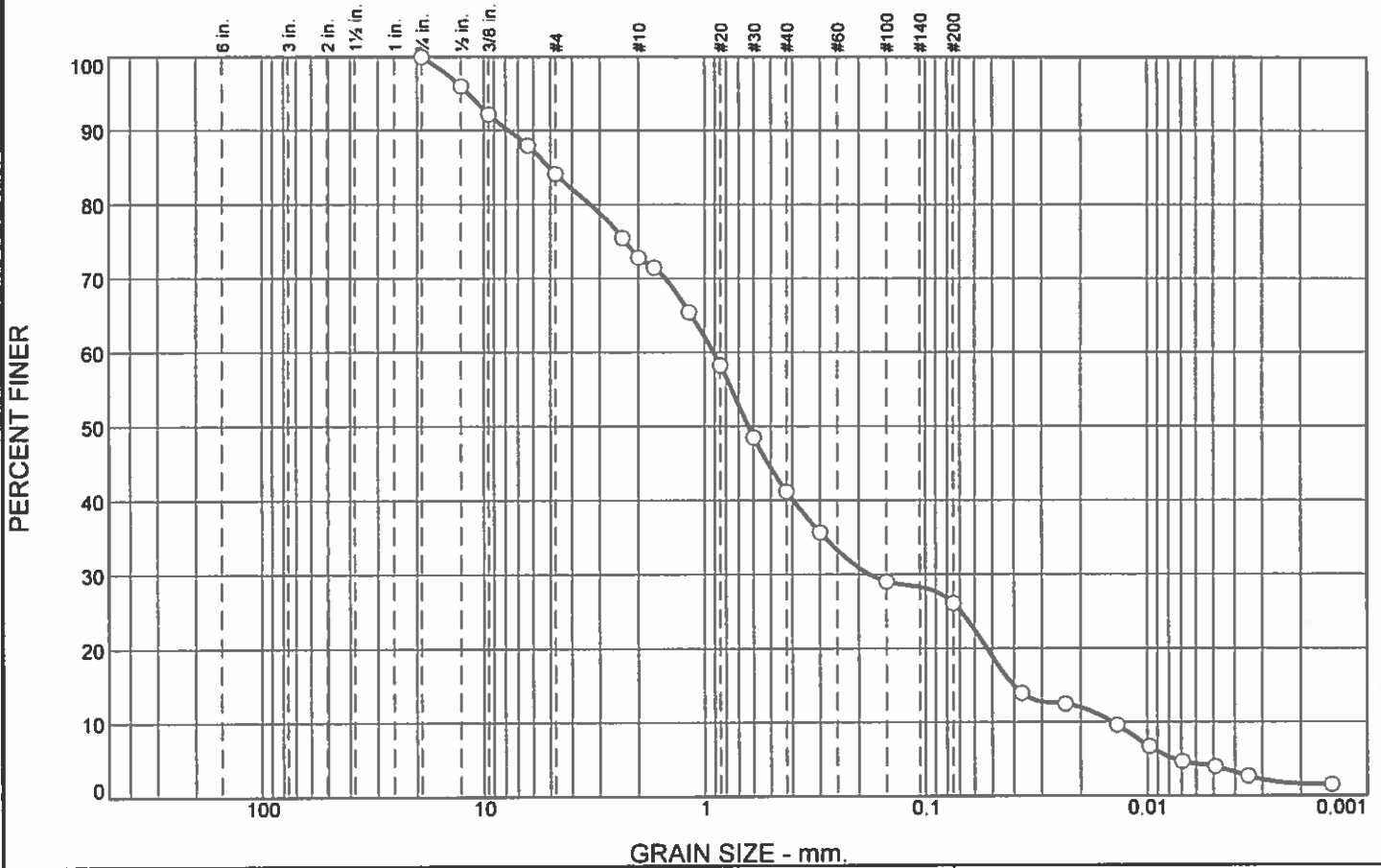


# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	15.8	11.3	31.7	15.1	22.1	4.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.75	100.0		
.50	96.0		
.375	92.2		
.25	88.0		
#4	84.2		
#8	75.5		
#10	72.9		
#12	71.5		
#16	65.5		
#20	58.3		
#30	48.5		
#40	41.2		
#50	35.7		
#100	29.0		
#200	26.1		

**Material Description**

Brown Silty Sand With Some Gravel And A Trace Of Clay

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 7.7351      D<sub>85</sub>= 5.0572      D<sub>60</sub>= 0.9124  
D<sub>50</sub>= 0.6341      D<sub>30</sub>= 0.1792      D<sub>15</sub>= 0.0402  
D<sub>10</sub>= 0.0144      C<sub>u</sub>= 63.46      C<sub>c</sub>= 2.45

**Classification**

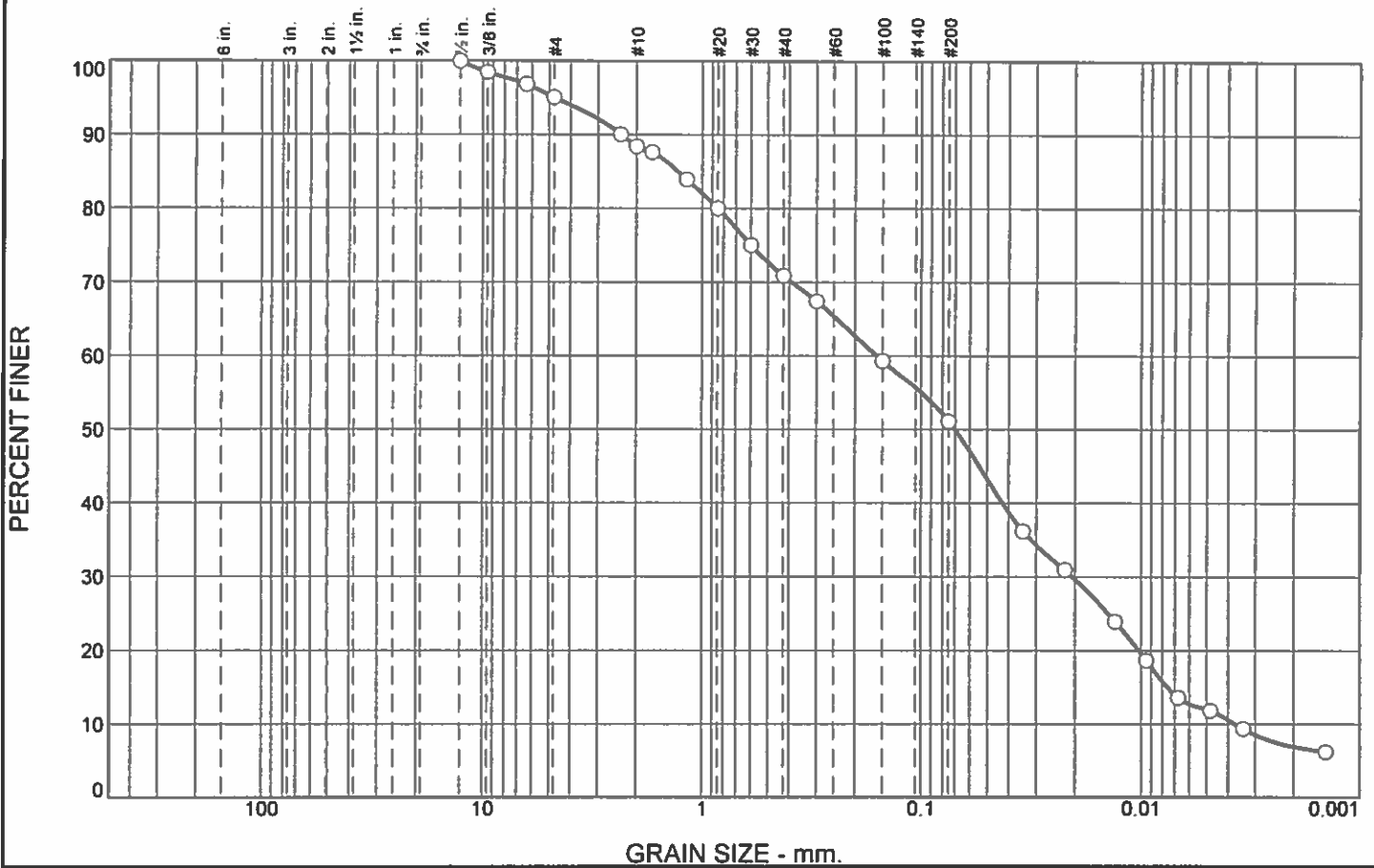
USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

Source of Sample: Test Boring #5      Depth: 0.0' to 5.0'      Date: 04/08/2019  
Sample Number: 1

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	4.9	6.7	17.5	19.8	39.1	12.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.50	100.0		
.375	98.5		
.25	96.9		
#4	95.1		
#8	90.1		
#10	88.4		
#12	87.6		
#16	84.0		
#20	80.1		
#30	75.1		
#40	70.9		
#50	67.5		
#100	59.3		
#200	51.1		

**Material Description**

Brown Sandy Silt with Some Clay And A Trace Of Gravel

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 2.3466      D<sub>85</sub>= 1.2878      D<sub>60</sub>= 0.1592  
D<sub>50</sub>= 0.0703      D<sub>30</sub>= 0.0205      D<sub>15</sub>= 0.0076  
D<sub>10</sub>= 0.0037      C<sub>u</sub>= 43.05      C<sub>c</sub>= 0.72

**Classification**

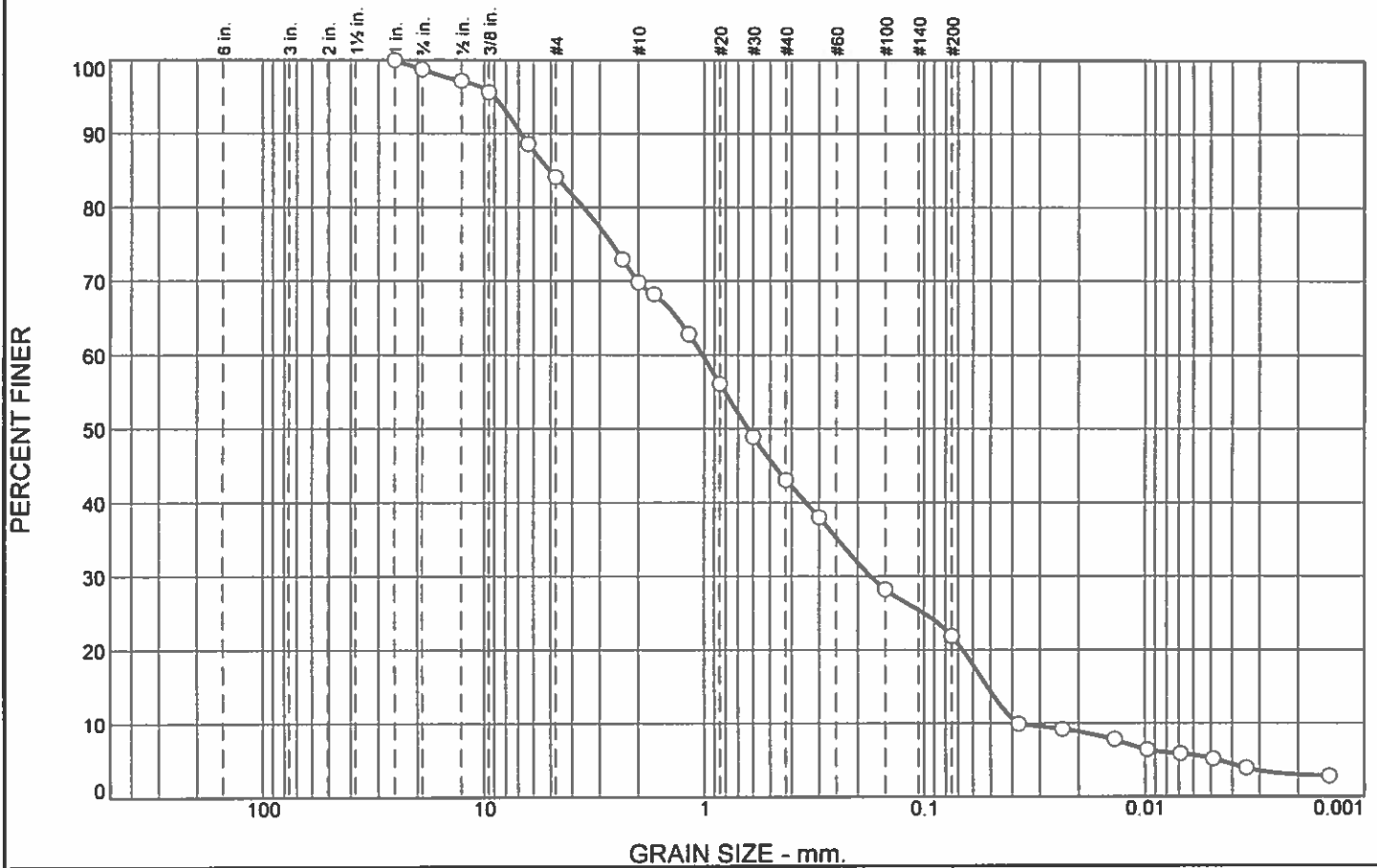
USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

Source of Sample: Test Boring #5      Depth: 5.0' to 11.0'      Date: 04/08/2019  
Sample Number: 2

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	1.3	14.5	14.3	26.8	21.2	16.6	5.3

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.0	100.0		
.75	98.7		
.50	97.1		
.375	95.6		
.25	88.6		
#4	84.2		
#8	72.9		
#10	69.9		
#12	68.2		
#16	62.8		
#20	56.1		
#30	48.9		
#40	43.1		
#50	38.0		
#100	28.2		
#200	21.9		

**Material Description**

Brown Silty Sand With Some Gravel And A Trace Of Clay

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 6.8293      D<sub>85</sub>= 5.0410      D<sub>60</sub>= 1.0211  
D<sub>50</sub>= 0.6335      D<sub>30</sub>= 0.1753      D<sub>15</sub>= 0.0521  
D<sub>10</sub>= 0.0378      C<sub>u</sub>= 26.99              C<sub>c</sub>= 0.80

**Classification**

USCS=                      AASHTO=

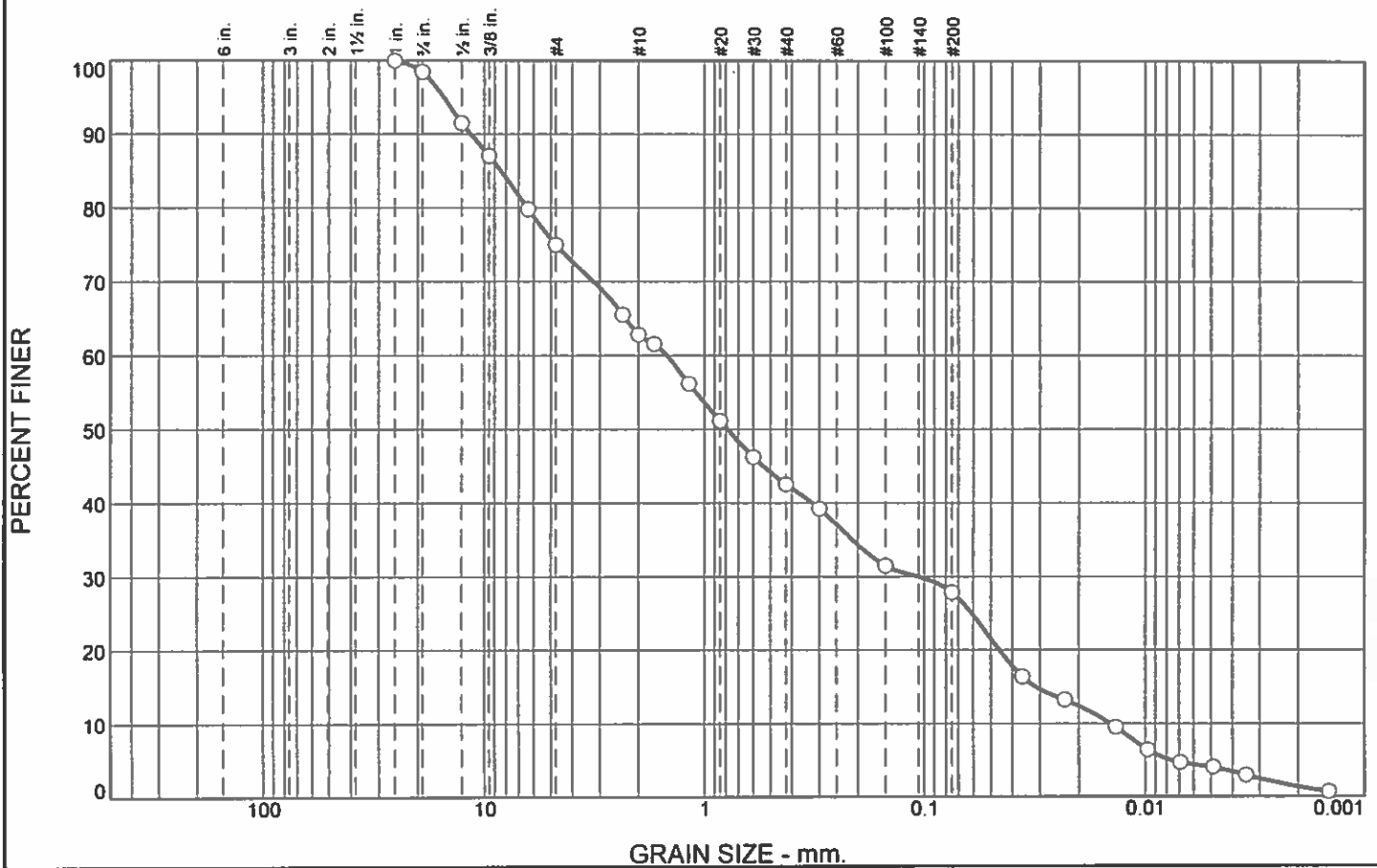
**Remarks**

\* (no specification provided)

Source of Sample: Test Boring #5      Depth: 11.0' to 17.0'      Date: 04/08/2019  
Sample Number: 3

<b>F. T. Kitlinski &amp; Associates, Inc.</b>  <b>Harrisburg, PA</b>	<b>Client:</b> R.A.R. Engineering Group, Inc. <b>Project:</b> Leo's Car Wash 2938 West 26th Street, Erie, PA  <b>Project No:</b> 19-04-10778
<b>Figure</b> 3	

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	1.5	23.5	12.2	20.2	14.7	23.8	4.1

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.0	100.0		
.75	98.5		
.50	91.5		
.375	87.1		
.25	79.9		
#4	75.0		
#8	65.5		
#10	62.8		
#12	61.6		
#16	56.2		
#20	51.2		
#30	46.3		
#40	42.6		
#50	39.3		
#100	31.5		
#200	27.9		

\* (no specification provided)

**Material Description**

Brown Silty Sand With Some Gravel And A Trace Of Clay

**Atterberg Limits**  
 PL=                      LL=                      PI=

**Coefficients**  
 D<sub>90</sub>= 11.5612      D<sub>85</sub>= 8.4130              D<sub>60</sub>= 1.4850  
 D<sub>50</sub>= 0.7855        D<sub>30</sub>= 0.1048              D<sub>15</sub>= 0.0313  
 D<sub>10</sub>= 0.0143        C<sub>u</sub>= 103.56                C<sub>c</sub>= 0.52

**Classification**  
 USCS=                      AASHTO=

**Remarks**

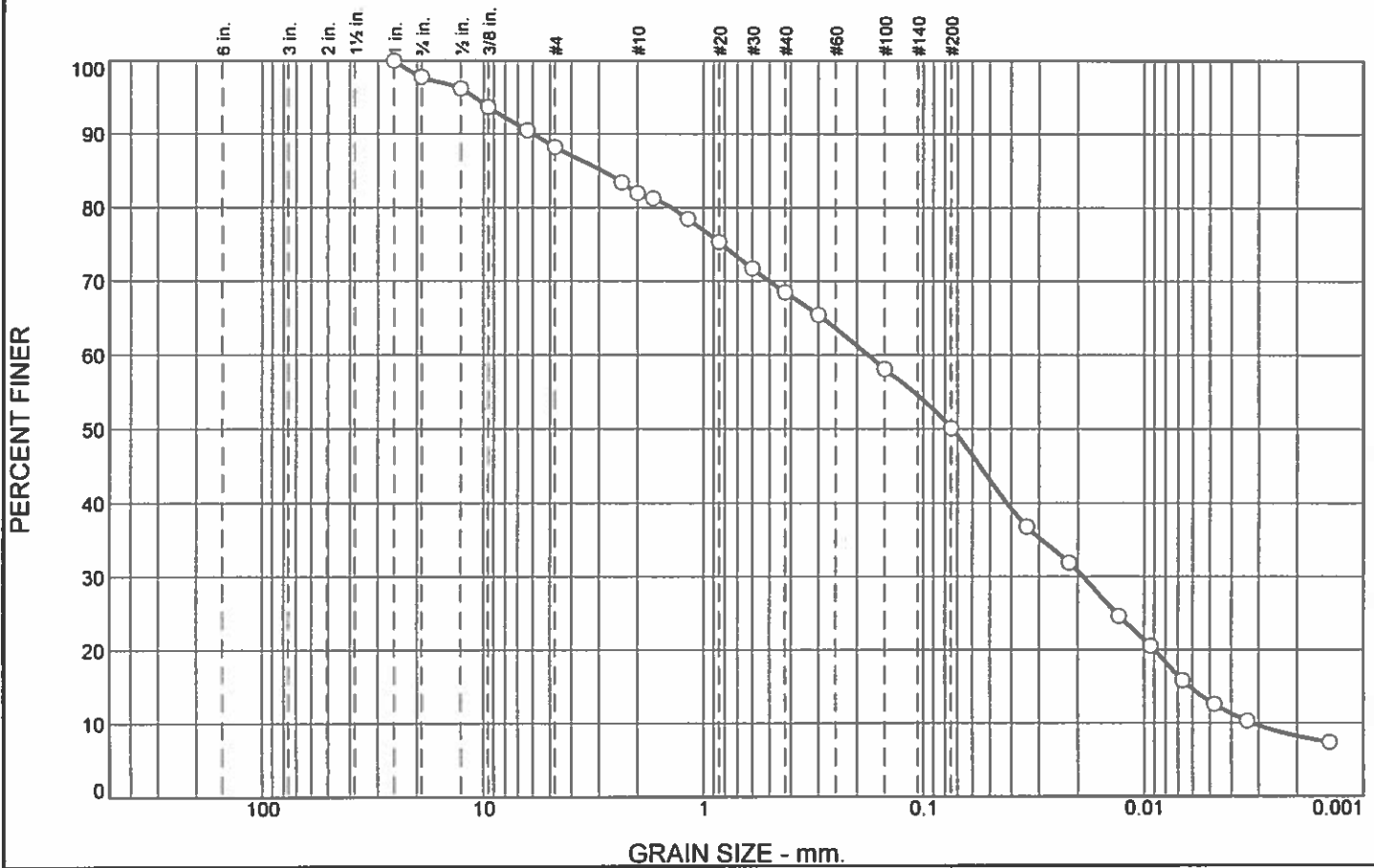
Source of Sample: Test Boring #26  
 Sample Number: 1

Depth: 0.0' to 6.0'

Date: 04/08/2019

<b>F. T. Kitlinski &amp; Associates, Inc.</b>  Harrisburg, PA	Client: R.A.R. Engineering Group, Inc. Project: Leo's Car Wash 2938 West 26th Street, Erie, PA  Project No: 19-04-10778
Figure 4	

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	2.2	9.6	6.2	13.5	18.4	37.2	12.9

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.0	100.0		
.75	97.8		
.50	96.2		
.375	93.7		
.25	90.5		
#4	88.2		
#8	83.5		
#10	82.0		
#12	81.3		
#16	78.5		
#20	75.4		
#30	71.7		
#40	68.5		
#50	65.5		
#100	58.1		
#200	50.1		

**Material Description**

Brown Sandy Silt With Some Gravel And Clay

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 5.9426      D<sub>85</sub>= 2.8613      D<sub>60</sub>= 0.1782  
D<sub>50</sub>= 0.0743      D<sub>30</sub>= 0.0190      D<sub>15</sub>= 0.0062  
D<sub>10</sub>= 0.0032      C<sub>u</sub>= 55.99      C<sub>c</sub>= 0.64

**Classification**

USCS=                      AASHTO=

**Remarks**

\* (no specification provided)

Source of Sample: Test Boring #26  
Sample Number: 2

Depth: 6.0' to 14.0'

Date: 04/08/2019

**F. T. Kitlinski & Associates, Inc.**

Client: R.A.R. Engineering Group, Inc.

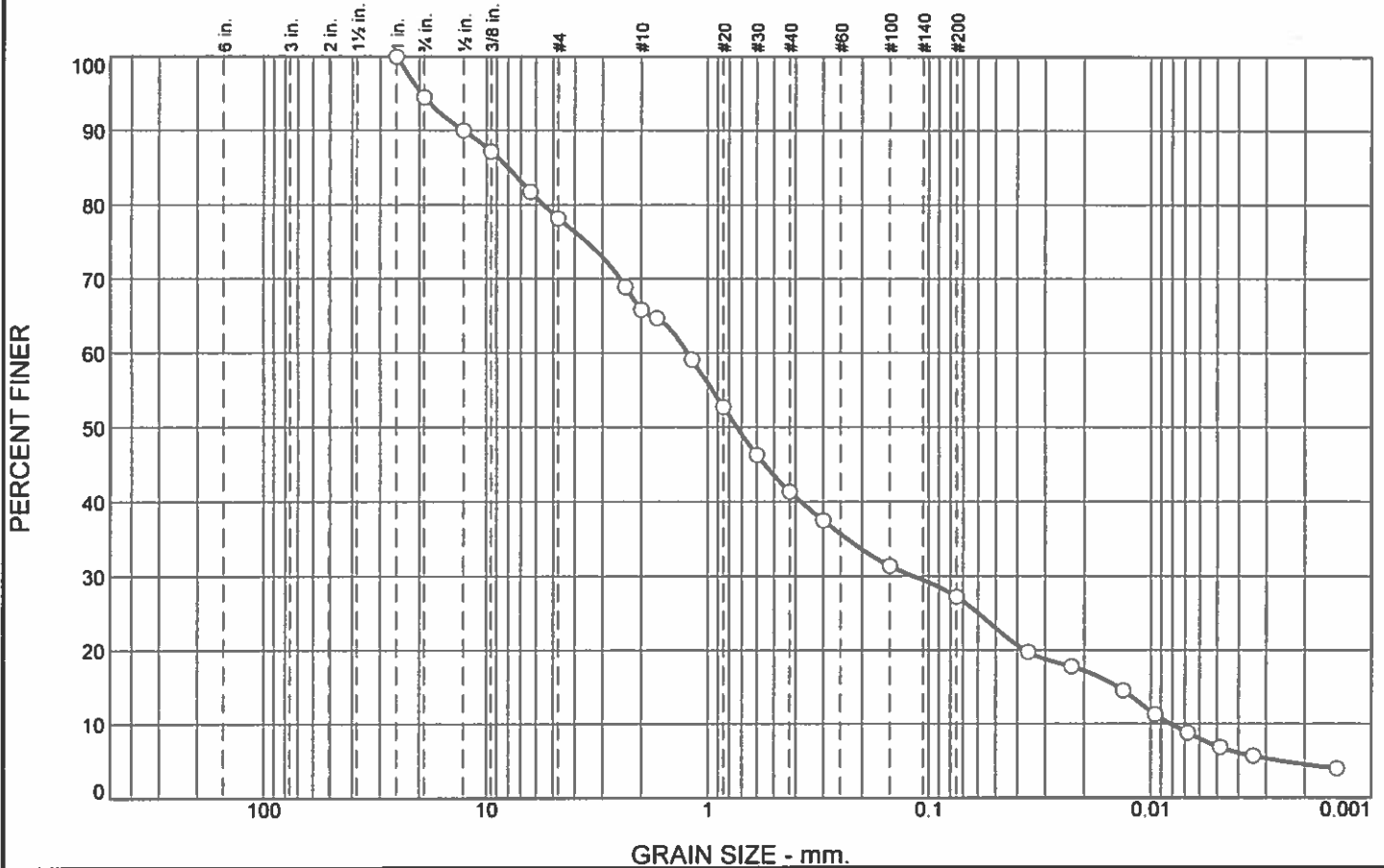
Project: Leo's Car Wash  
2938 West 26th Street, Erie, PA

Harrisburg, PA

Project No: 19-04-10778

Figure 5

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	5.5	16.3	12.3	24.5	14.2	20.2	7.0

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.0	100.0		
.75	94.5		
.50	90.0		
.375	87.2		
.25	81.8		
#4	78.2		
#8	68.9		
#10	65.9		
#12	64.8		
#16	59.1		
#20	52.7		
#30	46.3		
#40	41.4		
#50	37.5		
#100	31.4		
#200	27.2		

\* (no specification provided)

**Material Description**

Brown Silty Sand With Some Gravel And A Trace Of Clay

**Atterberg Limits**

PL=                      LL=                      PI=

**Coefficients**

D<sub>90</sub>= 12.6799      D<sub>85</sub>= 8.0092              D<sub>60</sub>= 1.2326  
D<sub>50</sub>= 0.7372      D<sub>30</sub>= 0.1163              D<sub>15</sub>= 0.0141  
D<sub>10</sub>= 0.0081      C<sub>u</sub>= 151.29              C<sub>c</sub>= 1.35

**Classification**

USCS=                      AASHTO=

**Remarks**

Source of Sample: Test Boring #26  
Sample Number: 3

Depth: 14.0' to 16.0'

Date: 04/08/2019

**F. T. Kitlinski & Associates, Inc.**

**Harrisburg, PA**

Client: R.A.R. Engineering Group, Inc.  
Project: Leo's Car Wash  
2938 West 26th Street, Erie, PA  
Project No: 19-04-10778

Figure 6