

Figure 50

COPPER LEVEL EFFECT ON TPR OF Fe/Cu CATALYSTS
PRECIPITATED AT pH 6.1-6.5

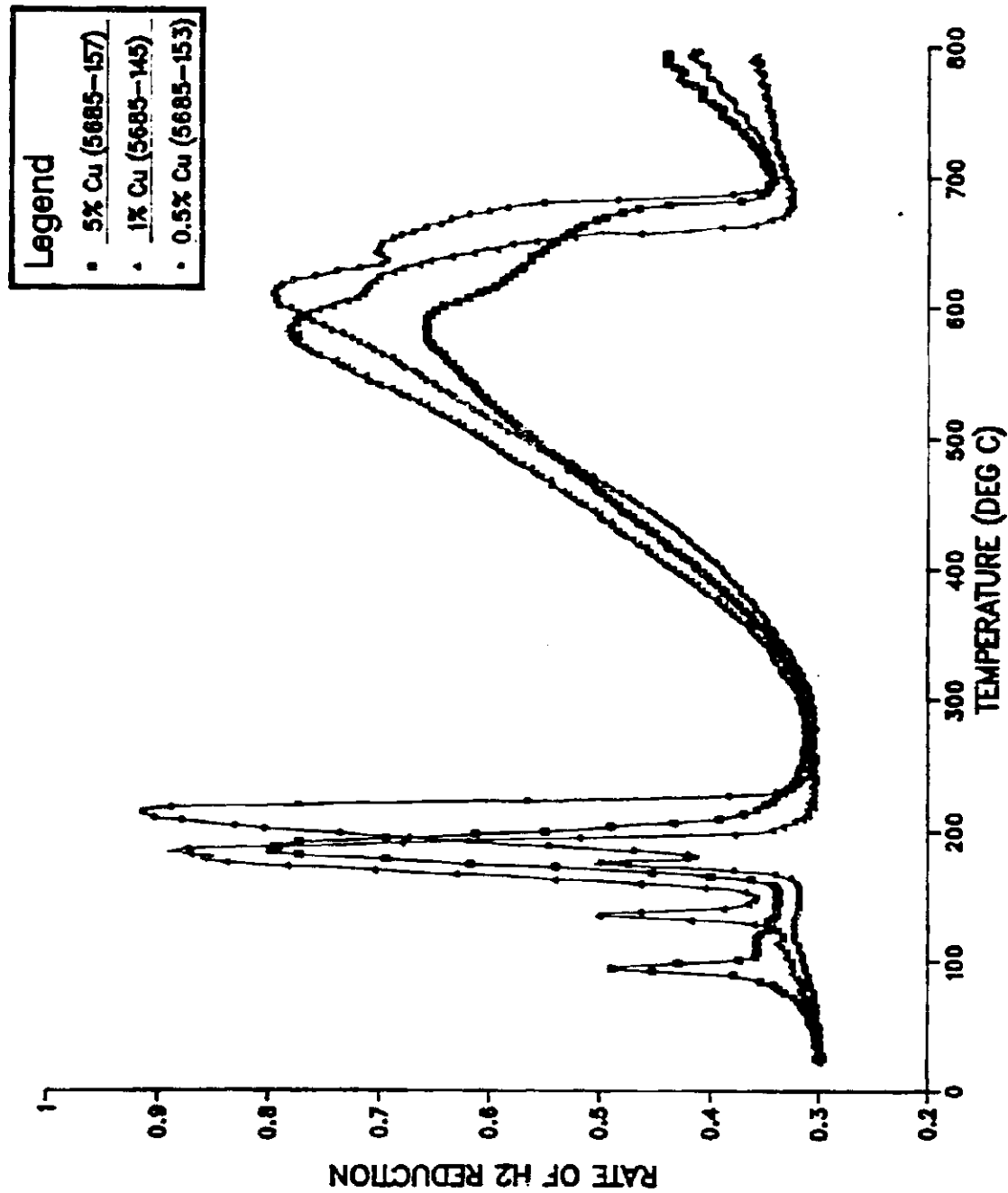


Figure 51
EFFECT OF K₂CO₃ IMPREGNATION ON TPR OF Fe/Cu CATALYSTS
Fe TO Cu RATIO 100:1

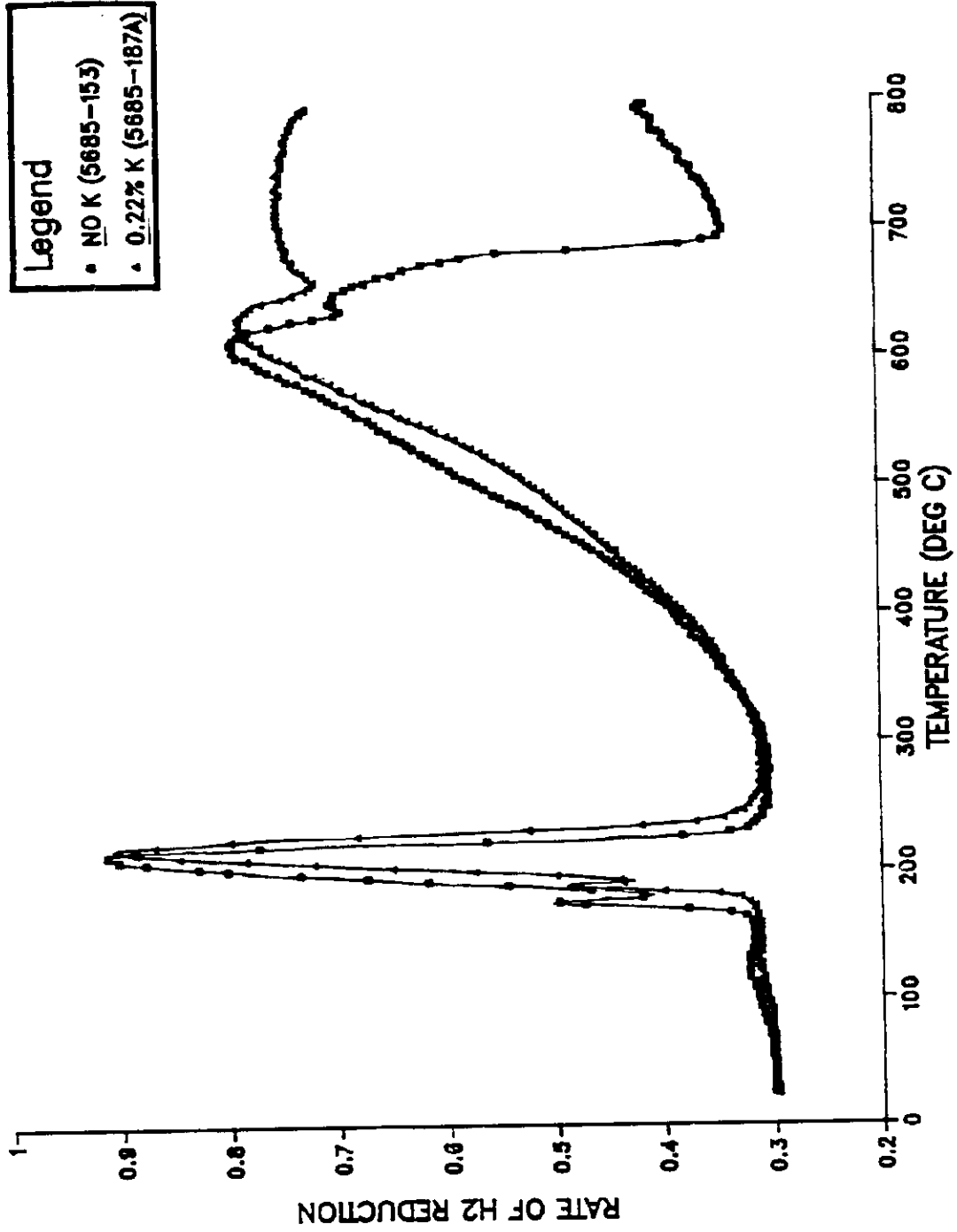


Figure 52
EFFECT OF K₂CO₃ IMPREGNATION ON TPR OF Fe/Cu CATALYSTS
FE TO CU RATIO 100:5

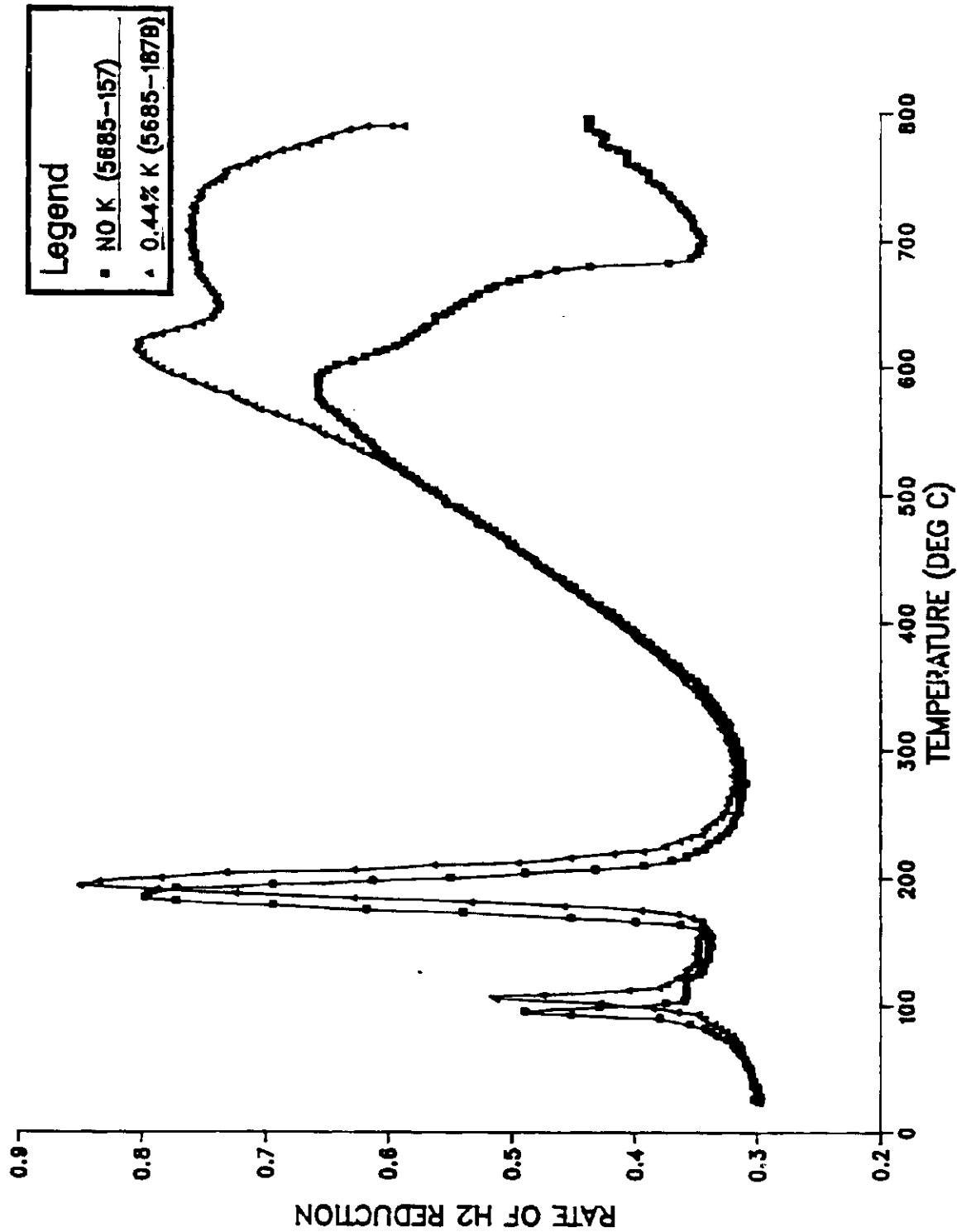
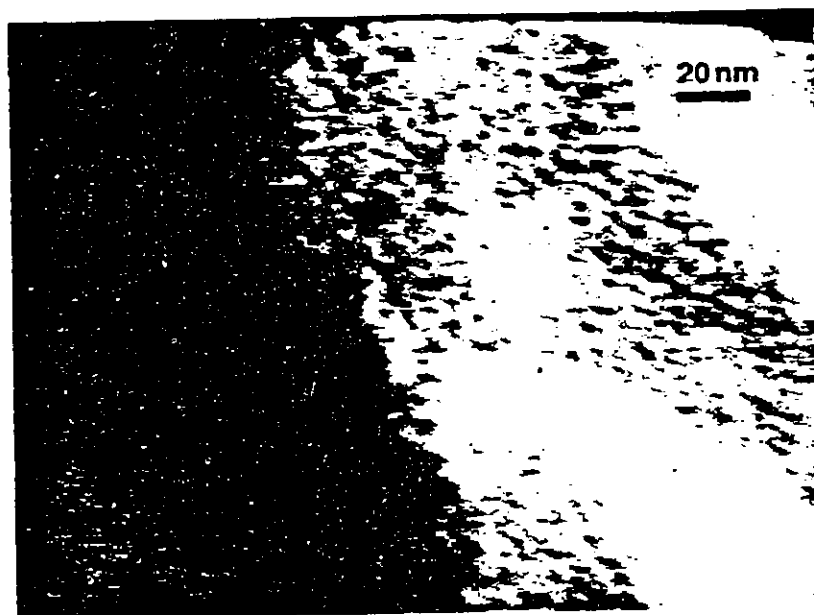


Figure 53 STEM MICROGRAPHS OF NH_4OH AND Na_2CO_3 -DERIVED pH-9.5-9.7 CATALYSTS AFTER 110°C DRYING



NH_4OH -DERIVED



Na_2CO_3 -DERIVED

Figure 54
EFFECT OF PRECIPITATION BASE ON TPR OF Fe/Cu CATALYSTS

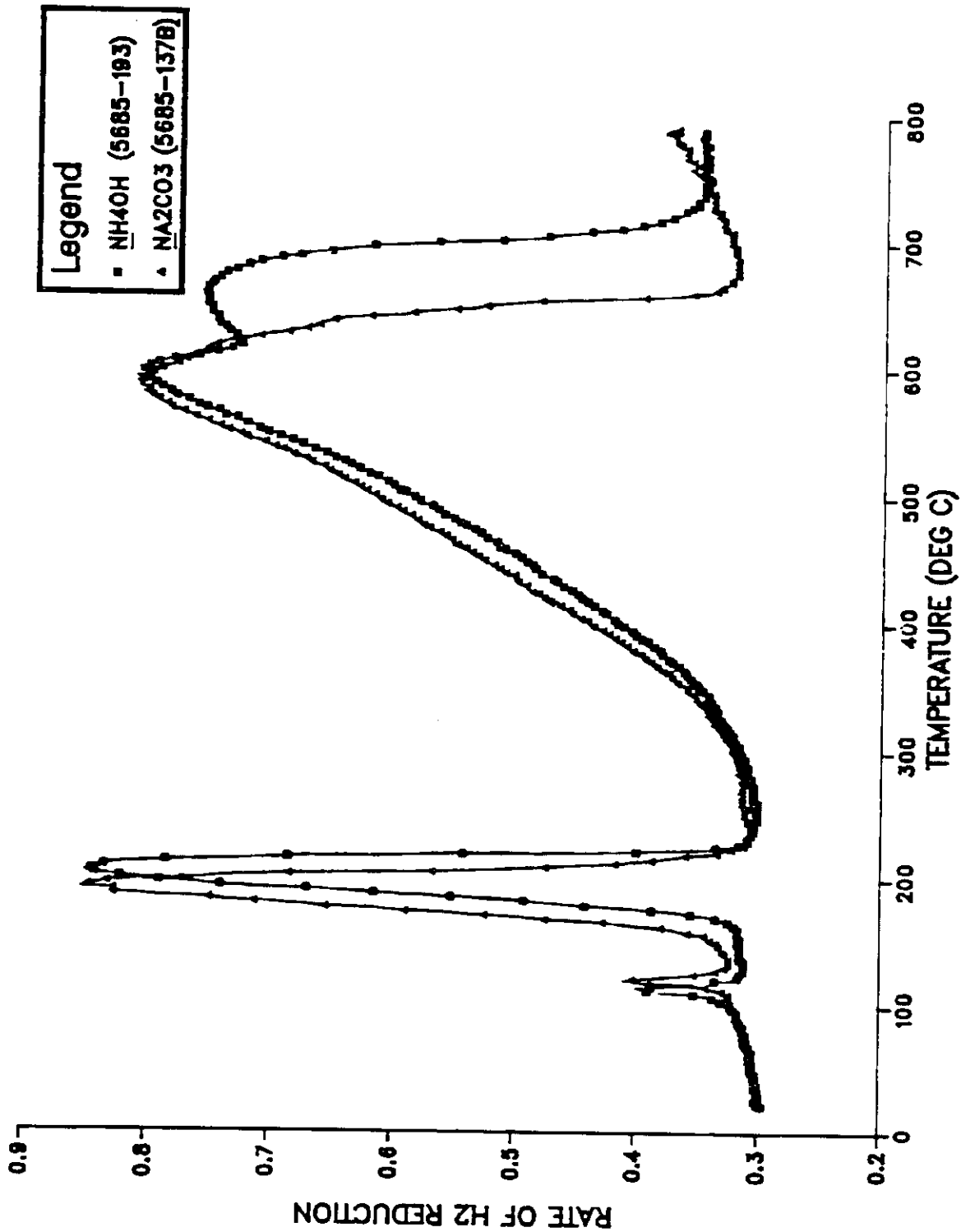
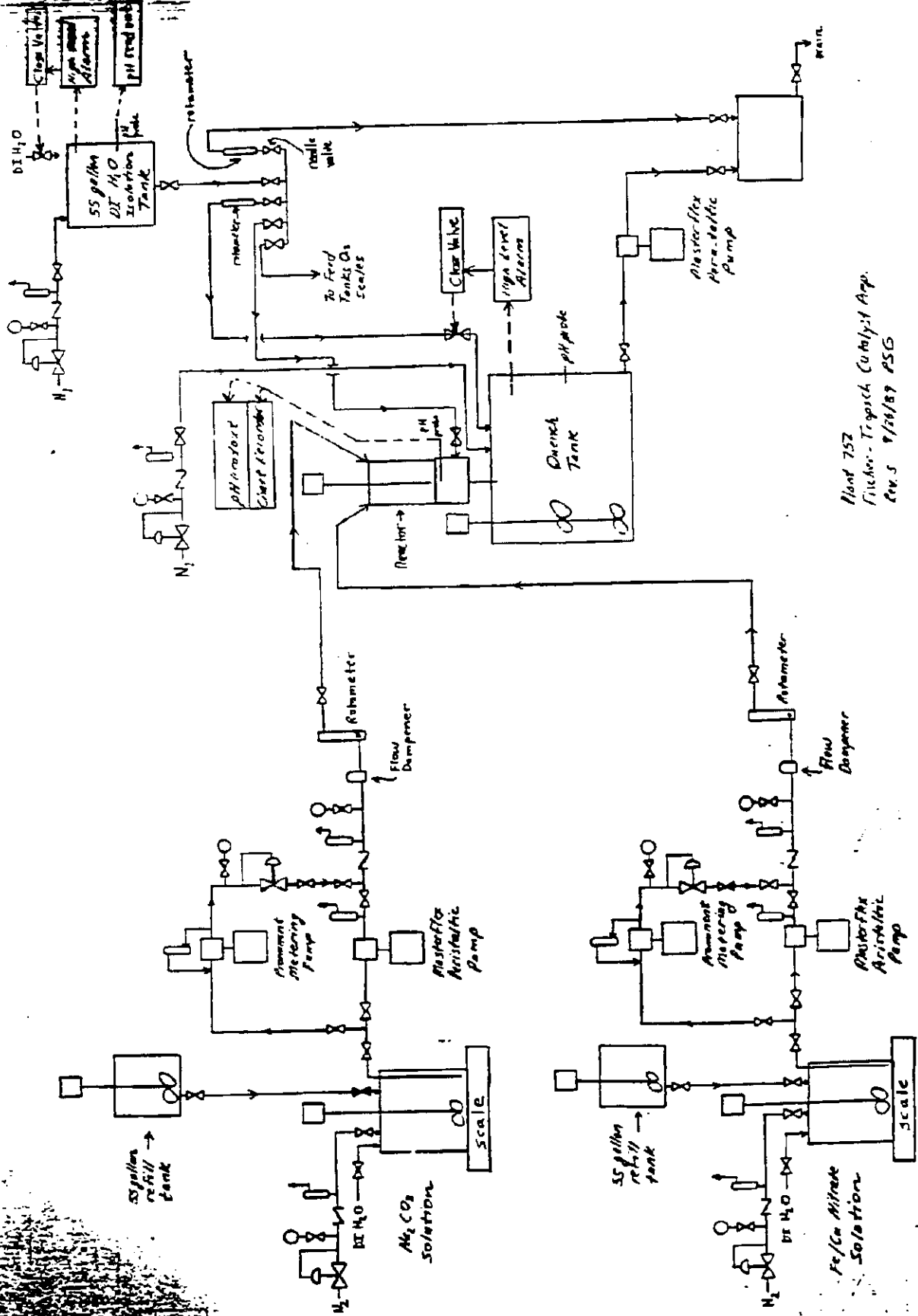
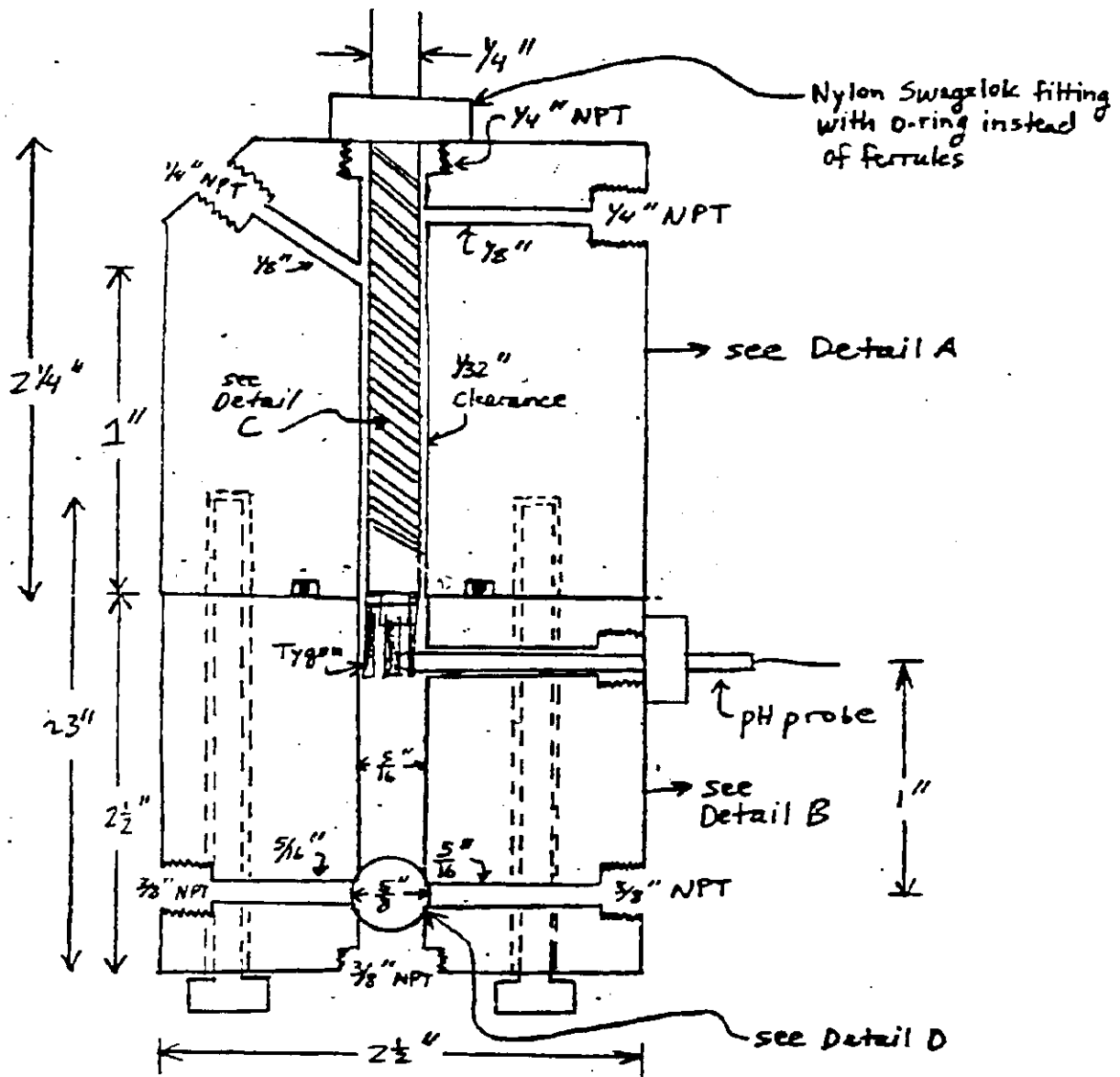


Figure 55a

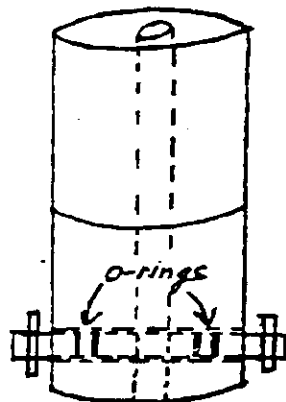


Plant 752
 Fischer-Tropsch Catalyst App.
 Rev. 5 8/28/89 PSG

556



Assembled Reactor
Cutaway View



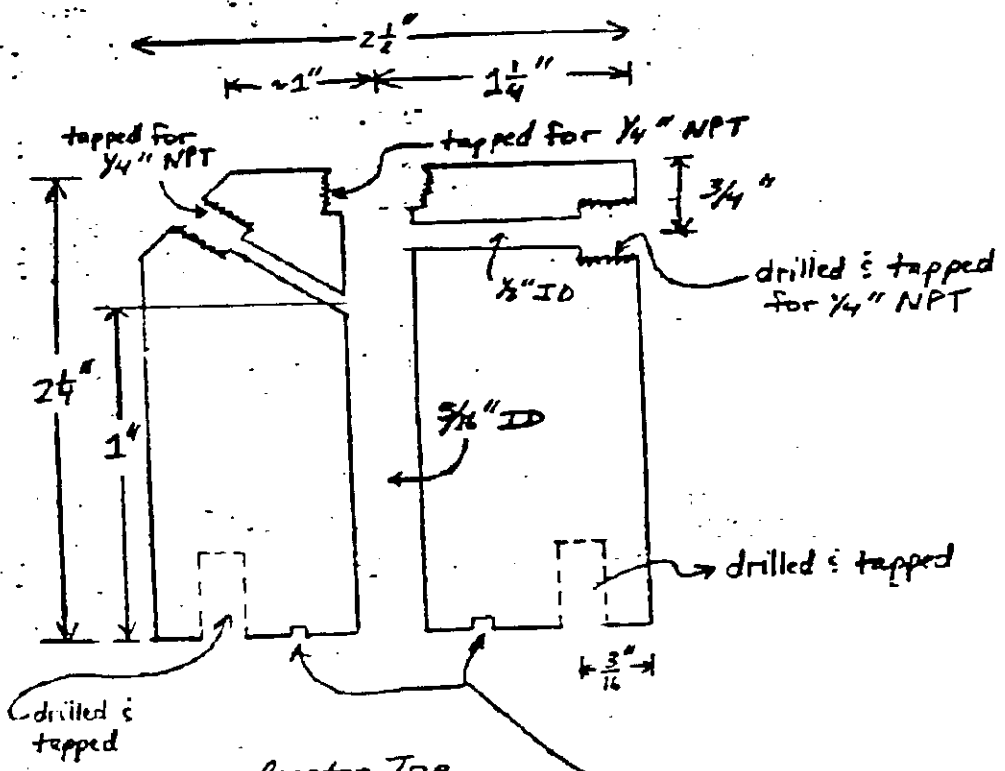
Reactor side view
Valve Detail

Plant 752
Reactor

1/3/89 P

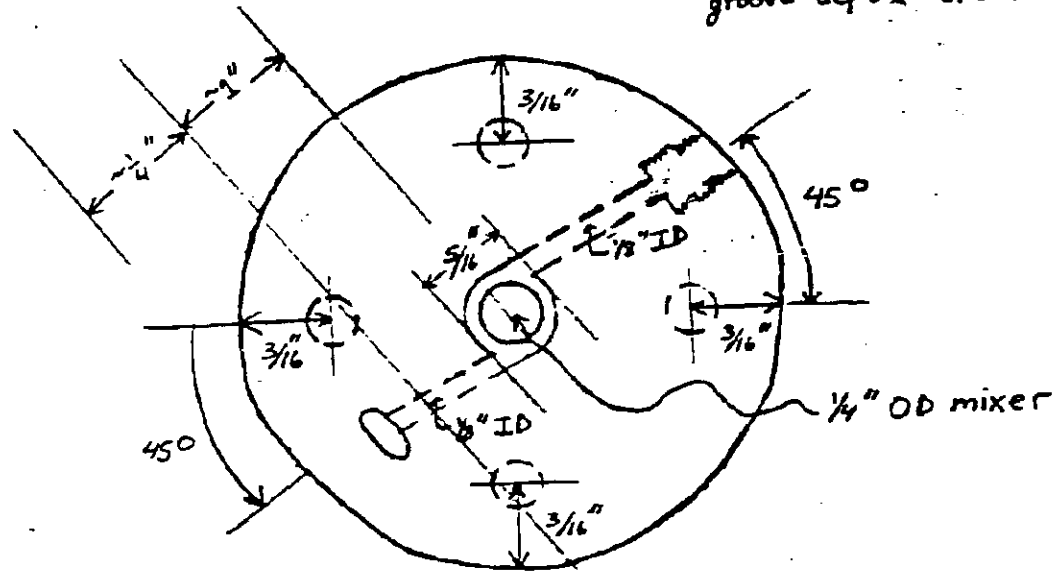
55c

Detail A
Reactor
Top



Reactor Top
Side View

O-ring groove for size 115 O-ring
groove OD min. 0.871", max. 0.880"
groove width 0.145 ± 0.005"
groove depth 0.077 ± 0.003"

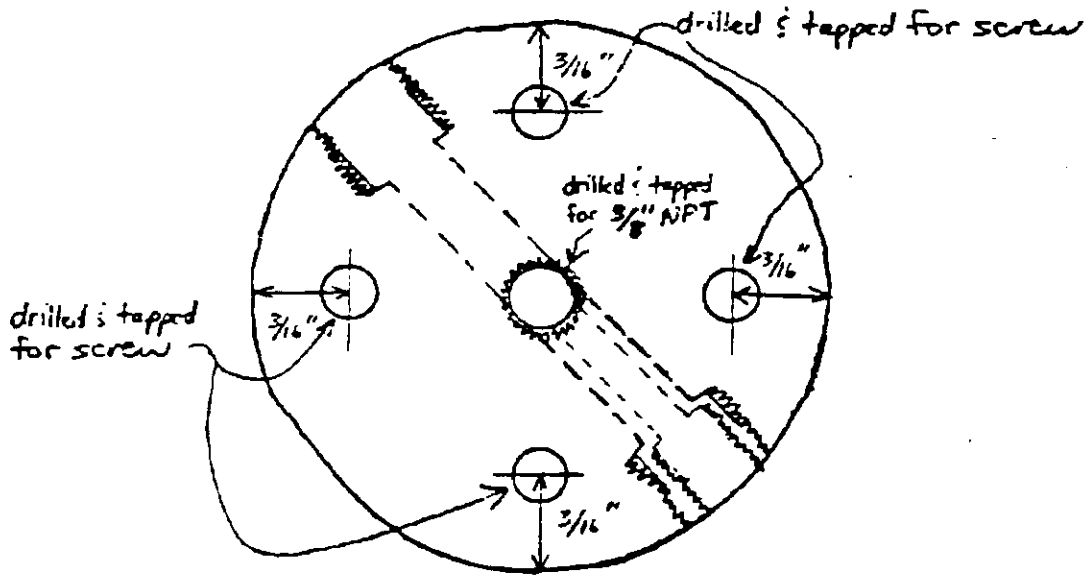
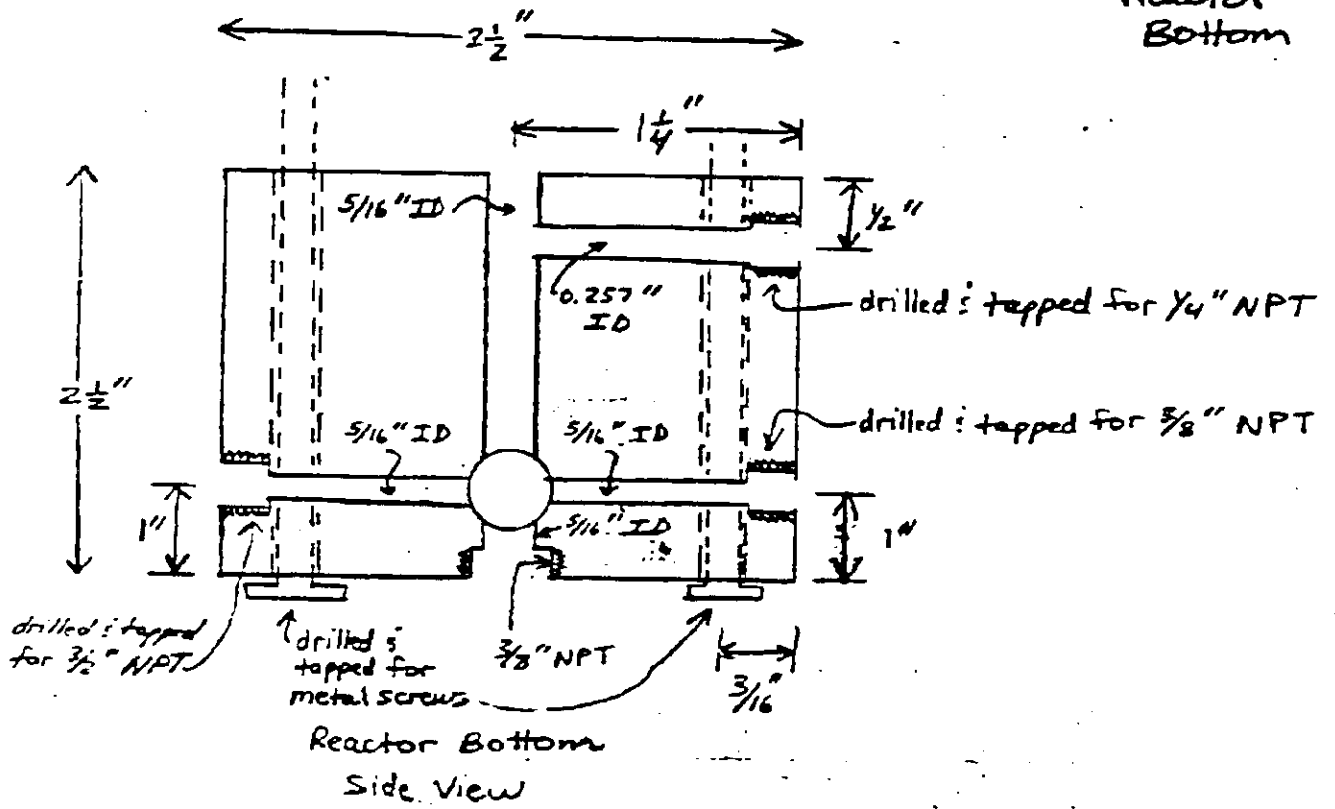


Reactor Top
Top View

Plant 752 Reactor
Detail A
1/3/89 PSG

SS d

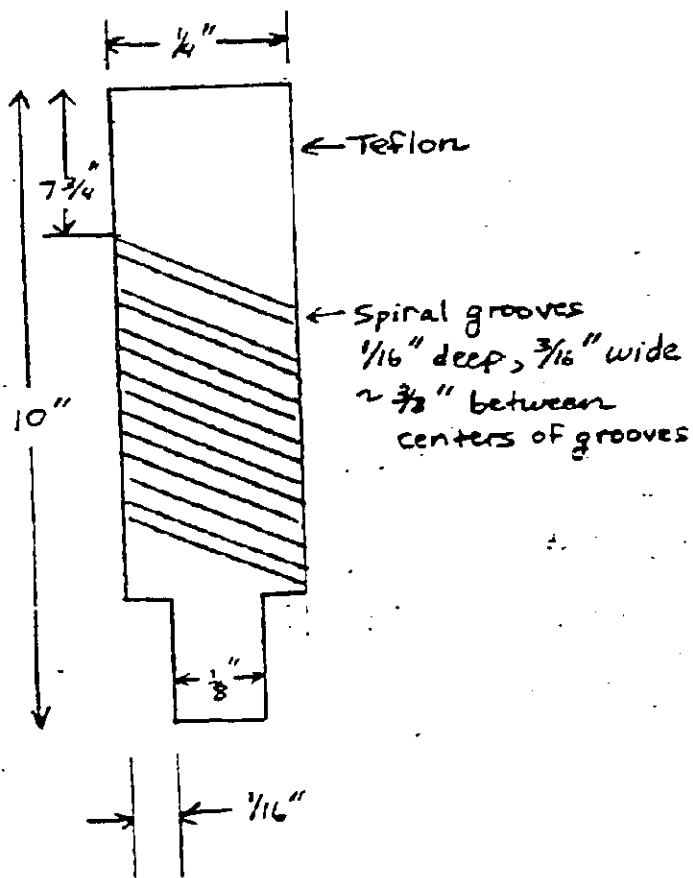
Detail B
Reactor
Bottom



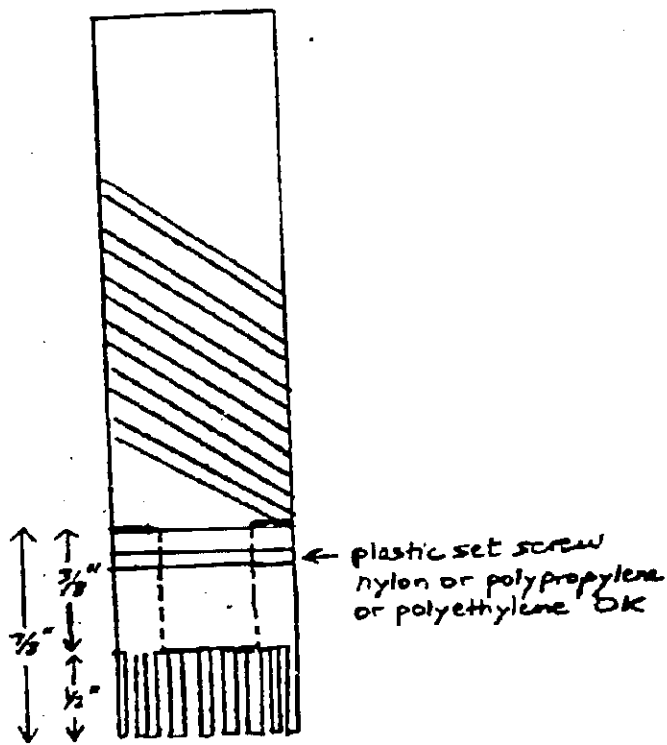
Plant 752 Rea
Detail B
1/3/89 PSG

55e

Detail C
Mixer



Mixer, Unassembled



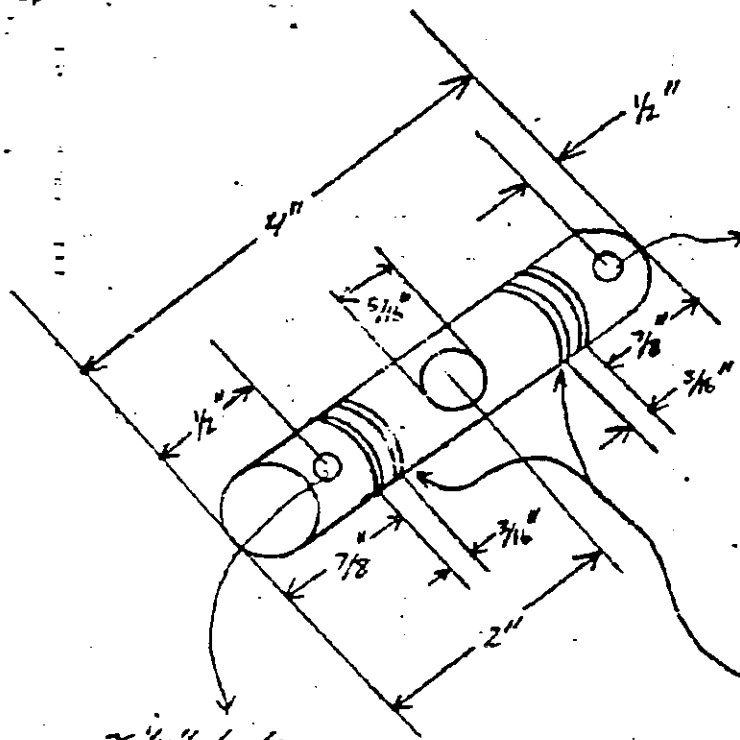
↑ Tygon tubing
1/4" OD, 1/8" ID
cut in as many
small strips as
feasible.

Mixer, Assembled

Plant 752 Reacts
Detail C
12/29/88 PSG

55f

Detail D
Valve Inset

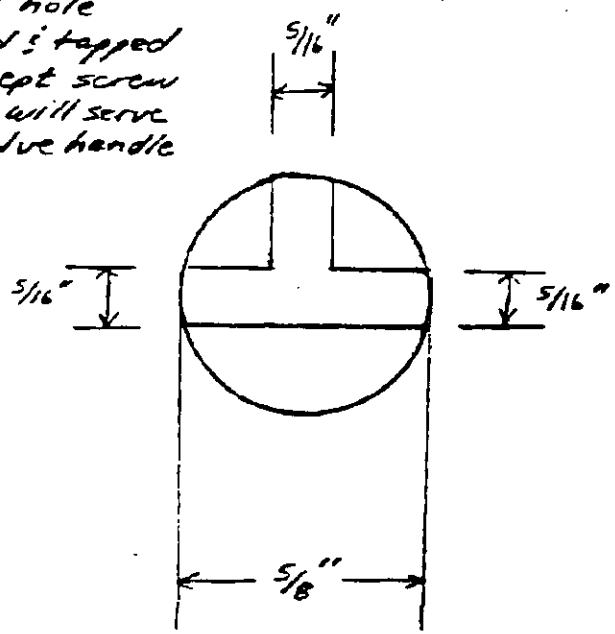


~ 1/4" hole drilled & tapped to accept screw which will serve as valve handle

Valve Top View

~ 1/4" hole drilled & tapped to accept screw which will serve as valve handle

O-ring grooves
groove depth 0.05 ± 0.001 "
max. groove width 0.090 ± 0.003 "
size O14 O-ring



Valve Side View
Cut Away At
Center of Valve

Plant 752 Reactor
Detail D

1/3/89 PSG

FIGURE 55g
STEM Micrographs for Catalyst 6616-18

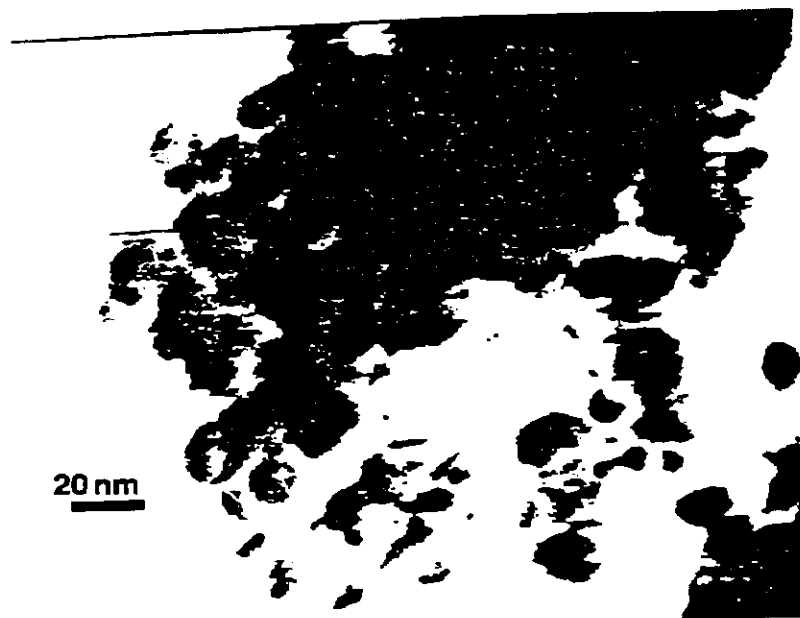


Figure 56

EXPERIMENTAL IRON CATALYST IN RUN 50

CO PLUS H₂ CONVERSION

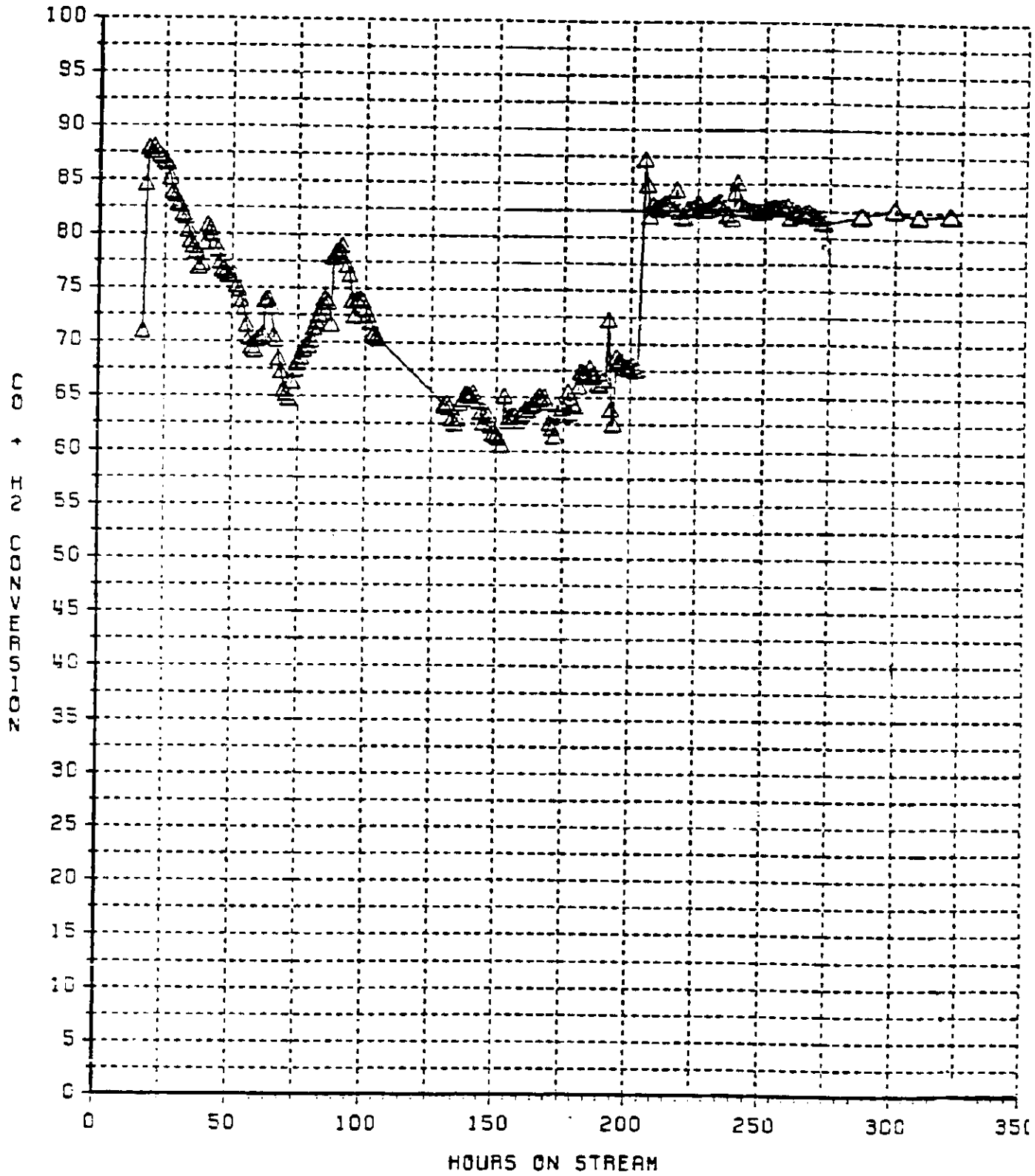


Figure 57

EXPERIMENTAL IRON CATALYST IN RUN 50
CO CONVERSION

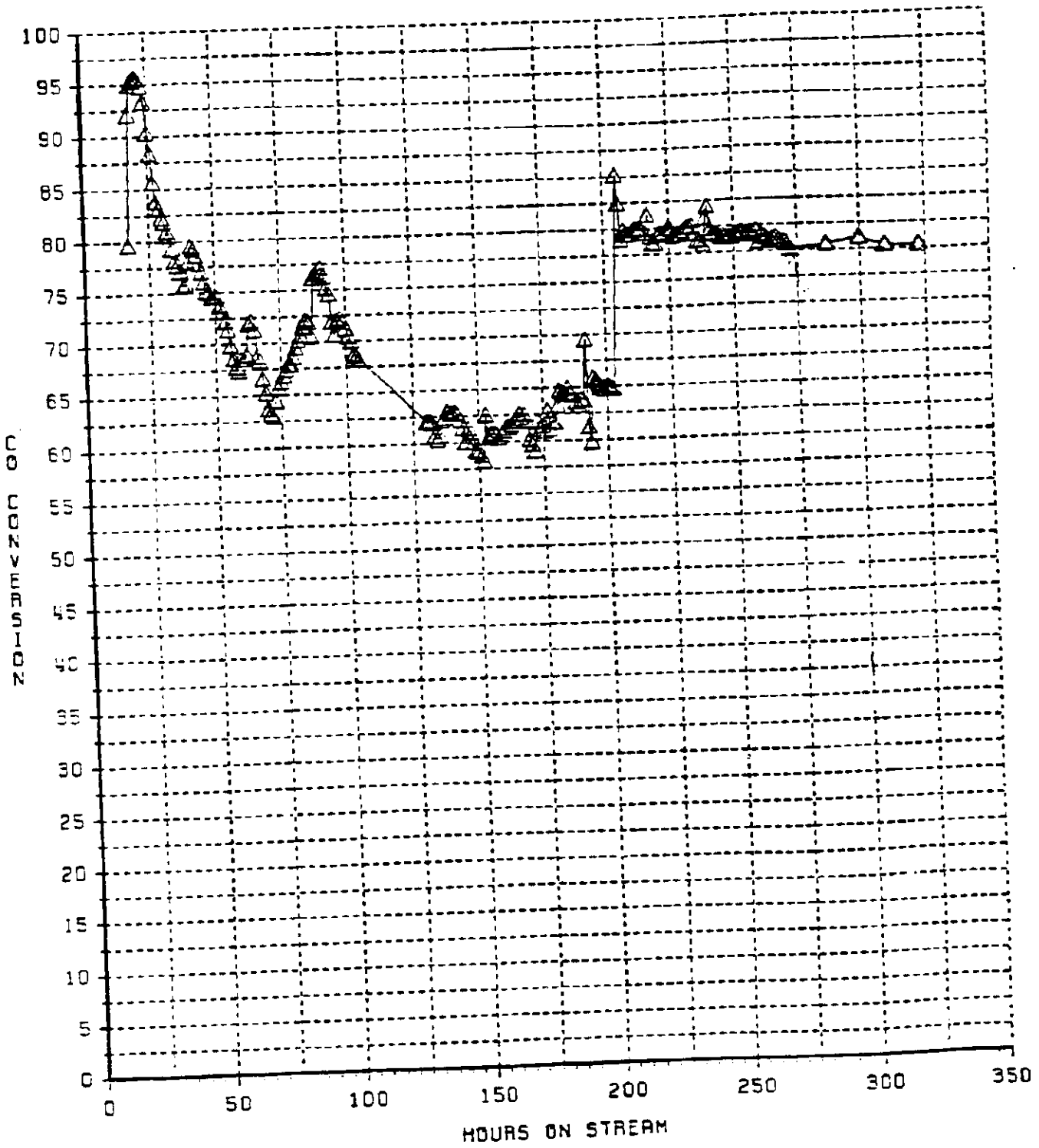


Figure 58

EXPERIMENTAL IRON CATALYST IN RUN 50

H₂ CONVERSION

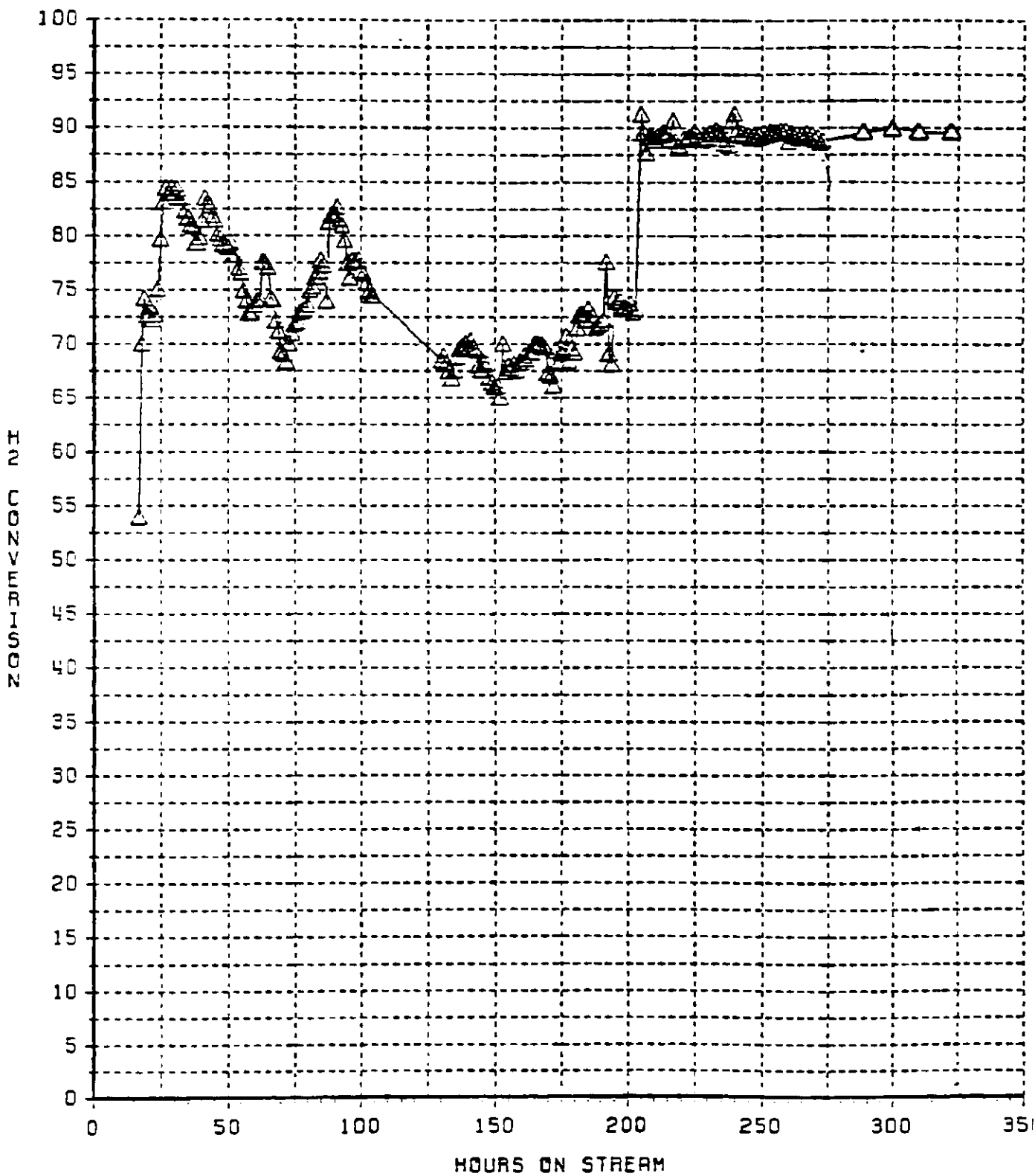


Figure 59

EXPERIMENTAL IRON CATALYST IN RUN 50

CO₂ SELECTIVITY

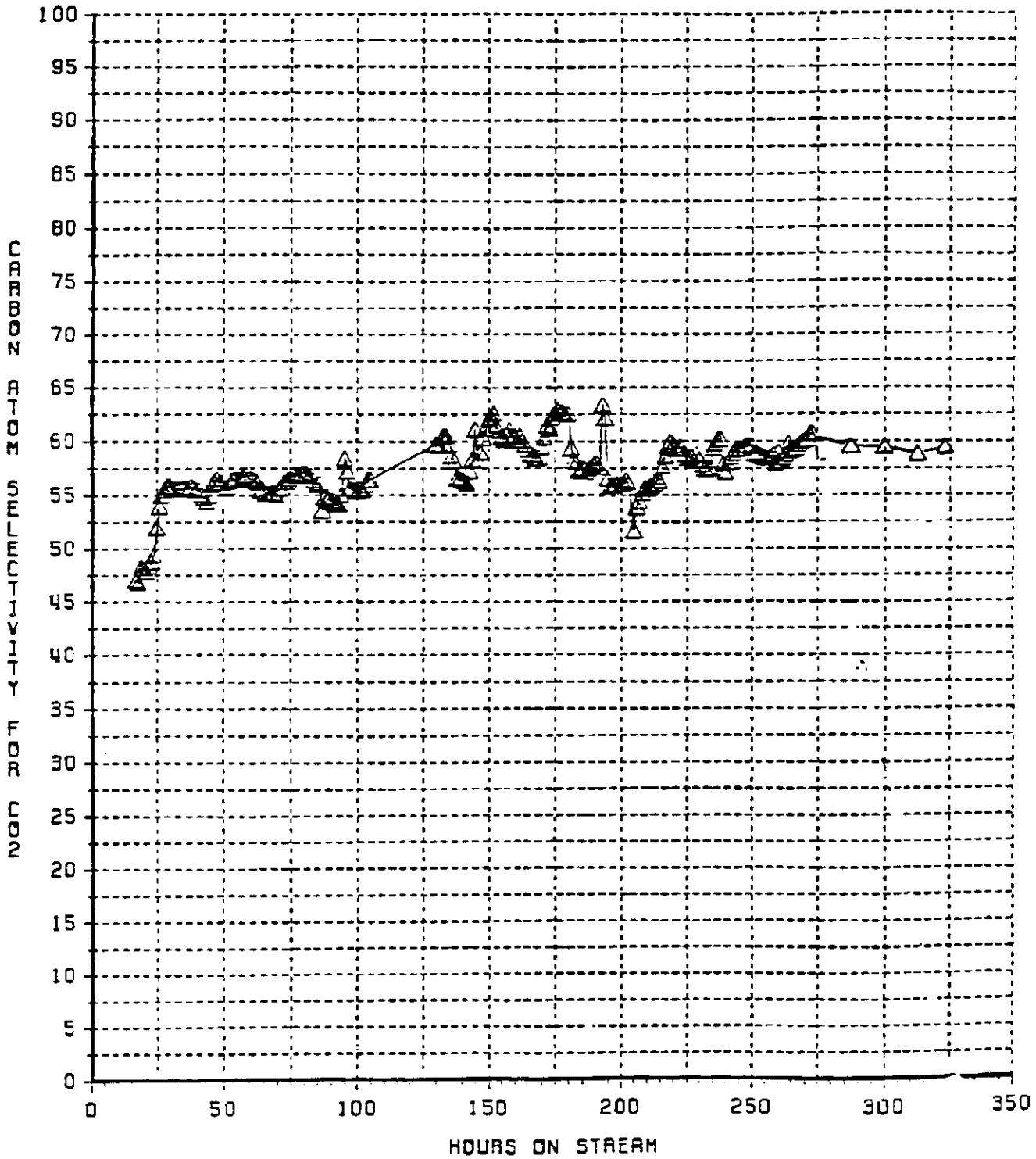


Figure 60

EXPERIMENTAL IRON CATALYST IN RUN 50

OUTLET H₂ TO CO RATIO

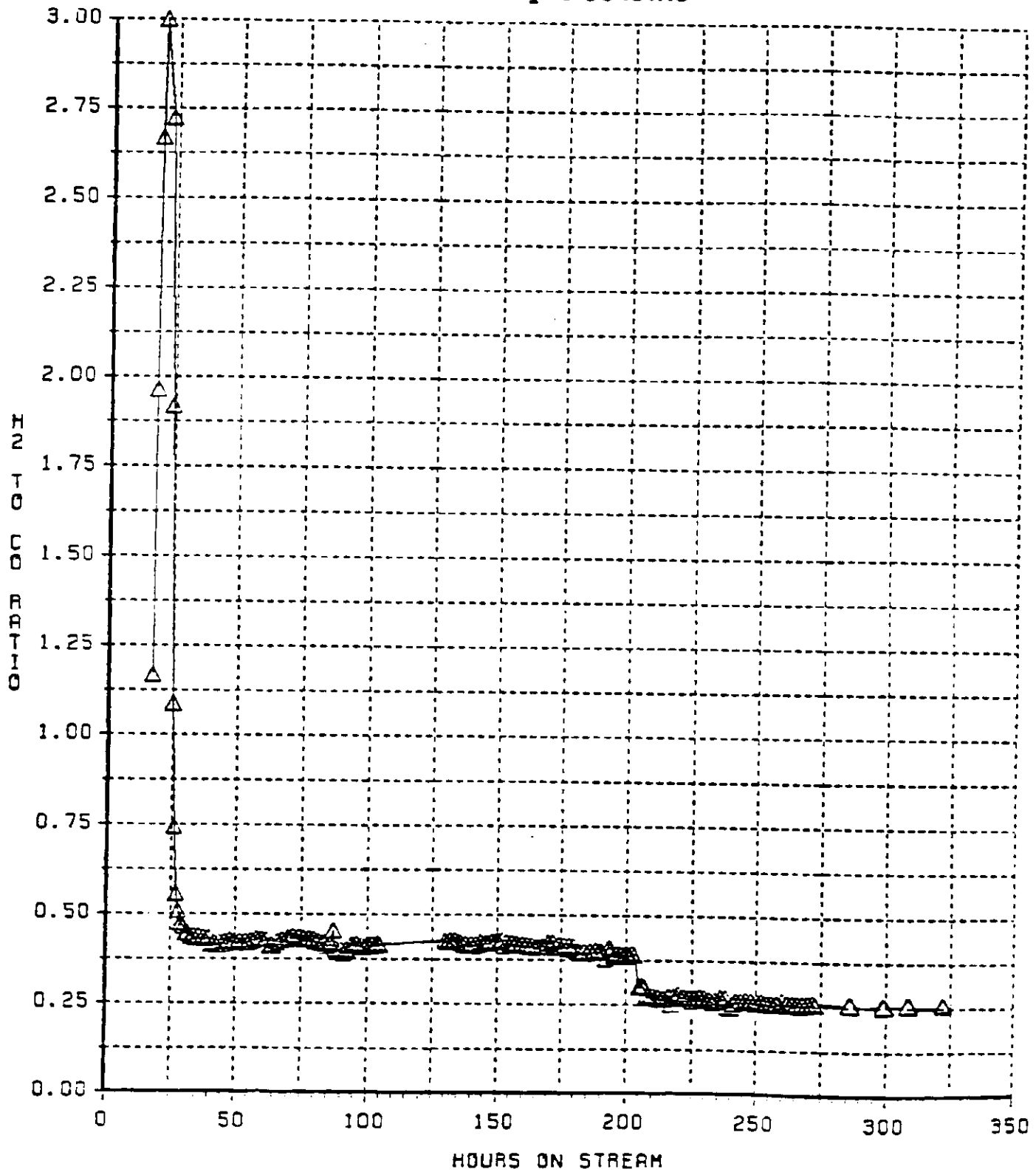


Figure 61
EXPERIMENTAL IRON CATALYST IN RUN 50
H₂ TO CO USAGE RATIO

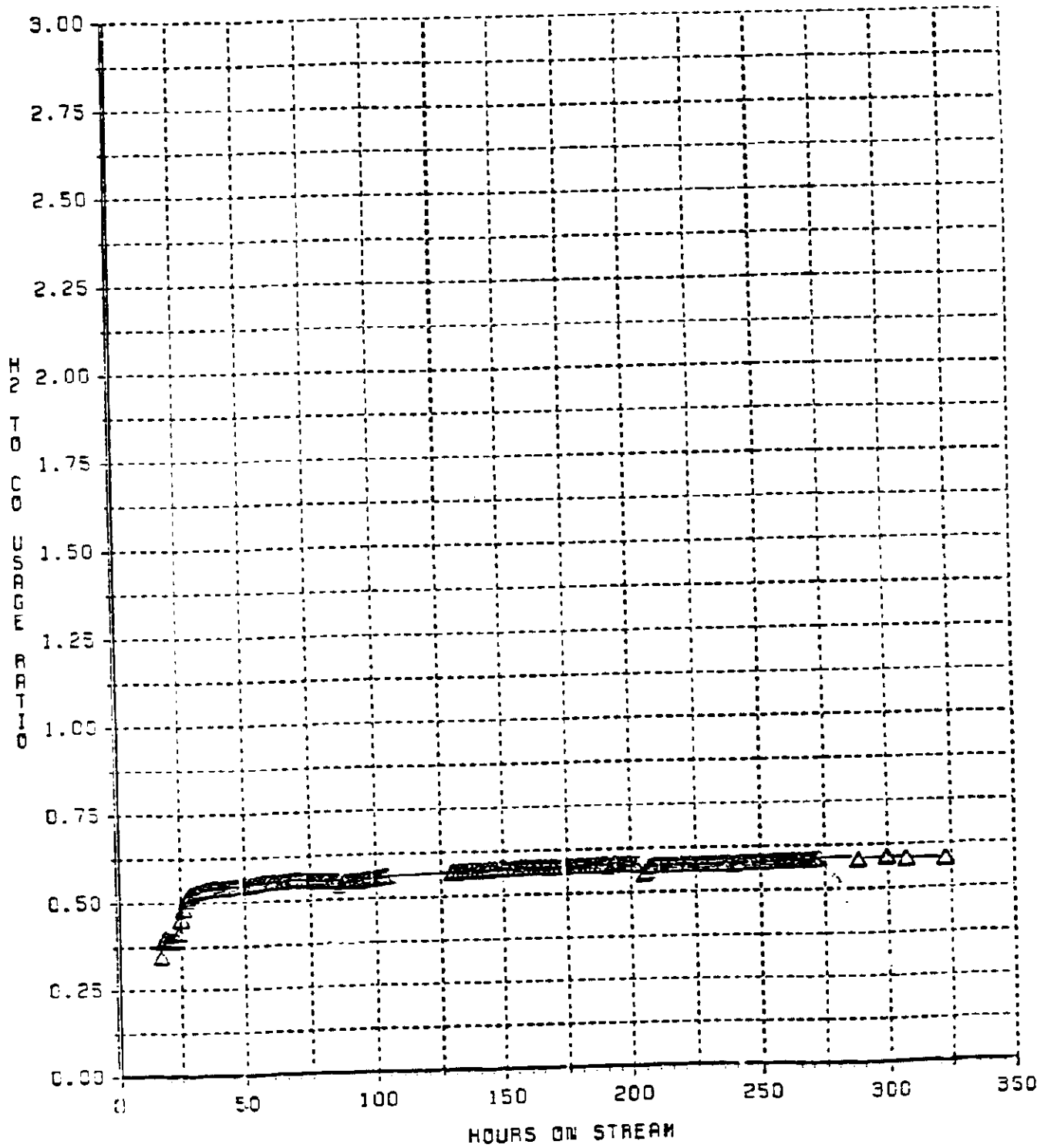


Figure 62

EXPERIMENTAL IRON CATALYST IN RUN 50

PROPYLENE TO PROPANE RATIO

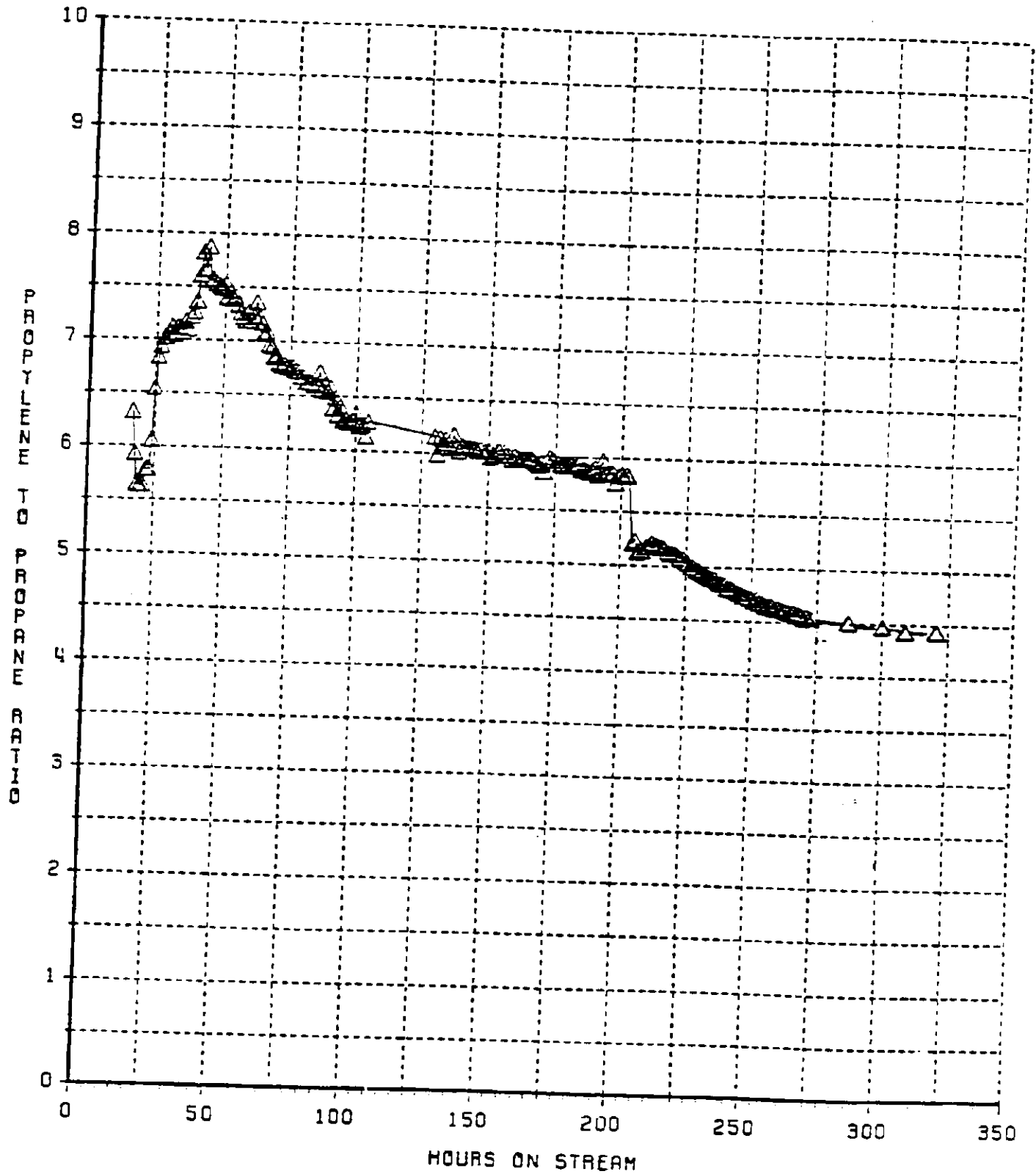


Figure 63

EXPERIMENTAL IRON CATALYST IN RUN 50

C₁ SELECTIVITY

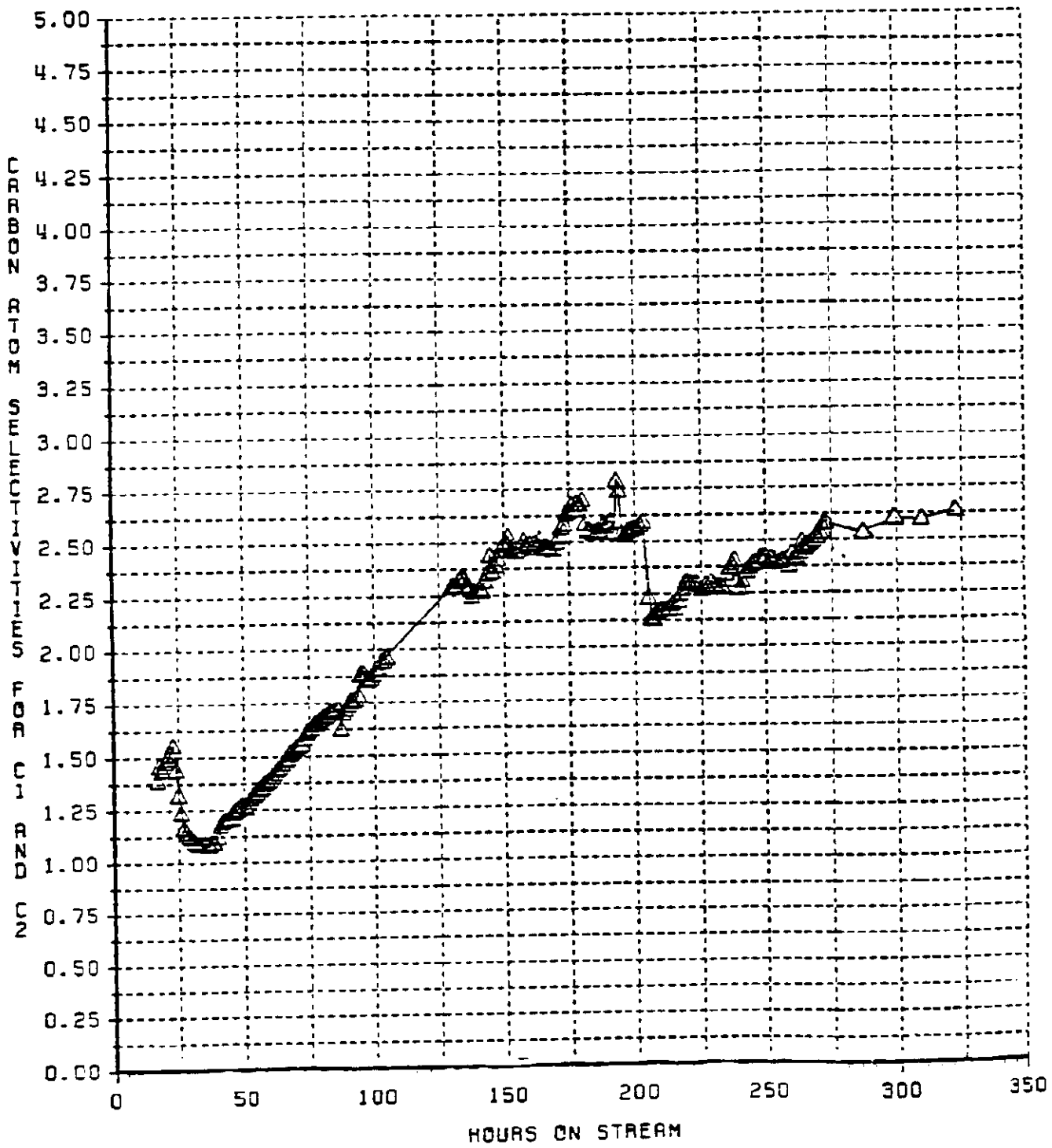


Figure 64

MAXIMUM TEMPERATURES IN THE CATALYST BED IN RUN 51

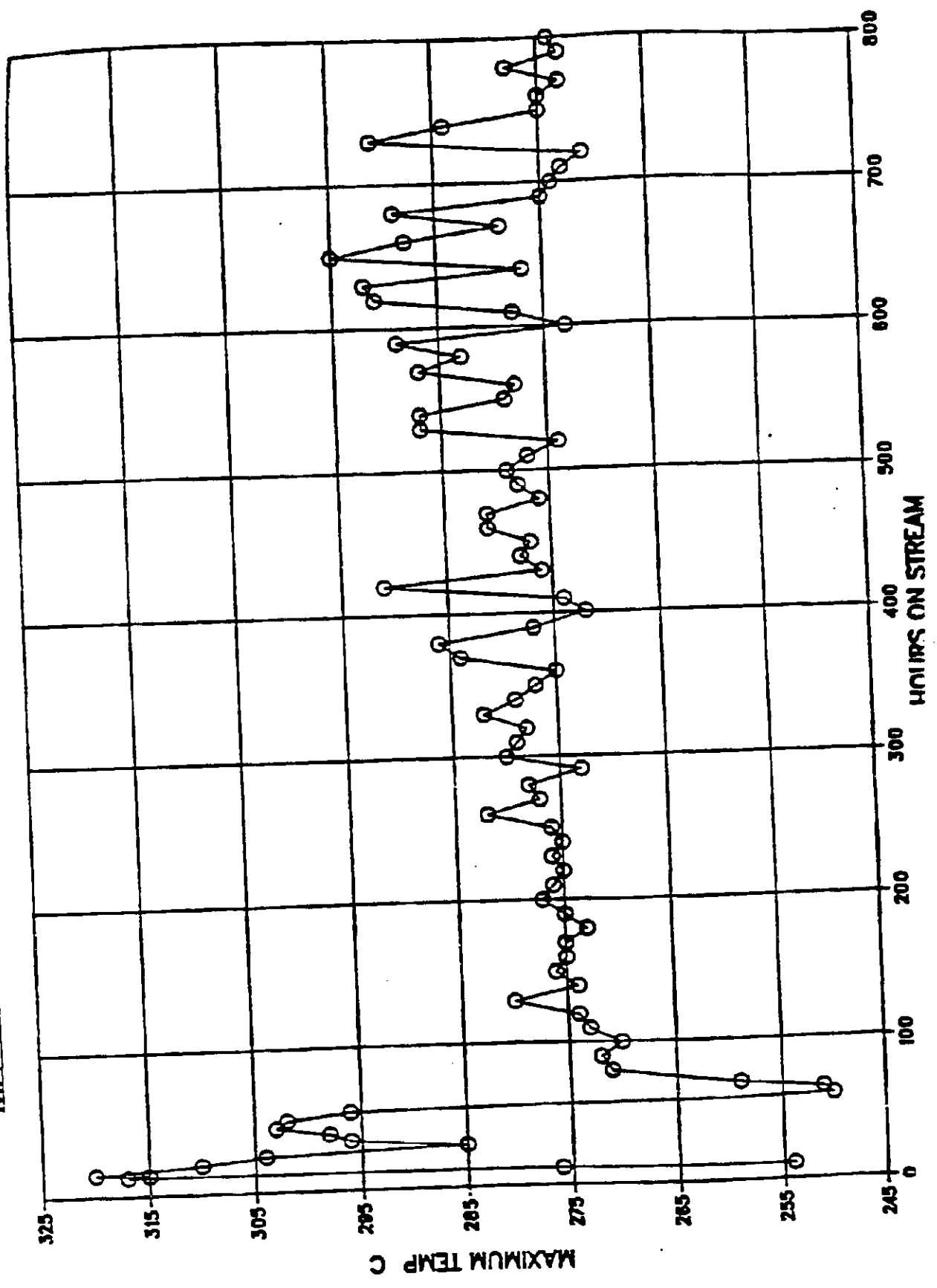


Figure 65

EXPERIMENTAL IRON CATALYST IN RUN 51

CO + H₂ CONVERSION

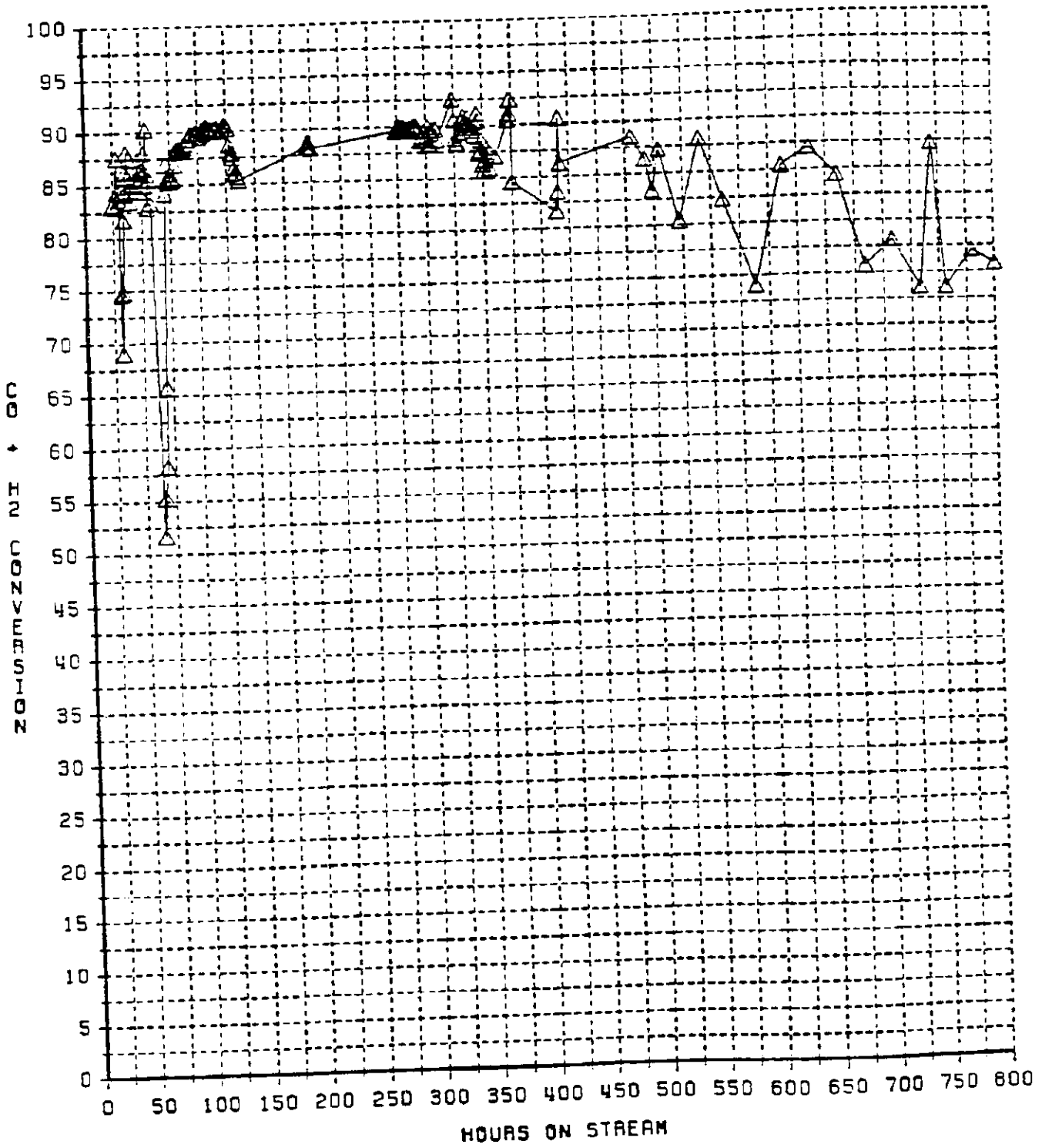


Figure 66

EXPERIMENTAL IRON CATALYST IN RUN 51

CO CONVERSION

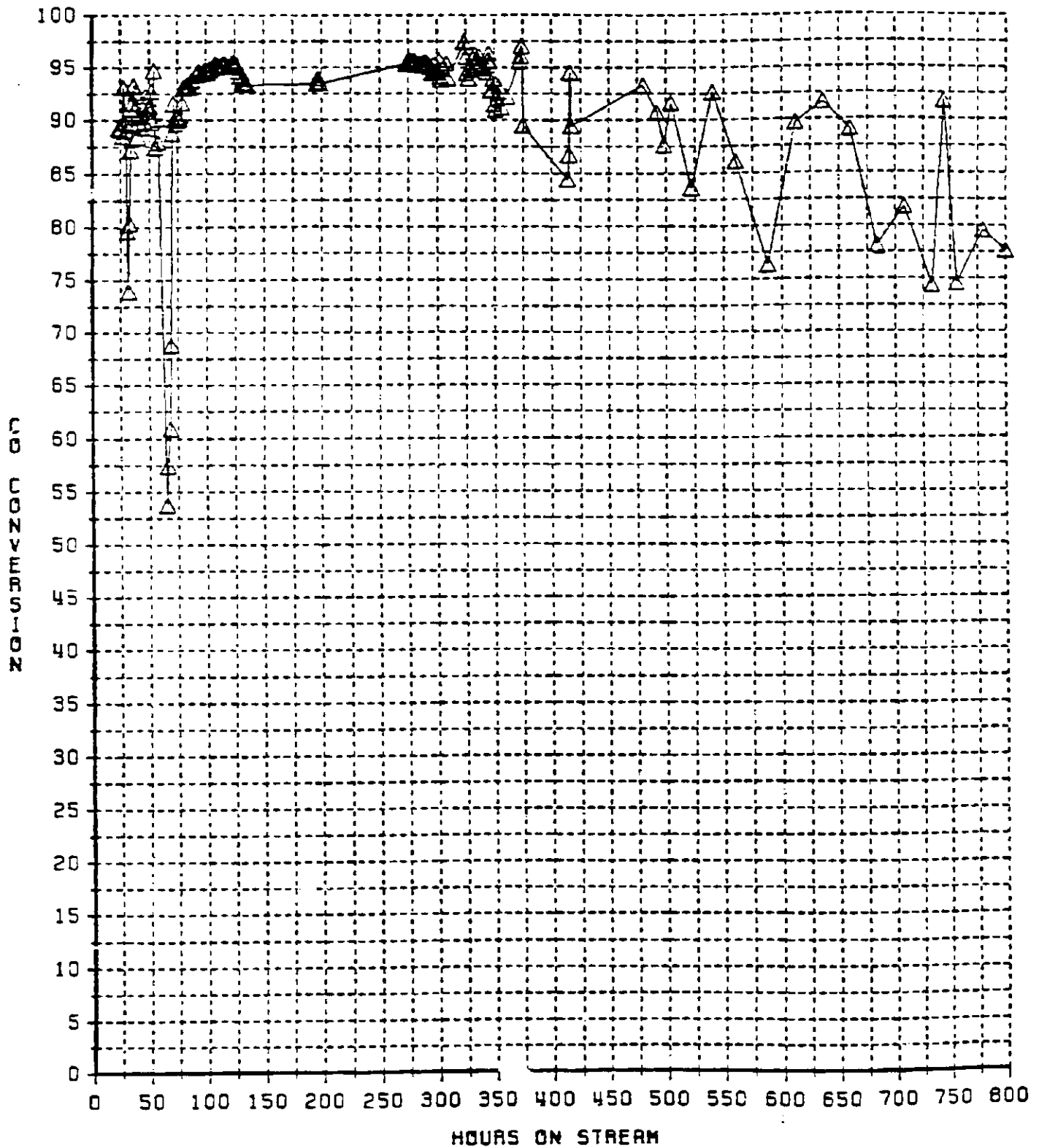


Figure 67

EXPERIMENTAL IRON CATALYST IN RUN 51

H₂ CONVERSION

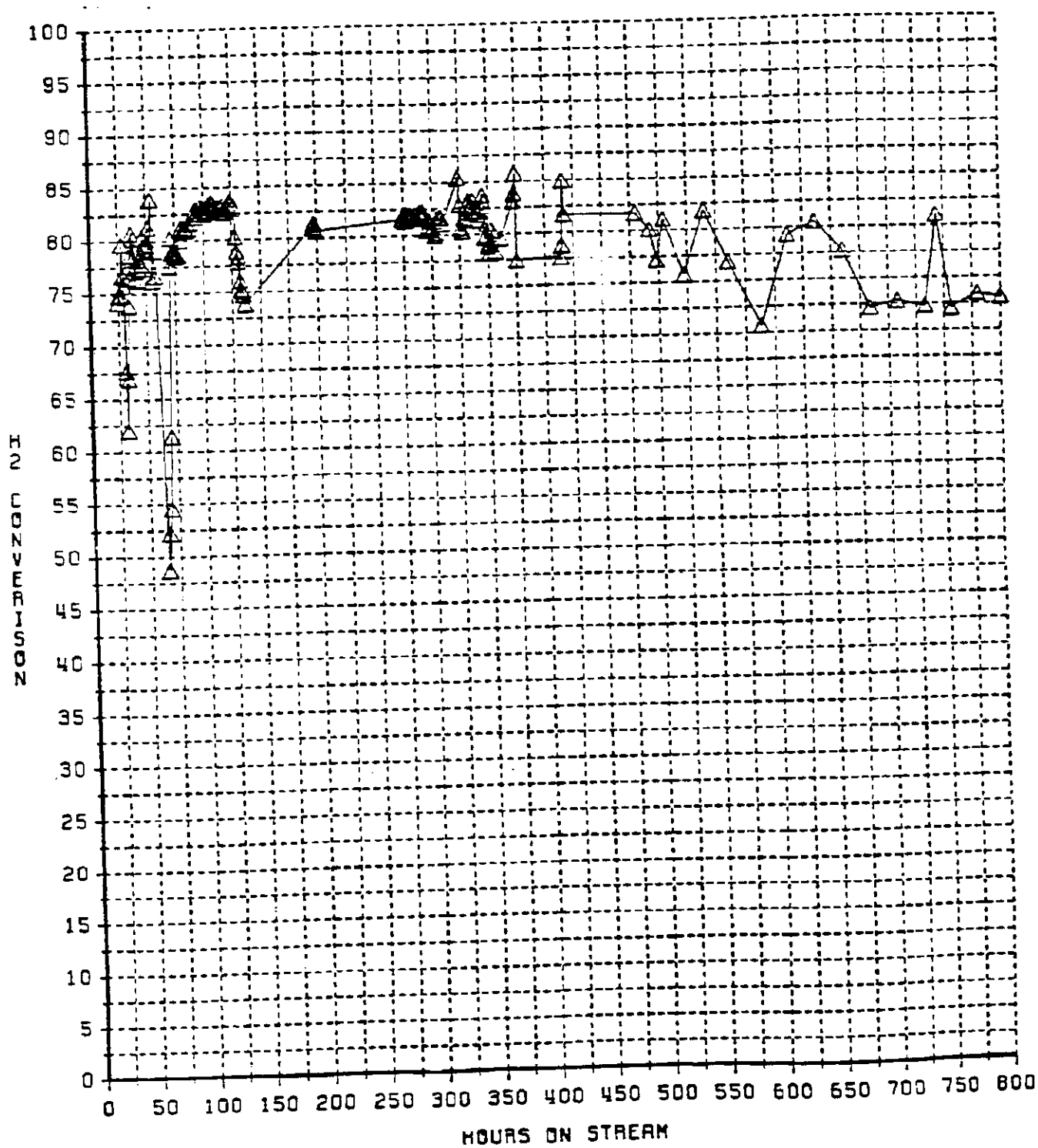


Figure 68

EXPERIMENTAL IRON CATALYST IN RUN 51

H₂ TO CO RATIO

