

Soil Sample: **Sandy fat clay (CH)**

Sample No.: **SM1332**

Geologic Origin:

Test by: **Ross Harding**

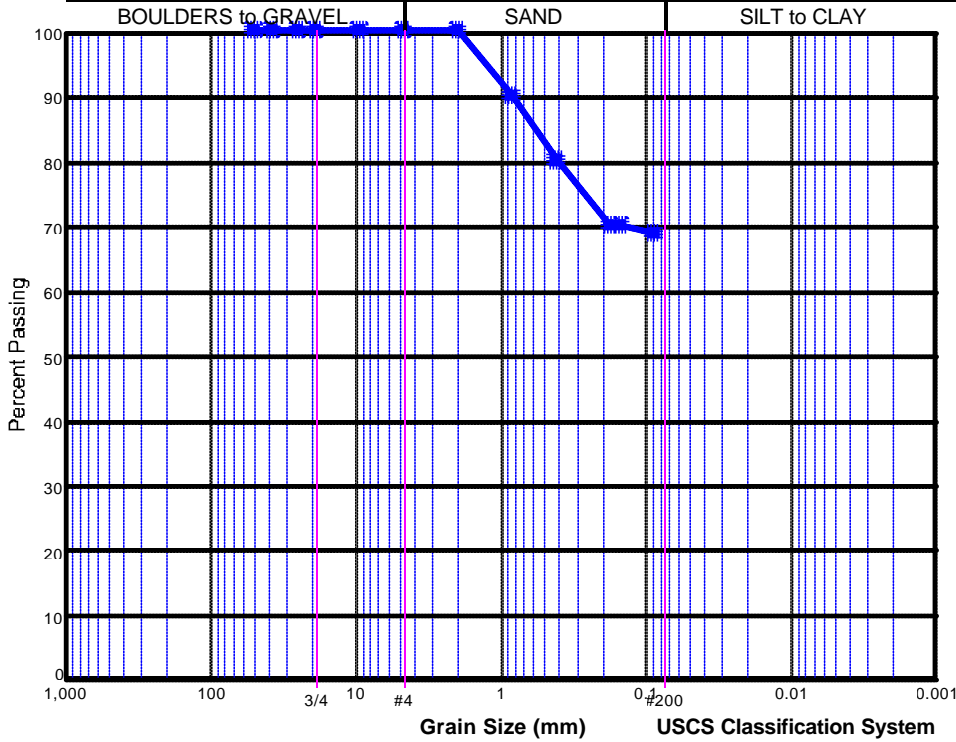
Natural Water Content (w): **24.53%**

Boring No: **BR134**

Depth: **7.2178**

In-Place Density: **12732** (pcf)

Soil Specific Gravity (Gs): **2.65**



Effective Size: 0.01682 mm
Cu: 26.91
Cc: 2.44

Plastic Limit (PL): **22.00%**
Liquid Limit (LL): **57.00%**
Plasticity Index (PI): **35.00%**
Shrinkage Limit (SL): **0.08**
Skempton's Activity: **2.49**
Shrinkage Ratio: **1.77**

DISPERSIVE CLAYS

PinHole Method ASTM D-4647
Double Hydrom ASTM D-4221

DIRECT SHEAR: Shear

0 Ult. 0 Res.
Shear Angle: 25.20 deg.
Tan Shear: 0.47
Cohesion: 17.47 psf

Sieve (mm)	% Passing
2"	50.8
1 1/2"	38.1
1"	25.4
3/8"	9.5
# 4	4.75
# 10	2
# 20	0.85
# 80	0.18
# 100	0.15

Maximum Size Allowed By 50 mm

MOISTURE / DENSITY RELATIONSHIP:

ASTM Method: **D-698 A**
Max. Dry Density: 10847.46 psf
Optimum Moisture: 17.32%

HVEEM-CARMANY

'R' Value @: 43.51 psi
Displacement @: 43.51 psi
Expansion @: 43.51 psi

ASTM D-2844

FHA Soil Swell:

% Swell
psf

Standard Penetration (SPT): 459.47 psf by Penetrometer
Unconfined Compression (qu): 0.000474012 psf

SULFATE SALTS:

390 mg/l

PERMEABILITY:

K (20 C) Remolded **2.78E-08** cm/sec **2000.0** @ 0.00 pcf



Company: B&L Consulting
Address: 2109 McKinnon Ave S.
Vancouver SK
Country: Canada
Telephone: (306) 477-3324 **Fax:** (306) 955-4575

SOIL ANALYSIS AND SUMMARY

Project: PRJ2079 **Test Date:** 12-Dec-99
Location: Northern Saskatchewan, Canada
Borehole: BR1340 **Depth:** 7.22 ft
Site: **Technician:** Ross Harding
Soil Counter: 948597316 **Sample ID:** SM1332