

# Content

Abstrakt – Abstract	6
Foreword (Ivo Chlupáč)	7
1. Introduction	8
2. History of the research on the Barrandian limestones	8
3. Microfacies analysis	9
4. The Ludlow-Přidolí boundary interval in the Barrandian area	11
4.1. Požáry quarry near Praha-Řeporyje	11
4.2. Kosov quarry near Beroun	13
4.3. Lochkov – Marble quarry	15
4.4. Conclusions	18
5. The Silurian-Devonian boundary interval in the Barrandian area	19
5.1. The Praha-Radotín section	19
5.2. The Praha-Podolí section	21
5.3. The Požáry quarry section in Praha-Řeporyje	23
5.4. Conclusions	24
6. The Lochkovian-Pragian boundary interval in the Barrandian area	25
6.1. Černá rokle near Kosoř	25
6.2. Homolka near Velká Chuchle	26
6.3. Cikánka near Praha-Slivenec	27
6.4. Conclusions	28
7. Petrographic characteristic of studied sections	32
8. Geochemistry	34
9. Discussion	35
10. General conclusions	35
References	36
Explanations of plates	40

The Barrandian limestones are a characteristic geological feature of the Bohemian Massif. They are composed of various types of limestone, including the Ludlow-Přidolí boundary interval, the Silurian-Devonian boundary interval, and the Lochkovian-Pragian boundary interval. The study focuses on the petrographic and geochemical characteristics of these limestones, as well as their stratigraphic position and tectonic evolution. The research is based on field observations and laboratory analyses of rock samples from various quarries in the Barrandian area. The results show that the limestones are highly variable in composition and texture, reflecting their complex geological history. The Ludlow-Přidolí boundary interval is characterized by a specific microfacies and geochemical signature, which is consistent across different sections. The Silurian-Devonian boundary interval shows a distinct tectonic evolution, with the limestones being deposited in a shallow marine environment. The Lochkovian-Pragian boundary interval is characterized by a unique petrographic texture and geochemical composition, which is indicative of a specific depositional environment. The study contributes to the understanding of the geological evolution of the Barrandian limestones and their role in the tectonic development of the Bohemian Massif.