

82-33

10/77 488
9/88 577'
- @ 99' 1/4" / 1/4"
40 PSI

OH-5 FL 612' 67' 1/4"
493'
119'
14'
+ 47,6 PSI
300° vs 350°
= 20 PSI Δ HH
@ RANGE OF
INT. TEMP.

125 BBLs TO PERFS

AFTER
MAX

Perf

1647-67

3/78

3/83

5/84

12/11/85

1650-70

780 @ 184

5/5/87 1650-70

800 @ 148

10/15/87 1650-70

780 @ 193

FW 500
81.33
all in one fuel

PLOT

~~early~~ 84

"original" 4TH QTR 84

late 85

before MSK Perf

12/85

← early 86

POST MSK Perf

5/5/87

3/14-5/5

DAMAGED COIL

10/15/87

5/5-67 87 9/25/87

Revised

9/25-10/15

Damaged shut in

10/15/87 → 3/88

1st drawn by ~~some~~ month
on some some month
to see if have good matter data.

S T
3 7
then

3/85 AVE WHI = 299
straight line 400-800
@ 70 WHI?

7/84 scatter throw at

8/84 "good" 950 - 180
wide 0 - 70

→ does
NOT FIT?

9/84 "good" 700 - 90
900 - 130

10/84 good 750 - 110
900 - 200

11/84 "good" 600 - 60
950 - 200

12/84 offline

1/19/85 offline

12/85

1/19/85 - FEB 85
too much scatter

2/85

3/85 too much scatter
can't trust.

4/85

5/85. looks
OK

541
5370

200 - 60
850 - 120.

6/85

looks
OK

650 - 95
800 - 140

7/85.

good

650 - 100
800 - 160

8/85
shutdown
8/17

good

450 - 70
800 - 160

stated
pick up
WAZ
slope

C) Post 85 shutdown.

9/10 - 9/30

474 493

474 493

350 - 70

720 - 120

880 - 190

bump
SLOPE

900

10/85

180 - 55

650 - 95

810 - 170

Dead
Slope

11/85

12/1085

Before
at
shutdown
per

500 - 65

750 - 140

~~4138~~

~~4138~~

~~54-7~~

~~711~~

D) Post 12/85 mth perf

12-15-31/85

800 - 190
450 - 75

1/86

550 - 80
780 - 185

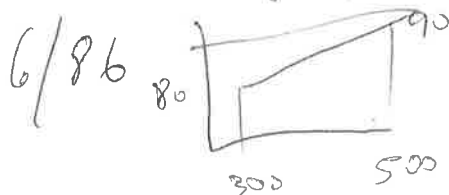
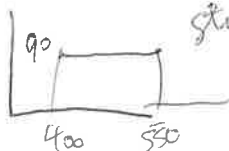
2/86
700 - 105
760 - 145

3/86
720 - 165
550 - 80

4/86
790 - 200

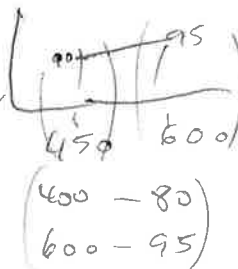
Sealer
& Oiling

5/86



7/86

8/86
THR
9/7 shuttles



86 shuttles
post

9/27-31/86 Good cure
minor damage

700 - 190
525 - 70

starts
getting
smelly

10/86 good
500 - 90
610 - 145

11/86

Scatter Barely OK
400 - 85
600 - 100

12/86

920
950
5920
95

good - tight
well
650 - 110
700 - 190

1/87

good
cure dual
slope

400 - 60
580 - 90
700 - 165

E.) cont 1986-1987 5/87 tube

2/87 good curve
480-60
680-150

3/87 good curve
400-60
660-150

4/87 good curve
1041
5/5/87
Perf

5/6/87
5/31/87

6/87 good
650-130
425-70

7/87 good
650-140
500-80

8/87 Beamlife
116.3 500-80
1193 675-145
7mm

9/13/87

6) 10/87 domy
Pre
1217 9/25
1236 10/14
Good curve serious damage

320-80
420-220

11) Post 10/87 Perf - good Post
10/15/87
1238
53

10/16-31/87
marginal curve
500-60
600-80

11/87 good curve dual stop
700-180
650-100
520-70

12/87 good
700-170
600-80

1/88 - Probably degrading
 12/23/87 - 2/2/88 no
 87 with AS
 snow

2/9 - 29/88 are but small

550-80
 600-95

3/88 good

500-70
 680-150

4/88 good
 5/8/88

500-90
 620-1450

7/88 good

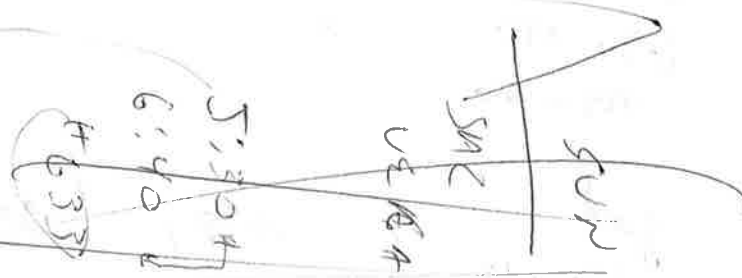
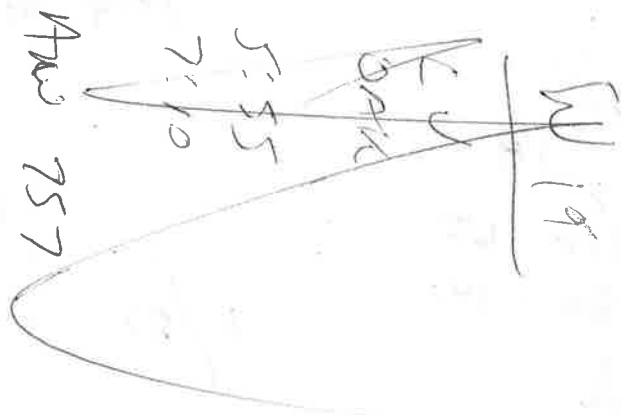
500-110
 600-190

8/88 good

~~500-130~~
 540-130
 600-190

2/88 dual slope
 320-70
 500-100
 600-190

AS 2-1
 40-28
 AZ 35



151

STRAWES will vs JWS and 84-88

one with

USE BY MONTH TO CHECK IF GOOD

DATA

200

300

BREAK

— BEST FIT

into a 6-917m & TWT < RIVERS

then compare

VS

TME FREAME

3 prefer - start prod

1) early 84

2) Before 1985

3) after 85

4) 1986

5) 1987

6) 1988



Keep scatter data
Best fit
Curve
Presentation

SUMMARY

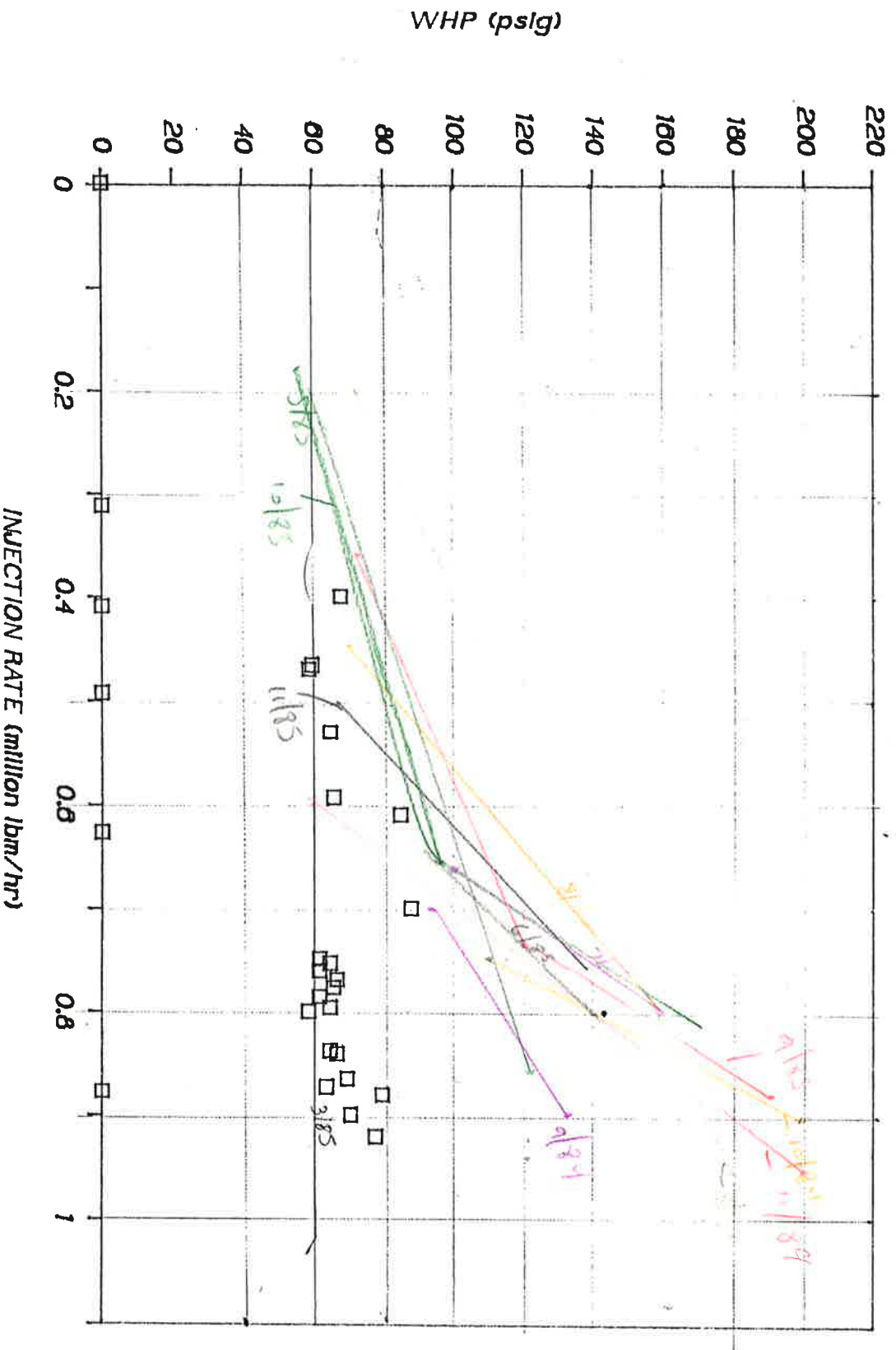
Plot

of COMPARITY

82-83

Best fit of given time
1.2 early
before after
over time
8) worst

INJECTION CAPACITY RHSU 82-33





September 4, 1984

INTER-OFFICE CORRESPONDENCE / SUBJECT:

RHSU 82-33
NE NE Section 33-26S-9W
Beaver County, Utah

To: T. S. Allen (r)
T. A. Turner

From: M. A. Payne

Roosevelt operations continue to cause damage to our RHSU 82-33 injection well, presumably caused by scale forming at the perforations. Figure 1 illustrates the extent of this loss in performance. Pinpointing the exact timing of damage was difficult because the restriction only becomes evident above 850,000 lbm/hr.

During a 10 day period prior to August 8, we were at minimum flow conditions and supplying 305° fluids to the well. Also in this time period we ceased flow 3 times to perform vortex installations which dropped wellhead temperatures as low as 225° F. Upon increasing to full rate on August 8, a 70,000 lbm/hr decrease in maximum injection rate appeared.

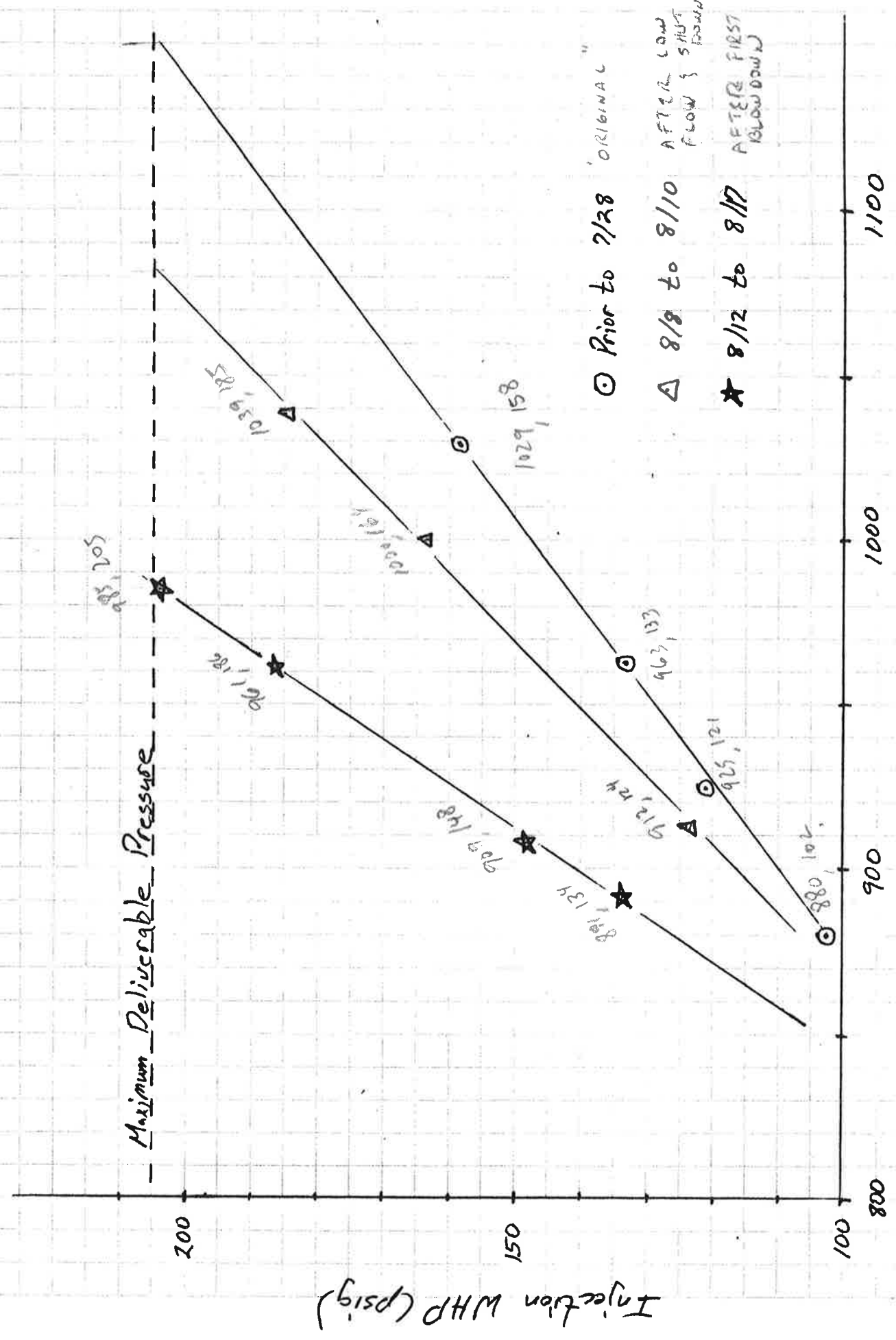
The first UP&L condensate was introduced into RHSU 82-33 injection fluids on August 10 at 1400 hours. Over the next 8 hours performance declined to the third line illustrated in Figure 1. In the seven subsequent condensate pump-ins no damage was seen. Total damage limits our maximum injection by 170,000 lbm/hr.

MAP/mb

cc: Stu Johnson
Mike Kerna
Joe Prather
Bob Rice

82-33 Injection Performance

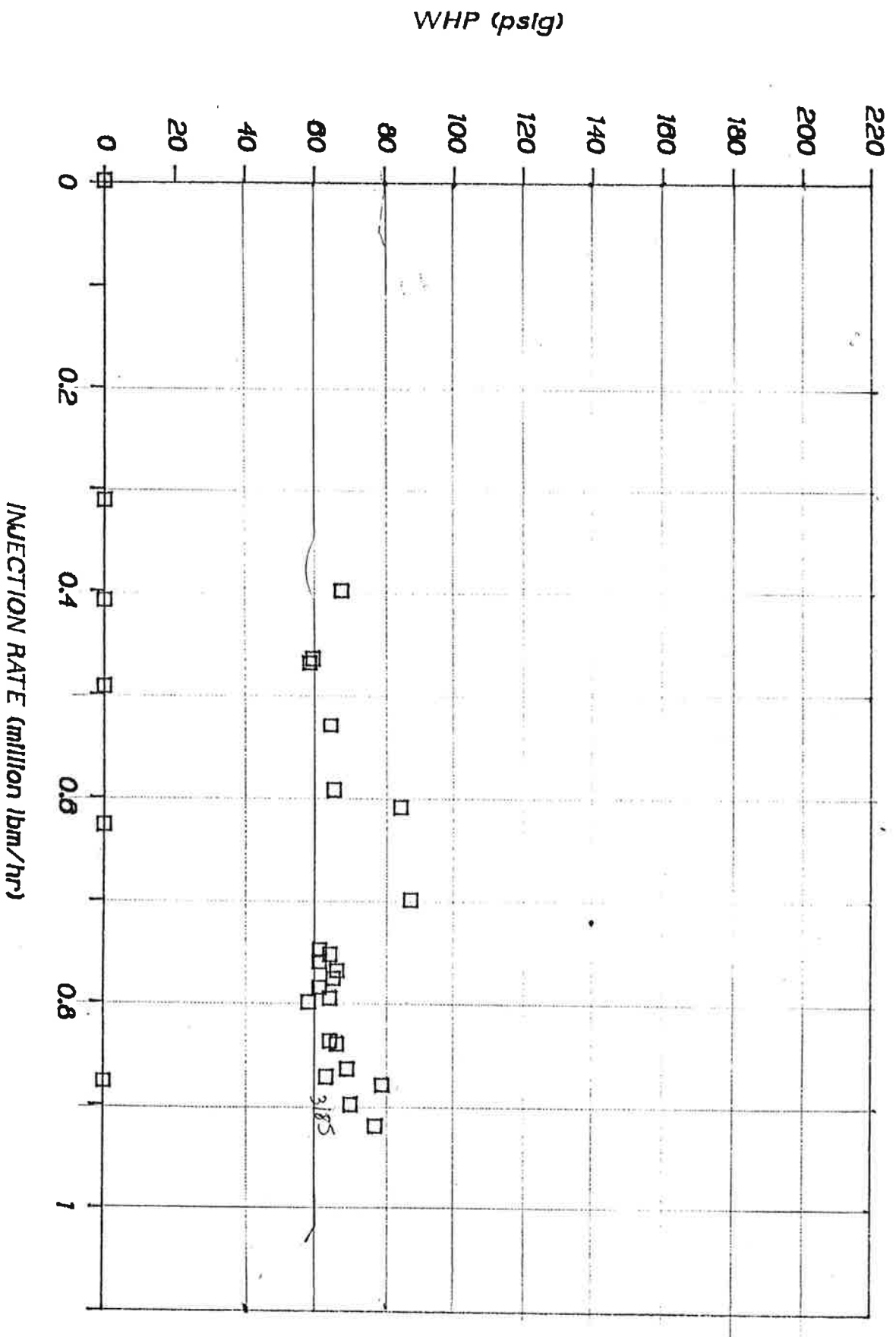
MAP 8/18/84



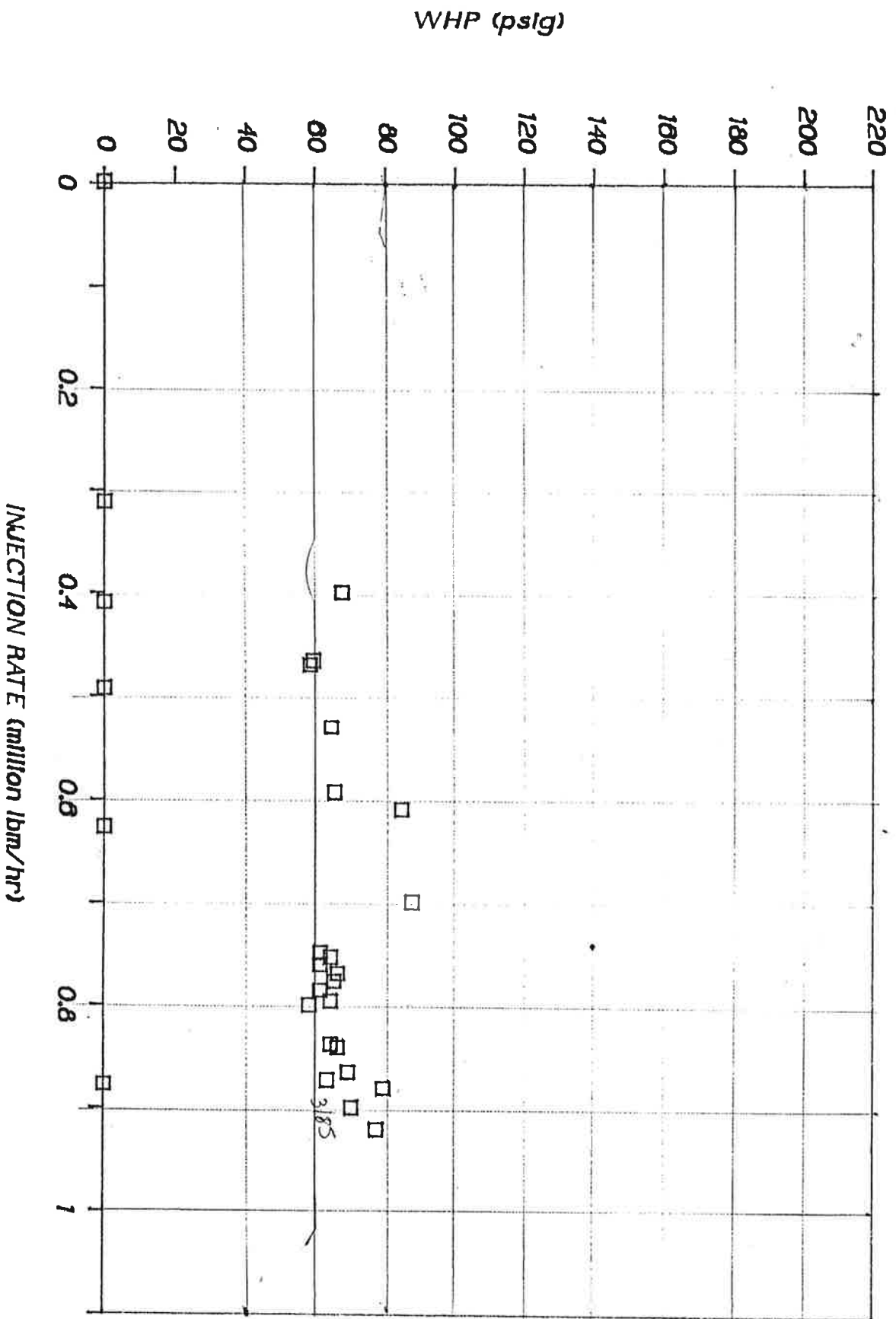
○ Prior to 7/28 'ORIGINAL'
 △ 8/8 to 8/10 AFTER LOW FLOW & SHUT DOWN
 ★ 8/12 to 8/17 AFTER FIRST BLOWDOWN

Injection Flowrate (1000 #/hr)

INJECTION CAPACITY RHSU 82-33

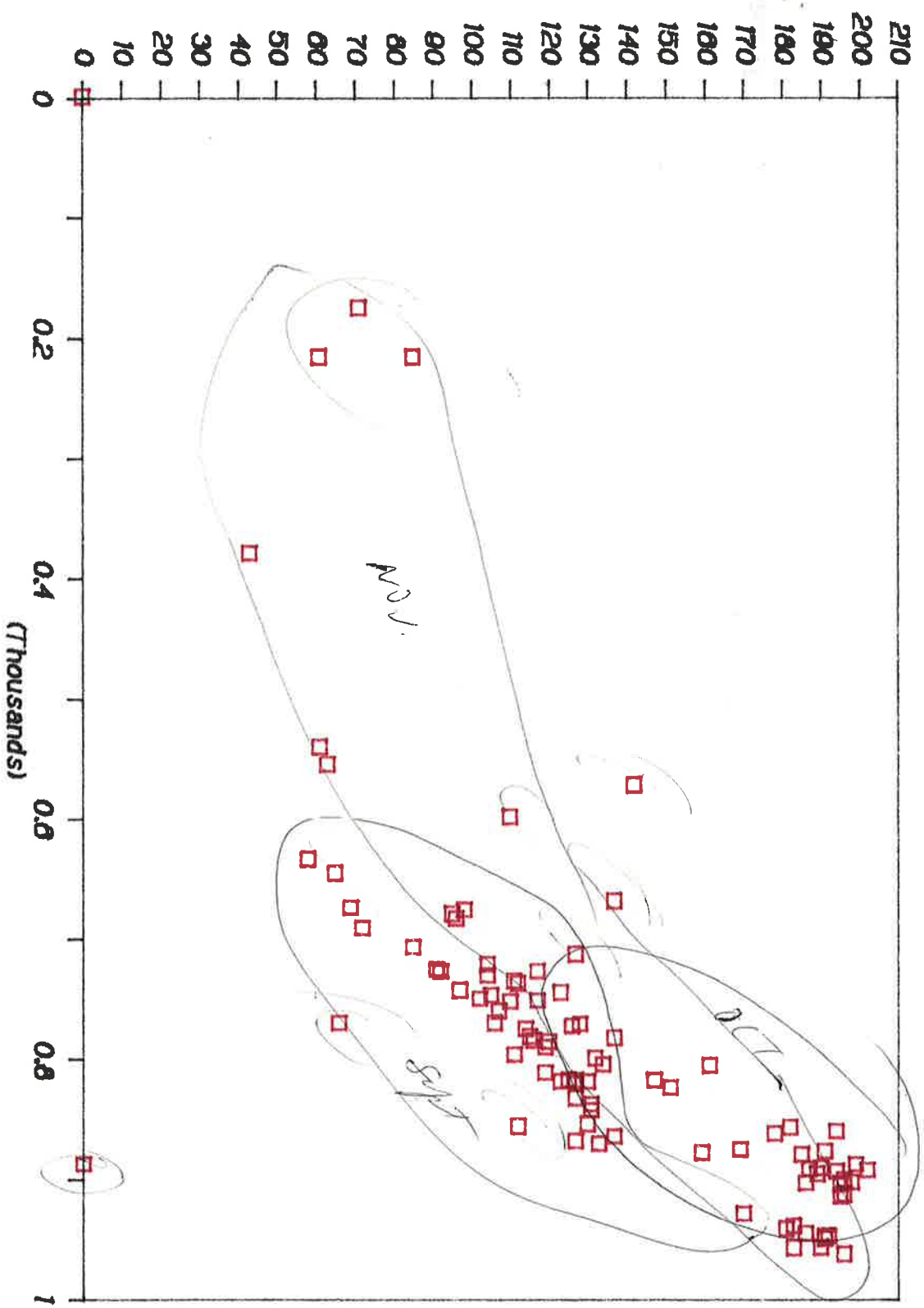


INJECTION CAPACITY RHSU 82-33

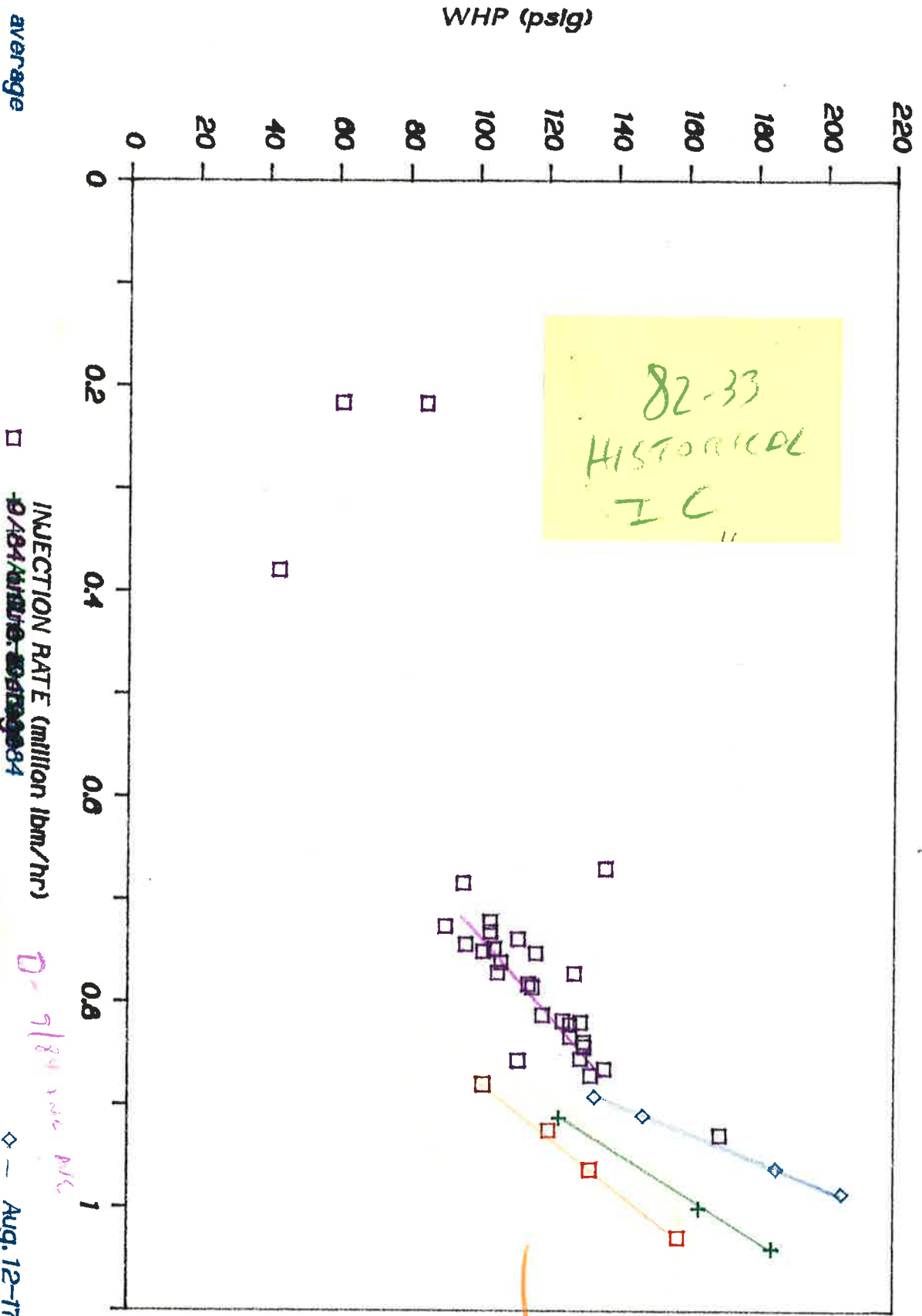


enough
 1974, 1975 - 15 pick time from
 by 11:00 - to present - best bid
 474 Q71R 1987

O - present



INJECTION CAPACITY RHSU 82-33



SITUA
VIRGINIA
1ST
CURE

8/8-12/84
7/84-10/84
Aug. 12-17, 1984