MACHAALANY LABORATORIES
Civil Engineering Materials Testing

مختبرات مشعلاني
إختبارات مواد الهندسة المدنية

Client : Council For Development And Reconstruction.
Project : Expansion And Upgrade of Al - Ghadir WWTP
Engineer : Dar Al Handasah Nazih Taleb & Partners.
Location : Ghadir
Materials : Backfill -S1 (Rarely Used).
Source : Site Stockpile
Sampled By : Engineer's and Lab's representatives
Sampling date : 22-08-24

CALIFORNIA BEARING RATIO (AASHTO T-193)

Modified proctor Density	(G/cc)	1.71
Optimum Water Content	(%)	15.9

Method of Compacted Soil	55 Blows / Layer - 5 Layers	
Volume of Cylinder	(cc)	2123

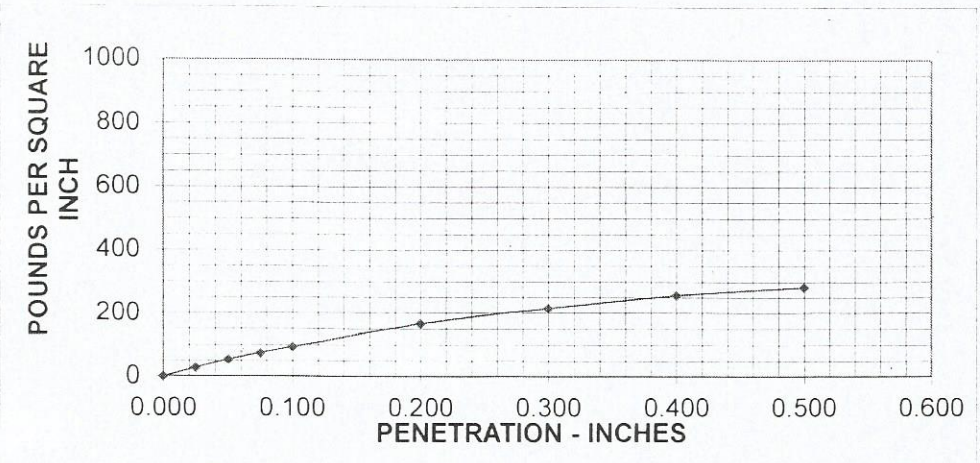
C.B.R. DENSITY BEFORE SOAKING IN WATER

Weight Of Cylinder + Soil	(Gr)	11250
Weight Of Cylinder	(Gr)	7045
Weight Of Compacted Soil	(Gr)	4205

Wet density	(G/cc)	1.981
Dry Density	(G/cc)	1.708

Proving Ring Factor (0.444)				
Penetration		Diel	Corrected	P.S.I
inch	mm	Reading	Reading (Kg)	
0.000	0.000	0.0	0.0	0.00
0.025	0.635	0.8	36.2	26.59
0.050	1.270	1.6	72.4	53.19
0.075	1.905	2.2	99.6	73.13
0.100	2.540	2.8	126.8	93.08
0.200	5.080	5.0	226.4	166.21
0.300	7.620	6.5	294.3	216.07
0.400	10.160	7.7	348.6	255.96
0.500	12.700	8.5	384.8	282.55

At 0.1" C.B.R	%	9
At 0.2" C.B.R	%	11
SOAKED C.B.R	%	11



Lab Director
Bassam Machaalany

02 SEP. 2024

Lab Technician

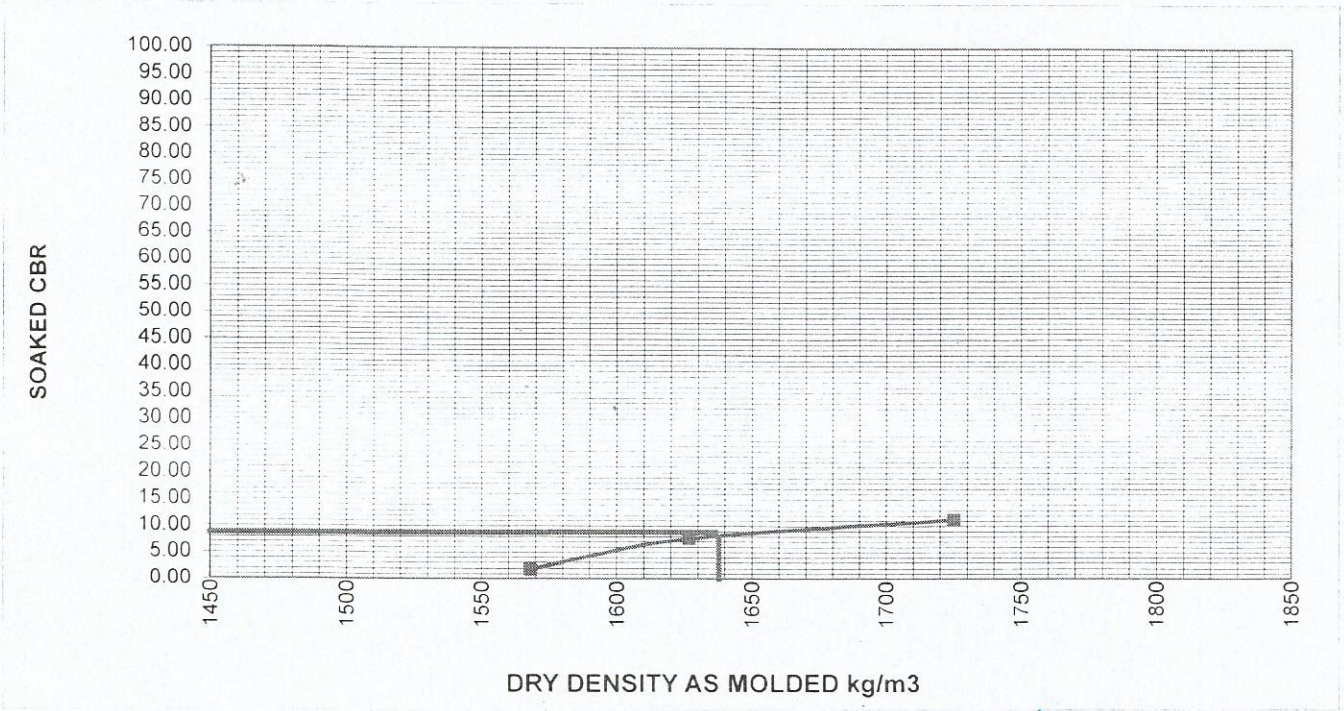
MACHAALANY LABORATORIES
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DRY DENSITY VERSUS CBR

AASHTO T 193



Blows Per Layer (No.)	Dry Density (kg/m^3)	CBR (%)
10	1568	2
30	1627	8
65	1725	11

95 percent of 1725 kg/m^3 = 11639 kg/m^3
At 1669 kg/m^3 The Soaked CBR is 8 %.

Lab Technician

Lab Director
Bassam Machaalany

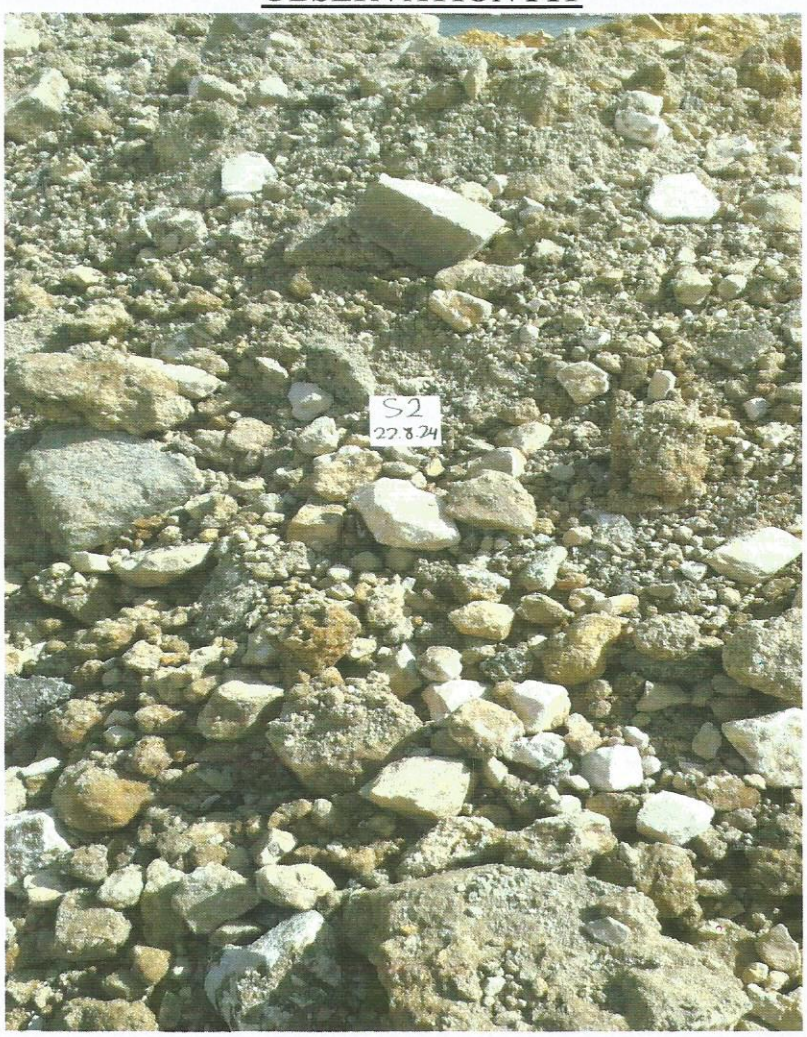
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MACHAALANY LABORATORIES
Civil Engineering Materials Testing

مختبرات مشعلاني
إختبارات مواد الهندسة المدنية

Client	: Council For Development And Reconstruction.
Project	: Expansion And Upgrade of Al - Ghadir WWTP
Engineer	: Dar Al Handasah Nazih Taleb & Partners.
Location	: Ghadir
Materials	: Backfill-S2 (Mostly Used).
Source	: Site Stockpile
Sampled By	: Engineer's and Lab's representatives
Sampling date	: 22/08/2024

OBSERVATION PIT



Technician

Lab Director
Bassam Machaalany

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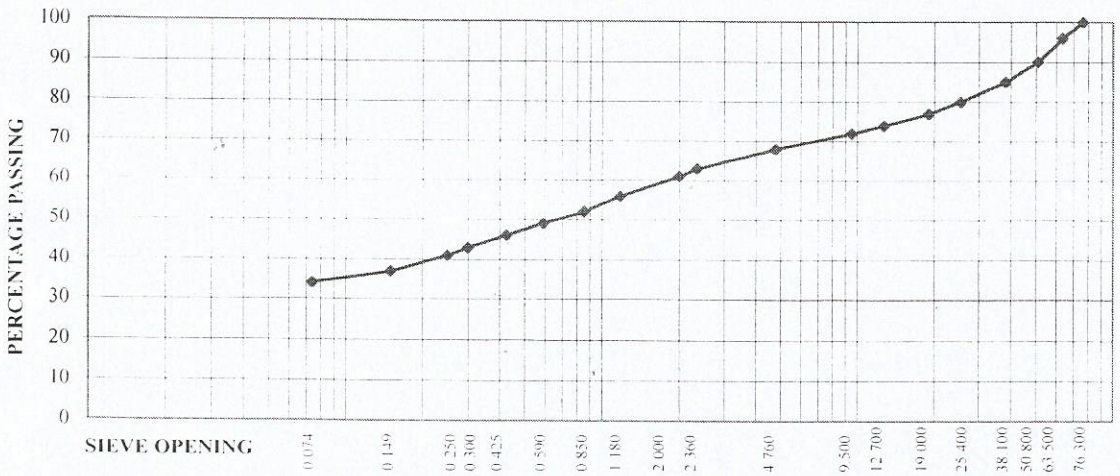
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Source : Site Stockpile
Sampled By : Engineer's and Lab's representatives
Sampling date : 22-08-24

SIEVE ANALYSIS

AASHTO (T - 27)



Boulders 200mm and Up	5%

Cobbles 75 to 200mm	15%

SIEVE inch	SIEVE mm	PASSING %
3"	76.300	100
2 1/2"	63.500	96
2"	50.800	90
1 1/2"	38.100	85
1"	25.400	80
3/4"	19.000	77
1/2"	12.700	74
3/8"	9.500	72
4	4.760	68
8	2.360	63
10	2.000	61
16	1.180	56
20	0.850	52
30	0.590	49
40	0.425	46
50	0.300	43
60	0.250	41
100	0.149	37
200	0.074	34.00

Lab Technician

Lab Director
Bassam Machaalany

02 SEP 2024

MACHAALANY LABORATORIES
Civil Engineering Materials Testing

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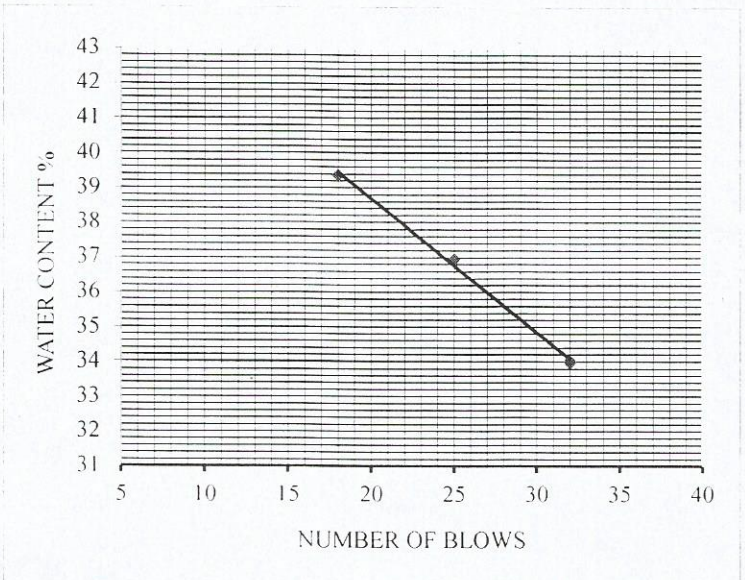
SOIL CLASSIFICATION / ATTERBERG LIMITS (AASHTO T89/T90)

LIQUID LIMIT

		1	2	3	4	5
CONTAINER NUMBER		F	H	K		
NUMBER OF BLOWS		18	25	32		
WT.OF WET SAMPLE + CONTAINER	Gms	39.67	37.11	36.85		
WT.OF DRY SAMPLE + CONTAINER	Gms	31.68	30.14	30.41		
WT.OF WATER	Gms	7.99	6.97	6.44		
WT.OF CONTAINER	Gms	11.39	11.28	11.47		
WT.OF DRY SAMPLE	Gms	20.29	18.86	18.94		
WATER CONTENT	%	39.38	36.96	34.00		

PLASTIC LIMIT

		1	2	3	4	5
CONTAINER NUMBER		T	C			
WT.OF WET SAMPLE + CONTAINER	Gms	38.61	39.23			
WT.OF DRY SAMPLE + CONTAINER	Gms	33.19	33.62			
WT.OF WATER	Gms	5.42	5.61			
WT.OF CONTAINER	Gms	11.35	11.24			
WT.OF DRY SAMPLE	Gms	21.84	22.38			
WATER CONTENT	%	24.82	25.07			



LIQUID LIMIT	37
PLASTIC LIMIT	25
PLASTICITY INDEX	12
SOIL CLASSIFICATION	A-2-6

Silty And Clayey Gravel And sand.

Lab Director
Bassam Machaalany

02 SEP. 2024

Lab Technician

MACHAALANY LABORATORIES
Civil Engineering Materials Testing

مختبرات مشعلاني
إختبارات مواد الهندسة المدنية

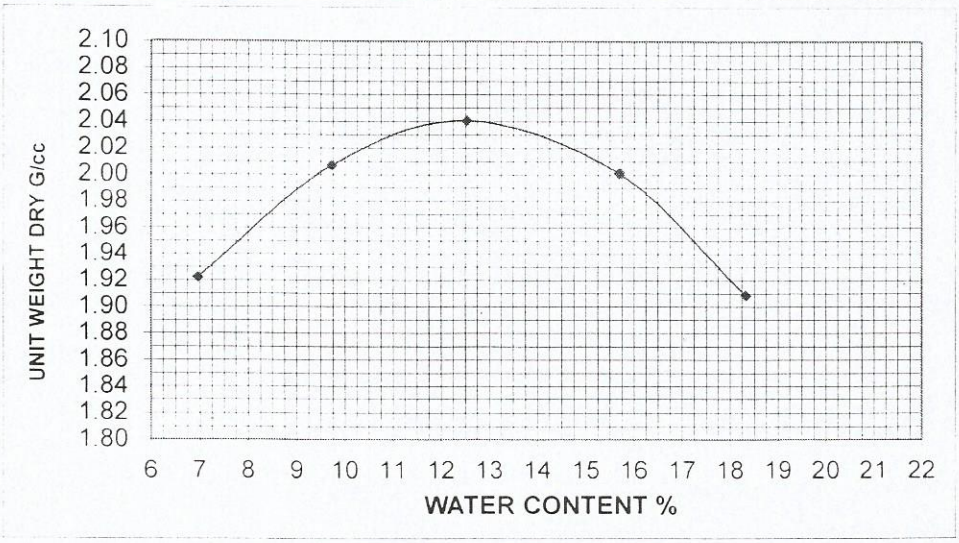
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Source : Site Stockpile
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Sampling date : 22-08-24

MOISTURE DENSITY RELATION OF SOIL (AASHTO T180 Method C)

Cylinder No		1	2	3	4	5		
Volume	Cm^3	2123						
Method Of Compaction		MODIFIED PROCTOR						
Wt.Cylinder + Soil	Gms	11410	11720	11920	11960	11840		
Wt Of Cylinder	Gms	7045	7045	7045	7045	7045		
Wt Of Compacted Soil	Gms	4365	4675	4875	4915	4795		
Unit Weight Wet	G/Cm^3	2.06	2.20	2.30	2.32	2.26		
Dish Number		1	2	3	4	5		
Wt.Sample (Wet + Dish)	Gms	1536	1754	1662	1812	1709		
Wt.Sample (Dry + Dish)	Gms	1462	1635	1520	1624	1507		
Wt.Of Water	Gms	74	119	142	188	202		
Wt Of Dish	Gms	399	412	387	426	405		
Wt Of Dry Soil	Gms	1063	1223	1133	1198	1102		
Water Content	%	7.0	9.7	12.5	15.7	18.3		
Unit Weight Dry	G/Cm^3	1.92	2.01	2.04	2.00	1.91		

Maximum Dry Density (g/cm^3)	**2.04**

Optimum Water Content (%)	**12.5**



Lab Director
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02 SEP 2024

Lab Technician

MACHAALANY LABORATORIES
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Sampling date : 22-08-24

CALIFORNIA BEARING RATIO (AASHTO T-193)

Modified proctor Density	(G/cc)	2.04
Optimum Water Content	(%)	12.5

Method of Compacted Soil	55 Blows / Layer - 5 Layers	
Volume of Cylinder	(cc)	2123

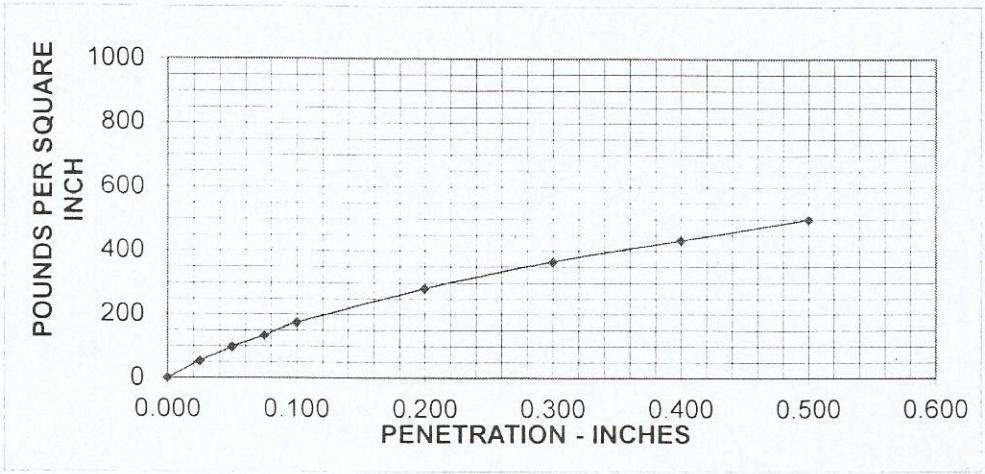
C.B.R. DENSITY BEFORE SOAKING IN WATER

Weight Of Cylinder + Soil	(Gr)	11920
Weight Of Cylinder	(Gr)	7045
Weight Of Compacted Soil	(Gr)	4875

Wet density	(G/cc)	2.30
Dry Density	(G/cc)	2.04

Proving Ring Factor (0.444)				
Penetration		Diel	Corrected	P.S.I
inch	mm	Reading	Reading (Kg)	
0.000	0.000	0.0	0.0	0.00
0.025	0.635	1.6	72.4	53.49
0.050	1.270	2.9	131.3	96.40
0.075	1.905	4.0	181.1	132.97
0.100	2.540	5.2	235.4	172.86
0.200	5.080	8.5	384.8	282.55
0.300	7.620	11.0	498.0	365.66
0.400	10.160	13.0	588.6	432.14
0.500	12.700	15.0	679.1	498.62

At 0.1" C.B.R	%	17
At 0.2" C.B.R	%	19
SOAKED C.B.R	%	19



Lab Technician

Lab Director
Bassam Machaalany

02 SEP. 2024

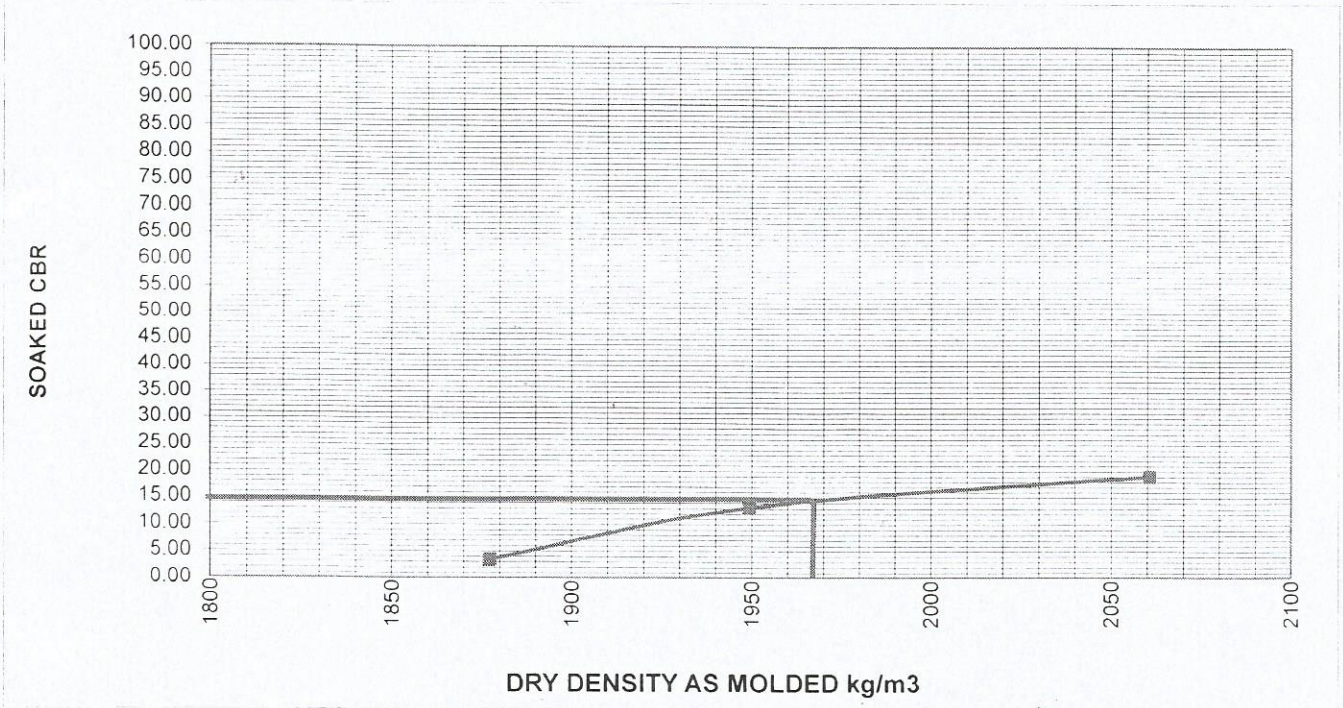
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DRY DENSITY VERSUS CBR

AASHTO T 193



Blows Per Layer (No.)	Dry Density (kg/m^3)	CBR (%)
10	1877	3
30	1949	13
65	2061	19

95 percent of 2061 kg/m^3 = 1958 kg/m^3
At 1958 kg/m^3 The Soaked CBR is 15 %.

Lab Technician

Lab Director
Bassam Machaalany

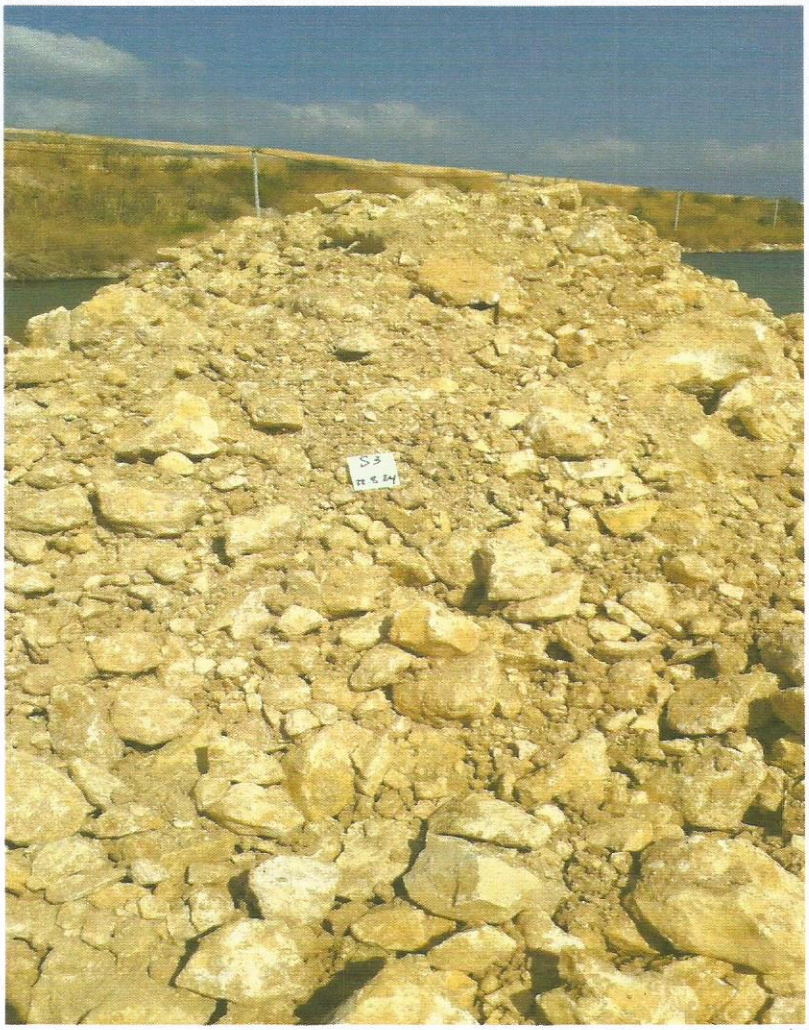
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Project	: Expansion And Upgrade of Al - Ghadir WWTP
Engineer	: Dar Al Handasah Nazih Taleb & Partners.
Location	: Ghadir
Materials	: Backfill-S3 (Moderately Used)
Source	: Site Stockpile
Sampled By	: Engineer's and Lab's representatives
Sampling date	: 22/08/2024

OBSERVATION PIT



Technician

Lab Director
Bassam Machaalany

02 SEP 2024

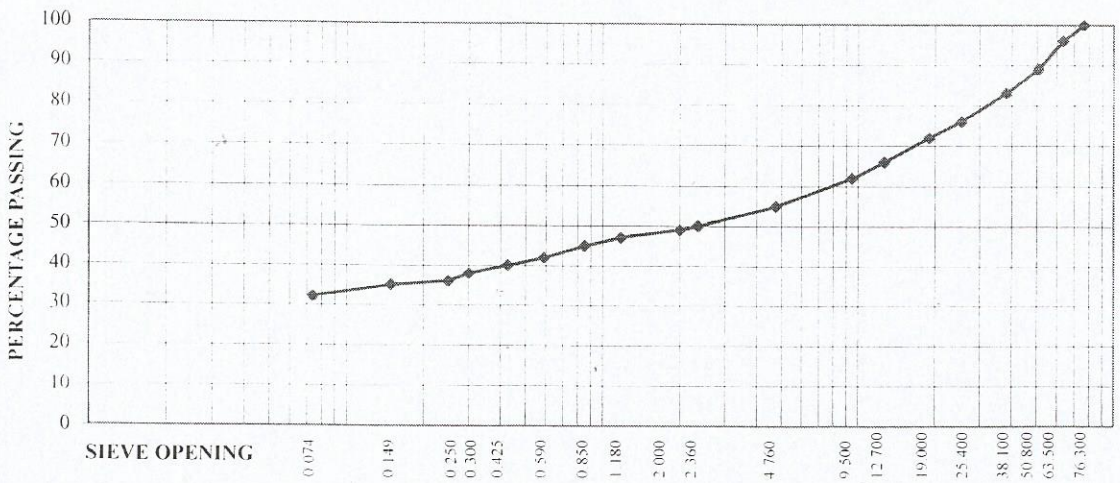
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SIEVE ANALYSIS

AASHTO (T - 27)



Boulders 200mm and Up	8%

Cobbles 75 to 200mm	18%

SIEVE inch	SIEVE mm	PASSING %
3"	76.300	100
2 1/2"	63.500	96
2"	50.800	89
1 1/2"	38.100	83
1"	25.400	76
3/4"	19.000	72
1/2"	12.700	66
3/8"	9.500	62
4	4.760	55
8	2.360	50
10	2.000	49
16	1.180	47
20	0.850	45
30	0.590	42
40	0.425	40
50	0.300	38
60	0.250	36
100	0.149	35
200	0.074	32.00

Lab Technician

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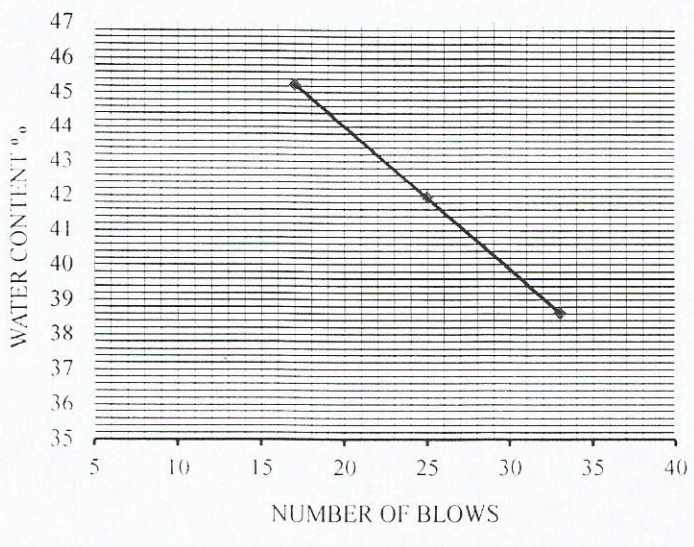
SOIL CLASSIFICATION / ATTERBERG LIMITS (AASHTO T89/T90)

LIQUID LIMIT

		1	2	3	4	5
CONTAINER NUMBER		A	C	T		
NUMBER OF BLOWS		17	25	33		
WT.OF WET SAMPLE + CONTAINER	Gms	40.26	38.41	39.76		
WT.OF DRY SAMPLE + CONTAINER	Gms	31.25	30.46	31.86		
WT.OF WATER	Gms	9.01	7.95	7.90		
WT.OF CONTAINER	Gms	11.34	11.52	11.41		
WT.OF DRY SAMPLE	Gms	19.91	18.94	20.45		
WATER CONTENT	%	45.25	41.97	38.63		

PLASTIC LIMIT

		1	2	3	4	5
CONTAINER NUMBER		D	G			
WT.OF WET SAMPLE + CONTAINER	Gms	37.46	39.88			
WT.OF DRY SAMPLE + CONTAINER	Gms	32.01	33.70			
WT.OF WATER	Gms	5.45	6.18			
WT.OF CONTAINER	Gms	11.64	11.28			
WT.OF DRY SAMPLE	Gms	20.37	22.42			
WATER CONTENT	%	26.76	27.56			



LIQUID LIMIT	42
PLASTIC LIMIT	27
PLASTICITY INDEX	15
SOIL CLASSIFICATION	A-2-7

Silty And Clayey Gravel And sand.

Lab Director
Bassam Machaalany

02 SEP. 2024

Lab Technician

MACHAALANY LABORATORIES
Civil Engineering Materials Testing

مختبرات مشعلاني
إختبارات مواد الهندسة المدنية

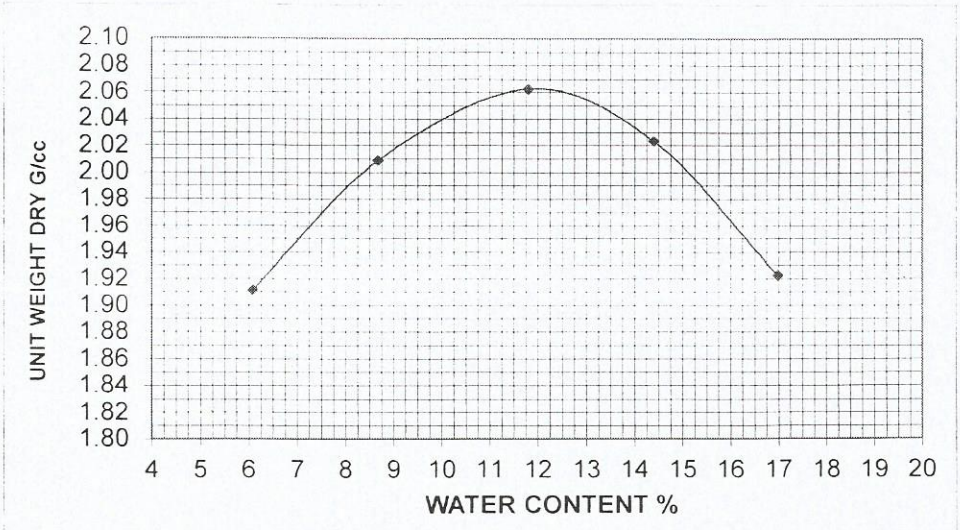
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Source : Site Stockpile
Sampled By : Engineer's and Lab's representatives
Sampling date : 22-08-24

MOISTURE DENSITY RELATION OF SOIL (AASHTO T180 Method C)

Cylinder No		1	2	3	4	5		
Volume	Cm^3	2123						
Method Of Compaction		MODIFIED PROCTOR						
Wt.Cylinder + Soil	Gms	11350	11680	11940	11960	11820		
Wt Of Cylinder	Gms	7045	7045	7045	7045	7045		
Wt Of Compacted Soil	Gms	4305	4635	4895	4915	4775		
Unit Weight Wet	G/Cm^3	2.03	2.18	2.31	2.32	2.25		
Dish Number		1	2	3	4	5		
Wt.Sample (Wet + Dish)	Gms	1642	1705	1697	1509	1634		
Wt.Sample (Dry + Dish)	Gms	1570	1602	1563	1369	1456		
Wt.Of Water	Gms	72	103	134	140	178		
Wt Of Dish	Gms	386	415	427	397	408		
Wt Of Dry Soil	Gms	1184	1187	1136	972	1048		
Water Content	%	6.1	8.7	11.8	14.4	17.0		
Unit Weight Dry	G/Cm^3	1.91	2.01	2.06	2.02	1.92		

Maximum Dry Density (g/cm^3)	**2.06**

Optimum Water Content (%)	**11.8**



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CALIFORNIA BEARING RATIO (AASHTO T-193)

Modified proctor Density	(G/cc)	2.06
Optimum Water Content	(%)	11.80

Method of Compacted Soil	55 Blows / Layer - 5 Layers	
Volume of Cylinder	(cc)	2123

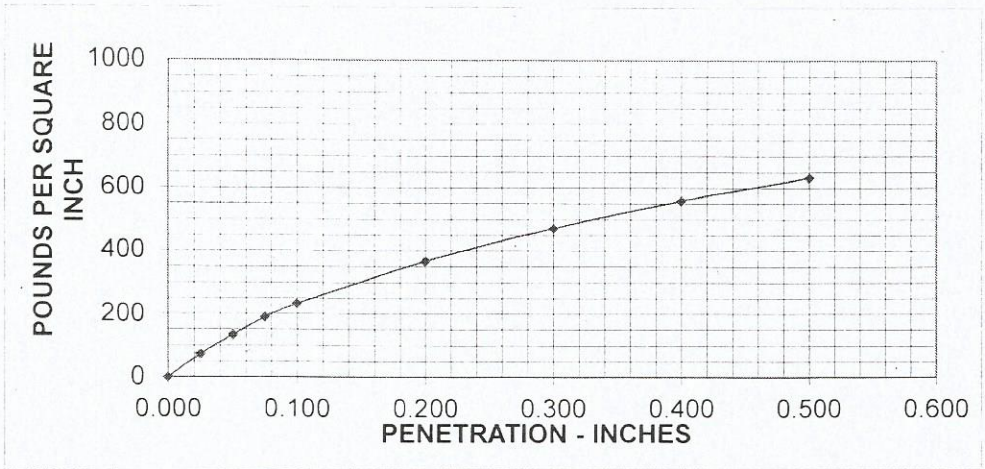
C.B.R. DENSITY BEFORE SOAKING IN WATER

Weight Of Cylinder + Soil	(Gr)	11940
Weight Of Cylinder	(Gr)	7045
Weight Of Compacted Soil	(Gr)	4895

Wet density	(G/cc)	2.306
Dry Density	(G/cc)	2.062

Proving Ring Factor (0.444)				
Penetration		Diel	Corrected	P.S.I
inch	mm	Reading	Reading (Kg)	
0.000	0.000	0.0	0.0	0.00
0.025	0.635	2.2	99.6	73.13
0.050	1.270	4.0	181.1	132.97
0.075	1.905	5.7	258.1	189.48
0.100	2.540	7.0	316.9	232.69
0.200	5.080	11.0	498.0	365.66
0.300	7.620	14.2	642.9	472.03
0.400	10.160	16.8	760.6	558.46
0.500	12.700	19.0	860.2	631.59

At 0.1" C.B.R	%	23
At 0.2" C.B.R	%	24
SOAKED C.B.R	%	24



Lab Technician

Lab Director
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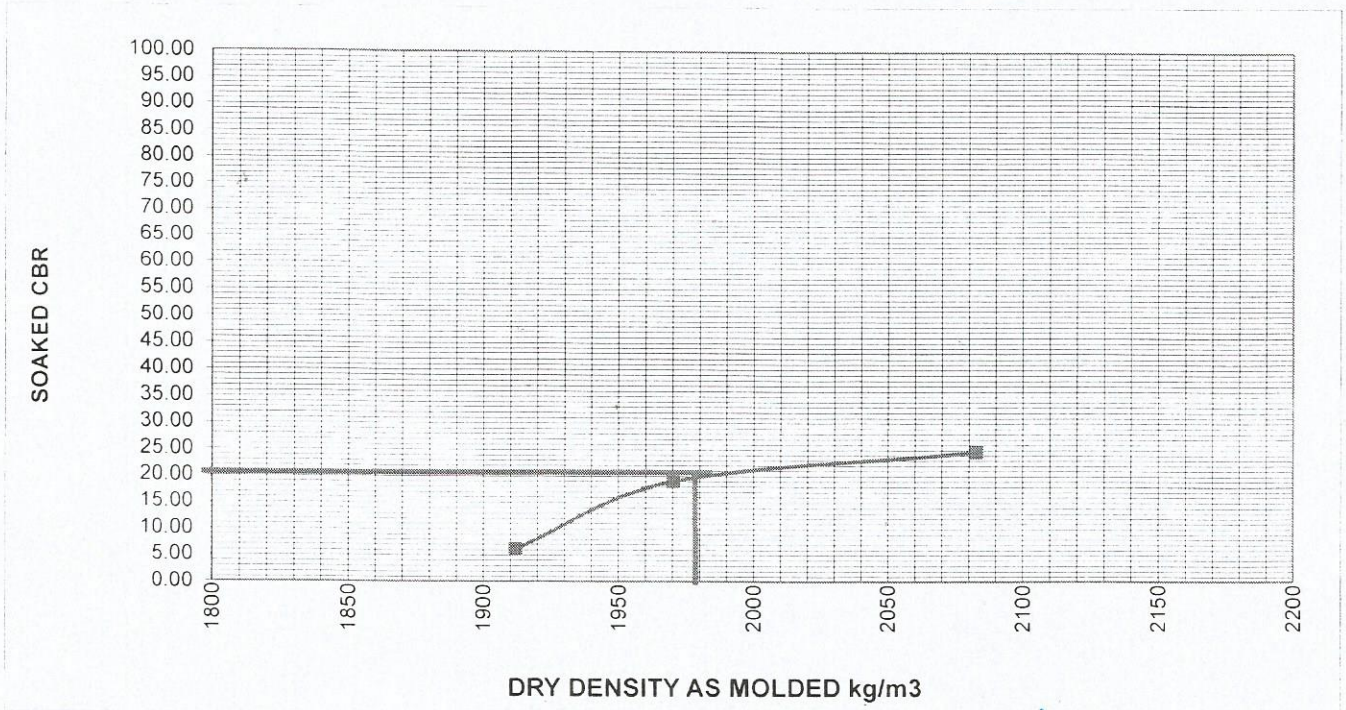
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Source	: Site Stockpile
Sampled By	: Engineer's and Lab's representatives
Sampling date	: 22-08-24

DRY DENSITY VERSUS CBR

AASHTO T 193



Blows Per Layer (No.)	Dry Density (kg/m^3)	CBR (%)
10	1912	6
30	1970	19
65	2083	25

95 percent of 2080 kg/m^3 = 1979 kg/m^3
At 1979 kg/m^3 The Soaked CBR is 20 %.

Lab Technician

Lab Director
Bassam Machaalany

02 SEP. 2024

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ENGINEER BILAL ASSAAD MELHEM ASSAAD & Co.

DESIGN & SUPERVISION - GEOTECHNICAL CONSULTANCY - MATERIALS TESTING

أساكو ش.م.م.

المهندس بلال اسعد ملحم اسعد وشركاه

دروس واشراف - إستشارات جيوتقنية - فحص مواد

CLIENT : M/S CDR

PROJECT : EXPANSION AND UPGRADE OF AL- GHADIR WASTEWATER TREATMENT PLANT

LOCATION : ALEY CAZA- MOUNT LEBANON

DESIGNER : DAR - TALEB

LABORATORY TESTING OF SAMPLES

NOVEMBER 2024

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Contents

- **Test Data Summary (Sandstone)**
- **Point Load Index Test**

Contents

- **Test Data Summary (Soil)**
- **Sieve Analysis**
- **Liquid Limit & Plastic Limit Tests**
- **Shear Box**
- **Odometer Test (Consolidation Test)**
- **Organic Content Test**

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Client : M/S CDR
Project : Expansion & Upgrade of Al-Ghadir Wastewater Treatment Plant
Location: Aley Caza - Mount Lebanon
Date : 23/11/24

TEST DATA SUMMARY ROCK - ASTM Designation C97 - 90

Borehole No.	Depth m	Density g/cm^3	Absorption %	Point load index Mpa	Estimated U.C.S. kg/cm^2	SO4-- cont. %	CL- cont. %	CaCO3 cont. %	PH
BH-1	16.50	-	-	1.47	293	-	-	33	-
BH-2	10.50	-	-	0.93	185	-	-	30	-

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Date : 23/11/24

POINT LOAD STRENGTH INDEX TEST

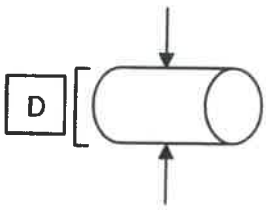
ASTM - D-5731

Sample no.	Sample depth	Type of test	Sample Description	Dia. or Thic of sample (mm)	Gauge pressure (KN)	Point load index (Is;MPa)	Correction factor (F)	Corrected P.L.I Is(50);Mpa
BH-1	16.50	D	Bedrock	60.0	4.87	1.35	1.09	1.47
BH-2	10.50	D	Bedrock	60.0	3.10	0.86	1.09	0.93

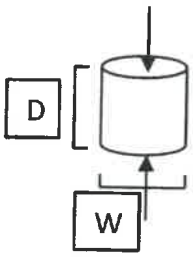
Remark : The estimated unconfined compressive strength was calculated using a factor K=18.
However the K factor is variable, depending on rock type and other factors.
The formula for the estimated unconfined compressive strength is : $\sigma = K \times Is(50)$

Type of test :

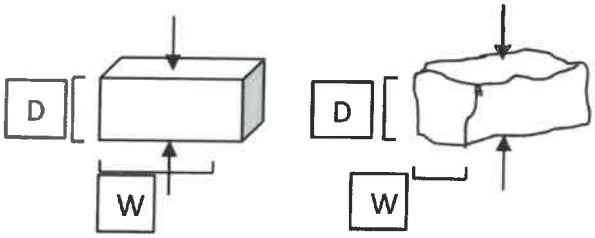
D: Diametral



A: Axial



B: Block & Irregular shapes



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Location : Aley Caza - Mount Lebanon
Date : 23/11/24

TEST DATA SUMMARY - ASTM Designations D422 / D2216 / D3080 / D4318

Sample I.D	Depth	B.S. Soil Class.	Grain Size di			Atterberg		Moist. content	Bulk dens.	Dry dens.	Sat. dens.	Shear Box		Compression index	Organic cont.	$SO4^{--}$ cont.	CL^{-} cont.	PH
			Gravel	Sand	Fines	LL	PL					C cohesion	ϕ					
	m		%	%	%	%	%	%	g/cm^3	g/cm^3	g/cm^3	kg/cm^2	Degree	Cc	%	ppm	ppm	
BH1	4.00	Seabed Sediment	17	60	23	35	24	11.8	1.74	1.56	1.95	0.06	32	-	-	965	2180	7.6
BH2	1.00	Manmade Fill	83	10	7	14	10	24.5	1.78	1.43	1.79	-	-	-	1.17	1032	2264	7.4
BH3	11.00	Seabed Sediment	13	67	20	32	23	18.7	1.75	1.47	1.84	0	33	-	-	-	-	-
BH4	2.00	Manmade Fill	60	35	5	11	9	8.2	1.49	1.38	1.72	-	-	-	1.92	981	2283	7.2
	7.00	Seabed Sediment	7	74	19	30	22	16.7	1.79	1.53	1.92	0	34	0.110	-	-	-	-

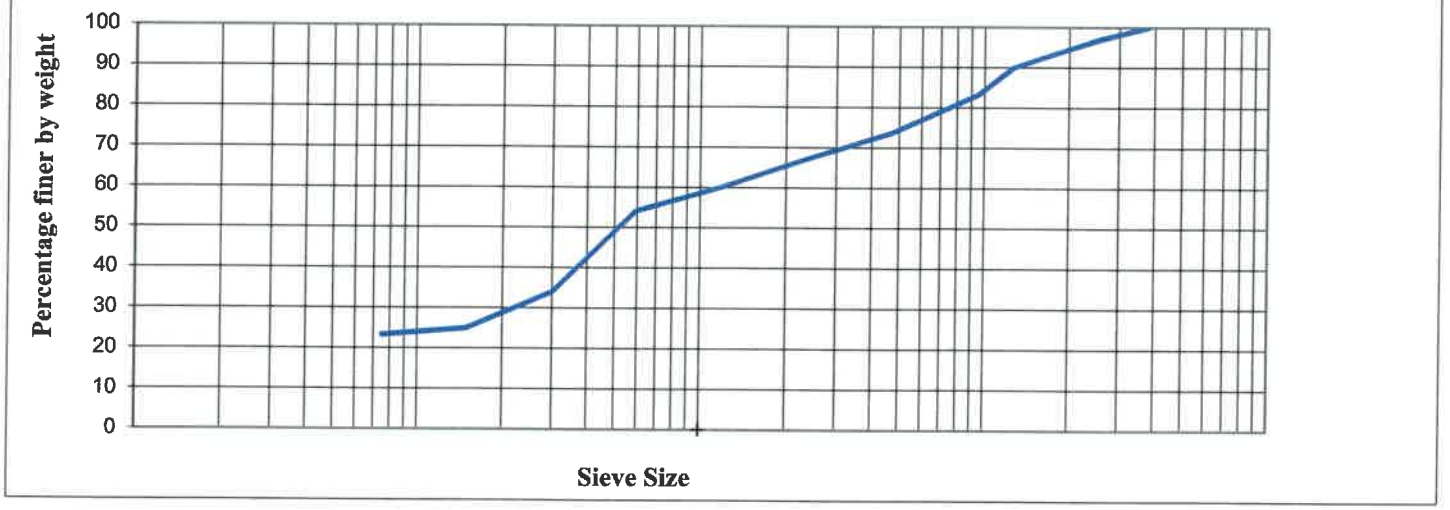
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Client: M/S CDR
Project: Expansion & Upgrade of Al-Ghadir Wastewater Treatment Plant
Location: Aley Caza - Mount Lebanon
Date: 20/11/24

PARTICLE SIZE DISTRIBUTION
ASTM C-136



Sample I.D : -
BH / TP : **BH1/ Ghadir**
Depth (m) : **4.00**
Nr : **Box 1**

Weight of sample : **798.89** g

Sieve No.	Retaind	Passing
3"		
2"		
1 1/2"		
1"		799
3/4"	25	774
1/2"	23	751
3/8"	32	719
4	54.3	665
10	75.1	589
20	52.8	537
30	56.7	480
40	48.4	432
60	160.0	272
100	72.1	200
200	13.2	186

D(mm)	Passing %
90.000	
76.200	
50.800	
38.100	100
25.400	97
19.000	94
12.700	90
9.500	83
4.750	74
2.360	67
1.180	60
0.590	54
0.300	34
0.149	25
0.075	23

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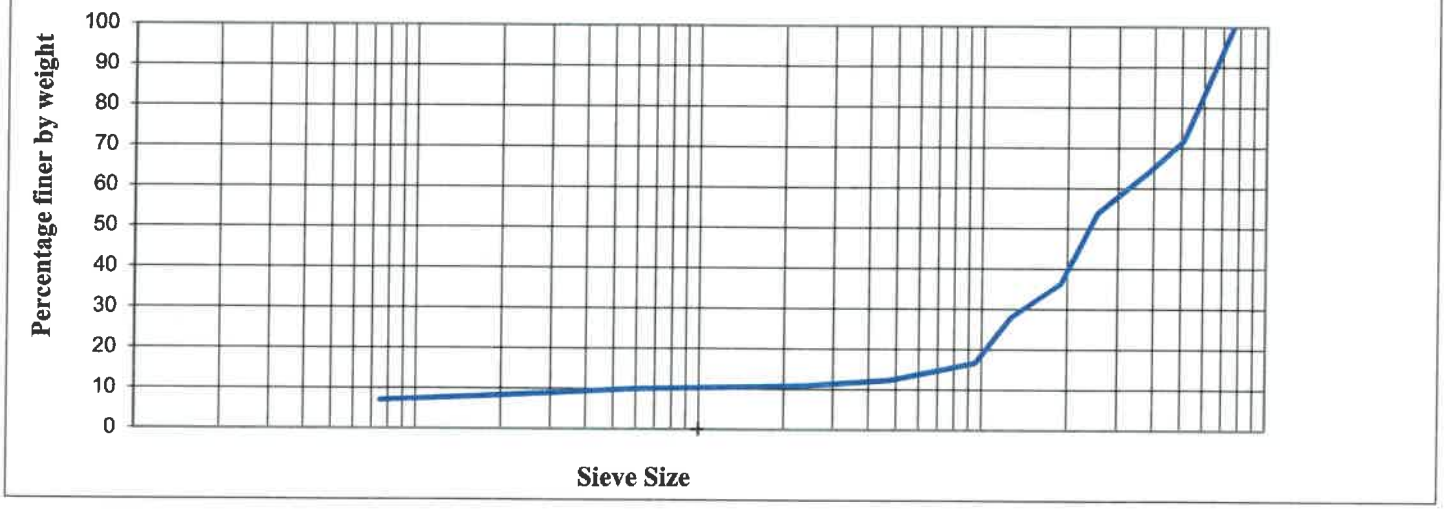
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Client: M/S CDR
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Location: Aley Caza - Mount Lebanon
Date: 20/11/24

PARTICLE SIZE DISTRIBUTION
ASTM C-136



Sample I.D : -
BH / TP : **BH2/ Ghadir**
Depth (m) : **1.00**
Nr : **Box 1**

Weight of sample : **1221.5 g**

Sieve No.	Retaind	Passing
3"		
2"		1222
1 1/2"	345.7	876
1"	95	781
3/4"	123	658
1/2"	214	444
3/8"	101	343
4	139.1	204
10	53.2	150
20	17.7	133
30	5.1	128
40	5.6	122
60	13.7	108
100	11.8	97
200	10.8	86

D(mm)	Passing %
90.000	
76.200	100
50.800	72
38.100	64
25.400	54
19.000	36
12.700	28
9.500	17
4.750	12
2.360	11
1.180	10
0.590	10
0.300	9
0.149	8
0.075	7

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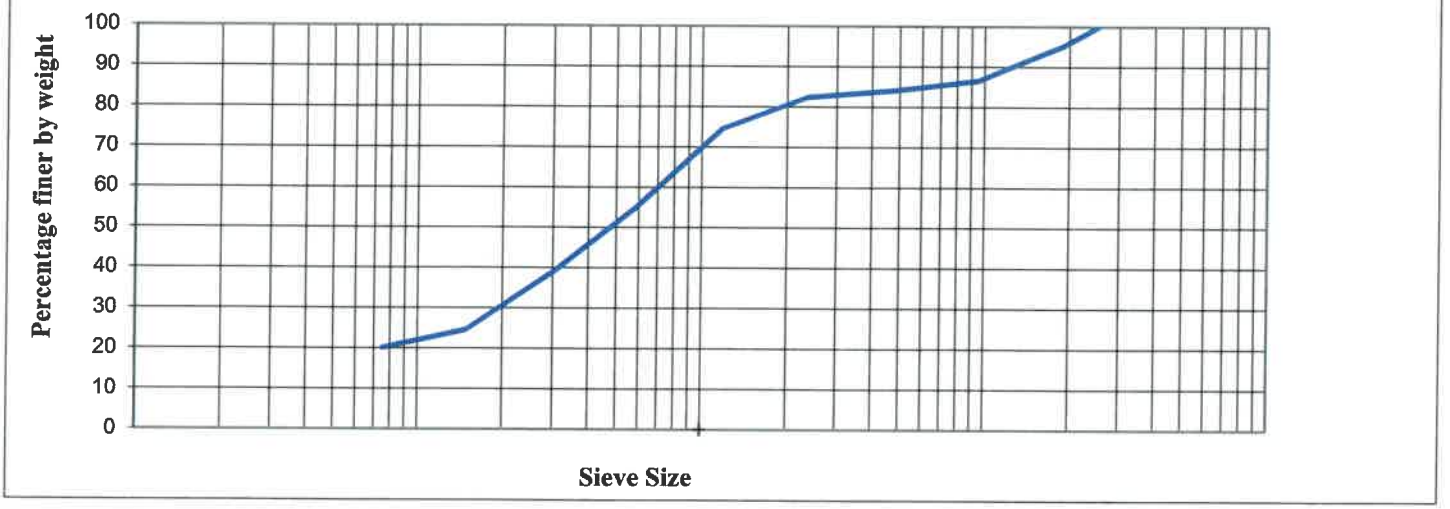
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Client: M/S CDR
Project: Expansion & Upgrade of Al-Ghadir Wastewater Treatment Plant
Location: Aley Caza - Mount Lebanon
Date: 20/11/24

PARTICLE SIZE DISTRIBUTION
ASTM C-136



Sample I.D : -
BH / TP : **BH3/ Ghadir**
Depth (m) : **11.00**
Nr : **Box 1**

Weight of sample : **691.64 g**

Sieve No.	Retaind	Passing
3"		
2"		
1 1/2"		
1"		
3/4"		692
1/2"	34	658
3/8"	34	624
4	25.2	599
10	16.8	582
20	12.3	569
30	53.7	516
40	134.2	382
60	112.4	269
100	98.7	170
200	31.5	139

D(mm)	Passing %
90.000	
76.200	
50.800	
38.100	
25.400	100
19.000	95
12.700	90
9.500	87
4.750	84
2.360	82
1.180	75
0.590	55
0.300	39
0.149	25
0.075	20

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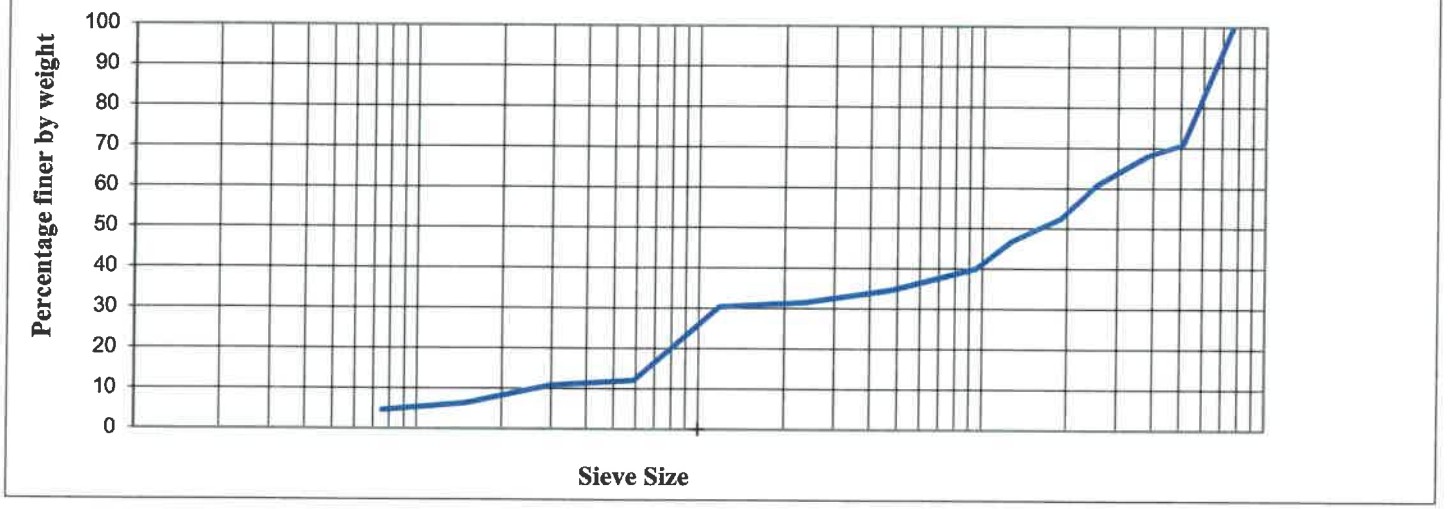
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Location: Aley Caza - Mount Lebanon
Date: 20/11/24

PARTICLE SIZE DISTRIBUTION
ASTM C-136



Sample I.D : -
BH / TP : **BH4/ Ghadir**
Depth (m) : **2.00**
Nr : **Box 1**

Weight of sample : **1106.7** g

Sieve No.	Retaind	Passing
3"		
2"		1107
1 1/2"	322.86	784
1"	31	753
3/4"	79	674
1/2"	94	581
3/8"	62	518
4	75.2	443
10	59.5	383
20	35.2	348
30	11.7	337
40	202.6	134
60	13.8	120
100	49.7	70
200	19.3	51

D(mm)	Passing %
90.000	
76.200	100
50.800	71
38.100	68
25.400	61
19.000	52
12.700	47
9.500	40
4.750	35
2.360	31
1.180	30
0.590	12
0.300	11
0.149	6
0.075	5

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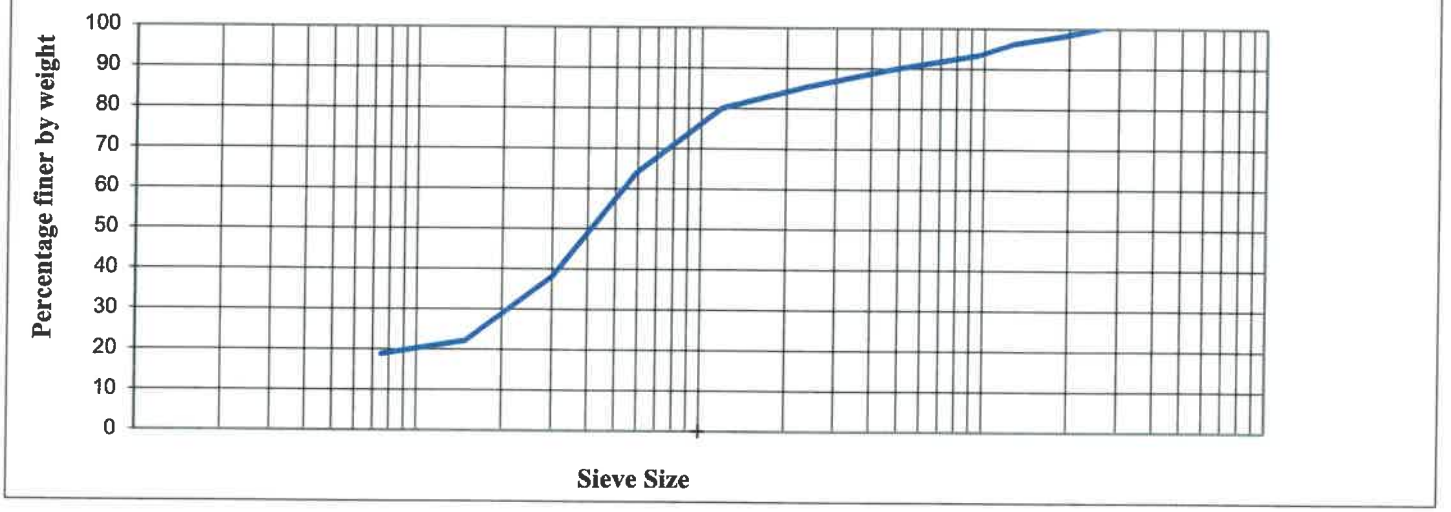
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Client: M/S CDR
Project: Expansion & Upgrade of Al-Ghadir Wastewater Treatment Plant
Location: Aley Caza - Mount Lebanon
Date: 20/11/24

PARTICLE SIZE DISTRIBUTION
ASTM C-136



Sample I.D : -
BH / TP : **BH4/ Ghadir**
Depth (m) : **7.00**
Nr : **Box 1**

Weight of sample : **773.41** g

Sieve No.	Retaind	Passing
3"		
2"		
1 1/2"		
1"		
3/4"		773
1/2"	14	760
3/8"	15	744
4	22.1	722
10	27.4	695
20	34.1	661
30	41.6	619
40	124.8	494
60	198.4	296
100	124.1	172
200	26.2	145

D(mm)	Passing %
90.000	
76.200	
50.800	
38.100	
25.400	100
19.000	98
12.700	96
9.500	93
4.750	90
2.360	85
1.180	80
0.590	64
0.300	38
0.149	22
0.075	19

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Location : Aley Caza - Mount Lebanon
Date : 23/11/24

Liquid Limit & Plastic Limit
ASTM Designation 4318 - 84

LIQUID LIMIT		BH1	BH2	BH3	BH4	
Depth	m	4.00	1.00	11.00	7.00	2.00
CONTAINER NUMBER		1	2	3	4	5
NUMBER OF BLOWS		25	25	25	25	25
WT. OF WET SAMPLE & CONTAINER	g	31.35	32.14	29.74	31.05	36.91
WT. OF DRY SAMPLE & CONTAINER	g	26.02	29.51	25.13	29.07	30.94
WT. OF WATER	g	5.33	2.63	4.61	1.98	5.97
WT. OF CONTAINER	g	10.79	10.63	10.82	10.91	10.79
WT. OF DRY SAMPLE	g	15.23	18.88	14.31	18.16	20.15
WATER CONTENT (LL)	%	**35**	**14**	**32**	**11**	**30**

PLASTIC LIMIT		BH1	BH2	BH3	BH4	
Depth	m	4.00	1.00	11.00	7.00	2.00
CONTAINER NUMBER		1	2	3	4	5
WT. OF WET SAMPLE & CONTAINER	g	18.46	16.92	18.72	20.68	19.04
WT. OF DRY SAMPLE & CONTAINER	g	17.02	16.38	17.29	19.91	17.58
WT. OF WATER	g	1.44	0.54	1.43	0.77	1.46
WT. OF CONTAINER	g	10.93	10.94	10.99	10.95	10.95
WT. OF DRY SAMPLE	g	6.09	5.44	6.30	8.96	6.63
WATER CONTENT (PL)	%	**24**	**10**	**23**	**9**	**22**

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