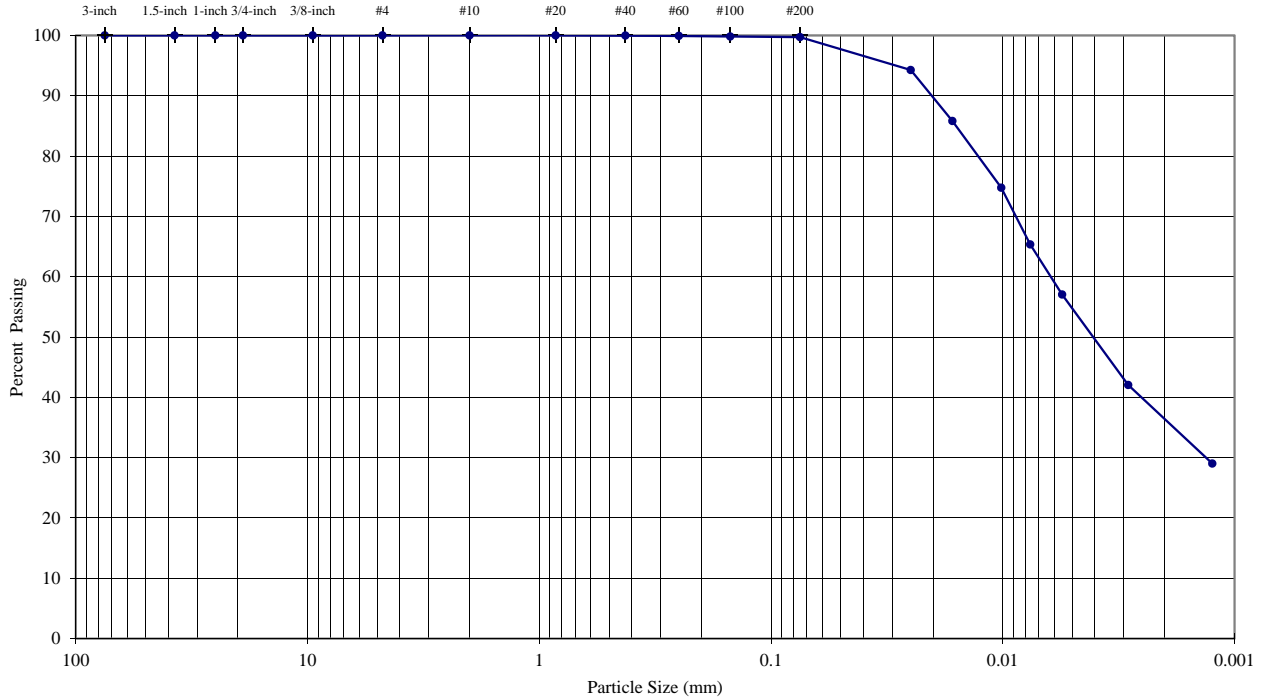


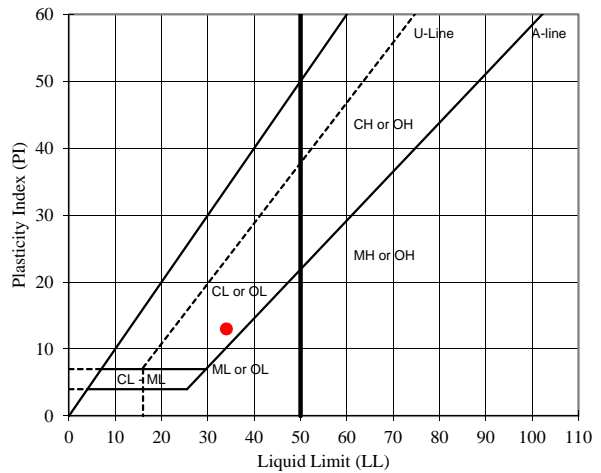
## PARTICLE SIZE DISTRIBUTION & ATTERBERG LIMITS ASTM D421, D422, D4318

PROJECT NAME: **Highland/Copperwood Project/MI**  
 SAMPLE ID: **BF9 - 1st Clean**  
 TYPE: **Pail**

DEPTH (ft): --



	Particle Size		Description	Percentage	
	Sieve	(mm)			% Passing
Sieve Analysis (Initial Separation on No. 4 Sieve)	3-inch	75.0	100.0	Coarse Gravel	0.00
	1.5-inch	37.5	100.0		
	1-inch	25.0	100.0		
	3/4-inch	19.0	100.0	Fine Gravel	0.00
	3/8-inch	9.5	100.0		
	#4	4.75	100.0	Coarse Sand	0.00
	#10	2.0	100.0		
	#20	0.85	100.0	Medium Sand	0.02
	#40	0.425	100.0		
	Hydrometer Analysis	#60	0.25	99.9	Fine Sand
#100		0.15	99.8		
#200		0.075	99.7		
		0.025	94.3	Silt or Clay Fines	99.72
		0.017	85.8		
		0.010	74.8		
		0.008	65.4		
		0.006	57.0		
	0.003	42.1			
	0.001	29.0			



USCS Description (ASTM D 2487):  
 Lean clay, gray, dry

LL	PL	PI	SpG
34	21	13	2.83

As-Received Moisture Content (%)  
**#DIV/0!**

USCS Group Symbol  
**CL**

Notes: 0 g of particles up to 4.75 mm maximum size were removed from particle size analysis sample prior to testing  
 Particle size analysis sample mechanically dispersed using Stirring Apparatus A for about 1 minute  
 Sample prepared for Atterberg Limits testing by the dry method  
 Material retained on No. 40 sieve removed from Atterberg Limits sample by sieving  
 Plastic Limit test performed by hand rolling. Method A Liquid Limit test performed using mechanical device

TECH	RD/PRH
DATE	19-Jan-2018
REVIEW	PRH