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PERSONAL AND CONFIDENTIAL

HYDROCARBON SYNTHESIS

PARTIAL REPORT NO. 1

Montebello Research Laboratory

Experiment No. 2001

Work Completed: October 13, 1951

Report Approved: Sept. 15, 1955

MONTEBELLO RUNS NO. 58, 59, 60, 61, AND 62

CM AND S CATALYST

I. INTRODUCTION

Hydrocarbon Research, Inc.¹ obtained high sustained liquid yields in a pilot unit using a powdered ammonia-synthesis catalyst for synthesizing hydrocarbons from carbon monoxide and hydrogen. For example, the average yield of C₃ and heavier product was 9.5 lb/MCF H₂+CO² for the interval of 275 hours to 299 hours. Since this yield level had never been attained by other laboratories using other catalysts, the decision was made for Montebello Laboratory to test some ammonia synthesis catalysts for hydrocarbon synthesis. This work was performed in Runs 58, 59, 60, 61, and 62, made between May 4, 1951, and October 13, 1951.