

FRIENDS OF PLEISTOCENE GLACIAL GEOLOGY
FIELD MEETING
LOWELL-WESTFORD AREA, MASS.

June 1 and 2, 1946

Saturday, June 1.

Assemble at Kydd's Diner, Chelmsford, Mass., on Lowell Road about 3/4 mile northeast of Chelmsford Center. Cars face southwest.

General speed throughout trip, 15 to 20 mph to permit observations of topography.

10:00 a.m. Assembly and preliminary talk.

Leave about 10:20. Go southwest to Chelmsford Center; right across RR, north on Route 4 (North Road) to Locke Road. Highway follows approximate boundary of till-bedrock (Pine Hill, left) and outwash terrace (right). Up Locke Road 1/2 mile, right fork to Westford Road, left on Westford Road to

Sta. 1. - Crooked Springs Brook vicinity. Gap for outlet of glacial waters to south-leading valleys. Brief discussion of several high outlet sags between this point and Westford. Proceed to Westford, through square to

Sta. 2. - On Forge Village Road, 600 feet east of Patten Road. Two till, chiefly the older till; discussion period with review of tills of Lowell area.

West to Pine Ridge Road, right turn; to Coldspring Road, right turn. ENE across 230 level outwash and 230-250 level of bedrock-till; past Westford station; east on Lowell Road to

Lunch point on Lowell Road. Talk on outwash and ice-block features.

Continue on Lowell Road to Brookside; left, across RR, and immediate right on Oak Hill Road, bearing NNW across 190, 160, and 180 terraces to corner, Groton Road. Left on Groton Road, 0.8 mile to Secondary road, sharp-angle fork; along secondary road to

Sta. 3. - Esker section. Park and lock cars. Walk along esker ridge to junction of eskers. Discussion period.

Continue SW on secondary road across 240 level outwash and slightly higher till-bedrock area to Tyngsboro Road; left (south) to Nutting Road; left to

Sta. 4.- End of esker on Nutting Road. Observations: junction of esker with sand-gravel terrace (220-230); walk along ice-contact slope for about 500 feet east.

Proceed along Nutting and Plain Roads across 220 and 190 terraces to RR; left (north) on 160 terrace to Oak Hill Road, north on Oak Hill Road to

Sta. 5.- Groton Road jct. Stop for recapitulation. West on Groton Road, crossing esker system and high level outwash again, to Tyngsboro Road; north on Tyngsboro Road to

Sta. 6.- Flaming Hill drumlin. Brief discussion of drumlins of area. Continue north on Tyngsboro Road to

Sta. 7.- Kame area, west side of Oak Hill. Recapitulation; talk on bedrock conditions.

Continue to Flints Corner, turn right; ESE to quarry road. 2/3 mile, on 160 outwash terrace (outwash east to North Chelmsford area, thence southeast into Chelmsford-Lowell valley). Retrace from quarry road through Flints Corner to

Sta. 8.- Corner Forest Hill Road and Lowell Road. Outwash path and sluice (?) from Dunstable area to Tyngsboro area. (NOTE: No bedrock in steep slope south of Lowell Road.)

Sta. 9.- Esker group. Park and lock cars. Continue to

Sta. 10.- Tyngsboro Bridge. Discussion of pre-glacial Merrimac channel as indicated by distribution of outwash, bedrock, and seismic data. North on Route 3 to Nashua. Stop at Nashua Tavern.

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Sunday, June 2.

8:00 a.m. breakfast at Howard Johnson's, on Route 3 south of Nashua.

Continue south on Route 3 to Tyngsboro Bridge. East across bridge and north on Frost Road to

Sta. 11.- Junction Lawndale Road. Discussion of relation of Merrimack River to high outwash terrace, and ice-block area on east. North to

Sta. 12.- Junction Lakeview Avenue. Dunes on sand terrace. Southeast on Lakeview Avenue to

Sta. 13.- Contact of two tills. South and east on Lakeview Avenue to

Sta. 14.- North point of Mascopic Lake (Tyngs Pond). Thick section of younger till. Park and lock cars. Southeast on Lakeview Ave., to road up Whortleberry Hill. Thick older till section. Proceed to Old Nashua Road: southeast 3 miles across Merrimac gorge (post-glacial); left on Pawtucket St., through Village; south to intersection 113; SW to

Sta. 15.- Brady gravel pits. Brief discussion of river diversion, outwash paths in Lowell-Chelmsford valley, and buried bedrock valley as indicated by nearby outcrops and seismic tests; back across road to

Sta. 16.- Cogger pits, 1000 feet west of Brady pits. Bedrock bench under gravels. Many large boulders.

Continue SW on Westford Road, crossing Route 3, continue to fork NW corner Billerica quadrangle; Stony Brook valley outlets and outwash terraces. Retrace to Route 4; southeast to Chelmsford Center. Outline of remainder of trip will then be given orally. The trip will end at

Sta. 19.- North side of Fox Hill, middle of eastern edge of Billerica quadrangle. Solifluction effects?