

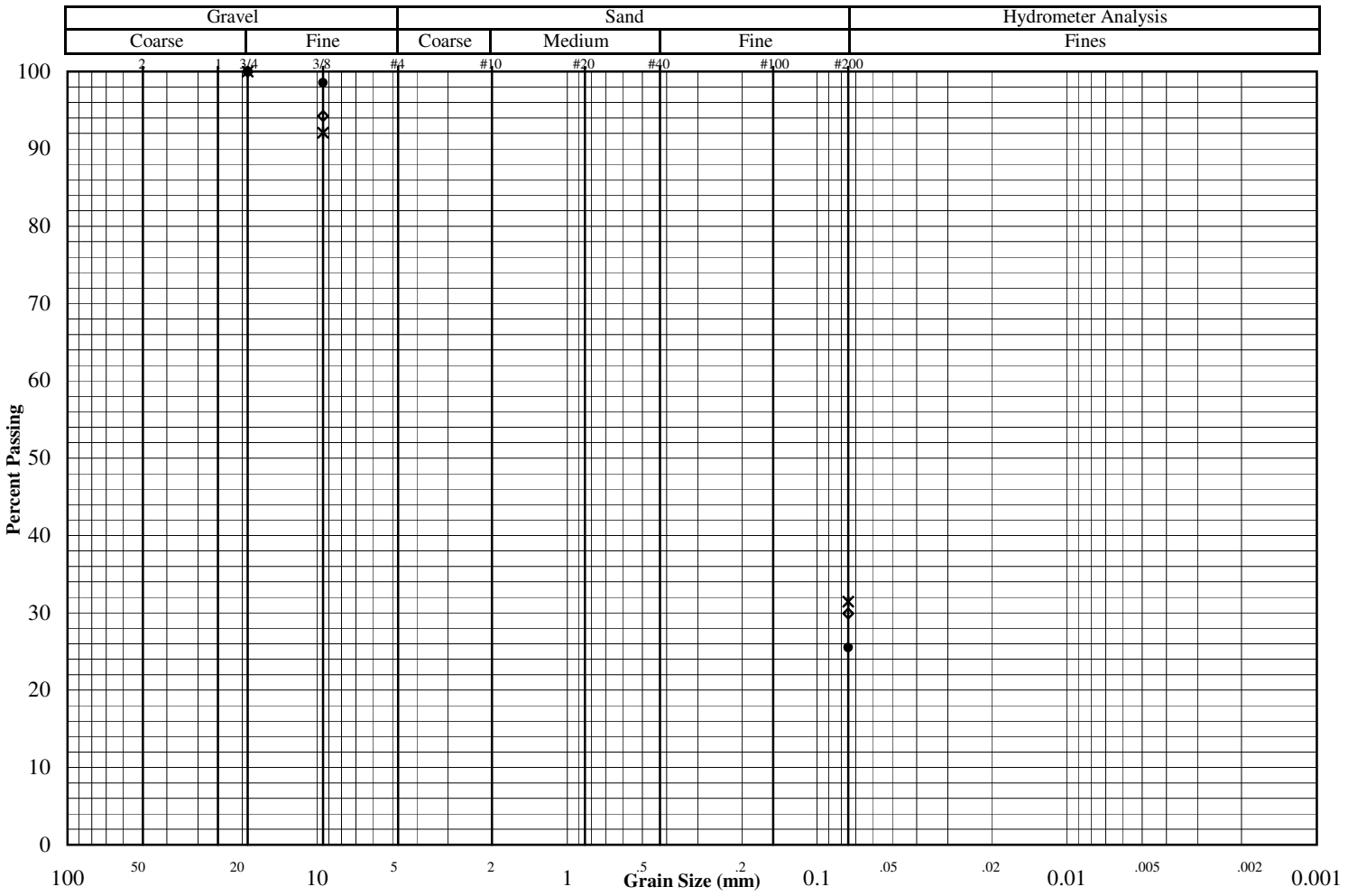
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/11/14
Report Date: 9/12/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7005	128		SB	Clayey Sand w/a little gravel (SC)
●	7009	125		SB	Silty Sand (SM)
◇	7038	80		SB	Silty Sand w/a little gravel (SC)



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	11.2	3.9	8.1
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	*	●	◇
Mass (g)	230.4	247.3	258.2
2"			
1.5"			
1"			
3/4"	100.0	100.0	100.0
3/8"	92.1	98.5	94.3
#4			
#10			
#20			
#40			
#100			
#200	31.5	25.5	29.9

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

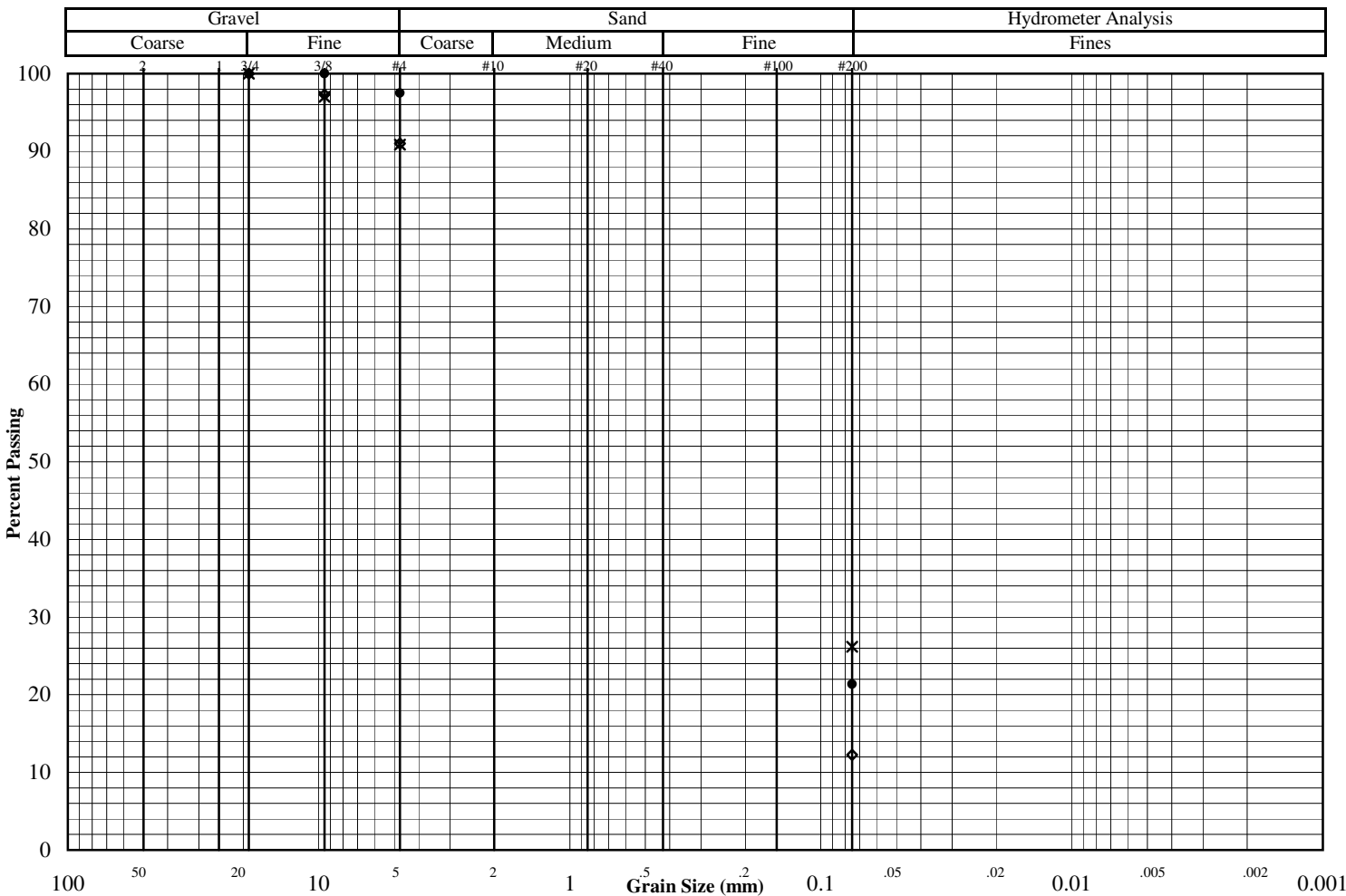
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/11/14
Report Date: 9/12/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7040	64		SB	Clayey Sand w/a little gravel (SC)
●	7048	9		SB	Clayey Sand w/a trace of gravel (SC)
◇	7053	2		SB	Silty Clayey Sand w/a little gravel (SC-SM/SC)



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	9.7		
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

(* = assumed)

	*	●	◇
Mass (g)	256.0	289.6	304.8
2"			
1.5"			
1"			
3/4"	100.0		100.0
3/8"	97.0	100.0	97.3
#4	90.8	97.5	91.0
#10			
#20			
#40			
#100			
#200	26.2	21.4	12.3

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

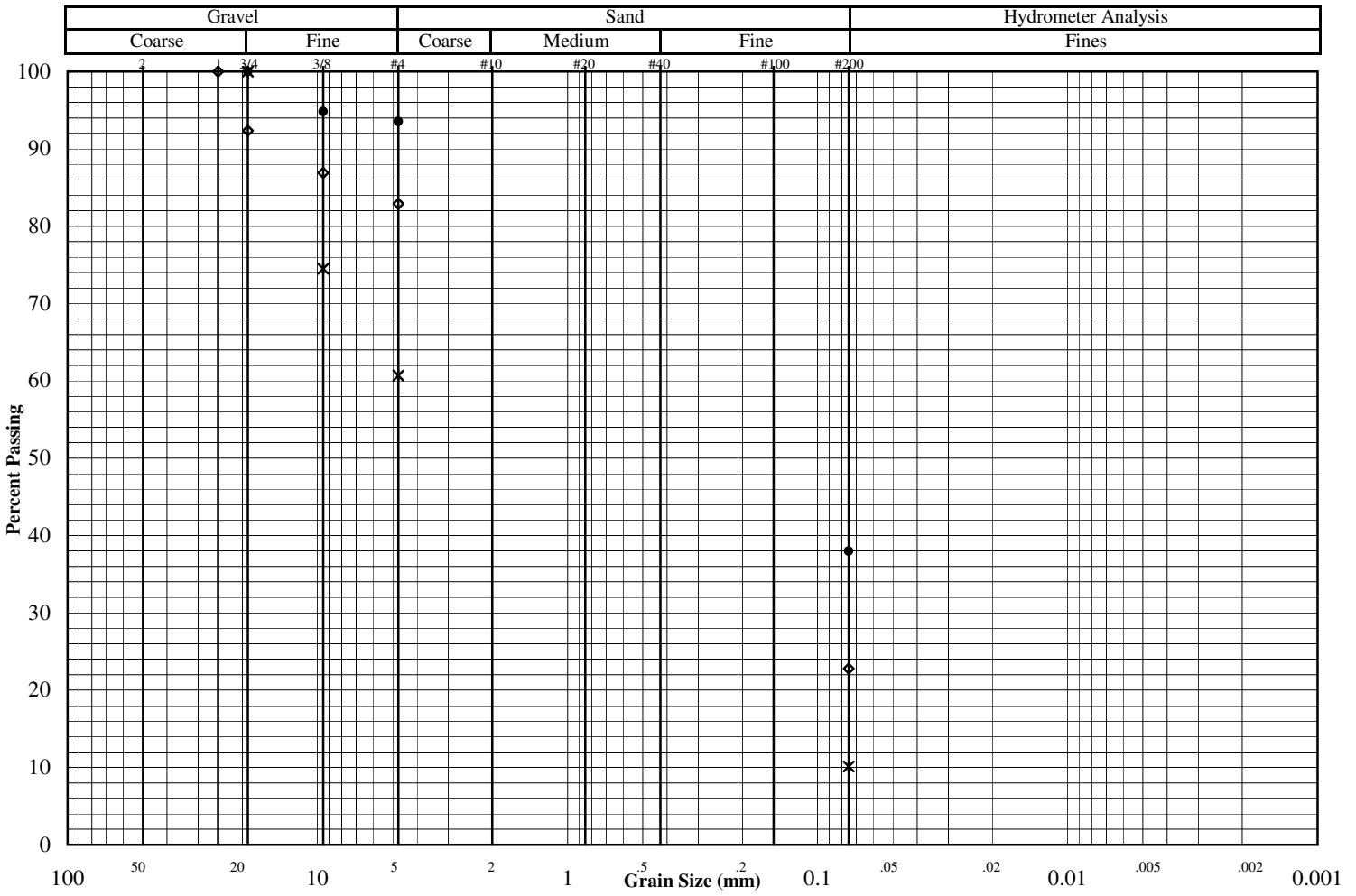
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/12/14
Report Date: 9/12/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7061	132		SB	Sand w/clay and gravel (SP-SC)
●	7070	75		SB	Clayey Sand w/a little gravel (SC)
◇	7073	53		SB	Clayey Sand w/gravel (SC)



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	5.3	13.5	10.1
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	Percent Passing		
	*	●	◇
Mass (g)	366.4	209.9	283.5
2"			
1.5"			
1"			100.0
3/4"	100.0	100.0	92.3
3/8"	74.5	94.8	86.9
#4	60.7	93.5	82.9
#10			
#20			
#40			
#100			
#200	10.1	38.0	22.8

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

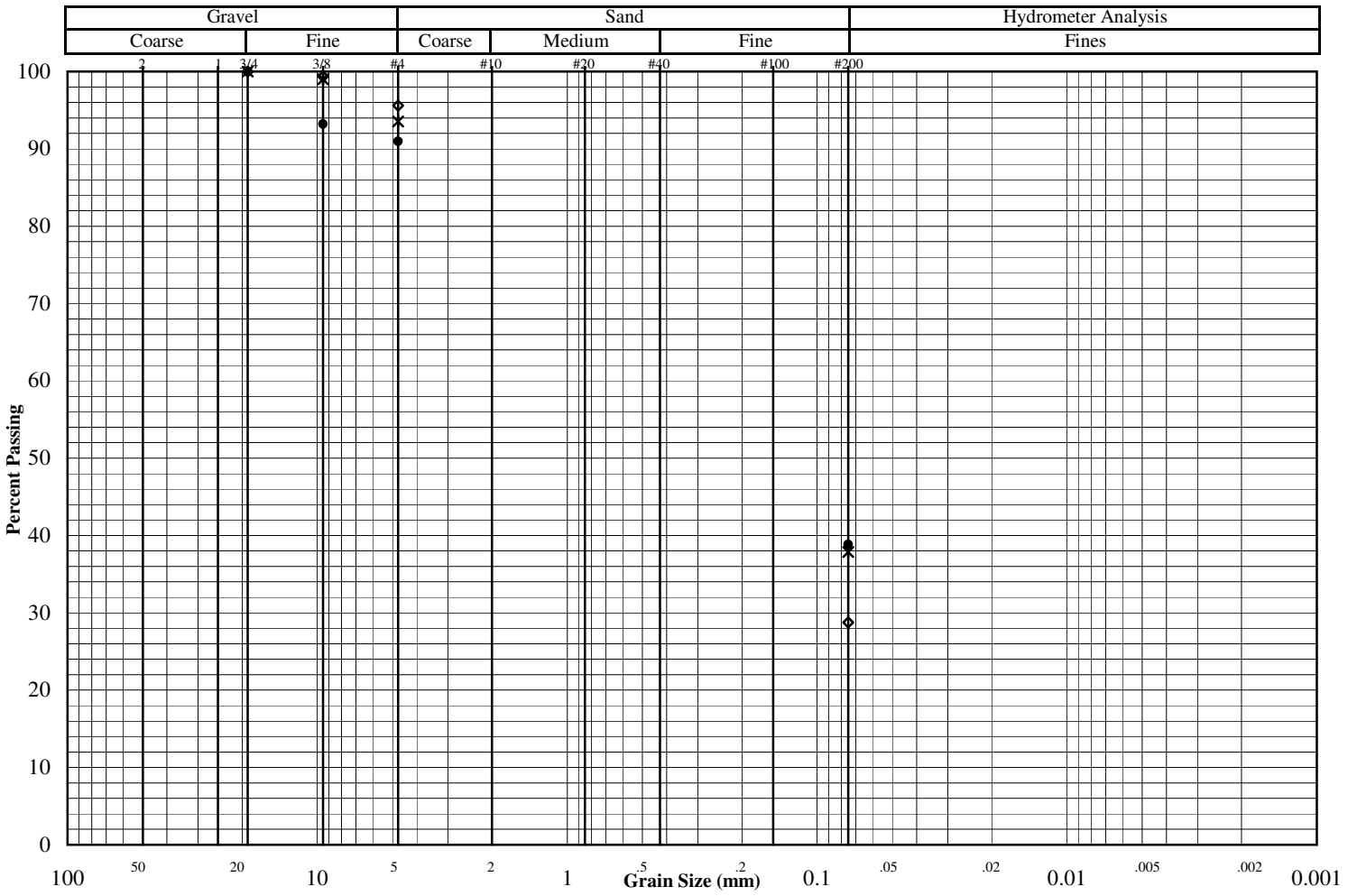
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/12/14
Report Date: 9/12/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7075	45		SB	Clayey Sand w/a little gravel (SC)
●	7077	21		SB	Clayey Sand w/a little gravel (SC)
◇	7078	14		SB	Clayey Sand w/a little gravel (SC)



	*	●	◇
Other Tests			
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	11.4	12.3	11.2
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	*	●	◇
Percent Passing			
Mass (g)	192.3	202.3	254.6
2"			
1.5"			
1"			
3/4"	100.0	100.0	100.0
3/8"	99.0	93.2	99.4
#4	93.6	91.0	95.6
#10			
#20			
#40			
#100			
#200	37.9	38.8	28.8

	*	●	◇
Remarks:			
0			
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Laboratory Test Summary

Project: TH 36 - Lexington Ave. Interchange

Job: 9562

Client: Gale-Tec Engineering

Date: 9/23/2014

Sample Information & Classification

Boring #	7003							
Sample #	46							
Depth (ft)	1.5-7							
Location								
Material Classification	Sandy Lean Clay w/ gravel (CL)							

Atterberg Limits

Liquid Limit (%)	32.6							
Plastic Limit (%)	13.8							
Plasticity Index (%)	18.8							

Sample Information & Classification

Boring #								
Location								
Depth (ft)								
Type or BPF								
Material Classification								

Atterberg Limits

Liquid Limit (%)								
Plastic Limit (%)								
Plasticity Index (%)								

Laboratory Test Summary

Project: TH 36 - Lexington Ave. Interchange

Job: 9562

Client: Gale-Tec Engineering

Date: 9/24/14

Sample Information & Classification

Boring #	7007	7019	7068	7069			
Sample	52	65	146	163			
Depth (ft)	3-7	3-4	2-4.5	3-5			
Type or BPF	Jar	Jar	Jar	Jar			
Classification	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC/SC-SM)	Clayey Sand (SC)			

Water Content, Dry Density

Water Content (%)	12.3	12.7	9.5	14.0			
Dry Density (pcf)	No Intact Chunks	No Intact Chunks	113.7	113.9			

Sample Information & Classification

Boring #							
Sample							
Depth (ft)							
Type or BPF							
Classification							

Water Content, Dry Density

Water Content (%)							
Dry Density (pcf)							

Sample Information & Classification

Boring #							
Sample							
Depth (ft)							
Type or BPF							
Classification							

Water Content, Dry Density

Water Content (%)							
Dry Density (pcf)							

Organic Content (ASTM:D2974)

Project: TH36 - Lexington Ave. Interchange

Job: 9562

Client: Gale-Tec

Date: 9/12/14

Sample Information & Classification

Boring #	7058	7074					
Sample #	95	48					
Depth							
Type or BPF	Jar	Jar					
Classification	Clayey Sand w/a little organic material (SC)	Clayey Sand w/a little organic material (SC)					

Water Content, Organic Content

Water Content (%)							
Organic Content (%)	2.5	2.9					

Sample Information & Classification

Boring #							
Sample #							
Depth (ft)							
Type or BPF							
Classification							

Water Content, Organic Content

Water Content (%)							
Organic Content (%)							

Sample Information & Classification

Boring #							
Sample #							
Depth (ft)							
Type or BPF							
Classification							

Water Content, Dry Density

Water Content (%)							
Organic Content (%)							

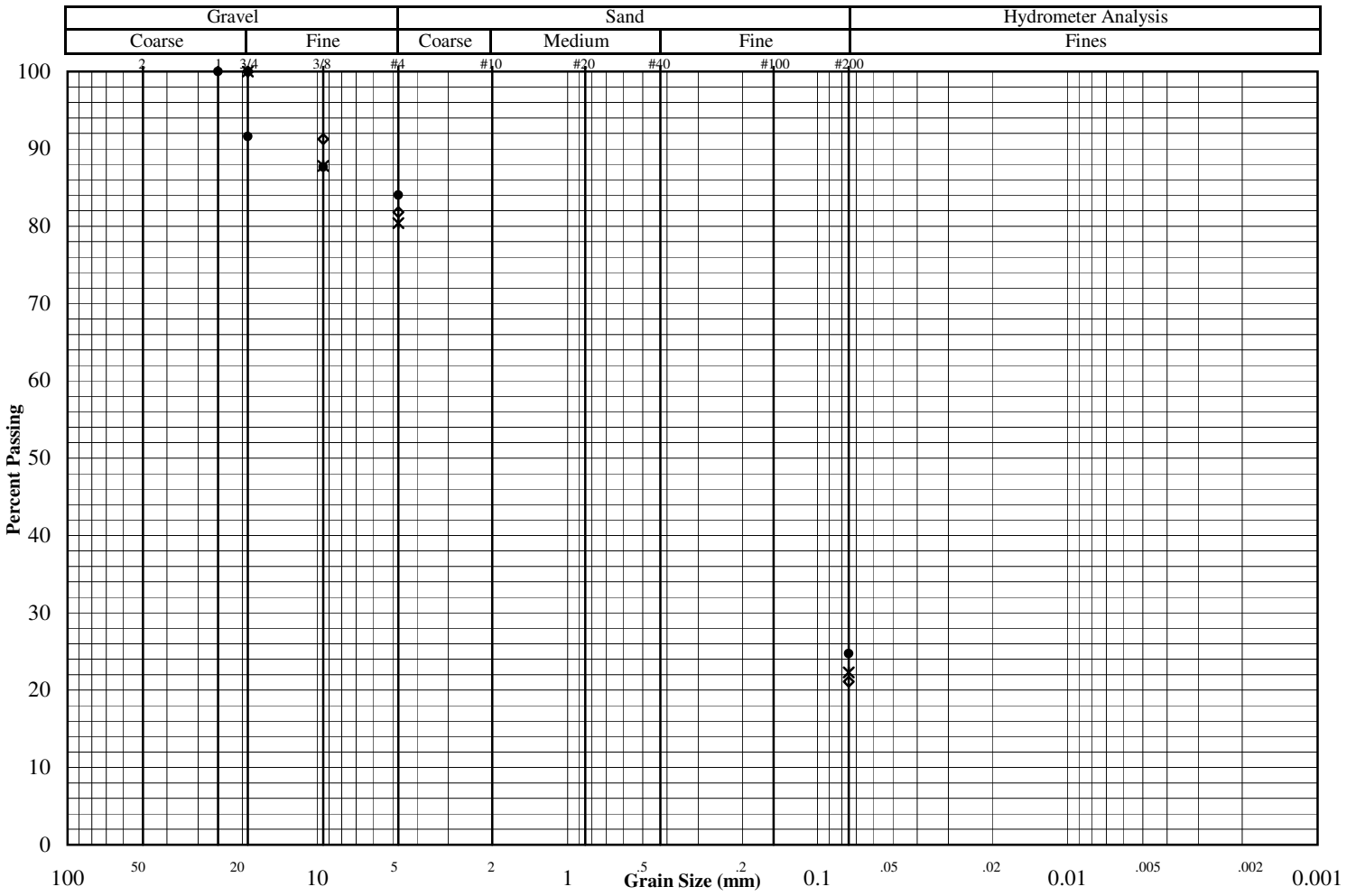
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7001	41	.8-2	Jar	Clayey Sand w/ gravel (SC)
●	7002	48	5	Jar	Clayey Sand w/ gravel (SC)
◇	7003	45	.3-1.5	Jar	Clayey Sand w/ gravel (SC)



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	11.9	10.6	8.5
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

(* = assumed)

	*	●	◇
Mass (g)	277.3	262.2	262.5
2"			
1.5"			
1"		100.0	
3/4"	100.0	91.6	100.0
3/8"	87.8	87.7	91.3
#4	80.4	84.0	81.8
#10			
#20			
#40			
#100			
#200	22.3	24.7	21.1

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

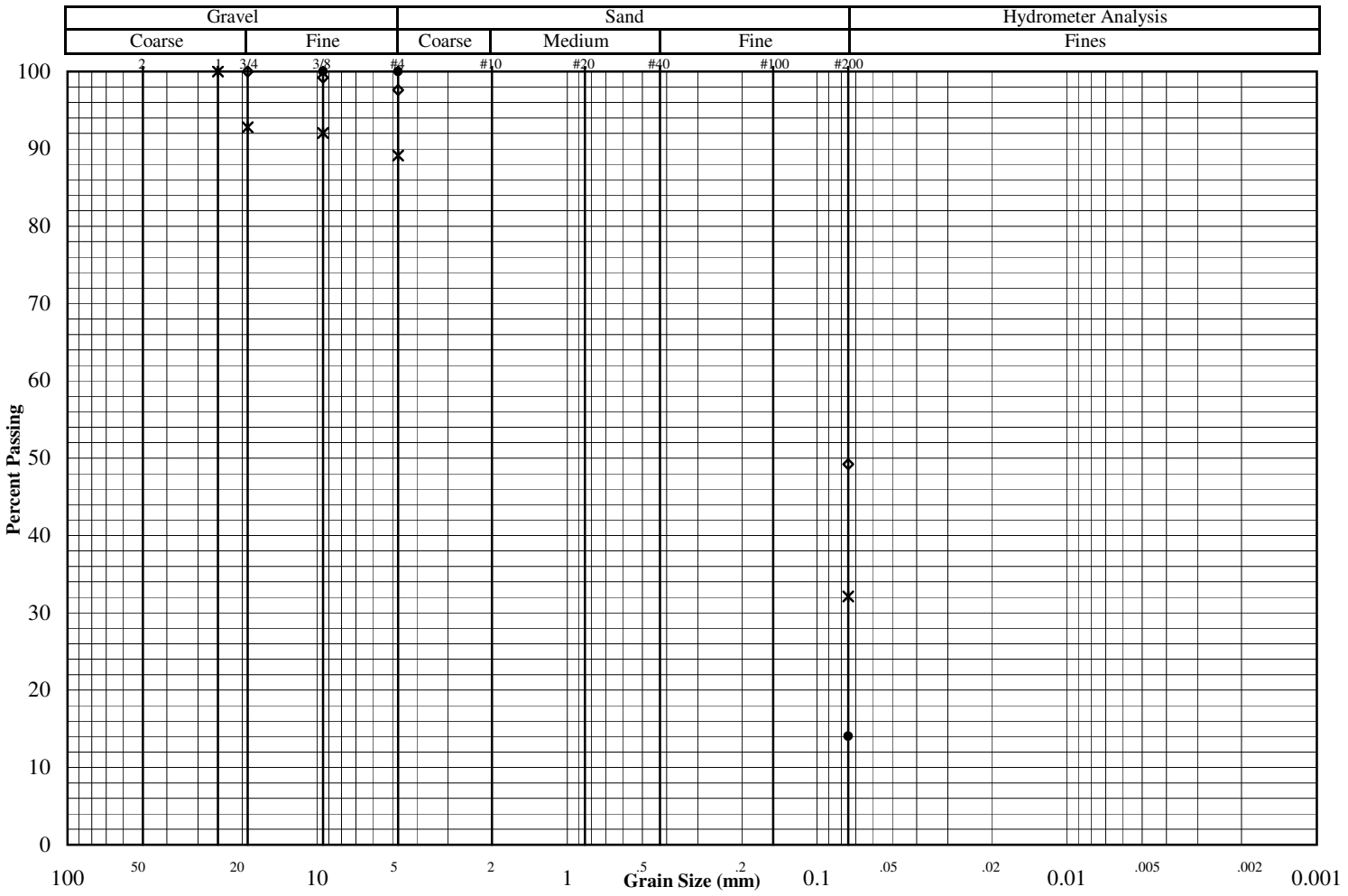
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7010	55	3-5	Jar	Clayey Sand w/a little gravel (SC)
●	7013	150	3-5	Jar	Silty Sand (SM/SP-SM)
◇	7015	59	2-5	Jar	Clayey Sand w/a trace of gravel (SC)



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	13.8	12.8	12.3
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	*	●	◇
Mass (g)	287.8	330.8	218.4
2"			
1.5"			
1"	100.0		
3/4"	92.8		100.0
3/8"	92.1	100.0	99.2
#4	89.1	100.0	97.6
#10			
#20			
#40			
#100			
#200	32.1	14.0	49.2

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

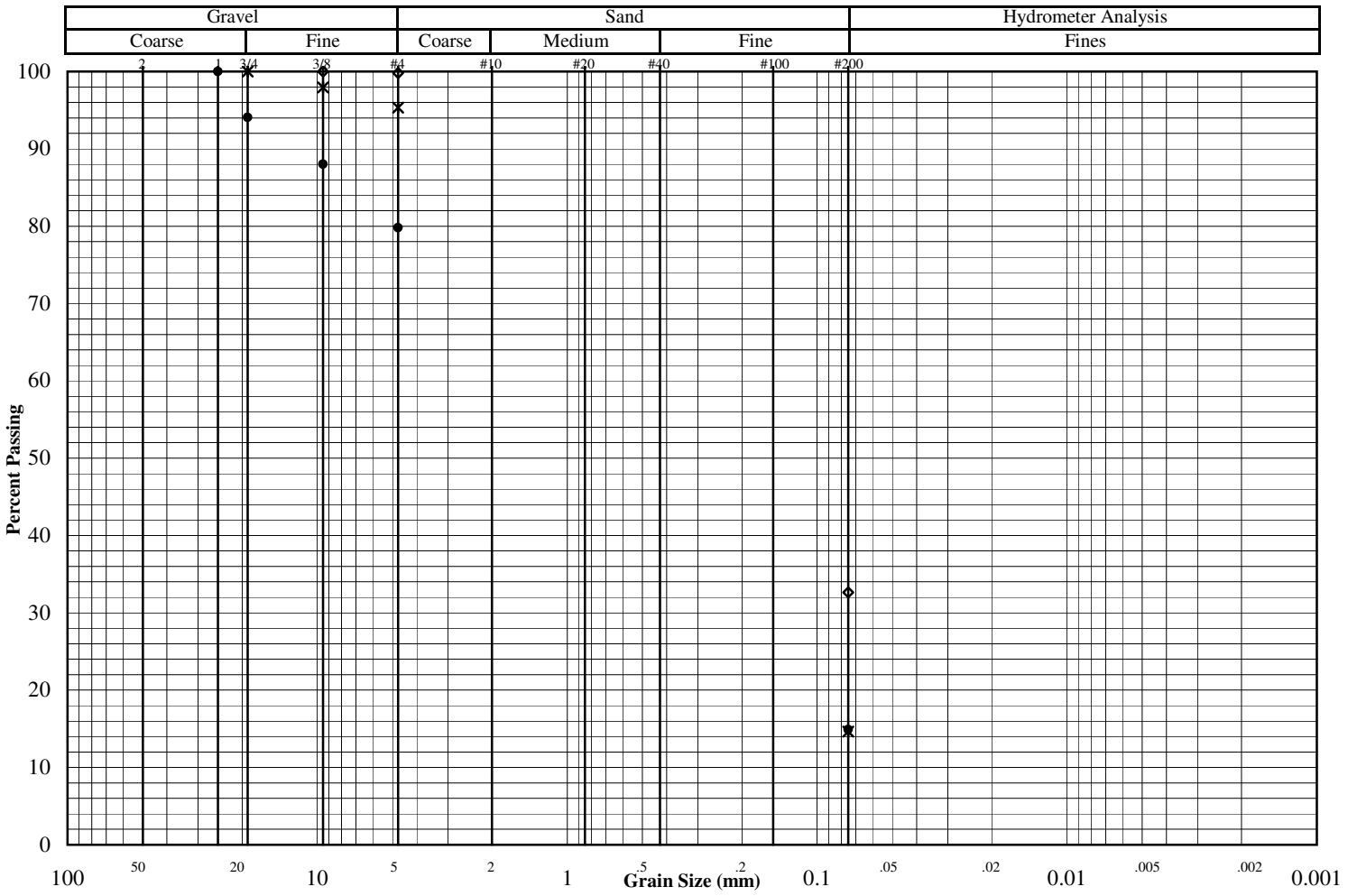
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7014	167	2-3	Jar	Silty Sand w/a little gravel (SM/SP-SM)
●	7017	61	1.33-2	Jar	Silty Sand w/a little gravel (SM/SP-SM)
◇	7020	180	1.6-2	Jar	Silty Sand (SM)



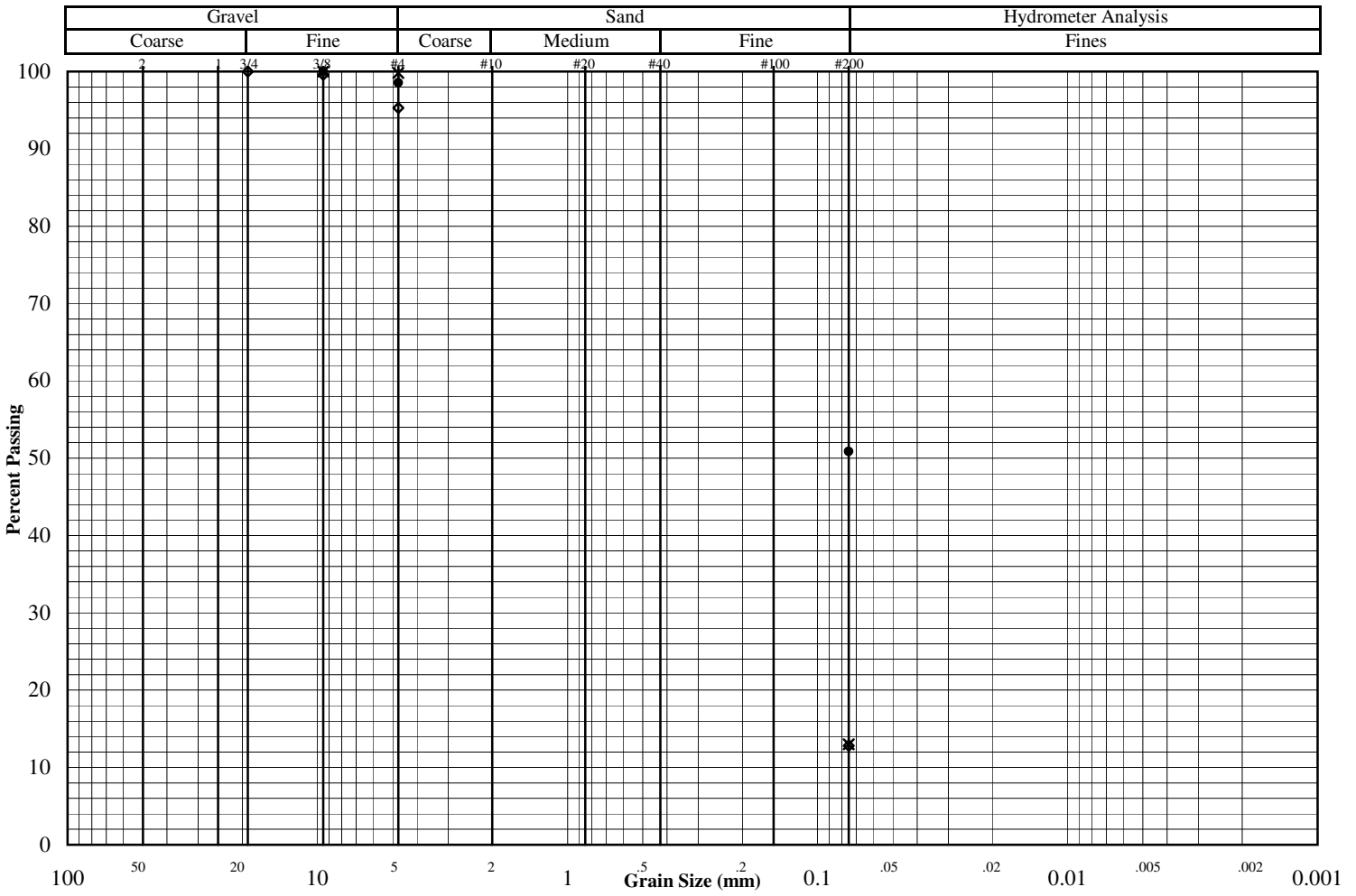
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7019	64	2-3	Jar	Silty Sand (SM/SP-SM)
●	7022	201	2.5-4	Jar	Sandy Lean Clay (CL)
◇	7023	187	2-3	Jar	Silty Sand w/a little gravel (SM/SP-SM)



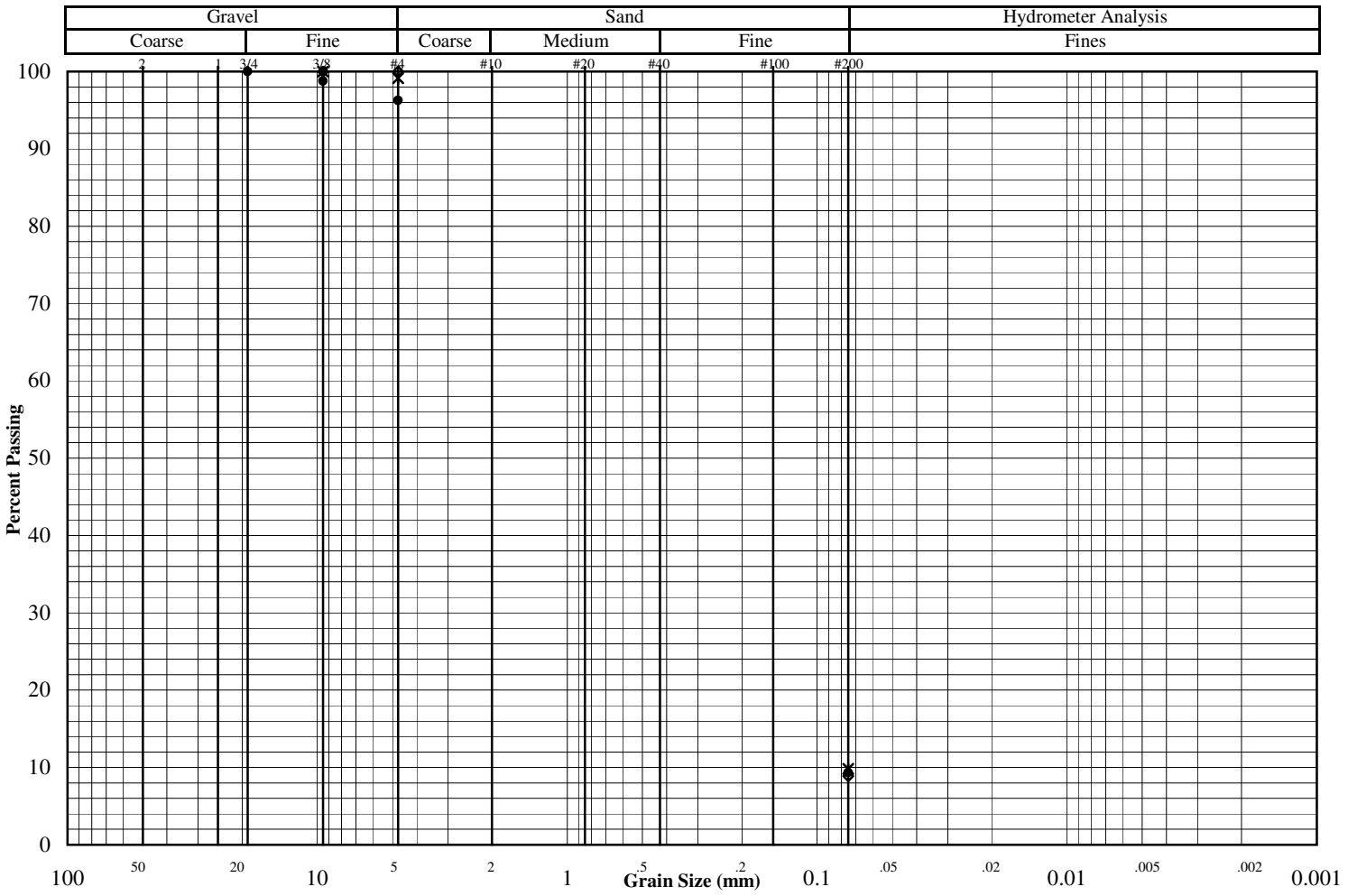
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7027	9	.6-7	Jar	Sand w/silt (SP-SM)
●	7030	71	1-7	Jar	Sand w/silt and a trace of gravel (SP-SM)
◇	7031	195	.5-7	Jar	Sand w/silt (SP-SM)



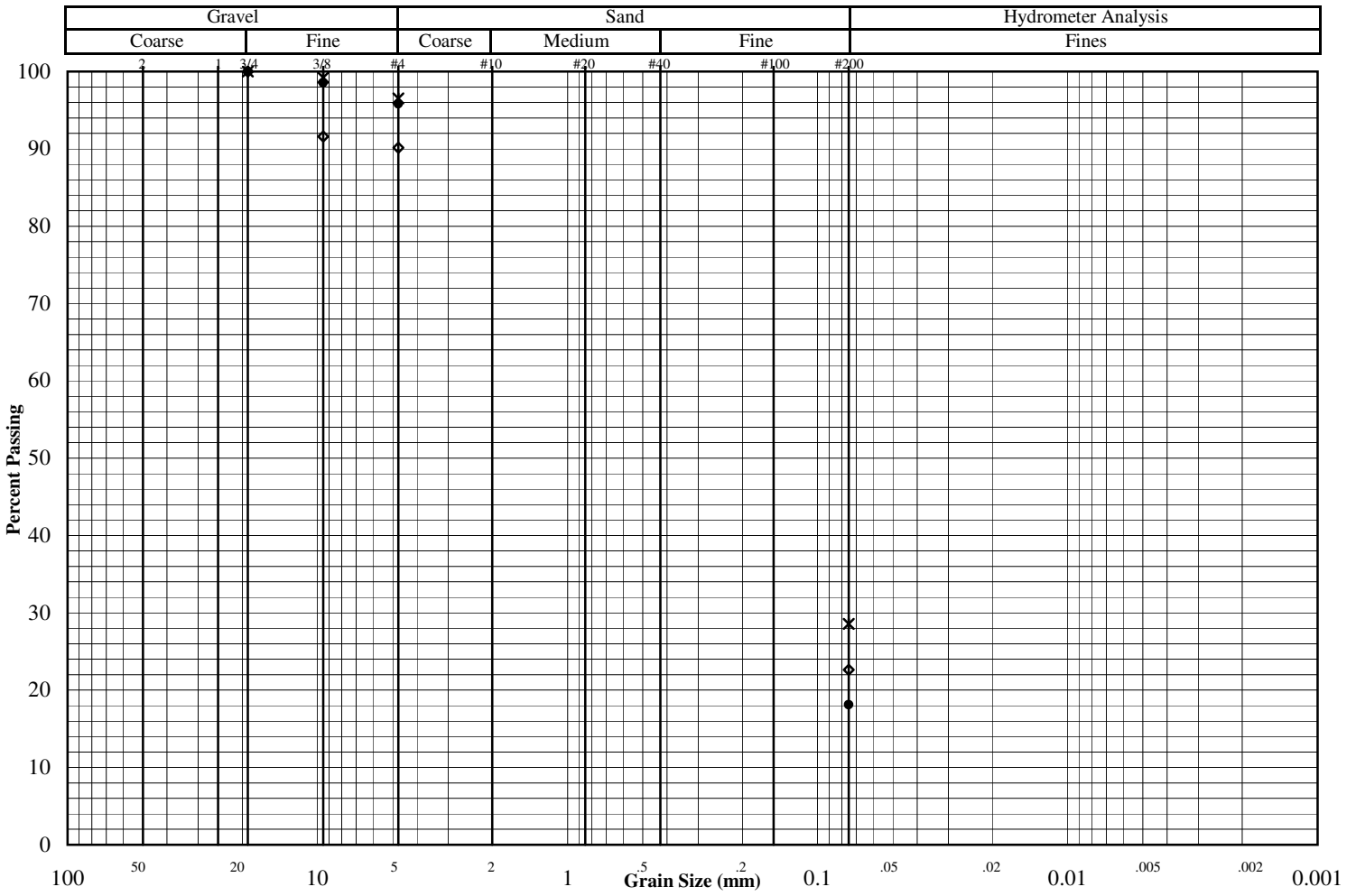
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7051	25	3-5	Jar	Clayey Sand w/a trace of gravel (SC)
●	7061	133	2.5-3	Jar	Silty Sand w/a little gravel (SM)
◇	7065	156	1.4-3	Jar	Clayey Sand w/a little gravel (SC)



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	11.0	7.0	8.3
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	*	●	◇
Mass (g)	280.9	209.7	223.7
2"			
1.5"			
1"			
3/4"	100.0	100.0	100.0
3/8"	99.2	98.6	91.6
#4	96.5	95.8	90.2
#10			
#20			
#40			
#100			
#200	28.6	18.1	22.6

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

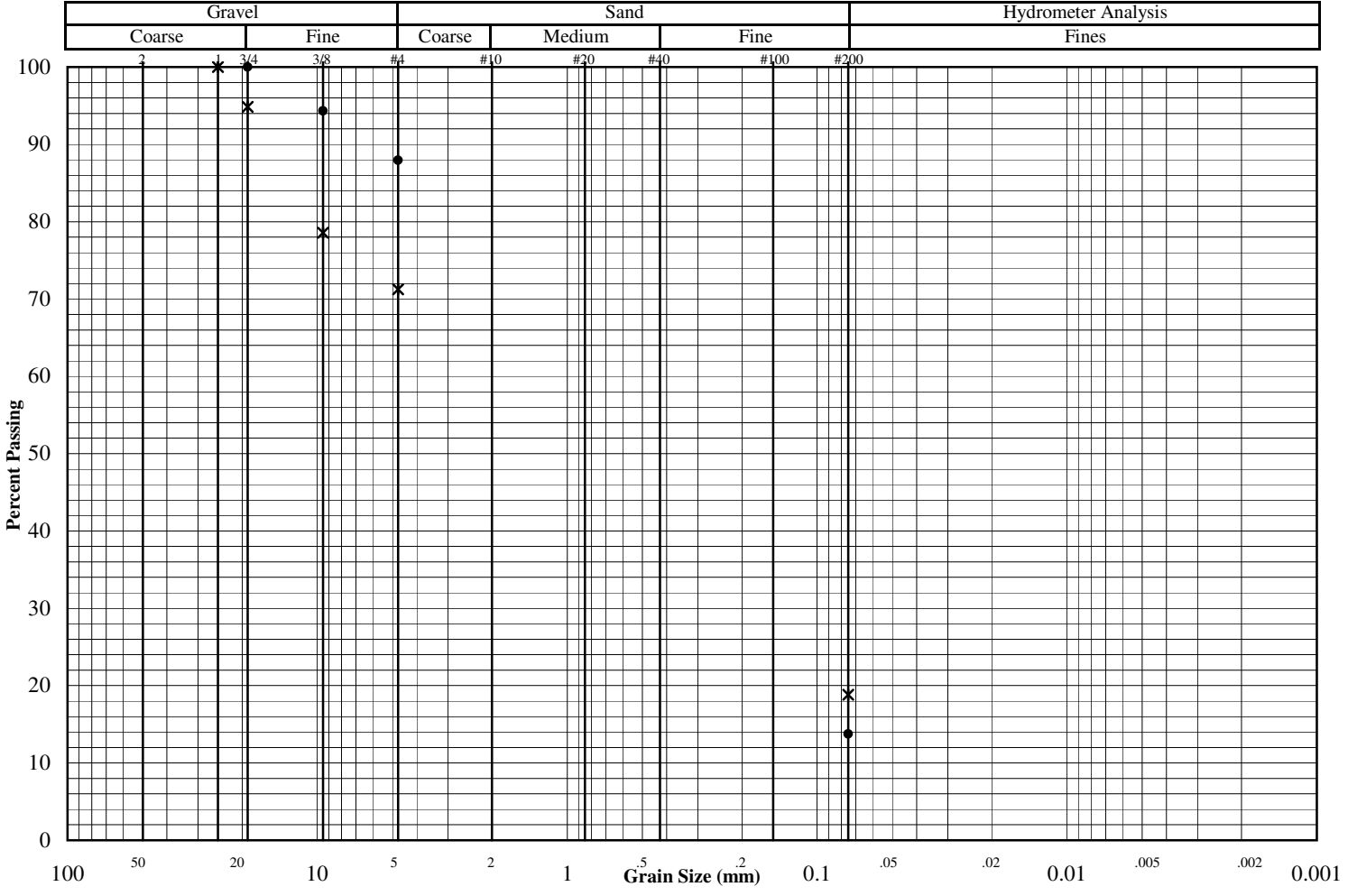
Grain Size Distribution ASTM D422

Job No. : **9562**

Project: TH 36 - Lexington Ave. Interchange
Reported To: Gale-Tec Engineering

Test Date: 9/19/14
Report Date: 9/23/14

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	7064	138		Jar	Silty Sand w/gravel (SM)
●	7069	162		Jar	Silty Sand w/a little gravel (SM/SP-SM)
◇					



	*	●	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content	6.3	9.6	
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	*	●	◇
Mass (g)	289.1	275.8	
2"			
1.5"			
1"	100.0		
3/4"	94.8	100.0	
3/8"	78.5	94.3	
#4	71.3	87.9	
#10			
#20			
#40			
#100			
#200	18.8	13.7	

	*	●	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

Water Content Test Summary (ASTM:D2216)

Project: TH36 - Lexington Ave. Interchange

Job: 9562

Client Gale-Tec Engineering

Date: 9/23/2014

Sample Information & Classification

Boring #	7051	7012	7016	7018	7021	7028	7022	7002
Sample #	26	159	173	177	183	192	200	49
Depth (ft)	5-7	3-5.5	2.5-4.5	1.2-3	2-4	1.5-2.5	2-2.5	5-7
Type	Jar	Jar	Jar	Jar	Jar	Jar	Jar	Jar
Material Classification	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)
Water Content (%)	12.5	13.8	12.4	14.0	13.4	16.7	12.6	11.6

Sample Information & Classification

Boring #	7001	7039	7017	7015	7024			
Sample #	42	35	62	60	69			
Depth (ft)	2-4	3-5	2-7	5-7	2.5-5.5			
Type	Jar	Jar	Jar	Jar	Jar			
Material Classification	Clayey Sand (SC)	Silty Sand (SM)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)			
Water Content (%)	13.8	9.5	13.4	12.8	19.3			

Sample Information & Classification

Boring #								
Sample #								
Depth (ft)								
Type								
Material Classification								
Water Content (%)								

Sample Information & Classification

Boring #								
Sample #								
Depth (ft)								
Type								
Material Classification								
Water Content (%)								

Water Content Test Summary (ASTM:D2216)

Project: TH36 - Lexington Ave. Interchange

Job: 9562

Client Gale-Tec Engineering

Date: 9/12/2014

Sample Information & Classification

Boring #	7004	7006	7008	7037	7040	7041	7043	7046
Sample #	100	108	112	85	35	71	40	25
Depth (ft)								
Type	SB	SB	SB	SB	SB	SB	SB	SB
Material Classification	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)
Water Content (%)	15.7	13.7	14.9	14.5	10.2	11.6	11.1	13.5

Sample Information & Classification

Boring #	7055	7056	7057	7059	7071	7072	7076	7079
Sample #	88	93	131	103	61	57	29	5
Depth (ft)								
Type	SB	SB	SB	SB	SB	SB	SB	SB
Material Classification	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand (SC)	Clayey Sand w/ a little gravel (SC)	Clayey Sand (SC)
Water Content (%)	14.4	13.1	12.3	14.1	13.9	9.8	12.3	11.8

Sample Information & Classification

Boring #								
Sample #								
Depth (ft)								
Type								
Material Classification								
Water Content (%)								

Sample Information & Classification

Boring #								
Sample #								
Depth (ft)								
Type								
Material Classification								
Water Content (%)								



Minnesota Department Of Transportation

TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
1400 Gervais Avenue
Maplewood, MN 55109

Sample ID: **CO-SS14-0517**
Project No.: **6212-148**
T.H. Number: **36**
Submitted By: **K. TURNER**
Proj. Eng.: **DAVE PALMQUIST**
Point Number:
Tests Required: **G**
Sample Taken From:

Depth: **.8'-9'**
Field ID: **7080**
Field Classification:
Date Sampled: **11/6/2014**
Date Received: **11/13/2014**
Report Approved: **11/19/2014 11:18**

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	100.0
#10 (2.00 mm)	100.0
#20 (850 um)	100.0
#40 (425 um)	99.8
#60 (250 um)	99.5
#100 (150 um)	95.6
#200 (75 um)	52.5

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	SiL
Clay (Entire Sample) %	2.2
Silt (Entire Sample) %	50.3
Sand (Entire Sample) %	47.5
Mn/DOT Class (Minus 10)	SiL
Clay (Minus 10) %	2.2
Silt (Minus 10) %	50.3
Sand (Minus 10) %	47.5

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265

M = Mn/DOT Modified

Comments:

Copies To:

DAVE PALMQUIST - METRO
KRIEG TURNER

Charge Out: 1037, 1038

REVIEWED BY

Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0517**
 Project No.: **6212-148**
 Date Sampled: **11/6/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **11/13/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	11.0	0.03676	13.1
5 min	68.0	9.0	0.02349	9.1
15 min	68.0	8.0	0.01365	7.0
30 min	68.0	7.0	0.00972	5.0
60 min	68.0	7.0	0.00687	5.0
250 mi	68.0	6.5	0.00338	4.0
24 hr	68.0	5.0	0.00142	1.0

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

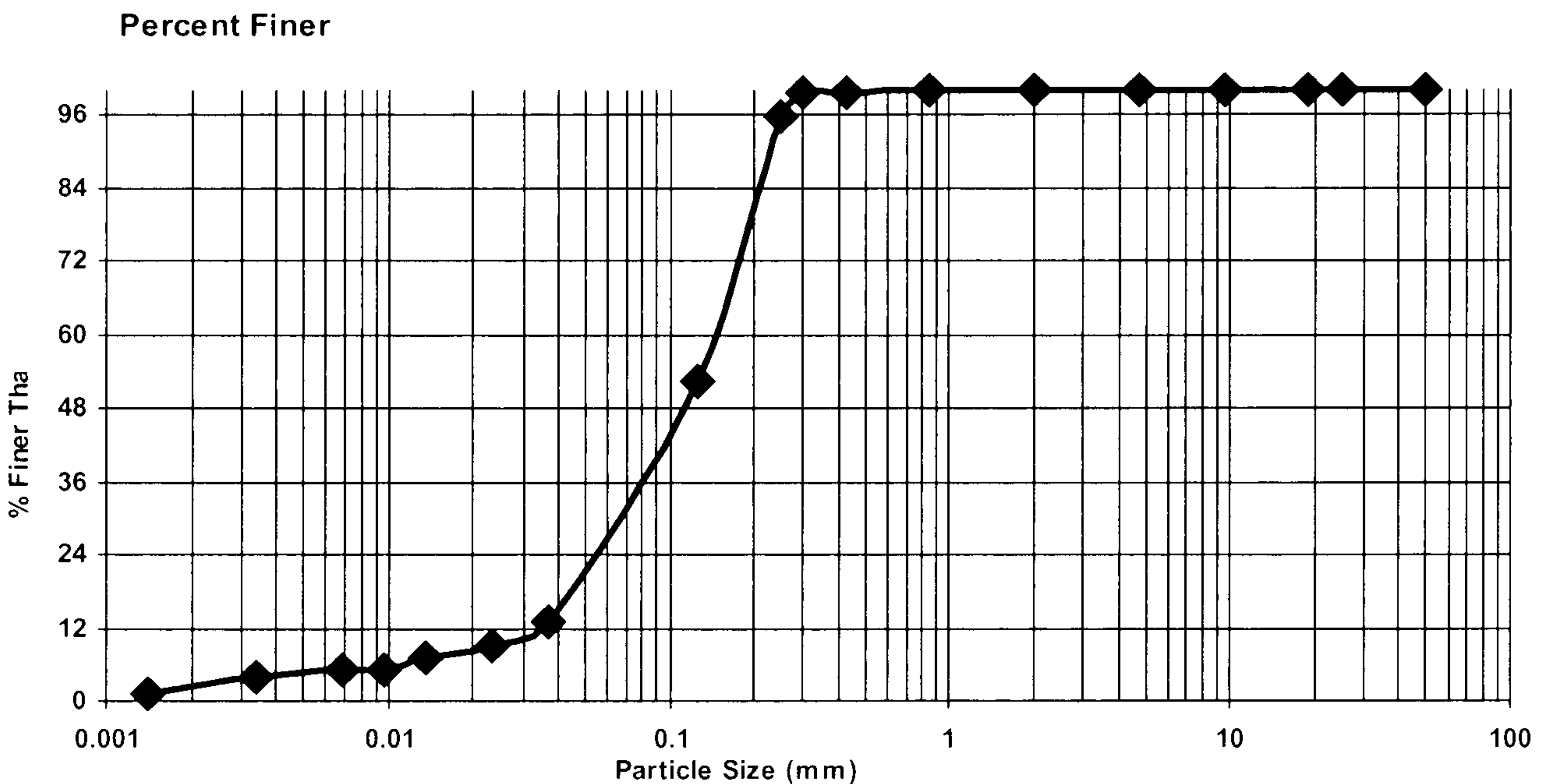
%	Particle
47.5	Sand and Gravel (Entire Sample)
50.3	Silt (Entire Sample)
2.2	Clay (Entire Sample)

Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	25.92
Oven Dry + Can	25.85
Can	14.30
Corr. Factor	0.994%

Plastic Limit

Type	Weight 1	Weight 2
------	----------	----------





Minnesota Department Of Transportation
TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
 1400 Gervais Avenue
 Maplewood, MN 55109

Sample ID:	CO-SS14-0518	Depth:	8.5'-12'
Project No.:	6212-148	Field ID:	7084
T.H. Number:	36	Field Classification:	
Submitted By:	K. TURNER	Date Sampled:	11/6/2014
Proj. Eng.:	DAVE PALMQUIST	Date Received:	11/13/2014
Point Number:		Report Approved:	11/19/2014 11:18
Tests Required:	G		
Sample Taken From:			

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	96.2
#10 (2.00 mm)	92.6
#20 (850 um)	86.3
#40 (425 um)	71.6
#60 (250 um)	53.4
#100 (150 um)	39.3
#200 (75 um)	28.9

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	SL
Clay (Entire Sample) %	11
Silt (Entire Sample) %	17.9
Sand (Entire Sample) %	71.1
Mn/DOT Class (Minus 10)	SL
Clay (Minus 10) %	11.9
Silt (Minus 10) %	19.3
Sand (Minus 10) %	68.8

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

DAVE PALMQUIST - METRO
 KRIEG TURNER

Charge Out: 1037, 1038

Rod Patrin

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0518**
 Project No.: **6212-148**
 Date Sampled: **11/6/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **11/13/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	16.5	0.03573	21.6
5 min	68.0	15.0	0.02268	18.8
15 min	68.0	14.0	0.01319	16.9
30 min	68.0	13.5	0.00933	15.9
60 min	68.0	13.0	0.00664	15.0
250 mi	68.0	12.0	0.00327	13.1
24 hr	68.0	10.0	0.00138	9.4

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

%	Particle
71.1	Sand and Gravel (Entire Sample)
17.9	Silt (Entire Sample)
11.0	Clay (Entire Sample)

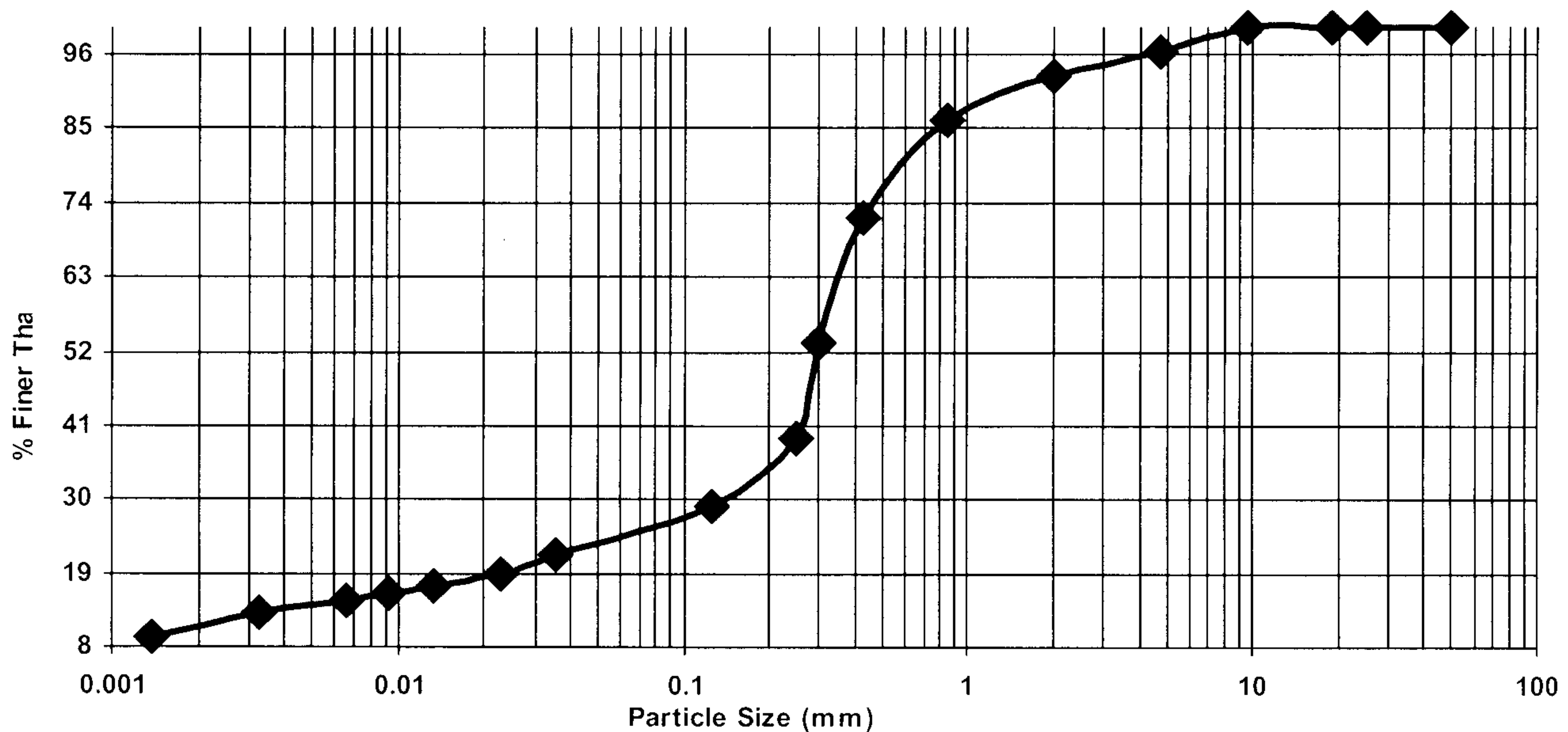
Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	28.40
Oven Dry + Can	28.22
Can	14.26
Corr. Factor	0.987%

Plastic Limit

Type	Weight 1	Weight 2
------	----------	----------

Percent Finer





Minnesota Department Of Transportation

TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
1400 Gervais Avenue
Maplewood, MN 55109

Sample ID: **CO-SS14-0520**
 Project No.: **6212-148**
 T.H. Number: **36**
 Submitted By: **K. TURNER**
 Proj. Eng.: **DAVE PALMQUIST**
 Point Number:
 Tests Required: **G**
 Sample Taken From:

Depth: **8'-11'**
 Field ID: **7086**
 Field Classification:
 Date Sampled: **11/6/2014**
 Date Received: **11/13/2014**
 Report Approved: **11/19/2014 11:19**

Sieves

<i>Sieve Size</i>	<i>Percent Passing</i>
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	100.0
#10 (2.00 mm)	100.0
#20 (850 um)	91.9
#40 (425 um)	80.1
#60 (250 um)	67.4
#100 (150 um)	56.5
#200 (75 um)	47.3

Other Soil Tests

<i>Test</i>	<i>Result</i>
Mn/DOT Class (Entire Sample)	SL
Clay (Entire Sample) %	13.7
Silt (Entire Sample) %	33.6
Sand (Entire Sample) %	52.7
Mn/DOT Class (Minus 10)	SL
Clay (Minus 10) %	13.7
Silt (Minus 10) %	33.6
Sand (Minus 10) %	52.7

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

DAVE PALMQUIST - METRO
KRIEG TURNER

Charge Out: 1037, 1038

Rod Patrin

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0520**
 Project No.: **6212-148**
 Date Sampled: **11/6/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **11/13/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	23.0	0.03413	37.2
5 min	68.0	19.0	0.02218	29.2
15 min	68.0	17.0	0.01295	25.2
30 min	68.0	15.0	0.00926	21.1
60 min	68.0	14.5	0.00659	20.1
250 mi	68.0	13.0	0.00325	17.1
24 hr	68.0	10.0	0.00138	11.1

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

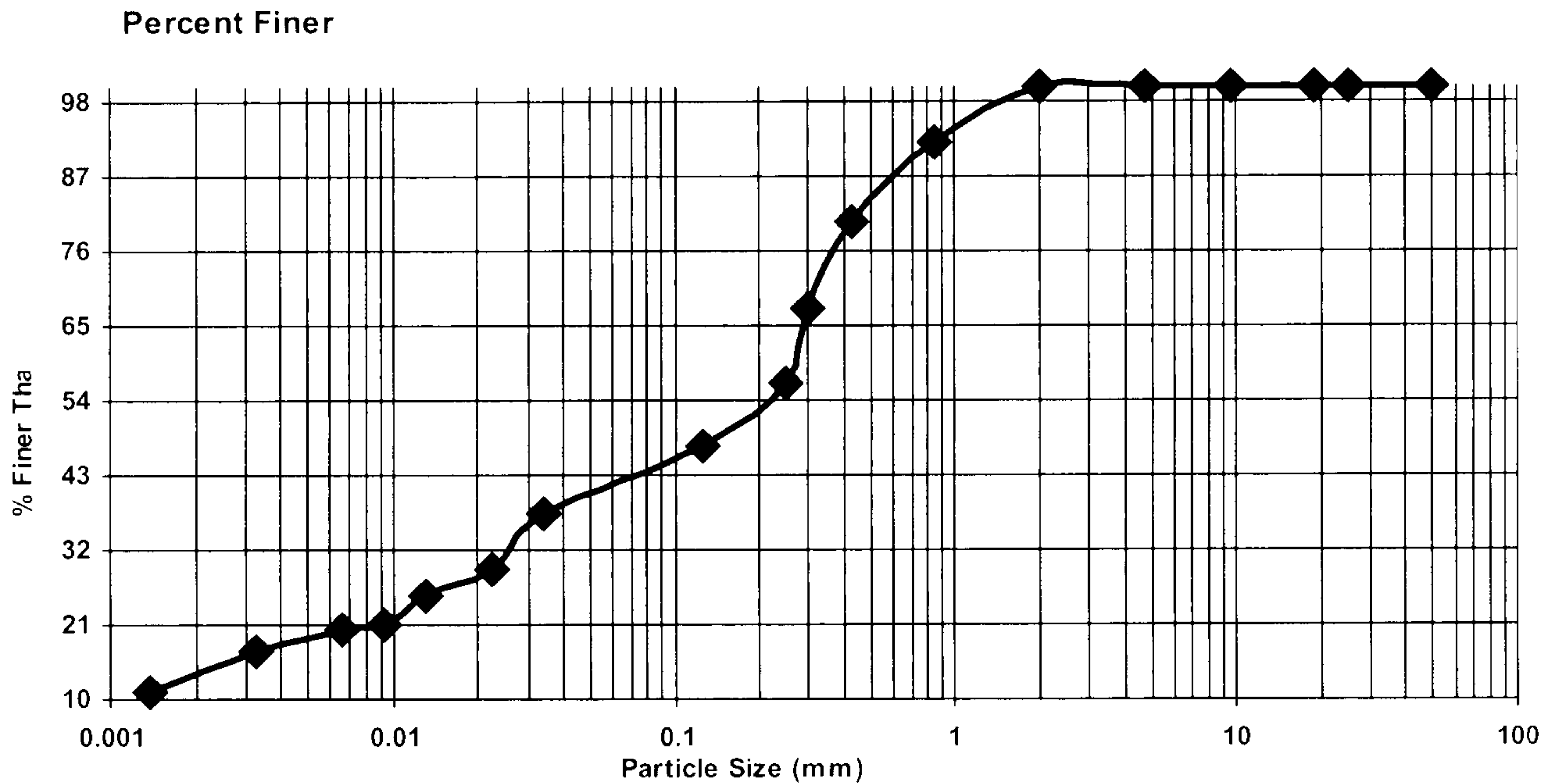
%	Particle
52.7	Sand and Gravel (Entire Sample)
33.6	Silt (Entire Sample)
13.7	Clay (Entire Sample)

Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	25.96
Oven Dry + Can	25.89
Can	14.58
Corr. Factor	0.994%

Plastic Limit

Type	Weight 1	Weight 2
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Minnesota Department Of Transportation
TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
 1400 Gervais Avenue
 Maplewood, MN 55109

Sample ID: **CO-SS14-0519**
 Project No.: **6212-148**
 T.H. Number: **36**
 Submitted By: **K. TURNER**
 Proj. Eng.: **DAVE PALMQUIST**
 Point Number:
 Tests Required: **G**
 Sample Taken From:

Depth: **.5'-8'**
 Field ID: **7086**
 Field Classification:
 Date Sampled: **11/6/2014**
 Date Received: **11/13/2014**
 Report Approved: **11/19/2014 11:18**

Sieves

<i>Sieve Size</i>	<i>Percent Passing</i>
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	97.0
#10 (2.00 mm)	93.4
#20 (850 um)	93.0
#40 (425 um)	91.9
#60 (250 um)	86.3
#100 (150 um)	60.8
#200 (75 um)	27.0

Other Soil Tests

<i>Test</i>	<i>Result</i>
Mn/DOT Class (Entire Sample)	FSL
Clay (Entire Sample) %	1.7
Silt (Entire Sample) %	25.3
Sand (Entire Sample) %	73
Mn/DOT Class (Minus 10)	SL
Clay (Minus 10) %	1.8
Silt (Minus 10) %	27.1
Sand (Minus 10) %	71.1

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

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DAVE PALMQUIST - METRO
 KRIEG TURNER

Charge Out: 1037, 1038

Rod Patrin

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0519**
 Project No.: **6212-148**
 Date Sampled: **11/6/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **11/13/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	13.0	0.03638	13.2
5 min	68.0	9.0	0.02349	5.7
15 min	68.0	9.0	0.01356	5.7
30 min	68.0	8.5	0.00965	4.7
60 min	68.0	8.0	0.00683	3.8
250 mi	68.0	7.5	0.00334	2.8
24 hr	68.0	6.5	0.00141	0.9

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

%	Particle
73.0	Sand and Gravel (Entire Sample)
25.3	Silt (Entire Sample)
1.7	Clay (Entire Sample)

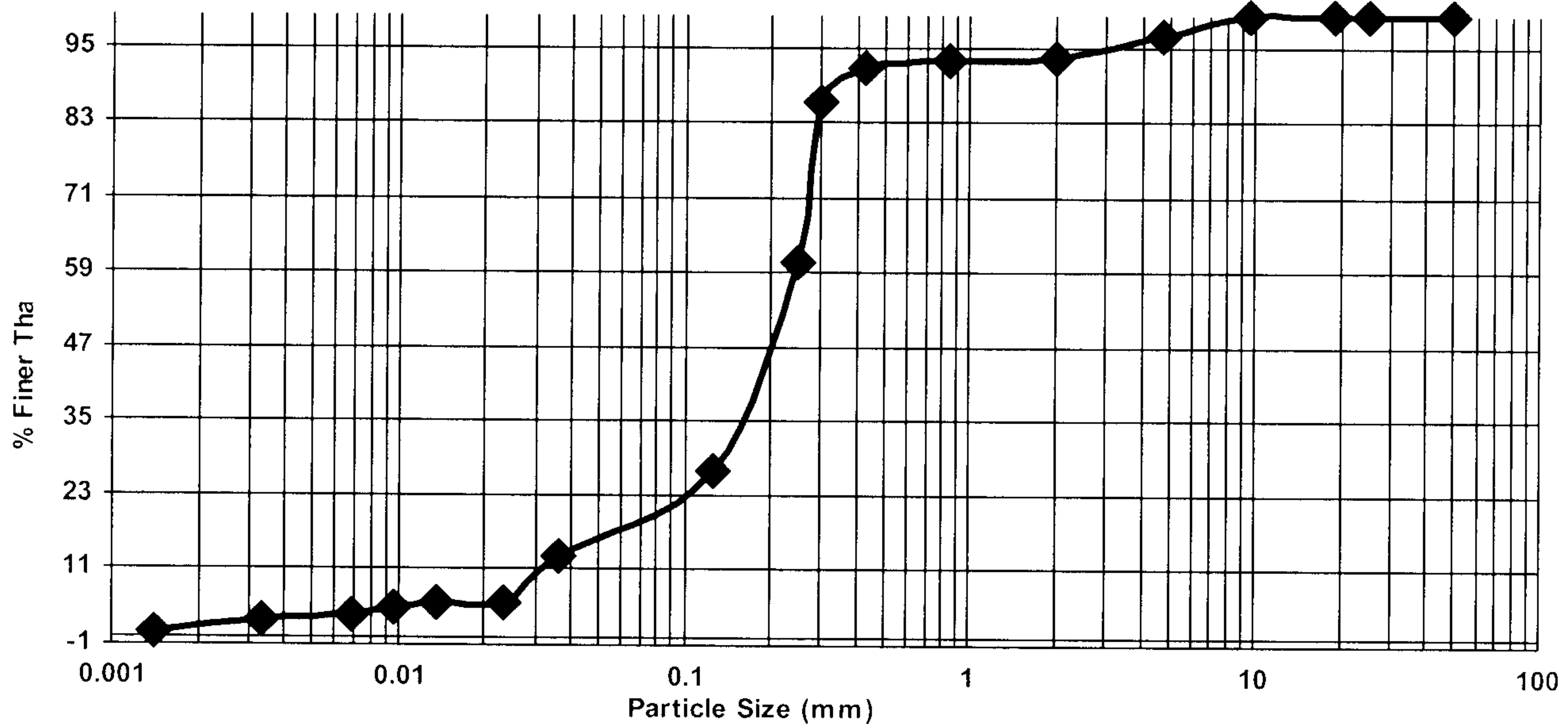
Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	26.21
Oven Dry + Can	26.06
Can	14.30
Corr. Factor	0.987%

Plastic Limit

Type	Weight 1	Weight 2
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Percent Finer





Minnesota Department Of Transportation TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
1400 Gervais Avenue
Maplewood, MN 55109

Sample ID: **CO-SS14-0521**
Project No.: **6212-148**
T.H. Number: **36**
Submitted By: **K. TURNER**
Proj. Eng.: **DAVE PALMQUIST**
Point Number:
Tests Required: **G**
Sample Taken From:

Depth: **3.5'-8'**
Field ID: **7087**
Field Classification:
Date Sampled: **11/6/2014**
Date Received: **11/13/2014**
Report Approved: **11/19/2014 11:19**

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	85.1
#4 (4.75 mm)	74.0
#10 (2.00 mm)	63.9
#20 (850 um)	52.4
#40 (425 um)	37.5
#60 (250 um)	27.1
#100 (150 um)	20.0
#200 (75 um)	15.7

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	LS&G
Clay (Entire Sample) %	3.7
Silt (Entire Sample) %	12
Sand (Entire Sample) %	84.3
Mn/DOT Class (Minus 10)	SL
Clay (Minus 10) %	5.8
Silt (Minus 10) %	18.8
Sand (Minus 10) %	75.4

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

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DAVE PALMQUIST - METRO
KRIEG TURNER

Charge Out: 1037, 1038

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0521**
 Project No.: **6212-148**
 Date Sampled: **11/6/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **11/13/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	13.0	0.03638	10.9
5 min	68.0	12.0	0.02309	9.6
15 min	68.0	10.0	0.01351	7.0
30 min	68.0	9.5	0.00956	6.4
60 min	68.0	9.0	0.00678	5.8
250 mi	68.0	8.0	0.00334	4.5
24 hr	68.0	7.0	0.00140	3.2

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

%	Particle
84.3	Sand and Gravel (Entire Sample)
12.0	Silt (Entire Sample)
3.7	Clay (Entire Sample)

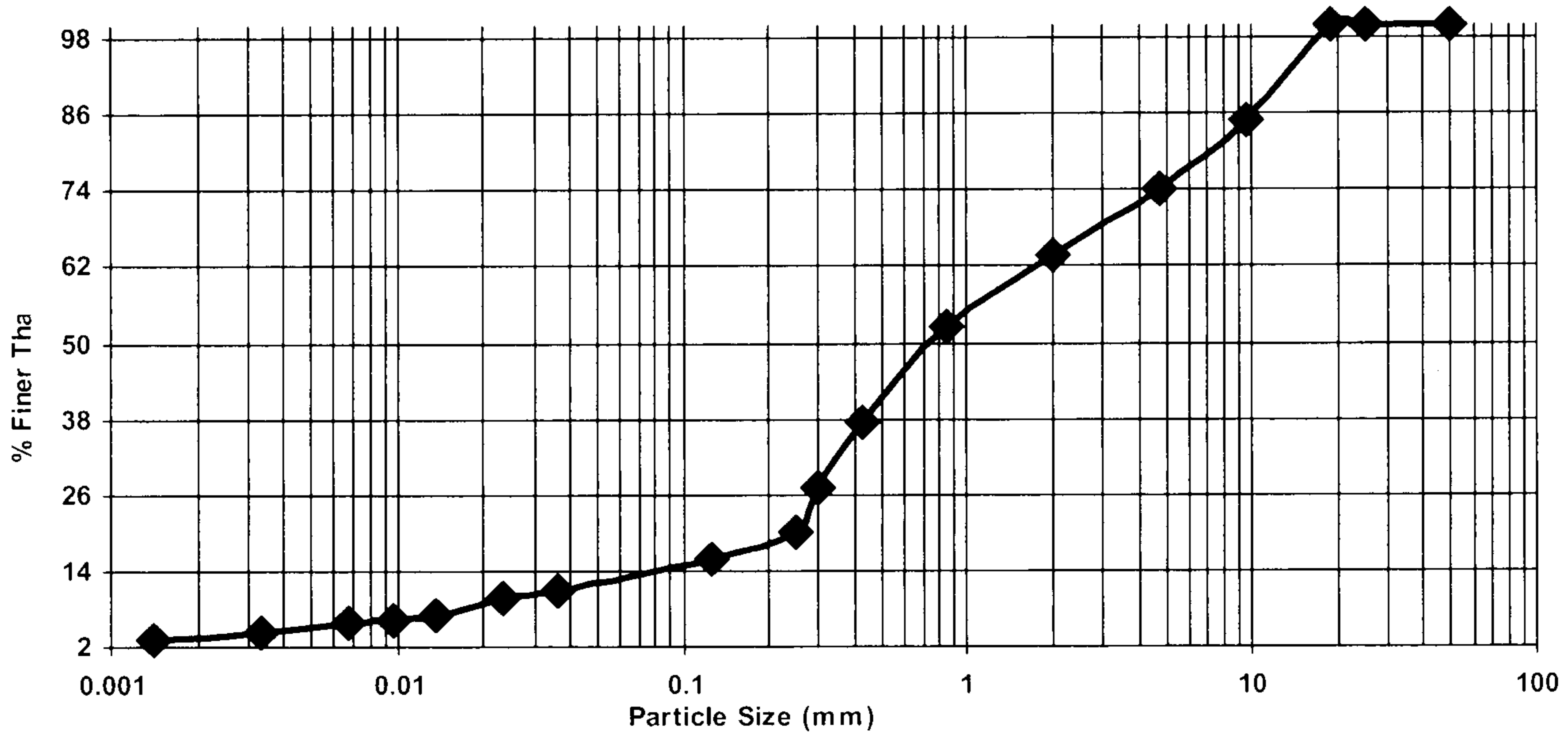
Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	27.17
Oven Dry + Can	27.14
Can	14.52
Corr. Factor	0.998%

Plastic Limit

Type	Weight 1	Weight 2
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Percent Finer





Minnesota Department Of Transportation
TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
 1400 Gervais Avenue
 Maplewood, MN 55109

Sample ID: **CO-SS14-0580**
 Project No.: **6212-148**
 T.H. Number: **36**
 Submitted By: **K. TURNER**
 Proj. Eng.: **HOWARD MCDERMOT**
 Point Number:
 Tests Required: **G**
 Sample Taken From:

Depth: **2.5'-10'**
 Field ID: **7088**
 Field Classification:
 Date Sampled: **11/24/2014**
 Date Received: **12/1/2014**
 Report Approved: **01/06/2015 15:28**

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	99.0
#4 (4.75 mm)	93.7
#10 (2.00 mm)	91.6
#20 (850 um)	86.7
#40 (425 um)	77.7
#60 (250 um)	65.7
#100 (150 um)	55.1
#200 (75 um)	46.1

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	SL
Clay (Entire Sample) %	17.5
Silt (Entire Sample) %	28.6
Sand (Entire Sample) %	53.9
Mn/DOT Class (Minus 10)	L
Clay (Minus 10) %	19.1
Silt (Minus 10) %	31.2
Sand (Minus 10) %	49.7

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

HOWARD MCDERMOT - METRO
 KRIEG TURNER

Charge Out: 1037, 1038

Rod Patrin

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0580**
 Project No.: **6212-148**
 Date Sampled: **11/24/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **12/1/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	32.0	0.03216	49.2
5 min	68.0	25.0	0.02132	36.2
15 min	68.0	21.0	0.01266	28.8
30 min	68.0	19.0	0.00906	25.0
60 min	68.0	18.0	0.00643	23.2
250 mi	68.0	16.0	0.00320	19.5
24 hr	68.0	14.0	0.00135	15.8

Liquid Limit

Type	Weight 1	Weight 2
------	----------	----------

Particle Size

%	Particle
53.9	Sand and Gravel (Entire Sample)
28.6	Silt (Entire Sample)
17.5	Clay (Entire Sample)

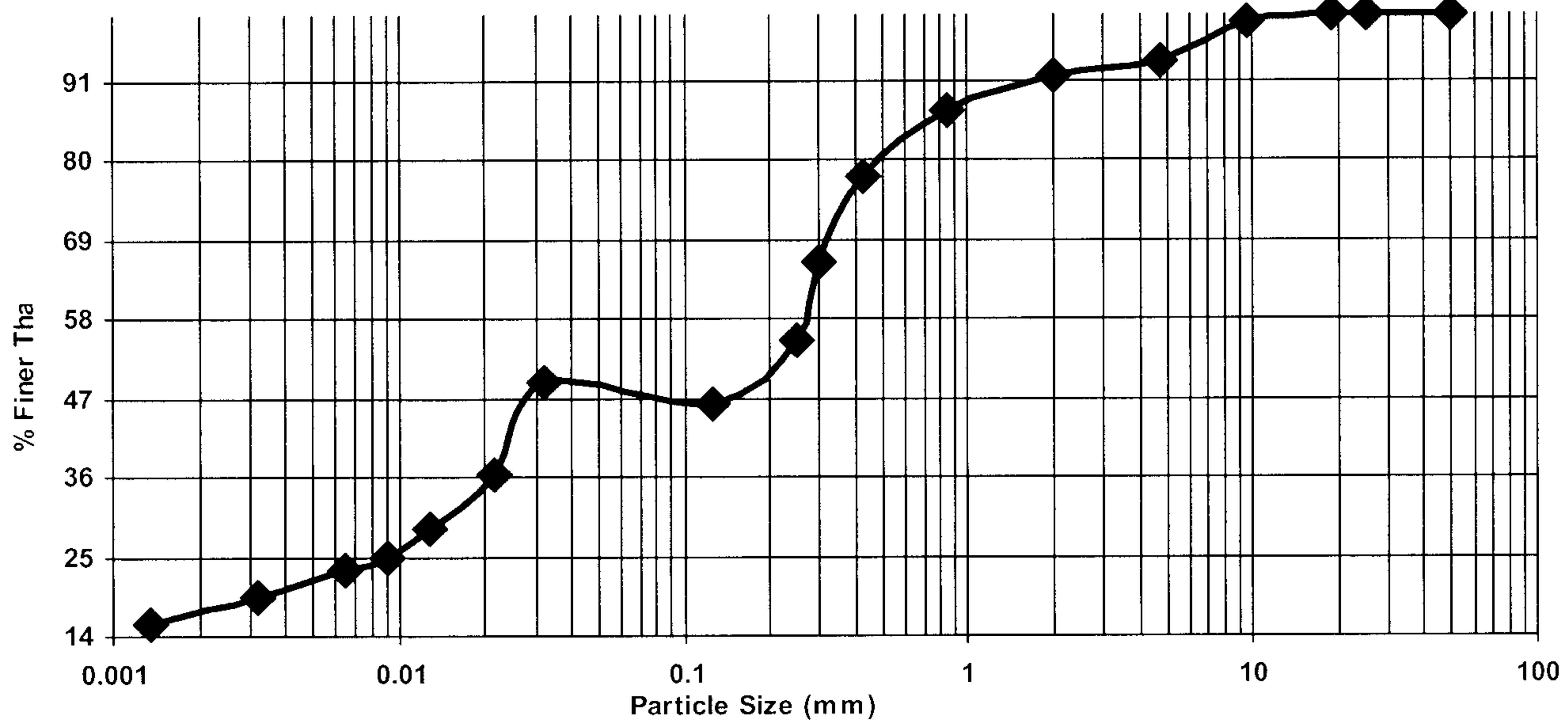
Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	29.69
Oven Dry + Can	29.50
Can	14.46
Corr. Factor	0.988%

Plastic Limit

Type	Weight 1	Weight 2
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Percent Finer





Minnesota Department Of Transportation

TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
1400 Gervais Avenue
Maplewood, MN 55109

Sample ID:	CO-SS14-0581	Depth:	2'-8.5'
Project No.:	6212-148	Field ID:	7089
T.H. Number:	36	Field Classification:	
Submitted By:	K. TURNER	Date Sampled:	11/24/2014
Proj. Eng.:	HOWARD MCDERMOT	Date Received:	12/1/2014
Point Number:		Report Approved:	01/06/2015 15:28
Tests Required:	G		
Sample Taken From:			

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	96.5
#10 (2.00 mm)	93.1
#20 (850 um)	88.6
#40 (425 um)	80.2
#60 (250 um)	69.1
#100 (150 um)	58.6
#200 (75 um)	49.2

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	SL
Clay (Entire Sample) %	15.8
Silt (Entire Sample) %	33.4
Sand (Entire Sample) %	50.8
Mn/DOT Class (Minus 10)	L
Clay (Minus 10) %	17
Silt (Minus 10) %	35.9
Sand (Minus 10) %	47.2

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

HOWARD MCDERMOT - METRO
KRIEG TURNER

Charge Out: 1037, 1038

Rod Patrin

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0581**
 Project No.: **6212-148**
 Date Sampled: **11/24/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **12/1/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	23.0	0.03413	34.8
5 min	68.0	21.5	0.02176	32.0
15 min	68.0	19.0	0.01281	27.3
30 min	68.0	18.0	0.00909	25.4
60 min	68.0	17.0	0.00648	23.5
250 mi	68.0	14.0	0.00323	17.9
24 hr	68.0	12.0	0.00136	14.1

Liquid Limit

Type	Weight 1	Weight 2
------	----------	----------

Particle Size

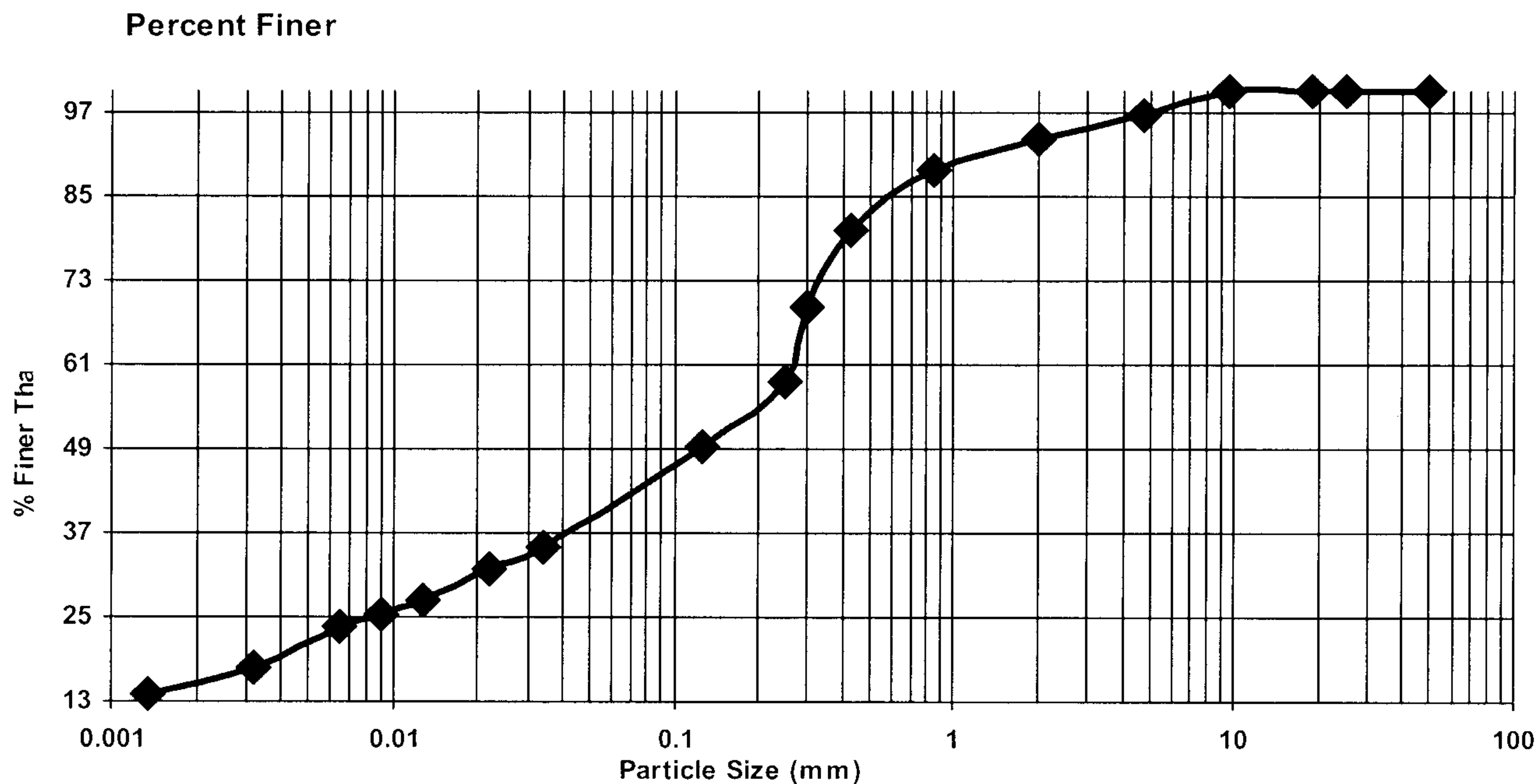
%	Particle
50.8	Sand and Gravel (Entire Sample)
33.4	Silt (Entire Sample)
15.8	Clay (Entire Sample)

Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	29.00
Oven Dry + Can	28.85
Can	14.49
Corr. Factor	0.990%

Plastic Limit

Type	Weight 1	Weight 2
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Minnesota Department Of Transportation

TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
1400 Gervais Avenue
Maplewood, MN 55109

Sample ID: **CO-SS14-0569**
Project No.: **6212-148**
T.H. Number: **36**
Submitted By: **K. TURNER**
Proj. Eng.: **HOWARD MCDERMOT**
Point Number:
Tests Required: **G**
Sample Taken From:

Depth: **2.5'-6'**
Field ID: **7093**
Field Classification:
Date Sampled: **11/20/2014**
Date Received: **11/25/2014**
Report Approved: **01/06/2015 15:26**

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	100.0
#10 (2.00 mm)	100.0
#20 (850 um)	100.0
#40 (425 um)	99.7
#60 (250 um)	99.0
#100 (150 um)	96.5
#200 (75 um)	70.1

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	SiL
Clay (Entire Sample) %	2.6
Silt (Entire Sample) %	67.5
Sand (Entire Sample) %	29.9
Mn/DOT Class (Minus 10)	SiL
Clay (Minus 10) %	2.6
Silt (Minus 10) %	67.5
Sand (Minus 10) %	29.9

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

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HOWARD MCDERMOT - METRO
KRIEG TURNER

Charge Out: 1037, 1038

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Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS14-0569**
 Project No.: **6212-148**
 Date Sampled: **11/20/2014**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **11/25/2014**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	22.0	0.03440	35.3
5 min	68.0	16.0	0.02260	23.2
15 min	68.0	12.0	0.01333	15.1
30 min	68.0	11.0	0.00949	13.1
60 min	68.0	11.0	0.00671	13.1
250 mi	68.0	1.0	0.00346	-7.1
24 hr	68.0	9.0	0.00138	9.1

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

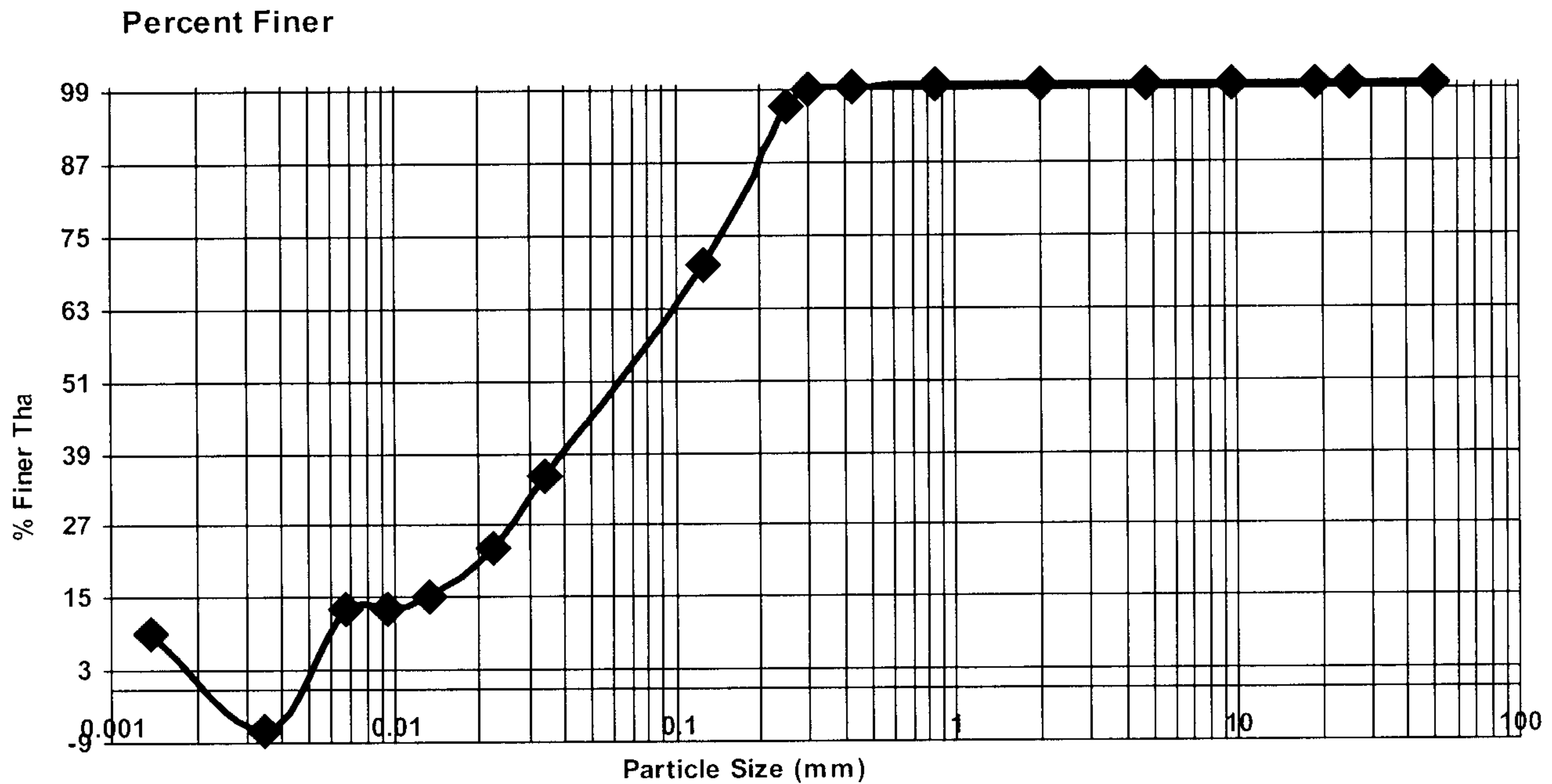
%	Particle
29.9	Sand and Gravel (Entire Sample)
67.5	Silt (Entire Sample)
2.6	Clay (Entire Sample)

Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	27.33
Oven Dry + Can	27.22
Can	14.55
Corr. Factor	0.991%

Plastic Limit

Type	Weight 1	Weight 2
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Minnesota Department Of Transportation
TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
 1400 Gervais Avenue
 Maplewood, MN 55109

Sample ID: **CO-SS15-0117**
 Project No.: **6212-148**
 T.H. Number: **36**
 Submitted By: **K. TURNER**
 Proj. Eng.: **HOWARD MCDERMOTT**
 Point Number:
 Tests Required: **G**
 Sample Taken From:

Depth: **5.5'-19'**
 Field ID: **7097**
 Field Classification:
 Date Sampled: **3/9/2015**
 Date Received: **3/12/2015**
 Report Approved: **03/27/2015 11:04**

Sieves

<i>Sieve Size</i>	<i>Percent Passing</i>
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	97.7
#4 (4.75 mm)	95.3
#10 (2.00 mm)	88.7
#20 (850 um)	78.4
#40 (425 um)	60.5
#60 (250 um)	42.6
#100 (150 um)	27.2
#200 (75 um)	16.6

Other Soil Tests

<i>Test</i>	<i>Result</i>
Mn/DOT Class (Entire Sample)	LS
Clay (Entire Sample) %	7.5
Silt (Entire Sample) %	9
Sand (Entire Sample) %	83.4
Mn/DOT Class (Minus 10)	LS
Clay (Minus 10) %	8.5
Silt (Minus 10) %	10.1
Sand (Minus 10) %	81.3

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

HOWARD MCDERMOTT - METRO
 KREIG TURNER

Charge Out: 1037, 1038

Rod Patrin

REVIEWED BY

Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS15-0117**
 Project No.: **6212-148**
 Date Sampled: **3/9/2015**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **3/12/2015**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	13.5	0.03612	13.4
5 min	68.0	12.0	0.02309	10.7
15 min	68.0	12.0	0.01333	10.7
30 min	68.0	12.0	0.00942	10.7
60 min	68.0	11.5	0.00666	9.8
250 mi	68.0	10.5	0.00331	8.0
24 hr	68.0	10.0	0.00138	7.2

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

%	Particle
83.4	Sand and Gravel (Entire Sample)
9.0	Silt (Entire Sample)
7.5	Clay (Entire Sample)

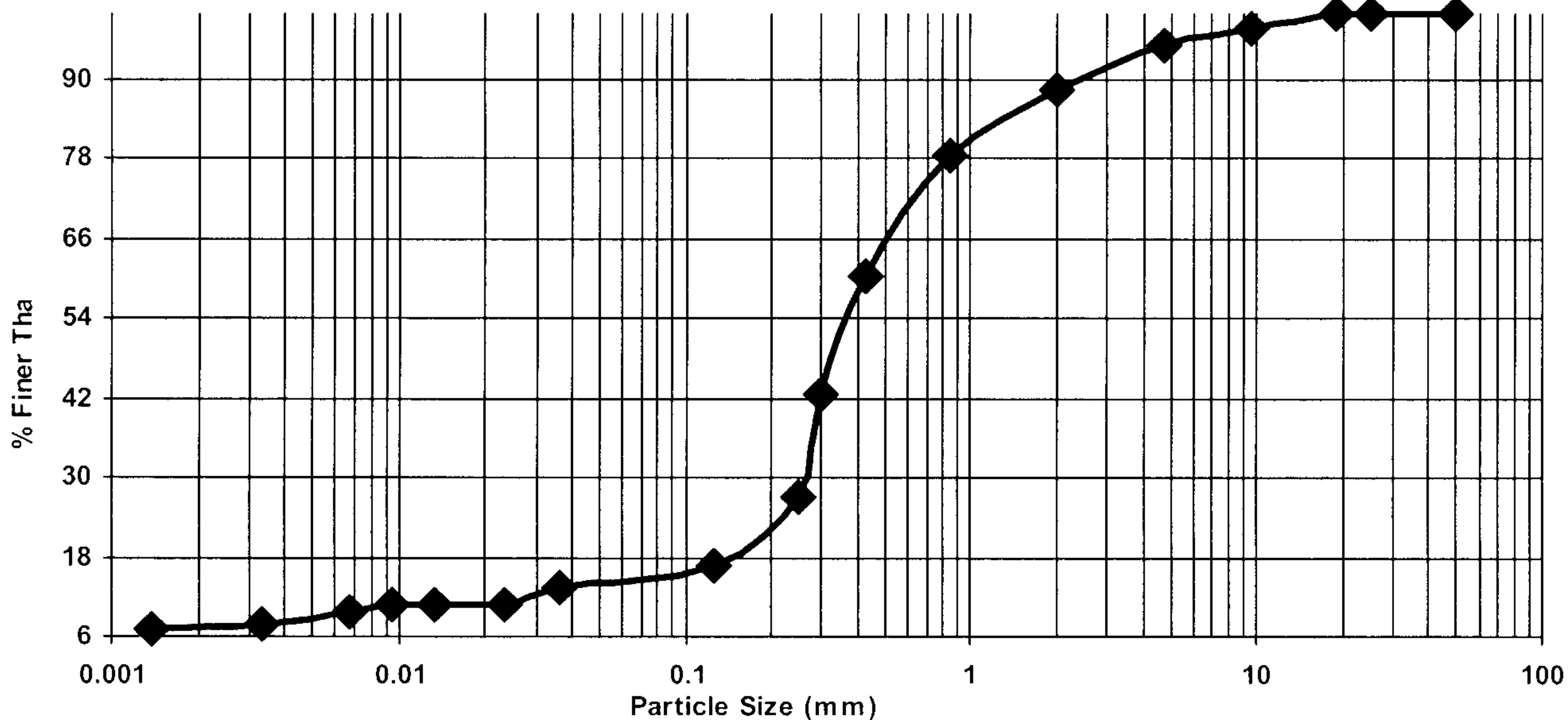
Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	29.16
Oven Dry + Can	29.04
Can	14.68
Corr. Factor	0.992%

Plastic Limit

Type	Weight 1	Weight 2
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Percent Finer





Minnesota Department Of Transportation
TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
 1400 Gervais Avenue
 Maplewood, MN 55109

Sample ID:	CO-SS15-0116	Depth:	.5'-5'
Project No.:	6212-148	Field ID:	7097
T.H. Number:	36	Field Classification:	
Submitted By:	K. TURNER	Date Sampled:	3/9/2015
Proj. Eng.:	HOWARD MCDERMOTT	Date Received:	3/12/2015
Point Number:		Report Approved:	03/27/2015 11:04
Tests Required:	G		
Sample Taken From:			

Sieves

Sieve Size	Percent Passing
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	97.1
#4 (4.75 mm)	94.1
#10 (2.00 mm)	85.9
#20 (850 um)	81.0
#40 (425 um)	71.3
#60 (250 um)	60.6
#100 (150 um)	50.9
#200 (75 um)	43.7

Other Soil Tests

Test	Result
Mn/DOT Class (Entire Sample)	SL
Clay (Entire Sample) %	17.7
Silt (Entire Sample) %	26
Sand (Entire Sample) %	56.3
Mn/DOT Class (Minus 10)	CL
Clay (Minus 10) %	20.6
Silt (Minus 10) %	30.3
Sand (Minus 10) %	49.1

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

HOWARD MCDERMOTT - METRO KREIG TURNER
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Charge Out: 1037, 1038

Rod Patrin

REVIEWED BY

Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS15-0116**
 Project No.: **6212-148**
 Date Sampled: **3/9/2015**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **3/12/2015**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	26.0	0.03344	36.6
5 min	68.0	22.5	0.02176	30.5
15 min	68.0	20.0	0.01271	26.1
30 min	68.0	19.0	0.00906	24.4
60 min	68.0	17.5	0.00643	21.8
250 mi	68.0	16.0	0.00320	19.1
24 hr	68.0	14.5	0.00135	16.5

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

%	Particle
56.3	Sand and Gravel (Entire Sample)
26.0	Silt (Entire Sample)
17.7	Clay (Entire Sample)

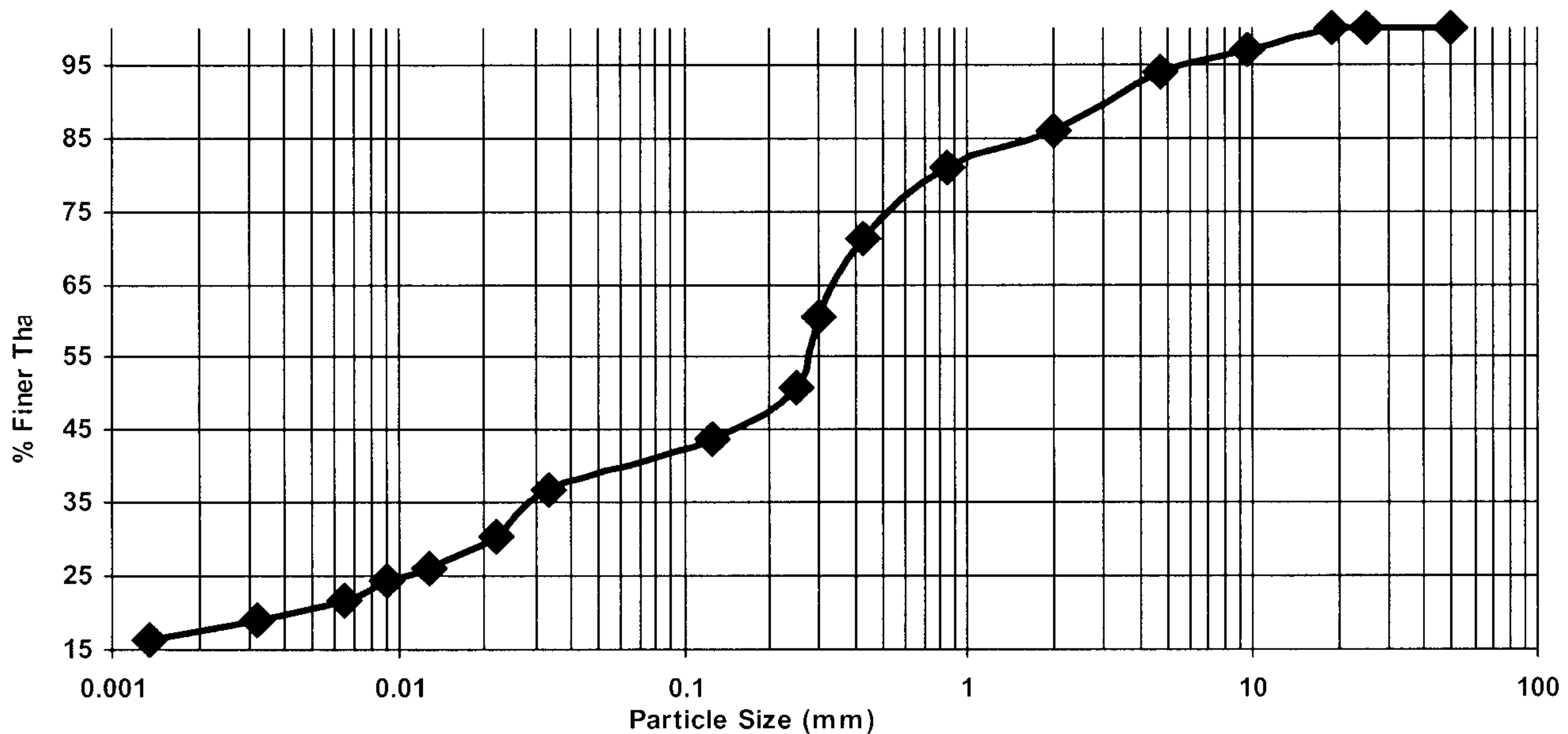
Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	31.35
Oven Dry + Can	31.13
Can	14.37
Corr. Factor	0.987%

Plastic Limit

Type	Weight 1	Weight 2
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Percent Finer





Minnesota Department Of Transportation
TEST REPORT ON SAMPLE OF SUBSOIL

Office of Materials and Road Research
 1400 Gervais Avenue
 Maplewood, MN 55109

Sample ID: **CO-SS15-0118**
 Project No.: **6212-148**
 T.H. Number: **36**
 Submitted By: **K. TURNER**
 Proj. Eng.: **HOWARD MCDERMOTT**
 Point Number:
 Tests Required: **G**
 Sample Taken From:

Depth: **2'-8'**
 Field ID: **7100**
 Field Classification:
 Date Sampled: **3/9/2015**
 Date Received: **3/12/2015**
 Report Approved: **03/27/2015 11:05**

Sieves

<i>Sieve Size</i>	<i>Percent Passing</i>
2" (50 mm)	100.0
1" (25.0 mm)	100.0
3/4" (19.0 mm)	100.0
3/8" (9.5 mm)	100.0
#4 (4.75 mm)	96.2
#10 (2.00 mm)	87.1
#20 (850 um)	82.2
#40 (425 um)	74.1
#60 (250 um)	63.3
#100 (150 um)	51.0
#200 (75 um)	40.7

Other Soil Tests

<i>Test</i>	<i>Result</i>
Mn/DOT Class (Entire Sample)	SL
Clay (Entire Sample) %	14.8
Silt (Entire Sample) %	25.9
Sand (Entire Sample) %	59.3
Mn/DOT Class (Minus 10)	SL
Clay (Minus 10) %	17
Silt (Minus 10) %	29.8
Sand (Minus 10) %	53.2

Test Procedures: AASHTO T87, T88, T89, T90, T99 Method "C"(M), T100, T190 (M), T-265 M = Mn/DOT Modified

Comments:

Copies To:

HOWARD MCDERMOTT - METRO
 KREIG TURNER

Charge Out: 1037, 1038

Rod Patrin

REVIEWED BY

Minnesota Department Of Transportation

SubSoil Sample Worksheet

Sample ID: **CO-SS15-0118**
 Project No.: **6212-148**
 Date Sampled: **3/9/2015**

Submitted By: **K. TURNER**
 Source: **36**
 Date Received: **3/12/2015**

Hydrometer Analysis

Time	Temp	Read	Size (mm)	% Finer
2 min	68.0	24.0	0.03399	31.6
5 min	68.0	21.5	0.02176	27.2
15 min	68.0	19.0	0.01281	22.8
30 min	68.0	18.0	0.00909	21.1
60 min	68.0	16.5	0.00652	18.4
250 mi	68.0	15.0	0.00321	15.8
24 hr	68.0	14.0	0.00135	14.0

Liquid Limit

Type	Weight 1	Weight 2
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Particle Size

%	Particle
59.3	Sand and Gravel (Entire Sample)
25.9	Silt (Entire Sample)
14.8	Clay (Entire Sample)

Hygroscopic Moisture

Content Type	Weight
Air Dry + Can	27.51
Oven Dry + Can	27.40
Can	14.57
Corr. Factor	0.991%

Plastic Limit

Type	Weight 1	Weight 2
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Percent Finer

