



GEOLAB

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Letter of Transmittal

Date: 9-10-25

Job No.: 889

Lab Log: 25-4471

Attention: Yazmeen
Alliance Technical Group
284 Sheffield Street
Mountainside, NJ 07092

CC: Jordan Hedvat, projectmanagers@chemtech.net

Re: Q2938 – OVEC – Kyger Creek

Sample(s) ID: **LF1-GM, LF1-G**

Dear Yazmeen,

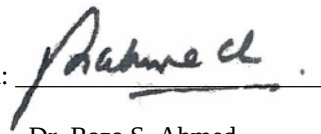
Please find attached results for the samples referenced above. The following lab testing was performed:

- ASTM D4318 Atterberg Limits
- ASTM D422 Sieve & Hydrometer Analysis
- ASTM D2216 Moisture Content
- ASTM D698 Standard Proctor

Regards,
RSA Geolab, LLC

Remarks: If you have any questions, please call 908-964-0786.

Signed: _____


Dr. Raza S. Ahmed
President RSA Geolab, LLC

<https://www.rsageolab.com/>
email: rsa@rsageolab.com

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MOISTURE CONTENT (ASTM D2216)

Project: OVEC - Kyger Creek
Q2938
Client: Alliance Technical Group

Project #: 889
Date: 9-10-25

HOLE #/ SAMPLE #	LF1-GM	LF1-G				
DEPTH						
WET WGT. + TARE (gms.)	537.5	385.8				
DRY WGT. + TARE (gms.)	453.8	297.4				
WGT. WATER (gms.)	83.7	88.4				
TARE (gms.)	13.7	13.8				
DRY WGT. (gms.)	440.1	283.6				
MOISTURE CONTENT (%)	19.0	31.2				

HOLE #/ SAMPLE #						
DEPTH						
WET WGT. + TARE (gms.)						
DRY WGT. + TARE (gms.)						
WGT. WATER (gms.)						
TARE (gms.)						
DRY WGT. (gms.)						
MOISTURE CONTENT (%)						

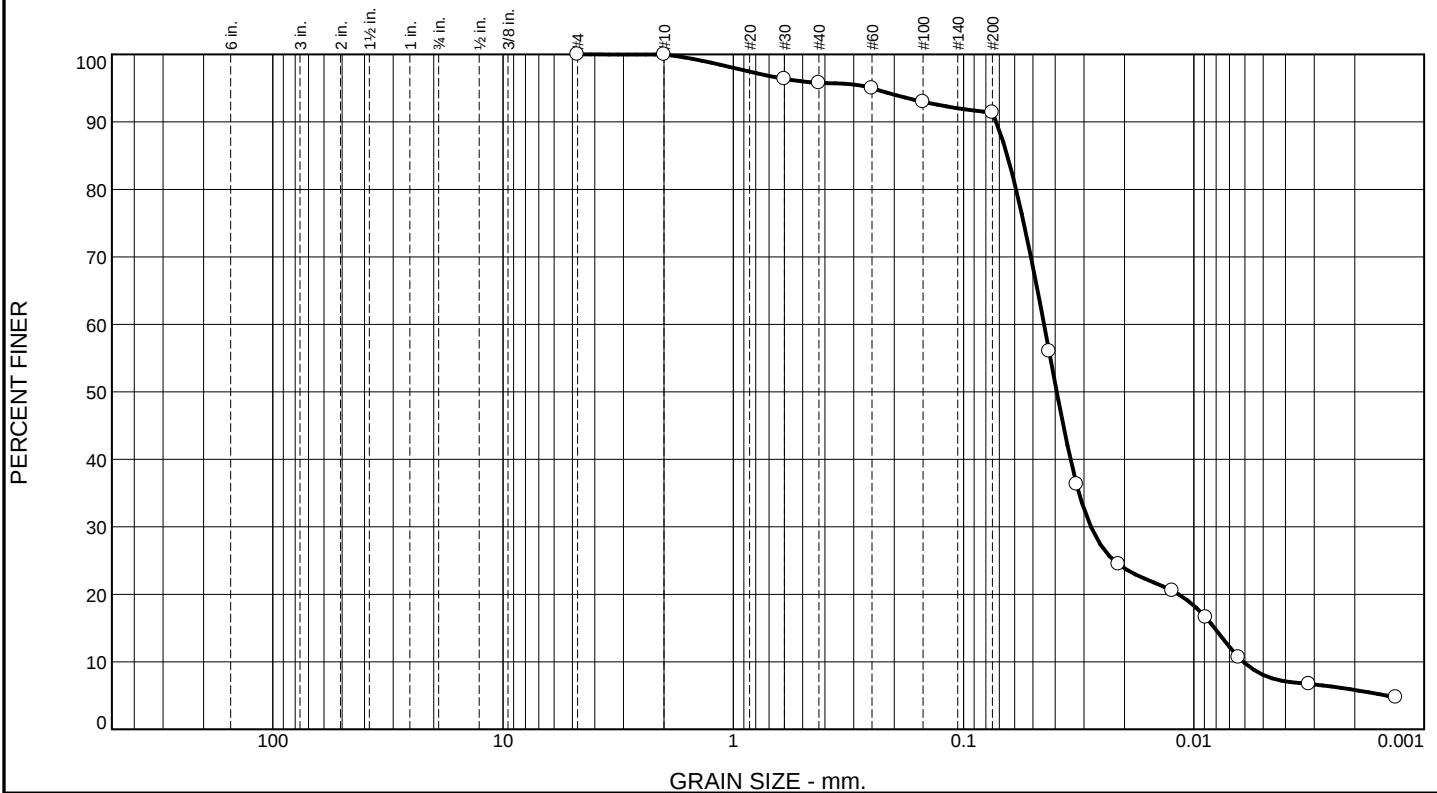
Tested by: SP

Entered by: KH

Checked by: KH

<https://www.rsageolab.com>
email: rsa@rsageolab.com

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	4.2	4.4	83.3	8.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	100.0		
#30	96.4		
#40	95.8		
#60	95.0		
#100	93.0		
#200	91.4		

* (no specification provided)

Material Description
Pale Yellow elastic silt

Atterberg Limits
 PL= 49 LL= 56 PI= 7

Coefficients
 D₉₀= 0.0721 D₈₅= 0.0646 D₆₀= 0.0447
 D₅₀= 0.0394 D₃₀= 0.0280 D₁₅= 0.0081
 D₁₀= 0.0061 C_u= 7.34 C_c= 2.87

Classification
 USCS= MH AASHTO= A-5(13)

Remarks

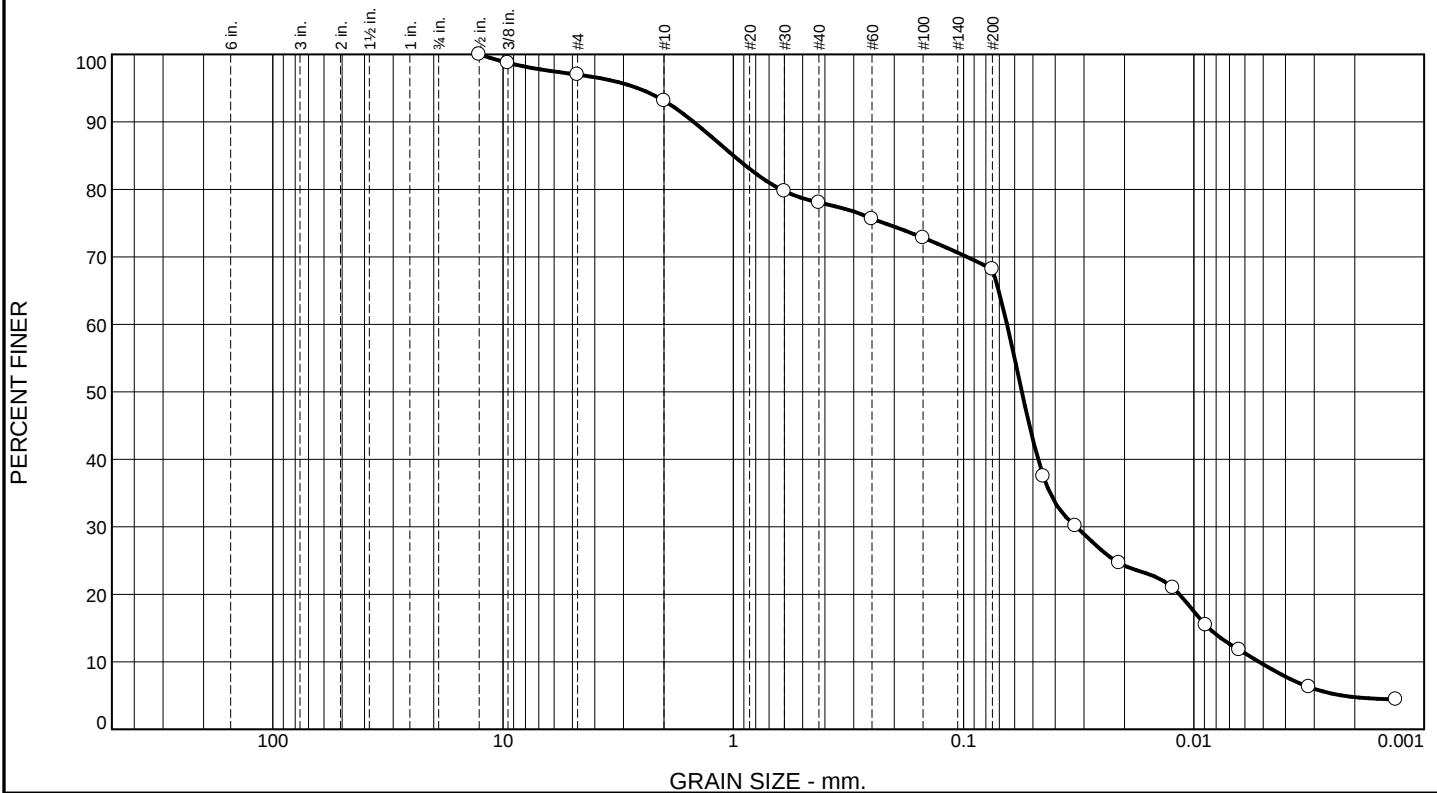
Sample Number: LF1-G

Date: 9-10-25

RSA Geolab Union, New Jersey	Client: Alliance Technical Group Project: Q2938 - OVEC - Kyger Creek
	Project No: 889 Figure

Tested By: JK Checked By: KH

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.0	3.9	15.1	9.8	58.6	9.6

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.5	100.0		
.375	98.8		
#4	97.0		
#10	93.1		
#30	79.7		
#40	78.0		
#60	75.6		
#100	72.8		
#200	68.2		

* (no specification provided)

Sample Number: LF1-GM

Material Description

Gray sandy silt

Atterberg Limits

PL= 31

LL= 38

PI= 7

Coefficients

D₉₀= 1.4867

D₈₅= 0.9991

D₆₀= 0.0648

D₅₀= 0.0558

D₃₀= 0.0324

D₁₅= 0.0086

D₁₀= 0.0052

C_u= 12.43

C_c= 3.11

Classification

USCS= ML

AASHTO= A-4(5)

Remarks

RSA Geolab

Union, New Jersey

Client: Alliance Technical Group

Project: Q2938 - OVEC - Kyger Creek

Project No: 889

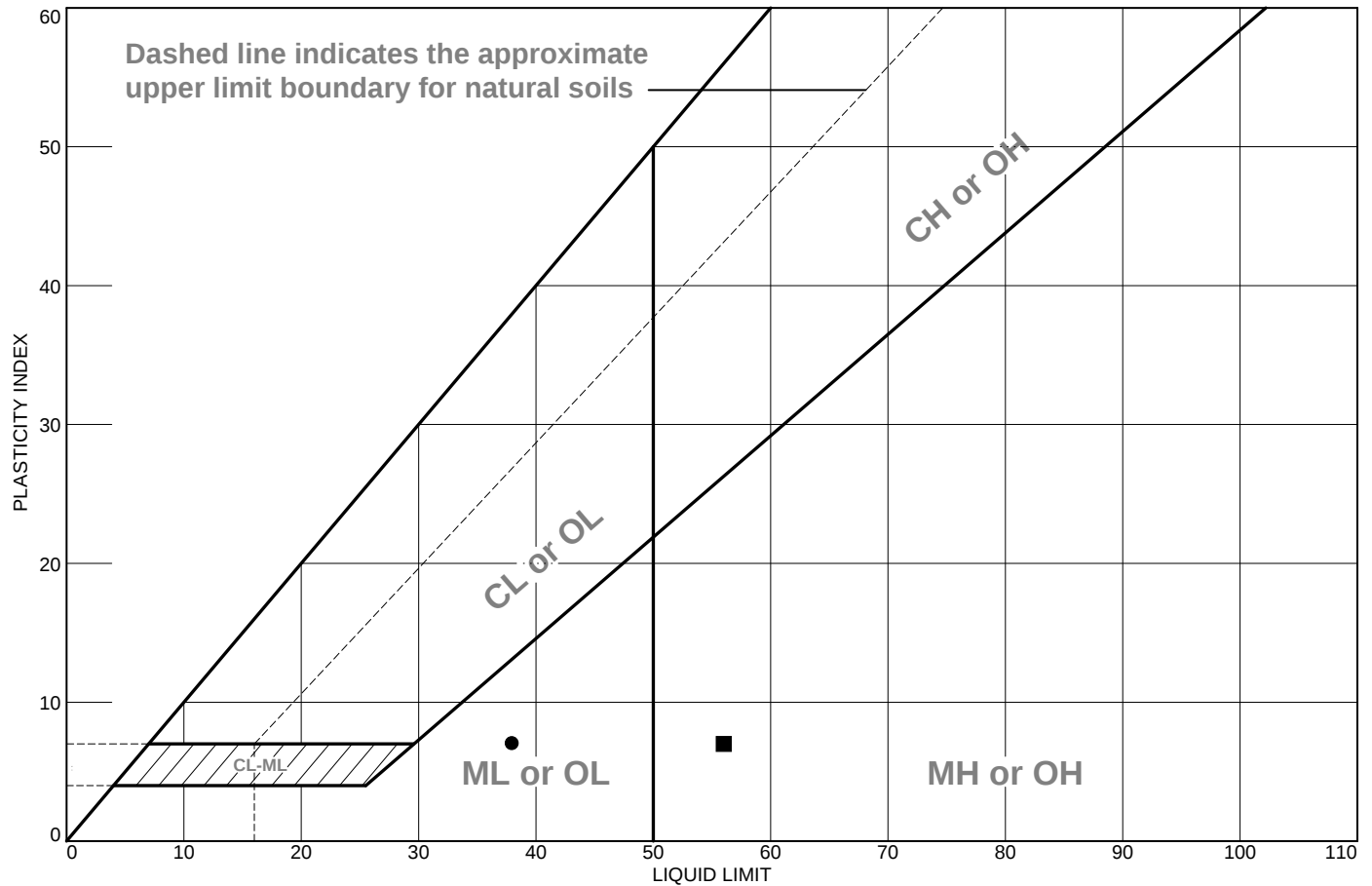
Date: 9-10-25

Figure

Tested By: JK

Checked By: KH

LIQUID AND PLASTIC LIMITS TEST REPORT



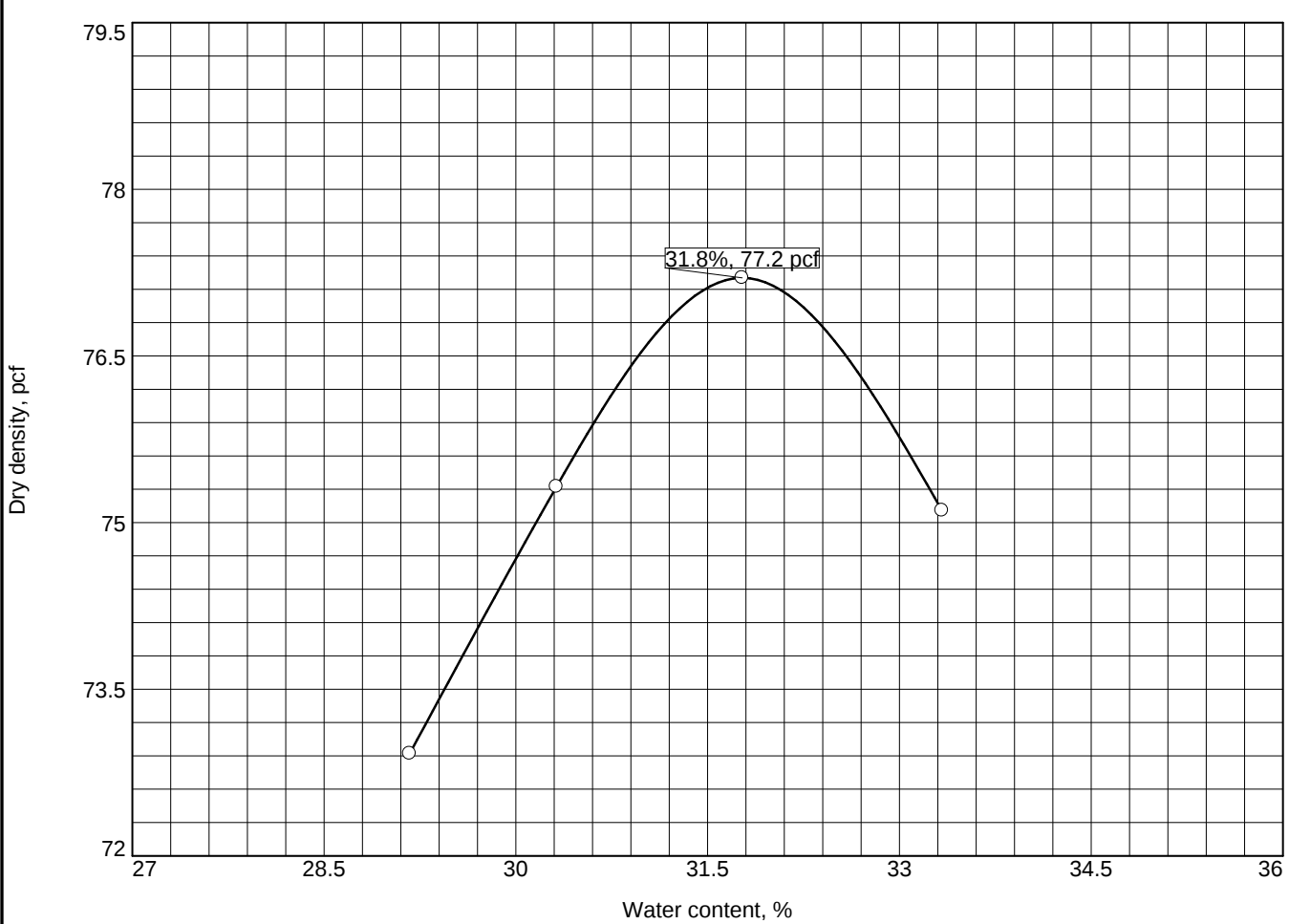
	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Gray sandy silt	38	31	7	78.0	68.2	ML
■	Pale Yellow elastic silt	56	49	7	95.8	91.4	MH

Project No. 889 Client: Alliance Technical Group Project: Q2938 - OVEC - Kyger Creek ● Sample Number: LF1-GM ■ Sample Number: LF1-G	Remarks: ● 9-10-25
RSA Geolab Union, New Jersey	

Figure

Tested By: JK Checked By: KH

COMPACTION TEST REPORT



ZAV for
Sp.G. =
2.72

Test specification: ASTM D 698-12 Method B Standard

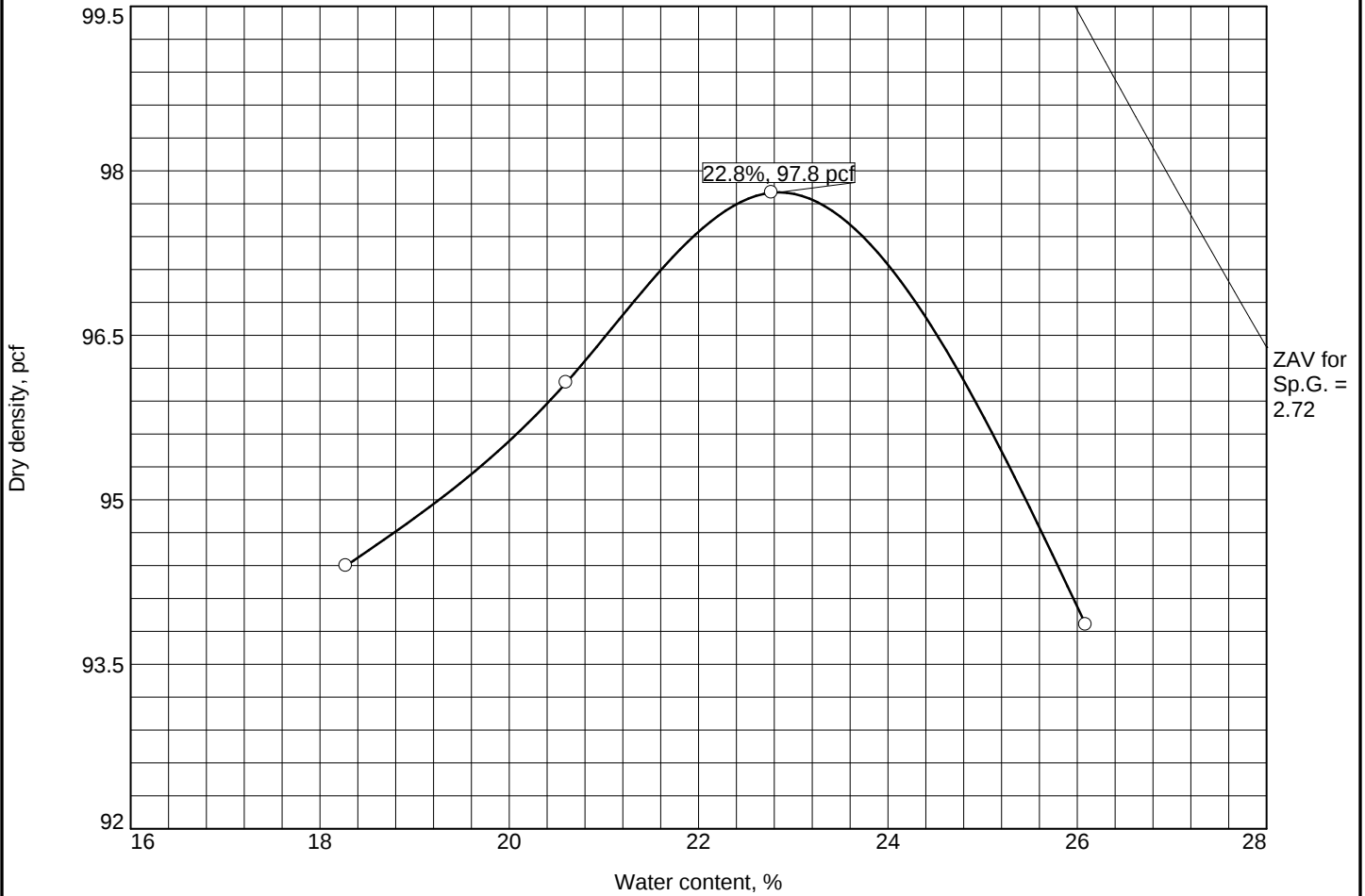
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
	MH	A-5(13)		2.72	56	7	0.0	91.4

TEST RESULTS		MATERIAL DESCRIPTION
Maximum dry density = 77.2 pcf		Pale Yellow elastic silt
Optimum moisture = 31.8 %		
Project No. 889 Client: Alliance Technical Group Project: Q2938 - OVEC - Kyger Creek		Remarks: SG Assumed. Machine tested. 9-10-25
○ Sample Number: LF1-G		
RSA Geolab Union, New Jersey		

Figure

Tested By: DR Checked By: KH

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
	ML	A-4(5)		2.72	38	7	1.2	68.2

ROCK CORRECTED TEST RESULTS		UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 97.8 pcf		97.3 pcf	Gray sandy silt
Optimum moisture = 22.8 %		23.1 %	
Project No. 889 Client: Alliance Technical Group Project: Q2938 - OVEC - Kyger Creek Sample Number: LF1-GM			Remarks: SG Assumed. Machine tested. 9-10-25
RSA Geolab Union, New Jersey			

Figure

Tested By: DR Checked By: KH