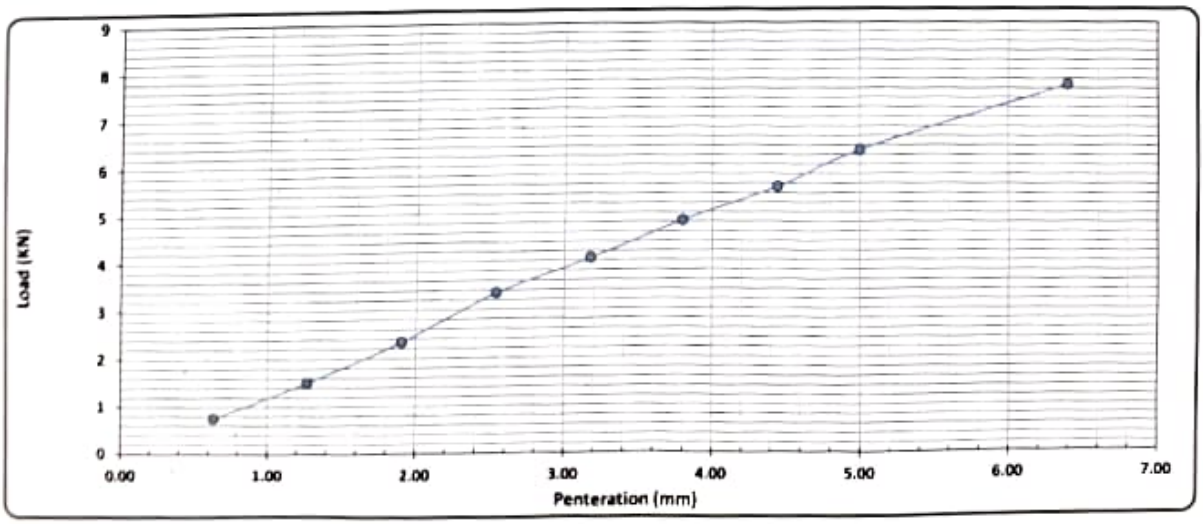
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm^3)	3060
Mold WT. (gm)	7205
Mold WT. + Wet WT. (gm)	13863
Wet WT. (gm)	6658
Wet Density (g/cm^3)	2.176
Dry Density (g/cm^3)	2.039
Proctor Density (g/cm^3)	2.215
Compaction %	92

Mositure Ratio After Compacted Mold	
Tare No.	2
Tare WT. (gm)	19
Tare WT. +Wet WT. (gm)	178
Tare WT. +Dry WT. (gm)	168
Water WT. (gm)	10.0
Dry WT. (gm)	149.0
Moisture Content %	6.7

Swelling	
Mold No.	1
Date	
Intial Height (mm)	0.00
Final Height (mm)	0.00
Difference	0
Sample Height (mm)	0.00
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	77.50	154.00	239.00	341.00	413.00	492.50	564.00	642.00	783.50
Load (KN)	0.8	1.5	2.3	3.3	4.0	4.8	5.5	6.3	7.7



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	% عند نسبة ٩٥
2.50	3.34	13.4	25.0%	92	95	25.8%
5.00	6.29	20.0	31.4%			32.4%

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

ENGINEERING CONSULTING OFFICE المكتب الاستشاري الهندسي أ.د. خالد فديل	**Electric Express Train - HSR** **From 6 October City To Abu simbel** **section -4 From Sohage To Qena** **From Station 503+000** **To Station 509+000**	الهيئة القومية للأنفاق

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	09/09/2023	code	ZONE	524+660 (left)	
LOCATION	524+660 (left)	MF-S-14	Material	Soil (A-1-b)	
NAME COMPANY	مارفيل		description	مشون ٣	

1-visual inspection test

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		14602.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
Mass retained (g)	1270.0	658.0	902.0	787.0	1054.0	782.0	1404.0	7741.0		A-1-b
Cumulative Retained (g)	1270.0	1928.0	2830.0	3617.0	4671.0	5453.0	6857.0		PRO	2.184
Cumulative Retained %	8.7	13.2	19.4	24.8	32.0	37.3	47.0		WC	6.30
Cumulative Passing %	91.3	86.8	80.6	75.2	68.0	62.7	53.0		CBR	29.70

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
Cumulative Retained (g)	54.00	253.00	420.00					
Cumulative Retained %	10.80	50.60	84.00					
Cumulative Passing %	89.20	49.40	16.00					

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 %	91.3	86.8	80.6	75.2	68.0	62.7	53.0	47.3	26.2	8.5

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

Contractor	Consultant
GPS Consulting	م/ حسانى عبدالمنعم

PROCTOR TEST

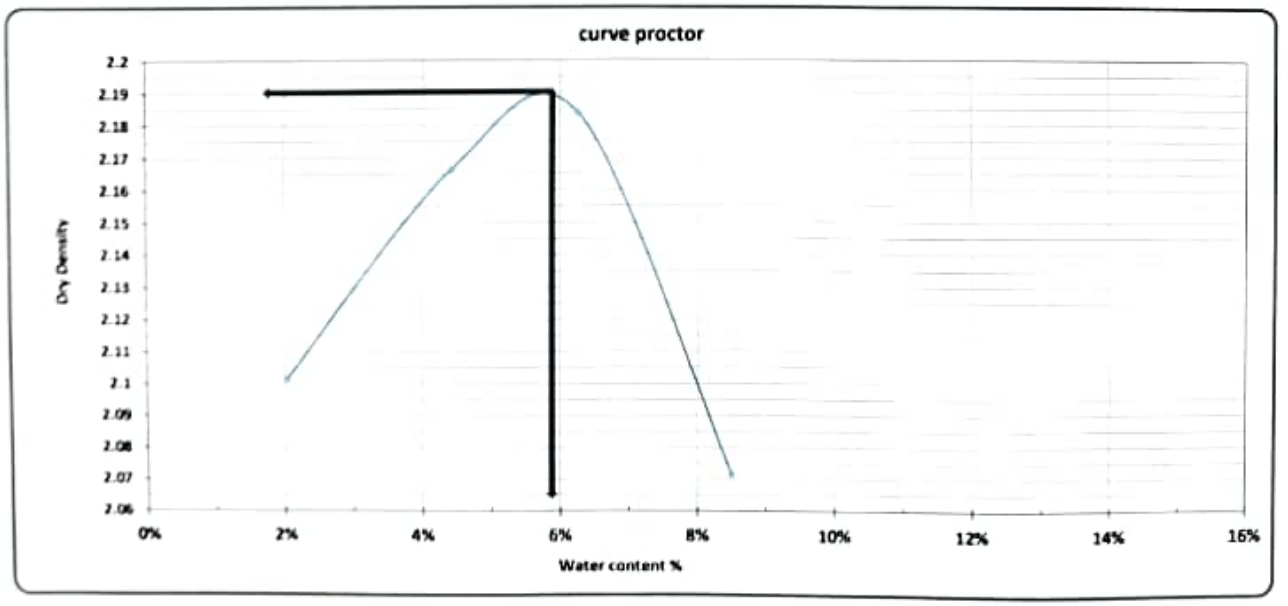
TESTING DATE:	09/09/2023	code	Station	524+660 (left)
LOCATION	524+660 (left)	MF-S-14	Material	Soil (A-1-b)
NAME COMPANY	مارفيل		description	مشون ٣

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.184
Water content %	5.9

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	9847.0	10094.0	10215.0	10063	
WT. WET SOIL	4493.0	4740.0	4861.0	4709.0	
Wt. Density	2.145	2.263	2.320	2.248	

Tare No.	15	6	2	8	1	9	4	3		
Tare wt.	46	45	45	46	47	49	46	46		
Wt. Of wet soil & tare	195.0	196.0	150.0	150.0	150.0	150.0	193.0	156.0		
Wt. Of dry soil & tare	192.0	193.0	147.0	147.0	144.0	144.0	182.0	147.0		
Wt. Of water	3.0	3.0	6.0	3.0	6.0	6.0	11.0	9.0		
Wt. Of dry soil	146.0	148.0	102.0	101.0	97.0	95.0	136.0	101.0		
Water content %	2.1%	2.0%	5.9%	3.0%	6.2%	6.3%	8.1%	8.9%		
AV.Water content %	2.0%		4.4%		6.3%		8.5%			
Dry Density	2.102		2.167		2.184		2.072			



Contractor

Consulting

Consultant

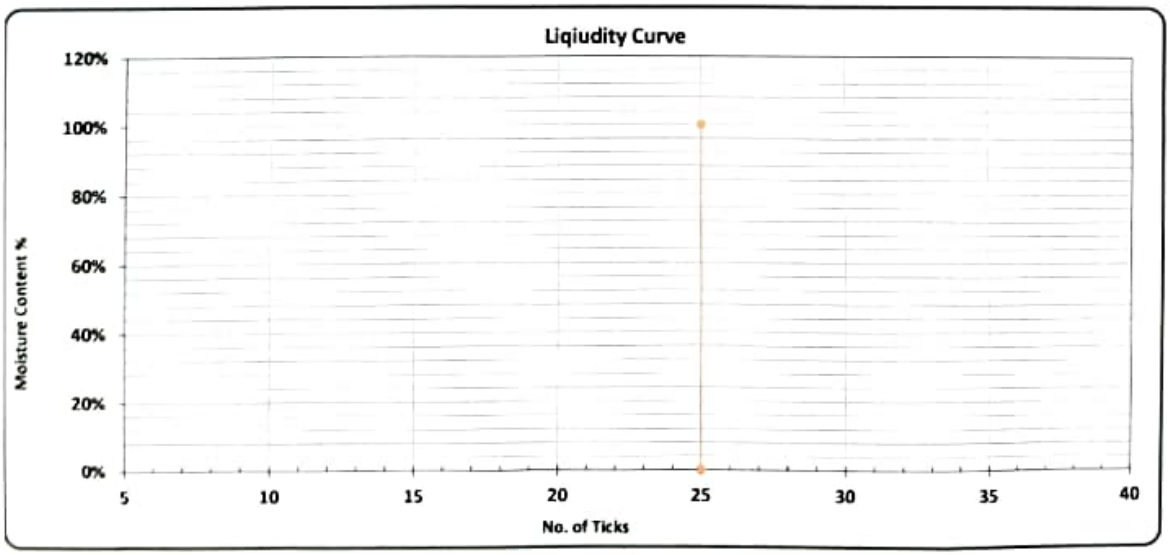
م/ حسان عبد المنعم

	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	09/09/2023	Code:	FROM STA:	524+660 (left)
Location:	524+660 (left)	MF-S-14	Material:	Soil (A-1-b)
Layer No. :	مارفيل		description	مشون ٣

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
Water WT. (gm)						
Dry WT. (gm)						
Moisture Content %						
Average %						



L.L	P.L	P.I
N.P	N.P	N.P

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

California Bearing Ratio TEST

Testing Date :	13/9/2023	Code	FROM STA :	524+660 (left)
Location :	524+660 (left)	MF-S-14	: Material	Soil (A-1-b)
Campany	مارفيل		description	مشون ٣

- : Test Results

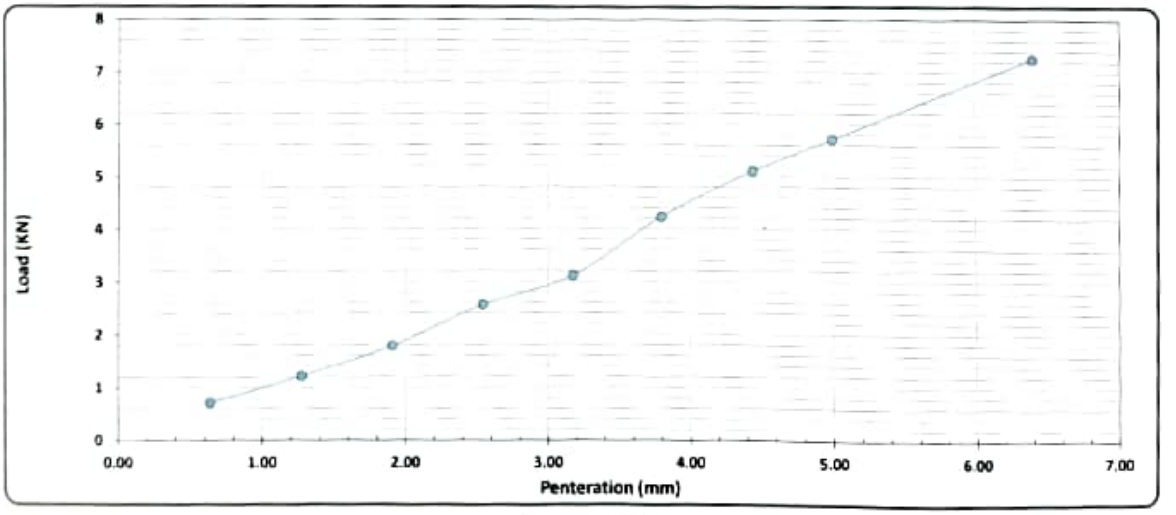
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
Mold WT. (gm)	5938
Mold WT. + Wet WT. (gm)	12761
Wet WT. (gm)	6823
Wet Density (g/cm^3)	2.140
Dry Density (g/cm^3)	2.065
Proctor Density (g/cm^3)	2.190
Compaction %	94

Mositure Ratio After Compacted Mold	
Tare No.	8
Tare WT. (gm)	23
Tare WT. +Wet WT. (gm)	193
Tare WT. +Dry WT. (gm)	187
Water WT. (gm)	6.0
Dry WT. (gm)	164.0
Moisture Content %	3.7

Swelling	
Mold No.	
Date	
Intial Height (mm)	
Final Height (mm)	
Difference	
Sample Height (mm)	
Swelling Ratio %	

Loading Reading :

Penteration (mm)	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
Load Reading (kg)	73.00	124.00	182.00	261.00	317.00	431.00	521.00	583.00	741.00
Load (KN)	0.7	1.2	1.8	2.6	3.1	4.2	5.1	5.7	7.3



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٨ %
2.50	2.56	13.4	19.2%	94	98	19.9%
5.00	5.71	20.0	28.5%			29.7%

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

GPS Consulting

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	13/09/2023	code	ZONE	525+800 (left)
LOCATION	525+800 (left)	MF-S-15	Material	Soil (A-1-a)
NAME COMPANY	مارفيل		description	صلاحية مشون ٢

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		18445.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
(g)Mass retained	2541.0	2211.0	2715.0	977.0	1302.0	542.0	859.0			A-1-a
(g)Cumulative Retained	2541.0	4752.0	7467.0	8444.0	9746.0	10288.0	11147.0		PRO	2.210
Cumulative Retained %	13.8	25.8	40.5	45.8	52.8	55.8	60.4		WC	6.30
Cumulative Passing %	86.2	74.2	59.5	54.2	47.2	44.2	39.6		CBR	41.50

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
(g)Cumulative Retained	37.00	155.00	375.00					
Cumulative Retained %	7.40	31.00	75.00					
Cumulative Passing %	92.60	69.00	25.00					

C-General gradient										
(in)sieve size	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
(mm)sieve size	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	86.2	74.2	59.5	54.2	47.2	44.2	39.6	36.6	27.3	9.9

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

Contractor

Consultant

Electric Express Train - HSR

PROCTOR TEST

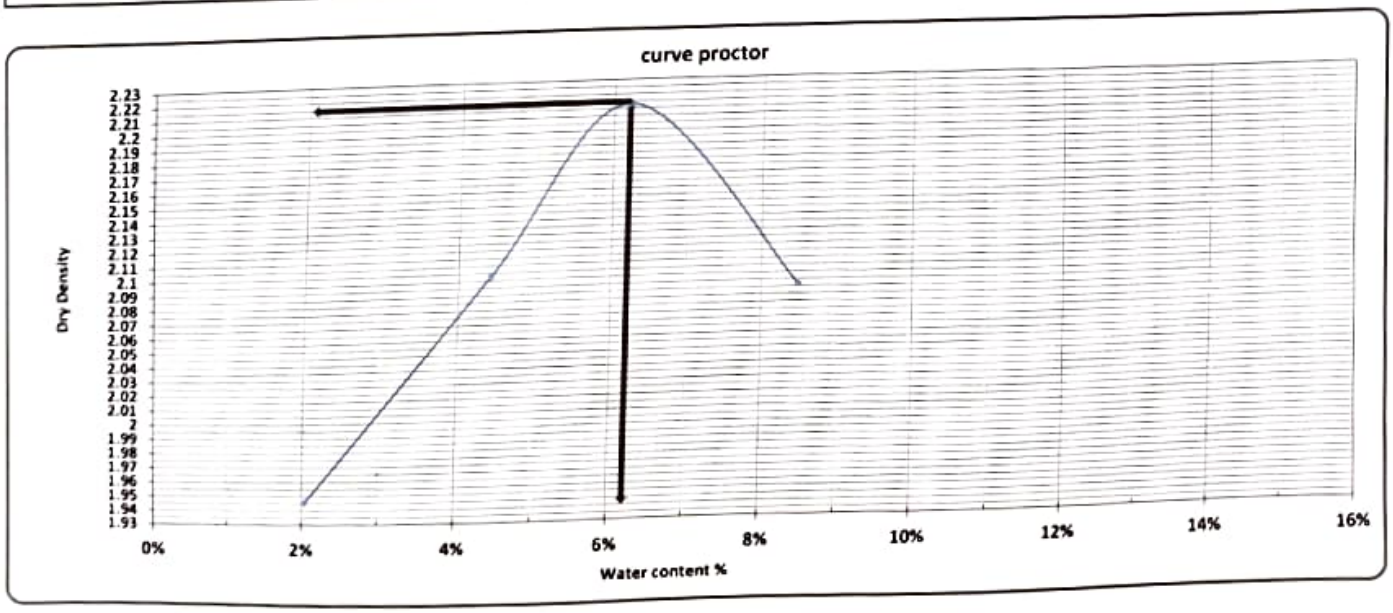
TESTING DATE:	13/09/2023	code	Station	525+800 (left)
LOCATION	525+800 (left)	MF-S-15	Material	Soil (A-1-a)
NAME COMPANY	مارفيل		description	صلاحية مشون ٢

Weight of empty mold :	5947.0
Mold Volume:	2148.0

MAX Dry Density	2.21
Water content %	6.3

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10211.0	10653.0	10998.0	10810	
WT. WET SOIL	4264.0	4706.0	5051.0	4863.0	
Wt. Density	1.985	2.191	2.351	2.264	

Tare No.	15	6	2	8	1	9	4	3		
Tare wt.	46	45	45	46	47	49	46	46		
Wt. Of wet soil & tare	195.0	196.0	150.0	150.0	150.0	150.0	193.0	156.0		
Wt. Of dry soil & tare	192.0	193.0	147.0	147.0	144.0	144.0	182.0	147.0		
Wt. Of water	3.0	3.0	6.0	3.0	6.0	6.0	11.0	9.0		
Wt. Of dry soil	146.0	148.0	102.0	101.0	97.0	95.0	136.0	101.0		
Water content %	2.1%	2.0%	5.9%	3.0%	6.2%	6.3%	8.1%	8.9%		
AV.Water content %	2.0%		4.4%		6.3%		8.5%			
Dry Density	1.945		2.098		2.213		2.087			



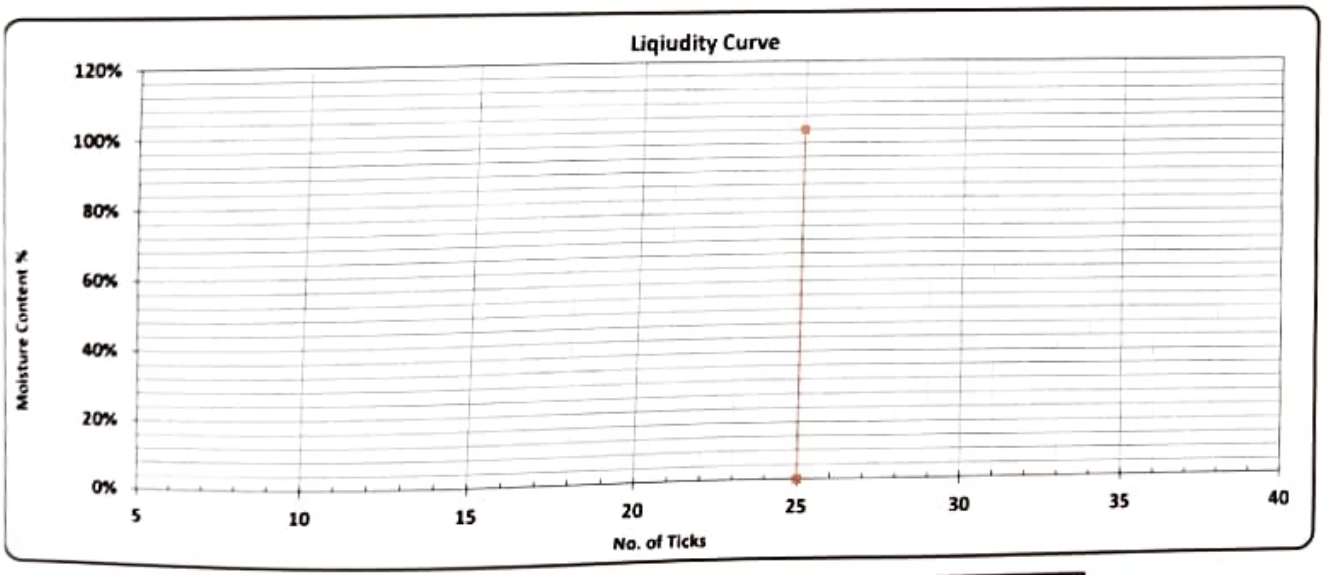
Contractor

Consultant

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	13/09/2023	Code:	station	525+800 (left)
Location:	525+800 (left)	MF-S-15	Material:	Soil (A-1-a)
Layer No. :	مزفيل		Layer Thickness :	صلاحية مشون ٢

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
(gm)Water WT.						
(gm)Dry WT.						
Moisture Content %						
Average %						



L.L	P.L	P.I
N.P	N.P	N.P

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : م/ حسان عبد المنعم
Sign :	Sign :	Sign : Hassan

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	17/9/2023	Code	station	525+800 (left)
Location :	525+800 (left)	MF-S-15	Material	Soil (A-1-a)
Company	مارفيل		description	صلصالية مشون +

-: Test Results

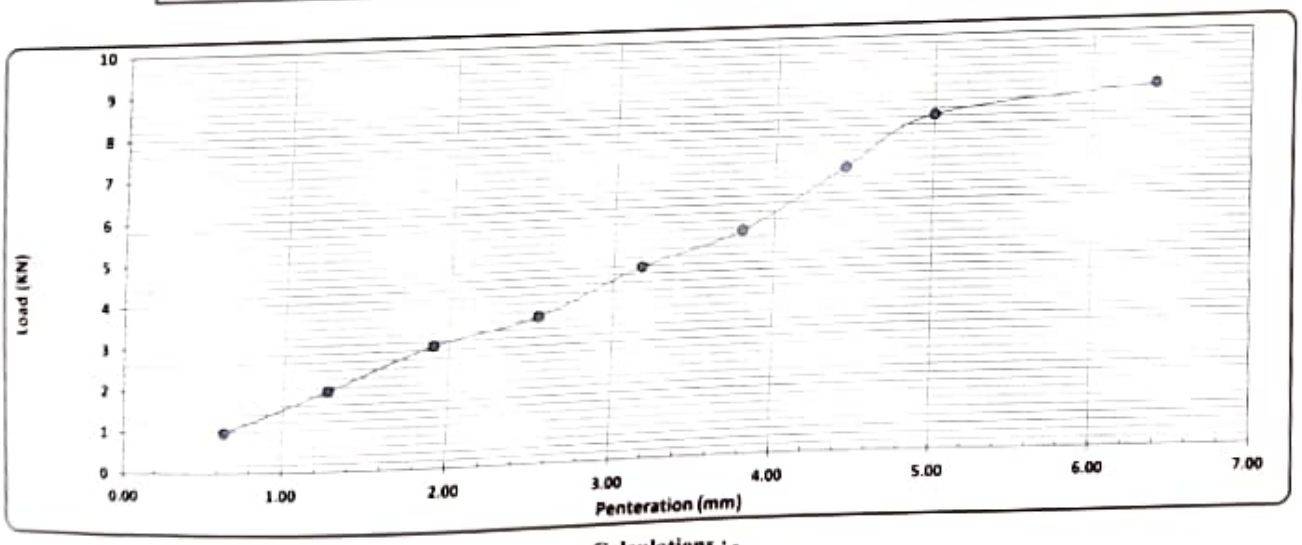
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
(gm)Mold WT.	5938
(gm)Mold WT. + Wet WT.	12860
(gm)Wet WT.	6922
Wet Density (g/cm^3)	2.171
Dry Density (g/cm^3)	2.095
Proctor Density (g/cm^3)	2.210
Compaction %	95

Mositure Ratio After Compacted Mold	
Tare No.	8
Tare WT. (gm)	23
(gm)Tare WT. +Wet WT.	193
(gm)Tare WT. +Dry WT.	187
(gm)Water WT.	6.0
(gm)Dry WT.	164.0
Moisture Content %	3.7

Swelling	
Mold No.	
Date	
(mm)Intial Height	
(mm)Final Height	
Difference	
(mm)Sample Height	
Swelling Ratio %	

Loading Reading :

(mm)Penteration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
(kg)Load Reading	99.00	195.00	295.00	355.00	466.00	547.00	695.00	820.00	885.00
(KN)Load	1.0	1.9	2.9	3.5	4.6	5.4	6.8	8.0	8.7



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٨ %
2.50	3.48	13.4	26.1%	95	98	26.9%
5.00	8.04	20.0	40.1%			41.5%

Lab Specialist	Lab Engineer	Consultant Engineer
Name :	Name :	Name :
Sign :	Sign :	Sign : HASSANIA

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

SYSTRA SHAKER

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

الهيئة القومية للأنفاق
(ARBIT)

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	13/09/2023	code	Station	525+660 (Left)
LOCATION	525+660 (Left)	MF-S-16	Material	soil A-1-b
NAME COMPANY	مارفيل		description	مشون ٣

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		13960.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
(g)Mass retained	1270.0	658.0	902.0	810.0	160.0	780.0	1400.0	7741.0		A-1-b
(g)Cumulative Retained	1270.0	1928.0	2830.0	3640.0	3800.0	4580.0	5980.0		PRO	2.163
Cumulative Retained %	8.7	13.0	19.4	26.1	27.2	32.8	42.8		WC	6.00
Cumulative Passing %	91.3	86.2	79.7	73.9	72.8	67.2	57.2		CBR	37.10

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
(g)Cumulative Retained	60.00	230.00	460.00					
Cumulative Retained %	12.00	46.00	92.00					
Cumulative Passing %	88.00	54.00	8.00					

C-General gradient										
(in)sieve size	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
(mm)sieve size	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	91.3	86.2	79.7	73.9	72.8	67.2	57.2	50.3	30.9	4.6

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

Contractor	Consultant
GPS | Consulting	م/ حساني عبد المنعم

Electric Express Train - HSR

PROCTOR TEST

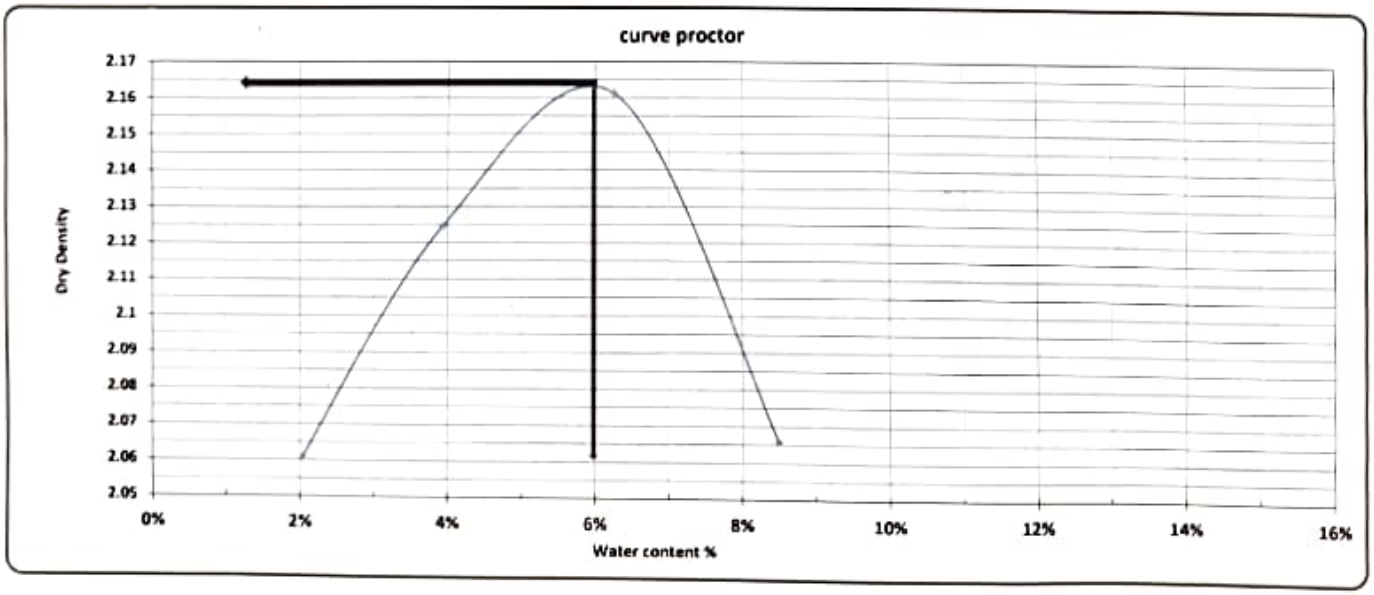
TESTING DATE:	13/09/2023	code	Station	525+660 (Left)
LOCATION	525+660 (Left)	MF-S-16	Material	Soil A-1-b
NAME COMPANY	مارفيل		description	مشون ٣

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.163
Water content %	6.0

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	9760.0	9980.0	10165.0	10050	
WT. WET SOIL	4406.0	4626.0	4811.0	4696.0	
Wt. Density	2.103	2.208	2.296	2.242	

Tare No.	15	6	2	8	1	9	4	3		
Tare wt.	46	45	45	46	47	49	46	46		
Wt. Of wet soil & tare	195.0	196.0	150.0	149.0	150.0	150.0	193.0	156.0		
Wt. Of dry soil & tare	192.0	193.0	147.0	147.0	144.0	144.0	182.0	147.0		
Wt. Of water	3.0	3.0	6.0	2.0	6.0	6.0	11.0	9.0		
Wt. Of dry soil	146.0	148.0	102.0	101.0	97.0	95.0	136.0	101.0		
Water content %	2.1%	2.0%	5.9%	2.0%	6.2%	6.3%	8.1%	8.9%		
AV.Water content %	2.0%		3.9%		6.3%		8.5%			
Dry Density	2.061		2.125		2.161		2.066			



Contractor

GPS Consulting

Consultant

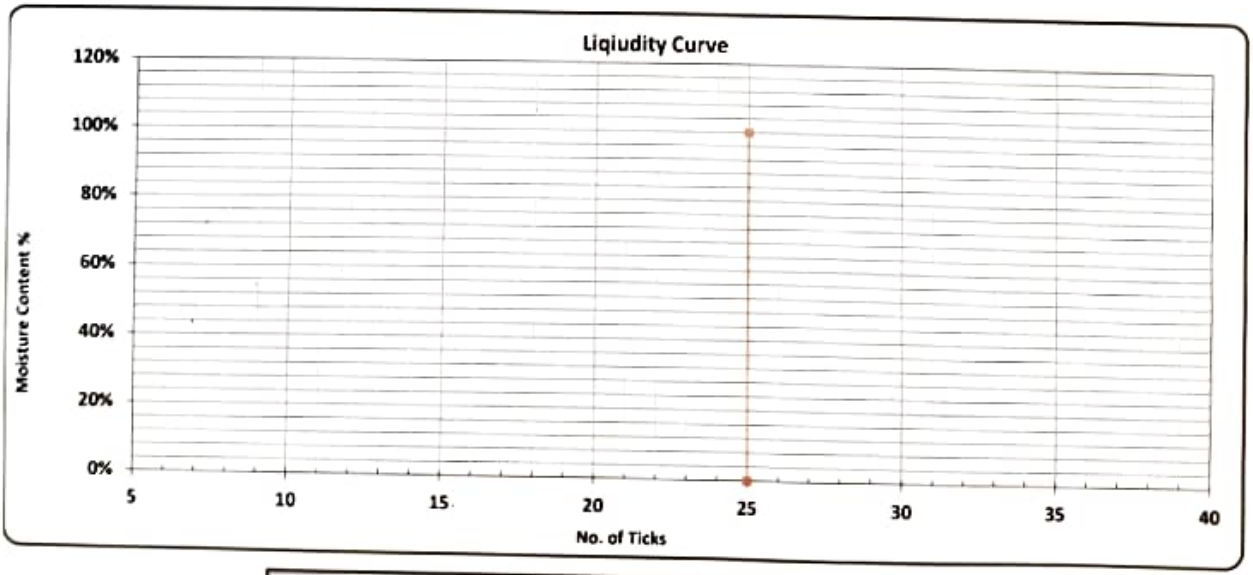
م/ حسانى عبد المنعم

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	13/09/2023	Code:	Station	525+660 (Left)
Location:	525+660 (Left)	MF-S-16	Material	Soil A-1-b
Name company	مارفيل		description	مشون ٣

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
(gm)Water WT.						
(gm)Dry WT.						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	17/9/2023	Code	Station	525+660 (Left)
Location :	525+660 (Left)	MF-S-16	Material	soil A-1-b
Name company	مارفيل		description	مشون ٣

-: Test Results

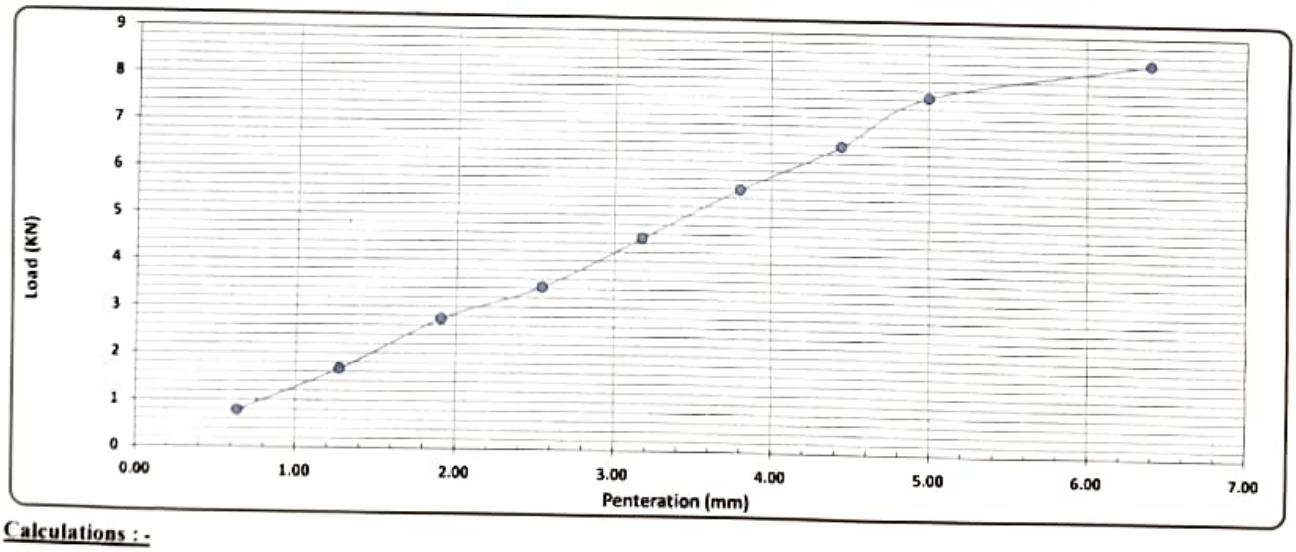
Compaction % for Mold	
Mold No.	1
Mold Vol. (cm^3)	3188
(gm)Mold WT.	5938
(gm)Mold WT. + Wet WT.	13080
(gm)Wet WT.	7142
Wet Density (g/cm^3)	2.240
Dry Density (g/cm^3)	2.116
Proctor Density (g/cm^3)	2.163
Compaction %	98

Mositure Ratio After Compacted Mold	
Tare No.	23
Tare WT. (gm)	20
(gm)Tare WT. +Wet WT.	110
(gm)Tare WT. +Dry WT.	105
(gm)Water WT.	5.0
(gm)Dry WT.	85.0
Moisture Content %	5.9

Swelling	
Mold No.	
Date	
(mm)Intial Height	
(mm)Final Height	
Difference	
(mm)Sample Height	
Swelling Ratio %	

Loading Reading :

(mm)Penteration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
(kg)Load Reading	80.00	170.00	280.00	350.00	460.00	570.00	670.00	780.00	860.00
(KN)Load	0.8	1.7	2.7	3.4	4.5	5.6	6.6	7.6	8.4



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	3.43	13.4	25.7%	98	95	25.0%
5.00	7.64	20.0	38.2%			37.1%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name : احمد نبيل	Name :	Name : م/ هاني عبد المنعم
Sign :	Sign :	Sign :

GES Consulting

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

SYSTRA SHAKER

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

الهيئة القومية للأنفاق

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	24/09/2023	code	Station	525+660 (Left)
LOCATION	525+660 (Left)	MF-S-17	Material	soil A-1-b
NAME COMPANY	مارفيل		description	مشون ٣

1-visual inspection test .....

2-Gradient test .....

A-gradation of bulk materials

				SAMPLE WEIGHT [g]		14520.00		gm
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS
(g)Mass retained	110.0	580.0	1060.0	720.0	250.0	960.0	1374.0	7741.0
(g)Cumulative Retained	110.0	690.0	1750.0	2470.0	2720.0	3680.0	5054.0	
Cumulative Retained %	8.7	4.8	[illegible]	17.0	18.7	25.3	34.8	
Cumulative Passing %	91.3	95.2	[illegible]	[illegible]	[illegible]	74.7	65.2	

	table classify
	soil classify
	A-1-b
PRO	2.178
WC	6.10
CBR	40.20

B-soft material gradation

				WT.OF sample		500.00		gm
sieve size	10	40	200					
(g)Cumulative Retained	75.00	260.00	435.00					
Cumulative Retained %	15.00	52.00	87.00					
Cumulative Passing %	85.00	48.00	13.00					

C-General gradient

(in)sieve size	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
(mm)sieve size	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	91.3	95.2	87.9	83.0	81.3	74.7	65.2	55.4	31.3	8.5

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

Contractor

GES Consulting

Consultant

٢/هـاني عبدالمنعم

PROCTOR TEST

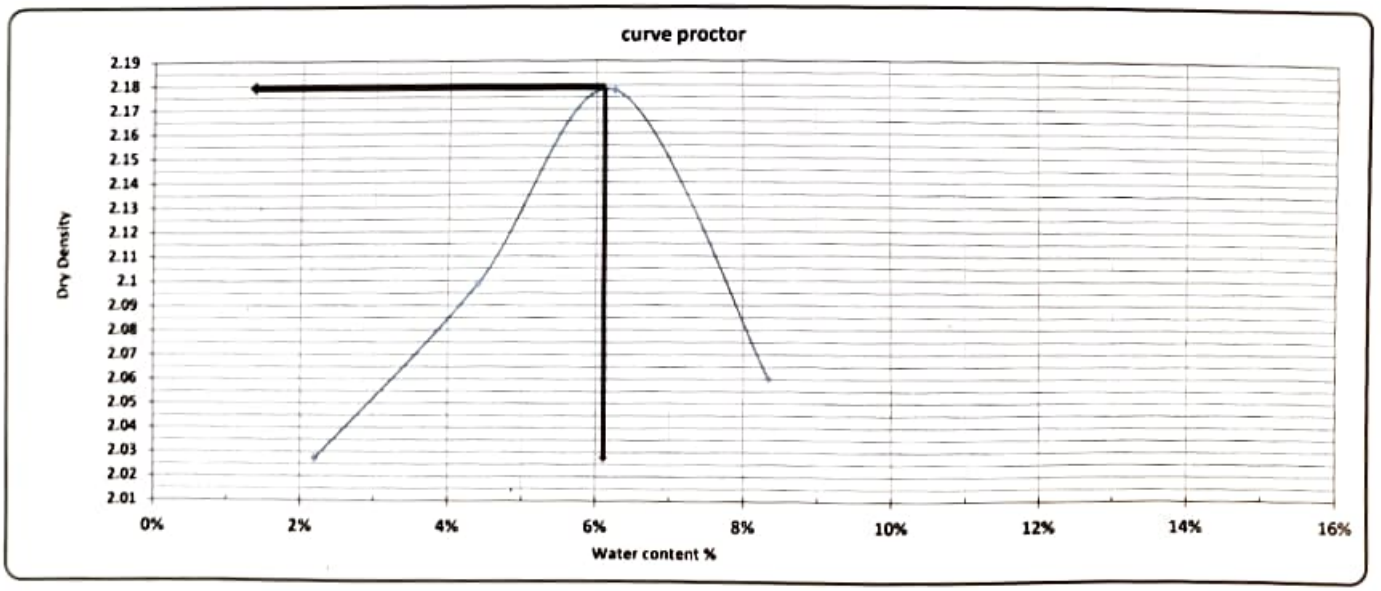
TESTING DATE:	24/09/2023	code	Station	525+660 (Left)
LOCATION	525+660 (Left)	MF-S-17	Material	Soil A-1-b
NAME COMPANY	مارفيل		description	مشون ٣

Weight of empty mold :	5354.0
Mold Volume:	2095.0

MAX Dry Density	2.178
Water content %	6.1

trial no :	1	2	3	4	5
Wt. Of Mold+ wet soil	9695.0	9944.0	10202.0	10030	
WT. WET SOIL	4341.0	4590.0	4848.0	4676.0	
Wt. Density	2.072	2.191	2.314	2.232	

Tare No.	15	6	2	8	1	9	4	3		
Tare wt.	46	45	45	46	47	49	46	46		
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	147.5	148.0	147.0	144.0	144.0	141.0	143.0		
Wt. Of water	2.0	2.5	6.0	3.0	6.0	6.0	9.0	7.0		
Wt. Of dry soil	102.0	102.5	103.0	101.0	97.0	95.0	95.0	97.0		
Water content %	2.0%	2.4%	5.8%	3.0%	6.2%	6.3%	9.5%	7.2%		
AV.Water content %	2.2%		4.4%		6.3%		8.3%			
Dry Density	2.027		2.099		2.178		2.060			



Contractor

Consulting

Consultant

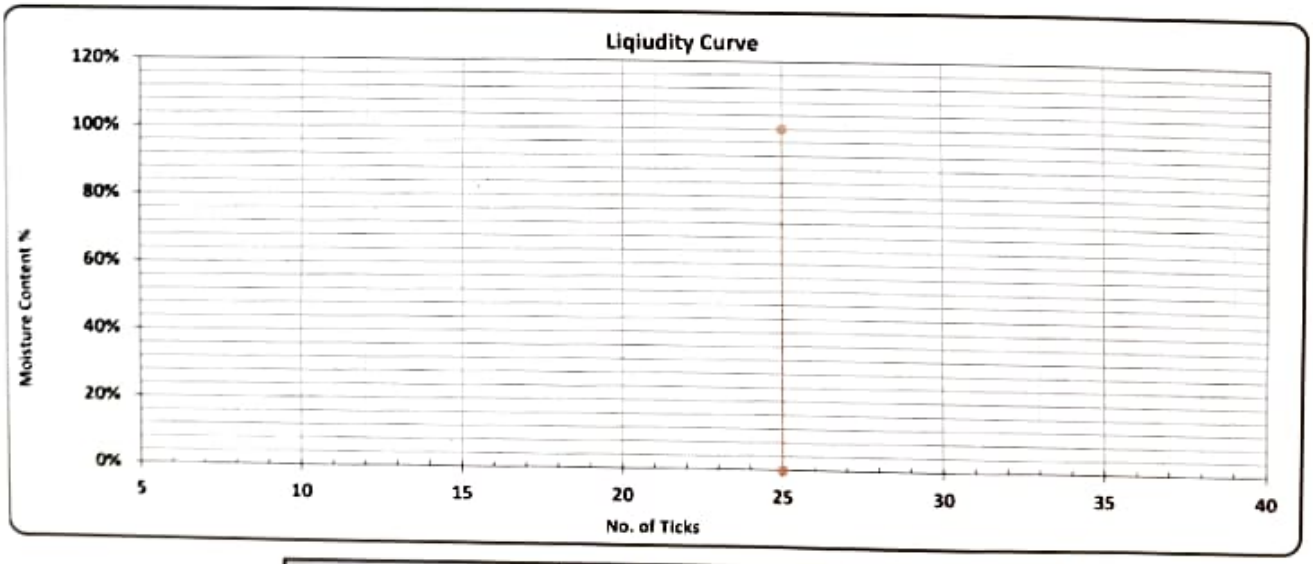
م/ حسافى عبد العظيم
Hassanin

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	24/09/2023	Code:	Station	525+660 (Left)
Location:	525+660 (Left)	MF-S-17	Material	Soil A-1-b
Name company	مارفيل		description	مشون ٣

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
(gm)Water WT.						
(gm)Dry WT.						
Moisture Content %						
Average %					N.P	

N.P



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	28/9/2023	Code	Station	525+660 (Left)
Location :	525+660 (Left)	MF-S-17	Material	soil A-1-b
Name company	مدفيل		description	مشون ٣

-: Test Results

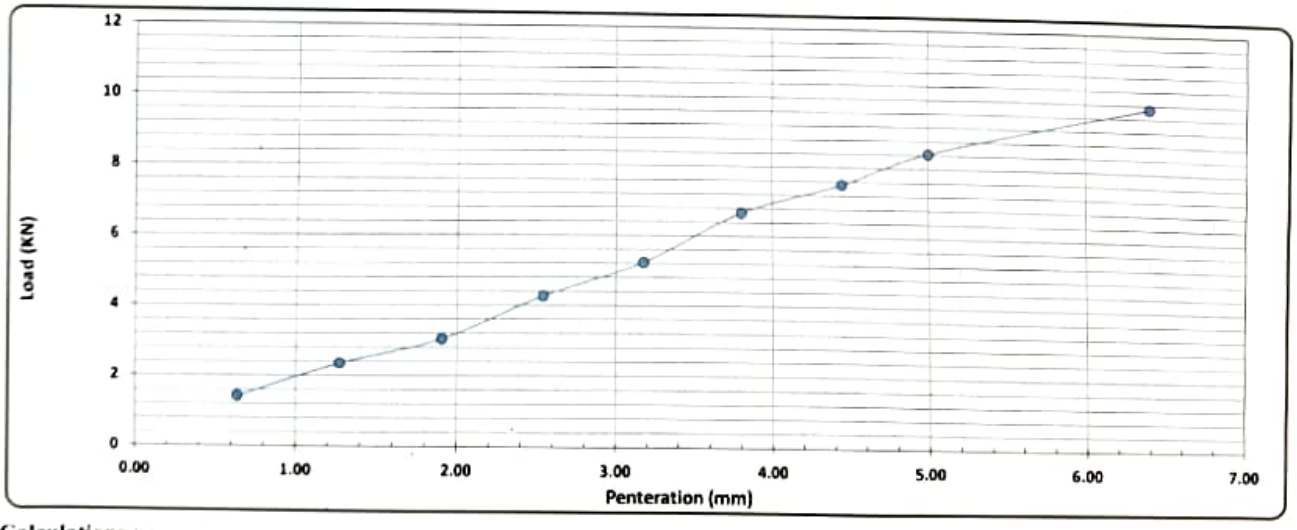
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm^3)	2180
(gm)Mold WT.	5930
(gm)Mold WT. + Wet WT.	10930
(gm)Wet WT.	5000
Wet Density (g/cm^3)	2.294
Dry Density (g/cm^3)	2.166
Proctor Density (g/cm^3)	2.178
Compaction %	99

Mositure Ratio After Compacted Mold	
Tare No.	23
Tare WT. (gm)	20
(gm)Tare WT. +Wet WT.	110
(gm)Tare WT. +Dry WT.	105
(gm)Water WT.	5.0
(gm)Dry WT.	85.0
Moisture Content %	5.9

Swelling	
Mold No.	١
Date	
(mm)Intial Height	
(mm)Final Height	
Difference	
(mm)Sample Height	
Swelling Ratio %	

Loading Reading :

(mm)Penteration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
(kg)Load Reading	145.00	240.00	310.00	435.00	533.00	680.00	766.00	860.00	1008.00
(KN)Load	1.4	2.4	3.0	4.3	5.2	6.7	7.5	8.4	9.9



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٥ %
2.50	4.26	13.4	31.9%	99	95	30.5%
5.00	8.43	20.0	42.1%			40.2%

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

Electric Express Train - HSR
From 6 October City To Abu simbel
section -4 From Sohage To Qena
From Station 503+000
To Station 509+000

PARTICLE SIZE DISTRIBUTION OF SOIL

TESTING DATE:	24/09/2023	code	ZONE	525+800 (left)	
LOCATION	525+800 (left)	MF-S-18	Material	Soil (A-1-a)	
NAME COMPANY	مارفيل		description	صلاحية مشون ٢	

1-visual inspection test .....

.....

2-Gradient test

A-gradation of bulk materials				SAMPLE WEIGHT [g]		16950.00		gm		table classify
sieve size	2	1.5	1	4/3	2/1	8/3	# 4	PASS		soil classify
(g)Mass retained	1820.0	1260.0	1790.0	860.0	1315.0	620.0	1760.0			A-1-a
(g)Cumulative Retained	1820.0	3080.0	4870.0	5730.0	7045.0	7665.0	9425.0		PRO	2.218
Cumulative Retained %	10.7	18.2	28.7	33.8	41.6	45.2	55.6		WC	6.30
Cumulative Passing %	89.3	81.8	71.3	66.2	58.4	54.8	44.4		CBR	42.00

B-soft material gradation				WT.OF sample		500.00		gm
sieve size	10	40	200					
(g)Cumulative Retained	60.00	170.00	420.00					
Cumulative Retained %	12.00	34.00	84.00					
Cumulative Passing %	88.00	66.00	16.00					

C-General gradient										
(in)sieve size	2	1.5	1	3/4	1/2	3/8	# 4	# 10	# 40	# 200
(mm)sieve size	50.0	37.5	25.0	19.0	12.5	9.5	4.75	2.00	0.425	0.075
Cumulative Passing %	89.3	81.8	71.3	66.2	58.4	54.8	44.4	39.1	29.3	7.1

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

Contractor

GPS Consulting

Consultant

م/ حسانى عبدالمنعم

PROCTOR TEST

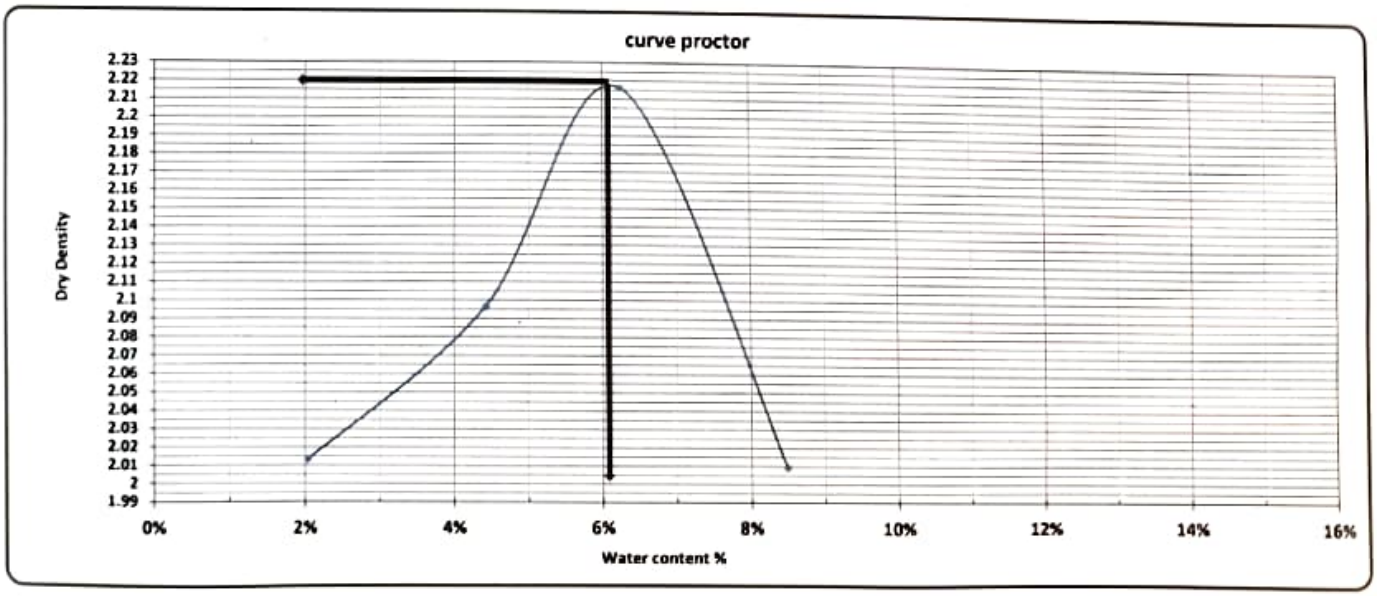
TESTING DATE:	24/09/2023	code	Station	525+800 (left)
LOCATION	525+800 (left)	MF-S-18	Material	Soil (A-1-a)
NAME COMPANY	مارفيل		description	صلاحية مشون ٢

Weight of empty mold :	5947.0
Mold Volume:	2148.0

MAX Dry Density	2.218
Water content %	6.1

trial no :	1	2	3	4	
Wt. Of Mold+ wet soil	10360.0	10650.0	11005.0	10630	
WT. WET SOIL	4413.0	4703.0	5058.0	4683.0	
Wt. Density	2.054	2.189	2.355	2.180	

Tare No.	15	6	2	8	1	9	4	3		
Tare wt.	46	45	45	46	47	49	46	46		
Wt. Of wet soil & tare	195.0	196.0	150.0	150.0	150.0	150.0	193.0	156.0		
Wt. Of dry soil & tare	192.0	193.0	147.0	147.0	144.0	144.0	182.0	147.0		
Wt. Of water	3.0	3.0	6.0	3.0	6.0	6.0	11.0	9.0		
Wt. Of dry soil	146.0	148.0	102.0	101.0	97.0	95.0	136.0	101.0		
Water content %	2.1%	2.0%	5.9%	3.0%	6.2%	6.3%	8.1%	8.9%		
AV.Water content %	2.0%		4.4%		6.3%		8.5%			
Dry Density	2.013		2.097		2.216		2.009			



Contractor

Consulting

Consultant

م/ حسانى عبد المنعم

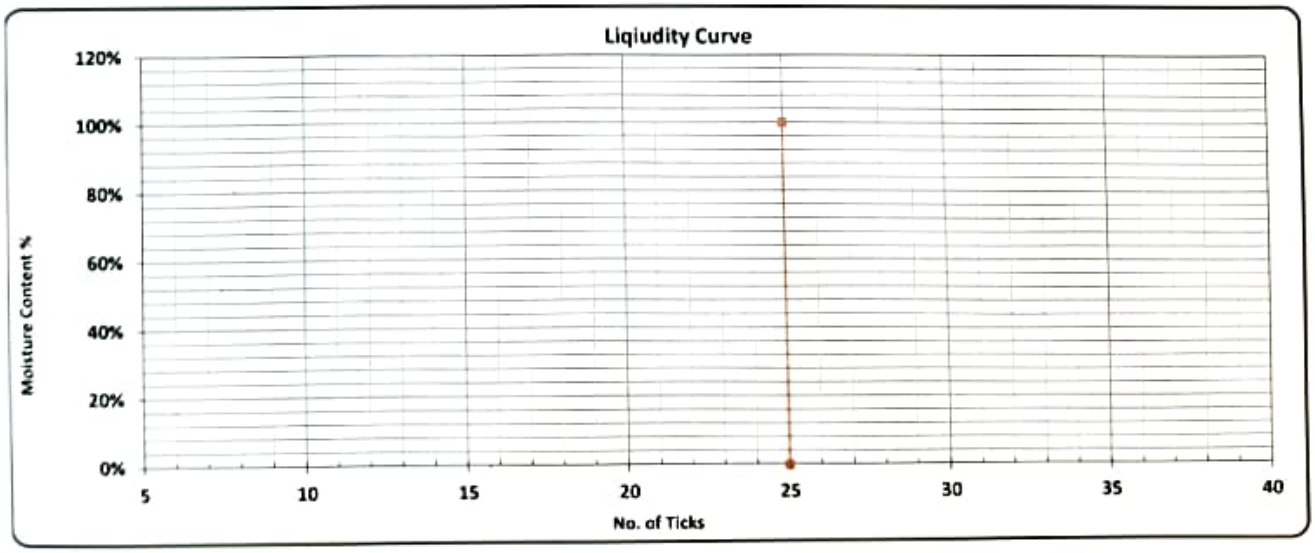
Hassanin

	Electric Express Train - HSR	

Plasticity and Liquidity Test -Atterberg Limits

Testing Date:	24/09/2023	Code:	station	525+800 (left)
Location:	525+800 (left)	MF-S-18	Material:	Soil (A-1-a)
Layer No. :	مارفيل		description	صلاحية مشون ٢

Test	Liqiud Limit				Plastic Limit	
No. of Ticks						
Tare No.						
Tare WT. (gm)						
Tare WT. + Wet WT. (gm)						
Tare WT. + Dry WT. (gm)						
(gm)Water WT.						
(gm)Dry WT.						
Moisture Content %						
Average %						



L.L	P.L	P.I
N.P	N.P	N.P

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

Electric Express Train - HSR

California Bearing Ratio TEST

Testing Date :	28/9/2023	Code	station	525+800 (left)
Location :	525+800 (left)	MF-S-18	: Material	Soil(A-1-a)
Company	مارفيل		description	صلاحية مشون ٢

-: Test Results

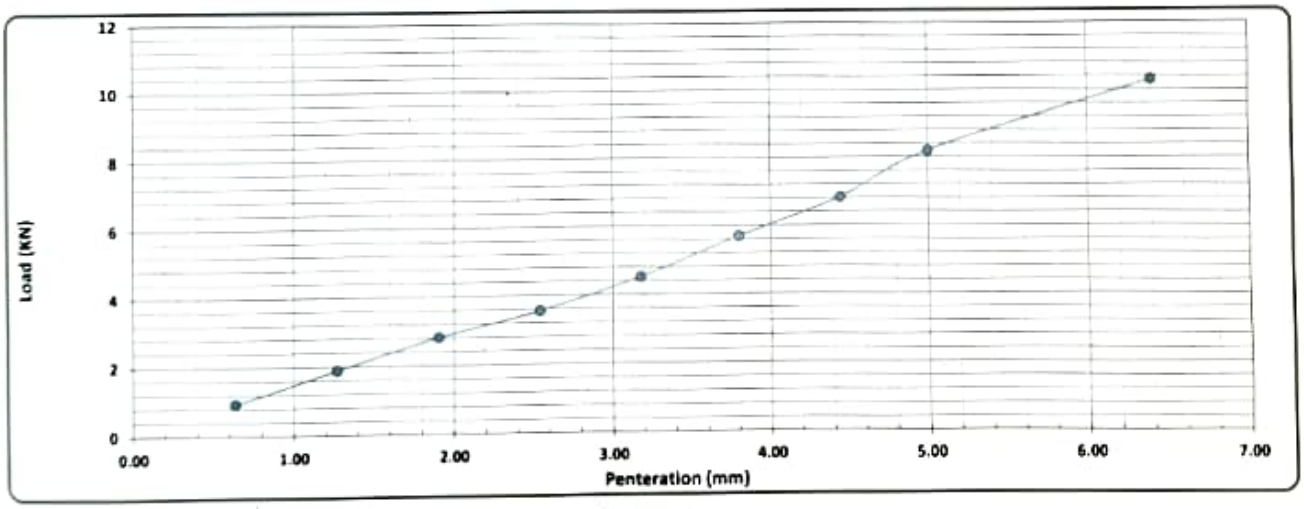
Compaction % for Mold	
Mold No.	1
Mold Vol.(cm^3)	3188
(gm)Mold WT.	5938
(gm)Mold WT. + Wet WT.	13050
(gm)Wet WT.	7112
Wet Density (g/cm^3)	2.231
Dry Density (g/cm^3)	2.113
Proctor Density (g/cm^3)	2.218
Compaction %	95

Mositure Ratio After Compacted Mold	
Tare No.	8
Tare WT. (gm)	23
(gm)Tare WT. +Wet WT.	193
(gm)Tare WT. +Dry WT.	184
(gm)Water WT.	9.0
(gm)Dry WT.	161.0
Moisture Content %	5.6

Swelling	
Mold No.	
Date	
(mm)Intial Height	
(mm)Final Height	
Difference	
(mm)Sample Height	
Swelling Ratio %	

Loading Reading :

(mm)Penteration	0.64	1.27	1.91	2.54	3.18	3.80	4.45	5.00	6.40
(kg)Load Reading	95.00	192.00	287.00	362.00	460.00	580.00	696.00	835.00	1050.00
(KN)Load	0.9	1.9	2.8	3.5	4.5	5.7	6.8	8.2	10.3



Calculations : -

Penteration	Load	Standard Load	CBR	Mold - Compaction	Compaction	CBR
(mm)	(Kn)	(lb)	(%)	(%)	(%)	عند نسبة ٩٨ %
2.50	3.55	13.4	26.6%	95	98	27.3%
5.00	8.18	20.0	40.9%			42.0%

Lab. Specialist	Lab. Engineer	Consultant Engineer
Name :	Name :	Name : حسانى عبد الفتاح
Sign :	Sign :	Sign : HASSAN