

การลำดับชั้นตามลักษณะหิน ของหินคาร์บอนेटพาลีโอโซอิกตอนบน
ในพื้นที่ด้านตะวันออกเฉียงใต้ของจังหวัดเลย

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สถาบันวิทยบริการ

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิทยาศาสตรมหาบัณฑิต

สาขาวิชาธรณีวิทยา ภาควิชาธรณีวิทยา

บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย

ปีการศึกษา 2541

ISBN 974-332-253-1

ลิขสิทธิ์ของบัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย

LITHOSTRATIGRAPHY OF UPPER PALAEOZOIC CARBONATE ROCKS

IN THE SOUTHEASTERN PART OF CHANGWAT LOEI



Mr. San Assavapatchara

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Science in Geology

Department of Geology

Graduate School

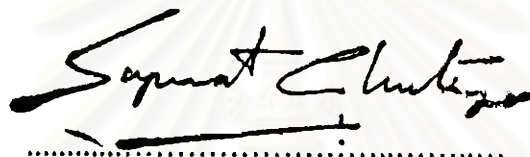
Chulalongkorn University

Academic Year 1998

ISBN 974-332-253-1

Thesis Title Lithostratigraphy of Upper Palaeozoic carbonate rocks in the
southeastern part of Changwat Loei.
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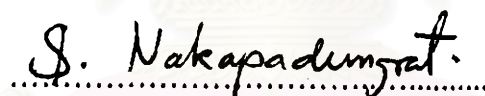
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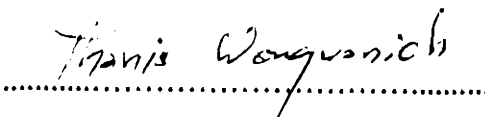
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สันต์ อัครพัชระ: การลำดับชั้นตามลักษณะหินของหินคาร์บอนेटพาลีโอโซอิกตอนบน ในพื้นที่ด้านตะวันออกเฉียงใต้ของจังหวัดเลย (LITHOSTRATIGRAPHY OF UPPER PALAEOZOIC CARBONATE ROCKS IN THE SOUTHEASTERN PART OF CHANGWAT LOEI) อ. ที่ปรึกษา : ศศ. ดร. ปัญญา งามศิริ, อ. ที่ปรึกษาร่วม รศ. ดร. ชัยยุทธ ชันทปราบ, 196 หน้า. ISBN 974-332-253-1

การวิจัยนี้มีจุดประสงค์เพื่อสร้างลำดับชั้นคาร์บอนेटตัวแทนบริเวณตั้งชื่อหมวดหินน้ำมโหหาร ในพื้นที่ด้านตะวันออกเฉียงใต้ของจังหวัดเลย นอกจากนี้ ยังได้พยายามวิเคราะห์ลักษณะปรากฏหิน และสร้างสิ่งแวดล้อมของการสะสมตัวขึ้นใหม่

ลำดับชั้นหินคาร์บอนेटของหมวดหินน้ำมโหหารในพื้นที่ศึกษา สามารถกำหนดอายุทางบรรพชีวินวิทยาได้ตั้งแต่ปลายยุคคาร์บอนิเฟอรัสตอนปลายถึงปลายยุคเพอร์เมียนตอนต้น หมวดหินวางตัวต่อเนื่องบนหมวดหินวังสะพุง แต่วางตัวไม่ต่อเนื่องได้หมวดหินห้วยหินลาด ความหนาของลำดับชั้นหินประมาณ 500 เมตร แบ่งออกได้เป็นสามหมู่หินจากล่างขึ้นบนของลำดับ คือ 1) หมู่หินถ้ำเสือหมอบ (หนาประมาณ 50 เมตร) จำแนกได้ด้วยหินปูนและหินดินดาน 2) หมู่หินบ้านหนองหิน (หนาประมาณ 200-250 เมตร) ประกอบด้วย หินปูน-เชิร์ต และโดโลไมต์ 3) หมู่หินภูผาขาว (หนาประมาณ 250-300 เมตร) ประกอบด้วยหินปูนและโดโลไมต์ การศึกษาทางศิลาวรรณาแสดงถึง 7 ลักษณะปรากฏเชิงกล้องจุลทรรศน์ตามปริมาณเปรียบเทียบที่พบจากมากไปน้อยตามลำดับ ได้แก่ ไบโอมิโครทชนิดแพค ชนิดสปาร์ ไบโอสแปร์ไรต์ ชนิดผลึกชั้นสหาร่าย สแปรูไลท์ชนิดไขปลา และมีโครทชนิดเม็ด ประเภทของลักษณะปรากฏเหล่านี้ร่วมกับความหลากหลายของซากดึกดำบรรพ์ แสดงถึงพื้นที่ในระหว่างการขึ้นลงของระดับน้ำและพื้นที่ได้ระดับน้ำล่งต่ำสุด ภายใต้พลังงานต่ำถึงพลังงานสูงบริเวณไหล่ทะเลตื้น ซึ่งมีการไหลเวียนของน้ำจำกัดตัวบางส่วน นอกจากนี้ค่าของ $\delta^{18}O$ ในระหว่าง -7.51 ถึง -6.20 ต่อ มม. (PDB) และค่า $\delta^{13}C$ ในระหว่าง +2.5 ถึง +3.6 ต่อ มม. (PDB) บ่งชี้ว่ามีกำเนิดมาจากมหาสมุทร ค่าความเป็นเกลือในช่วงระหว่าง 18.44 ถึง 30.08 ต่อ มม. แสดงถึงการปนเปื้อนด้วยน้ำจืด และบ่งชี้ว่ามีการไหลเวียนของกระแสน้ำที่ถูกจำกัดตัวบางส่วนในขณะที่เกิดการสะสมตัว.

ลักษณะหินและซากดึกดำบรรพ์ร่วมกับผลวิเคราะห์ไอโซโทป แสดงถึงลำดับชั้นหินพาลีโอโซอิกตอนบนเกิดในสภาวะภูมิอากาศอบอุ่น ซึ่งให้เห็นถึงแอ่งสะสมตะกอนคาร์บอนेटยุคโกลด์สแตนด์ตอนบนในทะเลบรรพกาล การปรากฏของบะซอลต์พื้นมหาสมุทรช่วงกลางถึงปลายพาลีโอโซอิก ซึ่งอยู่ร่วมกับเรดิโอลาเรียเชิร์ตน้ำลึกที่มีลำดับการวางตัวอยู่ใต้หินปูน ซึ่งให้เห็นว่าคาร์บอนेटมีการพัฒนาตัวอยู่บนแอ่งสมุทร ก่อนมีการมุดตัวสัมพันธ์กับหินหนืดรูปโค้งเพอร์ไมโอไทรแอตซิก สิ่งนี้จึงอาจใช้เป็นข้อสนับสนุนว่า หินคาร์บอนेटพาลีโอโซอิกตอนปลายได้กลายเป็นส่วนหนึ่งของแผ่นฐานธรณีอินโดไชน่าแล้วในระหว่างยุคไทรแอตซิก.

ธรณีวิทยา
ภาควิชา.....
สาขาวิชา.....
ปีการศึกษา.....

ลายมือชื่อนิสิต.....
ลายมือชื่ออาจารย์ที่ปรึกษา.....
ลายมือชื่ออาจารย์ที่ปรึกษาร่วม.....



ACKNOWLEDGMENTS

This research was granted by Chulalongkorn University, National Research Council of Thailand (NRCT), and Thailand Research Fund (TRF).

The author would like to give sincere gratitude to his research advisor, Assistant Professor Dr. Punya Charusiri, and Co-advisor, Associate Professor Dr. Chaiyudh Khantaprab for their various discussions and guidance valuable knowledges. The sincerely grateful acknowledgment extends to Dr. Thanis Wonganich, Head of Geological Mapping Section, Department of Mineral Resources for suggestions and informative discussions. Ms. Junya Jumnongthai for fossil identification. Almost all of geoscientists from Geological Survey Division and Analysis Division, are deeply for assistance in various aspects and many helpfulness in any-ways. The acknowledgments are also due to those who kindly assist the author which are not mentioned here and the appreciation to the readers for commenting the manuscript.

Cordially appreciation is given to Professor Xu Xiaosong, Professor Pan Guitang, Associated Professor Jiang Xinsheng, and geoscientist staff from Chengdu Institute of Geology and Mineral Resources, Sichuan Province, People's Republic of China for their constructive suggestion as well as provided accommodation and laboratory for isotopic analysis.

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