

**WRS COMPLETION REPORT**COMPLETIONS SEC 16 TWP 9S RGE 37E  
PI# 30-T-0011 05/08/92 30-025-31520-0000 PAGE 1NMEX LEA \* 1650FSL 2150FEL SEC NW SE  
STATE COUNTY FOOTAGE SPOTIP PET WD WD  
OPERATOR WELL CLASS INIT FIN

1 STATE

WELL NO LEASE NAME

4008KB 3992GR

WILDCAT

OPER ELEV FIELD POOL AREA  
API 30-025-31520-0000LEASE NO. PERMIT OR WELL I.D. NO.  
02/12/1992 03/31/1992 ROTARY VERT D&A  
SPUD DATE COMP DATE TYPE TOOL HOLE TYPE STATUS

12500 DEVONIAN ZIADRIL INC 7 RIG SUB 15

PROJ. DEPTH PROJ. FORM CONTRACTOR  
DTD 12665 FM/TD DEVONIAN

DRILLERS T.D. LOG T.D. PLUG BACK TO OLD T.D. FORM T.D.

**LOCATION DESCRIPTION**11 MI E CROSS ROADS, TX  
1 1/4 MI NW/5000 (SADR) OIL PROD IN SAWYER FLD  
2 1/2 MI NE/12173 (DVNN) OIL PROD IN CROSSROADS E FLD**CASING/LINER DATA**CSG 13 3/8 @ 421 W/ 450 SACKS  
CSG 8 5/8 @ 4223 W/ 1300 SACKS

| TYPE                        | FORMATION | LTH | TOP DEPTH/SUB | BSE DEPTH/SUB |
|-----------------------------|-----------|-----|---------------|---------------|
| LOG                         | YATES     |     | 2903          | 1105          |
| LOG                         | SVN RVRS  |     | 3458          | 550           |
| LOG                         | QUEEN     |     | 3743          | 265           |
| LOG                         | GRAYBURG  |     | 3940          | 68            |
| LOG                         | SN ANDRS  |     | 4158          | -150          |
| LOG                         | GLORIETA  |     | 5610          | -1602         |
| LOG                         | TUBB      |     | 6996          | -2988         |
| LOG                         | ABO       |     | 7738          | -3730         |
| LOG                         | WOLFCAMP  |     | 9053          | -5045         |
| LOG                         | CISCO     |     | 9740          | -5732         |
| LOG                         | CANYON    |     | 10230         | -6222         |
| LOG                         | STRAWN    |     | 10750         | -6742         |
| LOG                         | ATOKA     |     | 11272         | -7264         |
| LOG                         | MSSP      |     | 12076         | -8068         |
| LOG                         | DEVONIAN  |     | 12594         | -8586         |
| SUBSEA MEASUREMENTS FROM KB |           |     |               |               |

CONTINUED IC# 300257003392

COMPLETIONS  
PI# 30-T-0011 05/08/92 SEC 16 TWP 9S RGE 37E  
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IP PET  
1 STATE WD WD

FORMATION TEST DATA  
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DST 1 12600-12636  
NO DETAILS

DST 2 12614-12665  
NO DETAILS

LOGS AND SURVEYS /INTERVAL,TYPE/  
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LOGS DLL CNL LDT

DRILLING PROGRESS DETAILS  
-----

IP PET  
BOX 10489  
MIDLAND, TX 79702  
915-685-1210  
01/28 LOC/1992/  
02/11 MIRT  
02/14 DRLG, NO DETAILS  
02/20 DRLG, NO DETAILS  
03/03 DRLG, NO DETAILS  
03/12 DRLG, NO DETAILS  
04/01 12665 TD, TITE HOLE  
04/15 12665 TD, HOLDING FOR DATA  
05/01 TD REACHED 03/26/92 RIG REL 03/26/92  
12665 TD  
COMP 3/31/92, D&A  
NO CORES, TWO DSTS RPTD

1  
3  
21

|                                       |                 |               |                   |                              |
|---------------------------------------|-----------------|---------------|-------------------|------------------------------|
| STATE                                 | 1               | 1             | 12600.0 - 12636.0 | I.P. PETROLEUM COMPANY, INC. |
| LEASE NAME                            | WELL NO.        | TEST NO.      | TESTED INTERVAL   | LEASE OWNER/COMPANY NAME     |
| LEGAL LOCATION<br>SEC. - TWP. - RANG. | 16 - 9 S - 37 E | FIELD<br>AREA | WILDCAT           | COUNTY                       |
|                                       |                 |               | LEA               | STATE                        |
|                                       |                 |               |                   | NEW MEXICO                   |

I.P. PETROLEUM COMPANY, INC.

LEASE : STATE

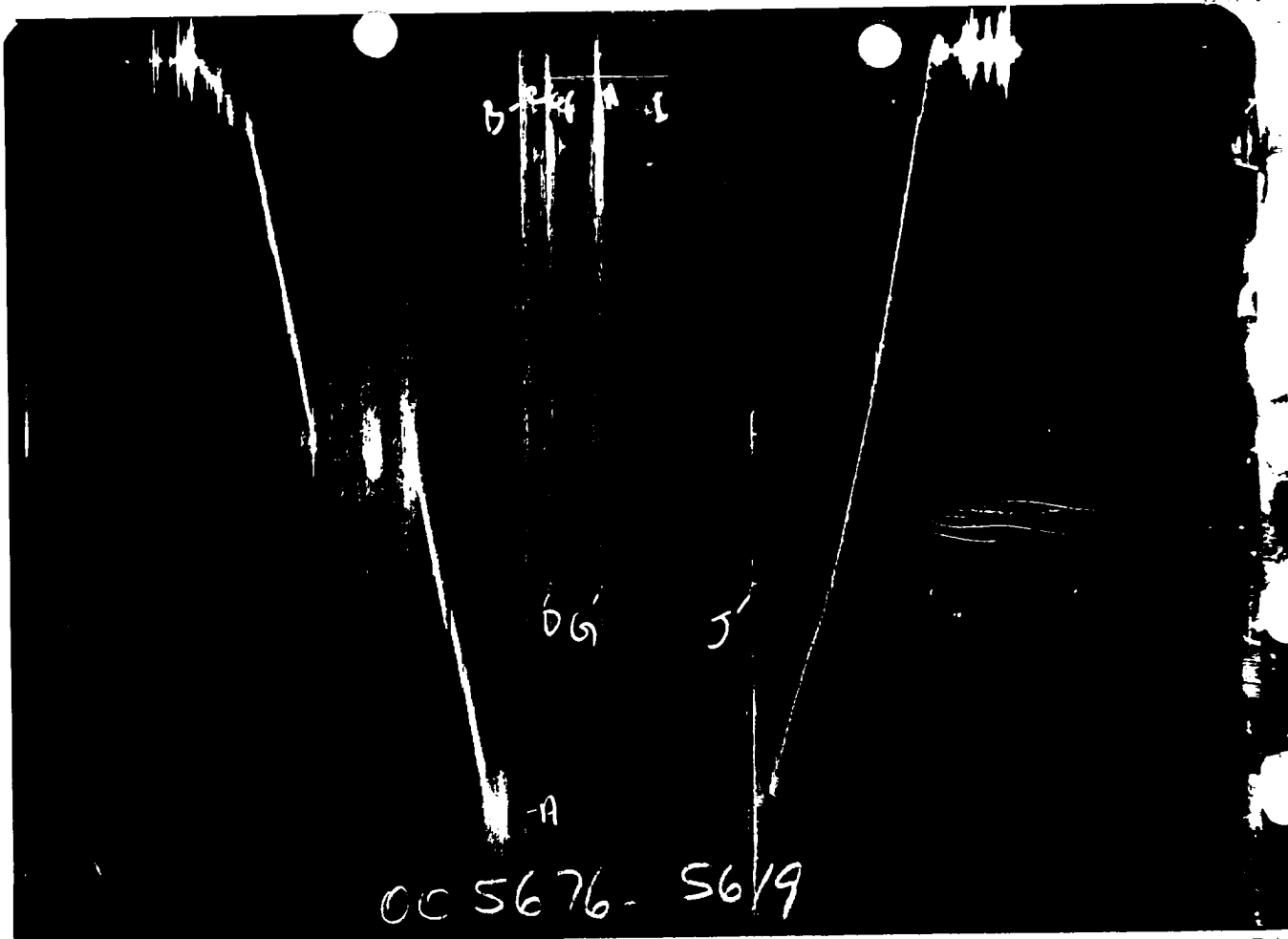
WELL NO. : 1

TEST NO. : 1

TICKET NO. 00567600

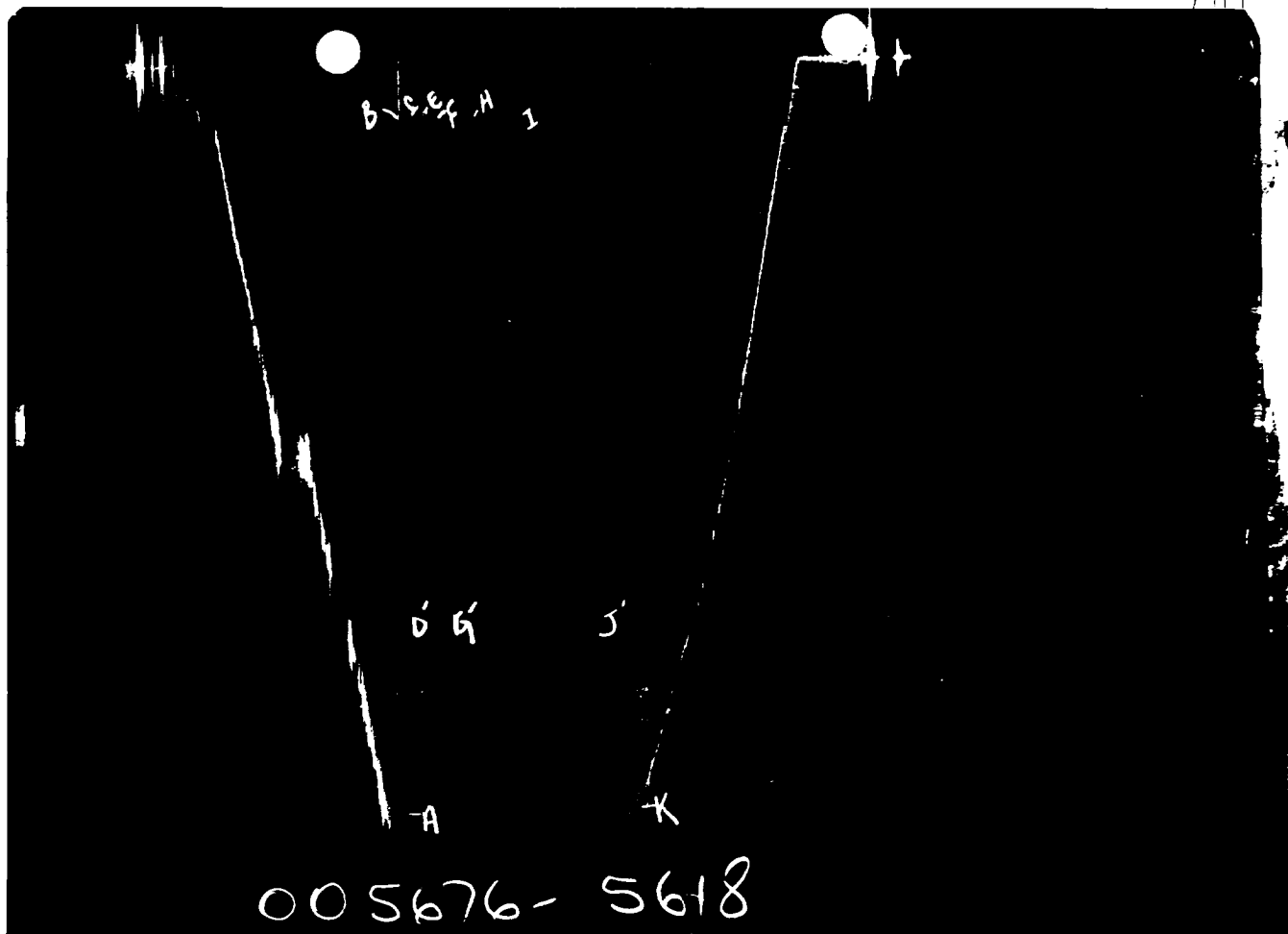
26-MAR-92

HOBBS



GAUGE NO: 5619 DEPTH: 12582.0 BLANKED OFF: NO HOUR OF CLOCK: 24

| ID | DESCRIPTION              | PRESSURE |            | TIME     |            | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
|    |                          | REPORTED | CALCULATED | REPORTED | CALCULATED |      |
| A  | INITIAL HYDROSTATIC      | 6515     | 6555.3     |          |            |      |
| B  | INITIAL FIRST FLOW       | 426      | 423.7      | 15.0     | 15.4       | F    |
| C  | FINAL FIRST FLOW         | 426      | 427.3      |          |            |      |
| C  | INITIAL FIRST CLOSED-IN  | 426      | 427.3      | 16.0     | 13.1       | C    |
| D  | FINAL FIRST CLOSED-IN    | 4600     | 4623.3     |          |            |      |
| E  | INITIAL SECOND FLOW      | 426      | 429.8      | 15.0     | 14.6       | F    |
| F  | FINAL SECOND FLOW        | 426      | 435.8      |          |            |      |
| F  | INITIAL SECOND CLOSED-IN | 426      | 435.8      | 46.0     | 44.1       | C    |
| G  | FINAL SECOND CLOSED-IN   | 4620     | 4638.3     |          |            |      |
| H  | INITIAL THIRD FLOW       | 426      | 438.0      | 60.0     | 58.9       | F    |
| I  | FINAL THIRD FLOW         | 447      | 462.0      |          |            |      |
| I  | INITIAL THIRD CLOSED-IN  | 447      | 462.0      | 120.0    | 120.8      | C    |
| J  | FINAL THIRD CLOSED-IN    | 4600     | 4641.0     |          |            |      |
| K  | FINAL HYDROSTATIC        | 6434     | 6510.3     |          |            |      |



GAUGE NO: 5618 DEPTH: 12633.0 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION              | PRESSURE |            | TIME     |            | TYPE |
|----|--------------------------|----------|------------|----------|------------|------|
|    |                          | REPORTED | CALCULATED | REPORTED | CALCULATED |      |
| A  | INITIAL HYDROSTATIC      | 6543     | 6601.9     |          |            |      |
| B  | INITIAL FIRST FLOW       | 471      | 470.3      | 15.0     | 15.4       | F    |
| C  | FINAL FIRST FLOW         | 471      | 471.8      |          |            |      |
| C  | INITIAL FIRST CLOSED-IN  | 471      | 471.8      | 16.0     | 13.1       | C    |
| D  | FINAL FIRST CLOSED-IN    | 4643     | 4692.3     |          |            |      |
| E  | INITIAL SECOND FLOW      | 493      | 477.2      | 15.0     | 14.6       | F    |
| F  | FINAL SECOND FLOW        | 493      | 481.6      |          |            |      |
| F  | INITIAL SECOND CLOSED-IN | 493      | 481.6      | 46.0     | 44.1       | C    |
| G  | FINAL SECOND CLOSED-IN   | 4685     | 4706.5     |          |            |      |
| H  | INITIAL THIRD FLOW       | 471      | 485.7      | 60.0     | 58.9       | F    |
| I  | FINAL THIRD FLOW         | 514      | 509.0      |          |            |      |
| I  | INITIAL THIRD CLOSED-IN  | 514      | 509.0      | 120.0    | 120.8      | C    |
| J  | FINAL THIRD CLOSED-IN    | 4664     | 4707.8     |          |            |      |
| K  | FINAL HYDROSTATIC        | 6522     | 6578.3     |          |            |      |

**EQUIPMENT & HOLE DATA**FORMATION TESTED: DEVONIANNET PAY (ft): 22.0GROSS TESTED FOOTAGE: 36.0 PACKER TO T.D.ALL DEPTHS MEASURED FROM: K.B.

CASING PERFS. (ft): \_\_\_\_\_

HOLE OR CASING SIZE (in): 7.875ELEVATION (ft): 4009.0 AT KELLY BUSHINGTOTAL DEPTH (ft): 12636.0PACKER DEPTH(S) (ft): 12595, 12600

FINAL SURFACE CHOKE (in): \_\_\_\_\_

BOTTOM HOLE CHOKE (in): 0.750MUD WEIGHT (lb/gal): 9.60MUD VISCOSITY (sec): 44

ESTIMATED HOLE TEMP. (°F): \_\_\_\_\_

ACTUAL HOLE TEMP. (°F): 190 @ 12632.0 ftTICKET NUMBER: 00567600DATE: 03-24-92 TEST NO: 1TYPE DST: OPEN HOLE

FIELD CAMP:

HOBBSTESTER: BILL NUNNALLYWITNESS: MIKE SENICH

DRILLING CONTRACTOR:

ZIADRIL #7**FLUID PROPERTIES FOR  
RECOVERED MUD & WATER**

| SOURCE       | RESISTIVITY          | CHLORIDES        |
|--------------|----------------------|------------------|
| MUD PIT      | <u>0.060 @ 66 °F</u> | <u>92825</u> ppm |
| TOP OF FLUID | <u>1.220 @ 62 °F</u> | <u>3486</u> ppm  |
| TOOL TOP     | <u>0.076 @ 68 °F</u> | <u>73219</u> ppm |
| SAMPLER      | <u>0.065 @ 62 °F</u> | <u>78643</u> ppm |
|              | <u> @ °F</u>         | <u> </u> ppm     |
|              | <u> @ °F</u>         | <u> </u> ppm     |

**SAMPLER DATA**P<sub>sig</sub> AT SURFACE: \_\_\_\_\_

cu.ft. OF GAS: \_\_\_\_\_

cc OF OIL: \_\_\_\_\_

cc OF WATER: \_\_\_\_\_

cc OF MUD: 700.0TOTAL LIQUID cc: 700.0**HYDROCARBON PROPERTIES**

OIL GRAVITY (°API): \_\_\_\_\_ @ \_\_\_\_\_ °F

GAS/OIL RATIO (cu.ft. per bbl): \_\_\_\_\_

GAS GRAVITY: \_\_\_\_\_

**CUSHION DATA**

TYPE AMOUNT WEIGHT

WATER (FT.) 1000.0 8.33**RECOVERED :**

1000 FT. OF FRESH WATER CUSHION

121 FT. OF DRILLING FLUID

MEASURED FROM  
TESTER VALVE**REMARKS :**

INSUFFICIENT HYDROCARBON PRODUCTION FOR COMPLETE ANALYSIS; PLOTS ARE INCLUDED FOR YOUR INSPECTION.

CHARTS AND TEST DATA INDICATE TESTED FORMATION HAS VERY LOW PERMEABILITY WITH APPARENT HIGH WELL-BORE DAMAGE.



TICKET NO: 00567600

CLOCK NO: 27304 HOUR: 24

GAUGE NO: 5619

DEPTH: 12582.0

| REF              | MINUTES | PRESSURE | ΔP     | $\frac{t \times \Delta P}{t + \Delta P}$ | $\log \frac{t + \Delta P}{\Delta P}$ |
|------------------|---------|----------|--------|------------------------------------------|--------------------------------------|
| FIRST FLOW       |         |          |        |                                          |                                      |
| B 1              | 0.0     | 423.7    |        |                                          |                                      |
| 2                | 3.0     | 423.7    | 0.0    |                                          |                                      |
| 3                | 6.0     | 423.7    | 0.0    |                                          |                                      |
| 4                | 9.0     | 423.7    | 0.0    |                                          |                                      |
| 5                | 12.0    | 423.7    | 0.0    |                                          |                                      |
| C 6              | 15.4    | 427.3    | 3.6    |                                          |                                      |
| FIRST CLOSED-IN  |         |          |        |                                          |                                      |
| C 1              | 0.0     | 427.3    |        |                                          |                                      |
| 2                | 1.0     | 1327.9   | 900.7  | 0.9                                      | 1.211                                |
| 3                | 2.0     | 2118.6   | 1691.3 | 1.8                                      | 0.936                                |
| 4                | 3.0     | 2829.8   | 2402.5 | 2.5                                      | 0.788                                |
| 5                | 4.0     | 3514.0   | 3086.7 | 3.2                                      | 0.683                                |
| 6                | 5.0     | 3833.5   | 3406.3 | 3.8                                      | 0.608                                |
| 7                | 6.0     | 4112.1   | 3684.8 | 4.3                                      | 0.554                                |
| 8                | 7.0     | 4305.8   | 3878.5 | 4.8                                      | 0.505                                |
| 9                | 8.0     | 4453.5   | 4026.3 | 5.2                                      | 0.467                                |
| 10               | 9.0     | 4538.6   | 4111.3 | 5.7                                      | 0.433                                |
| 11               | 10.0    | 4579.0   | 4151.7 | 6.1                                      | 0.405                                |
| 12               | 11.0    | 4605.5   | 4178.3 | 6.4                                      | 0.379                                |
| 13               | 12.0    | 4617.1   | 4189.9 | 6.7                                      | 0.359                                |
| D 14             | 13.1    | 4623.3   | 4196.1 | 7.1                                      | 0.338                                |
| SECOND FLOW      |         |          |        |                                          |                                      |
| E 1              | 0.0     | 429.8    |        |                                          |                                      |
| 2                | 3.0     | 431.9    | 2.1    |                                          |                                      |
| 3                | 6.0     | 433.0    | 1.1    |                                          |                                      |
| 4                | 9.0     | 433.6    | 0.6    |                                          |                                      |
| 5                | 12.0    | 434.7    | 1.1    |                                          |                                      |
| F 6              | 14.6    | 435.8    | 1.1    |                                          |                                      |
| SECOND CLOSED-IN |         |          |        |                                          |                                      |
| F 1              | 0.0     | 435.8    |        |                                          |                                      |
| 2                | 1.0     | 1448.5   | 1012.7 | 1.0                                      | 1.490                                |
| 3                | 2.0     | 2123.7   | 1687.9 | 1.9                                      | 1.203                                |
| 4                | 3.0     | 2875.4   | 2439.7 | 2.7                                      | 1.044                                |
| 5                | 4.0     | 3480.2   | 3044.5 | 3.6                                      | 0.925                                |
| 6                | 5.0     | 3814.4   | 3378.6 | 4.3                                      | 0.848                                |
| 7                | 6.0     | 4133.5   | 3697.7 | 5.0                                      | 0.779                                |
| 8                | 7.0     | 4375.7   | 3940.0 | 5.7                                      | 0.723                                |
| 9                | 8.0     | 4488.4   | 4052.6 | 6.3                                      | 0.677                                |
| 10               | 9.0     | 4545.8   | 4110.1 | 6.9                                      | 0.637                                |
| 11               | 10.0    | 4586.9   | 4151.1 | 7.5                                      | 0.603                                |
| 12               | 12.0    | 4614.0   | 4178.3 | 8.6                                      | 0.544                                |
| 13               | 14.0    | 4624.0   | 4188.2 | 9.6                                      | 0.497                                |
| 14               | 16.0    | 4627.9   | 4192.1 | 10.4                                     | 0.459                                |

| REF                          | MINUTES | PRESSURE | ΔP     | $\frac{t \times \Delta P}{t + \Delta P}$ | $\log \frac{t + \Delta P}{\Delta P}$ |
|------------------------------|---------|----------|--------|------------------------------------------|--------------------------------------|
| SECOND CLOSED-IN - CONTINUED |         |          |        |                                          |                                      |
| 15                           | 18.0    | 4630.8   | 4195.0 | 11.2                                     | 0.426                                |
| 16                           | 20.0    | 4632.5   | 4196.7 | 12.0                                     | 0.398                                |
| 17                           | 22.0    | 4632.9   | 4197.1 | 12.7                                     | 0.373                                |
| 18                           | 24.0    | 4633.9   | 4198.2 | 13.3                                     | 0.352                                |
| 19                           | 26.0    | 4635.8   | 4200.0 | 13.9                                     | 0.333                                |
| 20                           | 28.0    | 4636.0   | 4200.2 | 14.5                                     | 0.316                                |
| 21                           | 30.0    | 4636.2   | 4200.4 | 15.0                                     | 0.301                                |
| 22                           | 35.0    | 4637.0   | 4201.3 | 16.1                                     | 0.269                                |
| 23                           | 40.0    | 4637.6   | 4201.9 | 17.1                                     | 0.243                                |
| G 24                         | 44.1    | 4638.3   | 4202.5 | 17.9                                     | 0.225                                |
| THIRD FLOW                   |         |          |        |                                          |                                      |
| H 1                          | 0.0     | 438.0    |        |                                          |                                      |
| 2                            | 10.0    | 441.4    | 3.4    |                                          |                                      |
| 3                            | 20.0    | 446.1    | 4.7    |                                          |                                      |
| 4                            | 30.0    | 449.3    | 3.2    |                                          |                                      |
| 5                            | 40.0    | 454.3    | 5.1    |                                          |                                      |
| 6                            | 50.0    | 458.4    | 4.0    |                                          |                                      |
| I 7                          | 58.9    | 462.0    | 3.6    |                                          |                                      |
| THIRD CLOSED-IN              |         |          |        |                                          |                                      |
| I 1                          | 0.0     | 462.0    |        |                                          |                                      |
| 2                            | 1.0     | 1534.8   | 1072.9 | 1.0                                      | 1.965                                |
| 3                            | 2.0     | 2166.5   | 1704.6 | 1.9                                      | 1.662                                |
| 4                            | 3.0     | 2799.0   | 2337.1 | 2.9                                      | 1.493                                |
| 5                            | 4.0     | 3401.3   | 2939.4 | 3.8                                      | 1.367                                |
| 6                            | 5.0     | 3786.2   | 3324.3 | 4.7                                      | 1.275                                |
| 7                            | 6.0     | 4141.1   | 3679.1 | 5.6                                      | 1.200                                |
| 8                            | 7.0     | 4346.7   | 3884.7 | 6.5                                      | 1.139                                |
| 9                            | 8.0     | 4449.8   | 3987.8 | 7.3                                      | 1.085                                |
| 10                           | 9.0     | 4542.3   | 4080.3 | 8.2                                      | 1.038                                |
| 11                           | 10.0    | 4578.1   | 4116.2 | 9.0                                      | 0.995                                |
| 12                           | 12.0    | 4610.1   | 4148.1 | 10.5                                     | 0.926                                |
| 13                           | 14.0    | 4621.5   | 4159.5 | 12.1                                     | 0.866                                |
| 14                           | 16.0    | 4627.5   | 4165.5 | 13.6                                     | 0.817                                |
| 15                           | 18.0    | 4629.8   | 4167.8 | 15.0                                     | 0.774                                |
| 16                           | 20.0    | 4630.8   | 4168.8 | 16.3                                     | 0.737                                |
| 17                           | 22.0    | 4632.9   | 4170.9 | 17.6                                     | 0.703                                |
| 18                           | 24.0    | 4634.1   | 4172.1 | 18.9                                     | 0.673                                |
| 19                           | 26.0    | 4634.1   | 4172.1 | 20.1                                     | 0.645                                |
| 20                           | 28.0    | 4634.5   | 4172.6 | 21.3                                     | 0.621                                |
| 21                           | 30.0    | 4635.6   | 4173.6 | 22.4                                     | 0.598                                |
| 22                           | 35.0    | 4637.6   | 4175.7 | 25.1                                     | 0.549                                |
| 23                           | 40.0    | 4638.3   | 4176.3 | 27.6                                     | 0.508                                |
| 24                           | 45.0    | 4638.5   | 4176.5 | 29.9                                     | 0.473                                |
| 25                           | 50.0    | 4638.7   | 4176.7 | 32.0                                     | 0.444                                |
| 26                           | 55.0    | 4638.9   | 4176.9 | 34.0                                     | 0.418                                |
| 27                           | 60.0    | 4639.1   | 4177.1 | 35.8                                     | 0.395                                |
| 28                           | 70.0    | 4639.1   | 4177.1 | 39.1                                     | 0.356                                |
| 29                           | 80.0    | 4639.7   | 4177.7 | 42.1                                     | 0.325                                |

REMARKS:

TICKET NO: 00567600

CLOCK NO: 27304 HOUR: 24

GAUGE NO: 5619

DEPTH: 12582.0

| REF                         | MINUTES | PRESSURE | ΔP     | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----------------------------|---------|----------|--------|------------------------------------------|--------------------------------------|
| THIRD CLOSED-IN - CONTINUED |         |          |        |                                          |                                      |
| 30                          | 90.0    | 4640.1   | 4178.2 | 44.7                                     | 0.298                                |
| 31                          | 100.0   | 4640.7   | 4178.8 | 47.1                                     | 0.276                                |
| 32                          | 110.0   | 4640.7   | 4178.8 | 49.2                                     | 0.257                                |
| J 33                        | 120.8   | 4641.0   | 4179.0 | 51.2                                     | 0.239                                |

| REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----|---------|----------|----|------------------------------------------|--------------------------------------|
|     |         |          |    |                                          |                                      |

REMARKS:

TICKET NO: 00567600

CLOCK NO: 16710 HOUR: 24

GAUGE NO: 5618

DEPTH: 12633.0

| REF              | MINUTES | PRESSURE | AP     | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ | REF                          | MINUTES         | PRESSURE | AP     | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |       |       |
|------------------|---------|----------|--------|------------------------------------------|--------------------------------------|------------------------------|-----------------|----------|--------|------------------------------------------|--------------------------------------|-------|-------|
| FIRST FLOW       |         |          |        |                                          |                                      | SECOND CLOSED-IN - CONTINUED |                 |          |        |                                          |                                      |       |       |
| B                | 1       | 0.0      | 470.3  |                                          |                                      | 15                           | 18.0            | 4700.6   | 4218.9 | 11.3                                     | 0.426                                |       |       |
|                  | 2       | 3.0      | 470.3  | 0.0                                      |                                      | 16                           | 20.0            | 4701.4   | 4219.8 | 12.0                                     | 0.398                                |       |       |
|                  | 3       | 6.0      | 470.3  | 0.0                                      |                                      | 17                           | 22.0            | 4702.7   | 4221.1 | 12.7                                     | 0.374                                |       |       |
|                  | 4       | 9.0      | 470.3  | 0.0                                      |                                      | 18                           | 24.0            | 4703.6   | 4221.9 | 13.3                                     | 0.352                                |       |       |
|                  | 5       | 12.0     | 470.9  | 0.6                                      |                                      | 19                           | 26.0            | 4704.4   | 4222.8 | 13.9                                     | 0.333                                |       |       |
| C                | 6       | 15.4     | 471.8  | 0.9                                      |                                      | 20                           | 28.0            | 4704.4   | 4222.8 | 14.5                                     | 0.316                                |       |       |
| FIRST CLOSED-IN  |         |          |        |                                          |                                      | 21                           | 30.0            | 4704.8   | 4223.2 | 15.0                                     | 0.301                                |       |       |
| C                | 1       | 0.0      | 471.8  |                                          |                                      | 22                           | 35.0            | 4705.7   | 4224.0 | 16.1                                     | 0.269                                |       |       |
|                  | 2       | 1.0      | 2099.2 | 1627.4                                   | 1.0                                  | 1.199                        | 23              | 40.0     | 4705.7 | 4224.0                                   | 17.1                                 | 0.243 |       |
|                  | 3       | 2.0      | 2744.7 | 2272.9                                   | 1.7                                  | 0.948                        | G               | 24       | 44.1   | 4706.5                                   | 4224.9                               | 17.9  | 0.225 |
|                  | 4       | 3.0      | 3321.2 | 2849.4                                   | 2.5                                  | 0.792                        | THIRD FLOW      |          |        |                                          |                                      |       |       |
|                  | 5       | 4.0      | 3764.7 | 3293.0                                   | 3.2                                  | 0.683                        | H               | 1        | 0.0    | 485.7                                    |                                      |       |       |
|                  | 6       | 5.0      | 4039.8 | 3568.0                                   | 3.8                                  | 0.610                        |                 | 2        | 10.0   | 487.8                                    | 2.1                                  |       |       |
|                  | 7       | 6.0      | 4296.3 | 3824.6                                   | 4.3                                  | 0.554                        |                 | 3        | 20.0   | 491.3                                    | 3.4                                  |       |       |
|                  | 8       | 7.0      | 4412.9 | 3941.2                                   | 4.8                                  | 0.505                        |                 | 4        | 30.0   | 495.1                                    | 3.9                                  |       |       |
|                  | 9       | 8.0      | 4534.6 | 4062.8                                   | 5.2                                  | 0.467                        |                 | 5        | 40.0   | 499.2                                    | 4.1                                  |       |       |
|                  | 10      | 9.0      | 4618.6 | 4146.8                                   | 5.7                                  | 0.433                        |                 | 6        | 50.0   | 503.9                                    | 4.7                                  |       |       |
|                  | 11      | 10.0     | 4656.4 | 4184.6                                   | 6.1                                  | 0.405                        | I               | 7        | 58.9   | 509.0                                    | 5.1                                  |       |       |
|                  | 12      | 11.0     | 4675.7 | 4204.0                                   | 6.4                                  | 0.380                        | THIRD CLOSED-IN |          |        |                                          |                                      |       |       |
|                  | 13      | 12.0     | 4687.2 | 4215.4                                   | 6.7                                  | 0.359                        | I               | 1        | 0.0    | 509.0                                    |                                      |       |       |
| D                | 14      | 13.1     | 4692.3 | 4220.5                                   | 7.1                                  | 0.338                        |                 | 2        | 1.0    | 2002.1                                   | 1493.1                               | 1.0   | 1.938 |
| SECOND FLOW      |         |          |        |                                          |                                      |                              | 3               | 2.0      | 2774.2 | 2265.2                                   | 1.9                                  | 1.667 |       |
| E                | 1       | 0.0      | 477.2  |                                          |                                      |                              | 4               | 3.0      | 3249.5 | 2740.5                                   | 2.9                                  | 1.492 |       |
|                  | 2       | 3.0      | 478.4  | 1.3                                      |                                      |                              | 5               | 4.0      | 3706.5 | 3197.4                                   | 3.9                                  | 1.363 |       |
|                  | 3       | 6.0      | 478.4  | 0.0                                      |                                      |                              | 6               | 5.0      | 4027.8 | 3518.8                                   | 4.8                                  | 1.271 |       |
|                  | 4       | 9.0      | 479.1  | 0.6                                      |                                      |                              | 7               | 6.0      | 4253.3 | 3744.3                                   | 5.6                                  | 1.200 |       |
|                  | 5       | 12.0     | 480.4  | 1.3                                      |                                      |                              | 8               | 7.0      | 4425.7 | 3916.6                                   | 6.5                                  | 1.139 |       |
| F                | 6       | 14.6     | 481.6  | 1.3                                      |                                      |                              | 9               | 8.0      | 4532.4 | 4023.4                                   | 7.4                                  | 1.082 |       |
| SECOND CLOSED-IN |         |          |        |                                          |                                      |                              | 10              | 9.0      | 4604.3 | 4095.3                                   | 8.2                                  | 1.035 |       |
| F                | 1       | 0.0      | 481.6  |                                          |                                      |                              | 11              | 10.0     | 4644.9 | 4135.9                                   | 9.0                                  | 0.995 |       |
|                  | 2       | 1.0      | 1885.2 | 1403.6                                   | 1.0                                  | 1.488                        | 12              | 12.0     | 4678.7 | 4169.7                                   | 10.6                                 | 0.924 |       |
|                  | 3       | 2.0      | 2723.5 | 2241.8                                   | 1.9                                  | 1.207                        | 13              | 14.0     | 4690.2 | 4181.2                                   | 12.1                                 | 0.866 |       |
|                  | 4       | 3.0      | 3338.4 | 2856.7                                   | 2.7                                  | 1.046                        | 14              | 16.0     | 4694.9 | 4185.8                                   | 13.6                                 | 0.817 |       |
|                  | 5       | 4.0      | 3777.7 | 3296.1                                   | 3.5                                  | 0.930                        | 15              | 18.0     | 4697.2 | 4188.2                                   | 15.0                                 | 0.774 |       |
|                  | 6       | 5.0      | 4044.7 | 3563.0                                   | 4.3                                  | 0.847                        | 16              | 20.0     | 4698.9 | 4189.9                                   | 16.3                                 | 0.737 |       |
|                  | 7       | 6.0      | 4302.9 | 3821.3                                   | 5.0                                  | 0.776                        | 17              | 22.0     | 4700.6 | 4191.6                                   | 17.7                                 | 0.702 |       |
|                  | 8       | 7.0      | 4456.5 | 3974.9                                   | 5.7                                  | 0.721                        | 18              | 24.0     | 4700.6 | 4191.6                                   | 18.9                                 | 0.672 |       |
|                  | 9       | 8.0      | 4558.2 | 4076.5                                   | 6.3                                  | 0.677                        | 19              | 26.0     | 4701.4 | 4192.4                                   | 20.1                                 | 0.646 |       |
|                  | 10      | 9.0      | 4622.0 | 4140.3                                   | 6.9                                  | 0.636                        | 20              | 28.0     | 4702.1 | 4193.1                                   | 21.3                                 | 0.620 |       |
|                  | 11      | 10.0     | 4659.8 | 4178.1                                   | 7.5                                  | 0.603                        | 21              | 30.0     | 4702.7 | 4193.7                                   | 22.4                                 | 0.598 |       |
|                  | 12      | 12.0     | 4686.4 | 4204.7                                   | 8.6                                  | 0.544                        | 22              | 35.0     | 4704.4 | 4195.4                                   | 25.1                                 | 0.549 |       |
|                  | 13      | 14.0     | 4694.6 | 4213.0                                   | 9.6                                  | 0.497                        | 23              | 40.0     | 4704.4 | 4195.4                                   | 27.6                                 | 0.508 |       |
|                  | 14      | 16.0     | 4698.0 | 4216.4                                   | 10.4                                 | 0.458                        | 24              | 45.0     | 4704.4 | 4195.4                                   | 29.9                                 | 0.473 |       |
|                  |         |          |        |                                          |                                      |                              | 25              | 50.0     | 4704.8 | 4195.8                                   | 32.0                                 | 0.444 |       |
|                  |         |          |        |                                          |                                      |                              | 26              | 55.0     | 4705.1 | 4196.0                                   | 34.0                                 | 0.418 |       |
|                  |         |          |        |                                          |                                      |                              | 27              | 60.0     | 4705.3 | 4196.2                                   | 35.8                                 | 0.395 |       |
|                  |         |          |        |                                          |                                      |                              | 28              | 70.0     | 4706.3 | 4197.3                                   | 39.1                                 | 0.356 |       |
|                  |         |          |        |                                          |                                      |                              | 29              | 80.0     | 4706.3 | 4197.3                                   | 42.1                                 | 0.325 |       |

REMARKS:

|                             |
|-----------------------------|
| TICKET NO: 00567600         |
| CLOCK NO: 16710    HOUR: 24 |

|                |
|----------------|
| GAUGE NO: 5618 |
| DEPTH: 12633.0 |

| REF                         | MINUTES | PRESSURE | ΔP     | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ | REF | MINUTES | PRESSURE | ΔP | $\frac{t \times \Delta t}{t + \Delta t}$ | $\log \frac{t + \Delta t}{\Delta t}$ |
|-----------------------------|---------|----------|--------|------------------------------------------|--------------------------------------|-----|---------|----------|----|------------------------------------------|--------------------------------------|
| THIRD CLOSED-IN - CONTINUED |         |          |        |                                          |                                      |     |         |          |    |                                          |                                      |
| 30                          | 90.0    | 4706.3   | 4197.3 | 44.7                                     | 0.298                                |     |         |          |    |                                          |                                      |
| 31                          | 100.0   | 4706.3   | 4197.3 | 47.1                                     | 0.276                                |     |         |          |    |                                          |                                      |
| 32                          | 110.0   | 4706.3   | 4197.3 | 49.2                                     | 0.257                                |     |         |          |    |                                          |                                      |
| J 33                        | 120.8   | 4707.8   | 4198.8 | 51.2                                     | 0.239                                |     |         |          |    |                                          |                                      |

REMARKS:

TICKET NO. 00567600

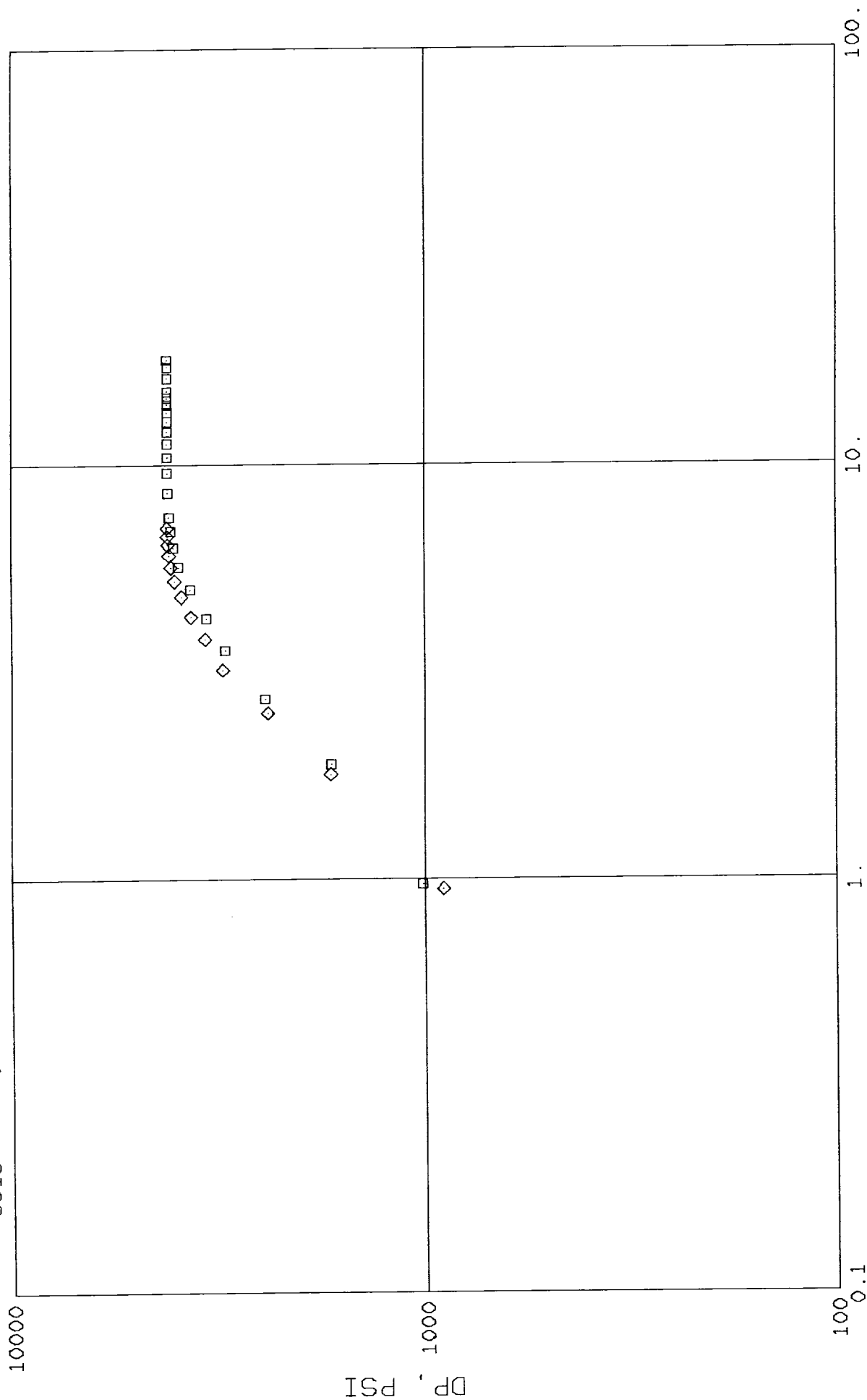
|             |                                                                                     | O.D.                          | I.D.  | LENGTH | DEPTH   |         |
|-------------|-------------------------------------------------------------------------------------|-------------------------------|-------|--------|---------|---------|
| 1           |    | DRILL PIPE.....               | 4.500 | 3.640  | 2263.5  |         |
| 1           |    | DRILL PIPE.....               | 4.500 | 3.826  | 7213.0  |         |
| 1           |    | DRILL PIPE.....               | 4.500 | 3.640  | 2350.0  |         |
| 97          |    | KEY-SEAT REAMER.....          | 5.875 | 2.313  | 6.5     | 11833.0 |
| 3           |    | DRILL COLLARS.....            | 6.250 | 2.250  | 606.0   |         |
| 50          |    | IMPACT REVERSING SUB.....     | 6.000 | 2.875  | 1.0     | 12439.5 |
| 3           |    | DRILL COLLARS.....            | 6.250 | 2.250  | 121.0   |         |
| 5           |    | CROSSOVER.....                | 5.750 | 2.250  | 1.0     |         |
| 62          |    | MULTIPLE CIP SAMPLER.....     | 5.000 | 0.750  | 9.0     | 12570.0 |
| 14          |    | EXTENSION JOINT.....          | 5.000 | 0.875  | 5.0     |         |
| 14          |    | EXTENSION JOINT.....          | 5.000 | 0.875  | 5.0     |         |
| 80          |   | AP RUNNING CASE.....          | 5.000 | 2.250  | 4.0     | 12582.0 |
| 15          |  | JAR.....                      | 5.000 | 1.750  | 5.0     |         |
| 16          |  | VR SAFETY JOINT.....          | 5.000 | 1.000  | 3.0     |         |
| 70          |  | OPEN HOLE PACKER.....         | 7.000 | 1.530  | 5.0     | 12595.0 |
| 70          |  | OPEN HOLE PACKER.....         | 7.000 | 1.530  | 5.0     | 12600.0 |
| 19          |  | ANCHOR PIPE SAFETY JOINT..... | 5.750 | 1.500  | 4.0     |         |
| 20          |  | FLUSH JOINT ANCHOR.....       | 5.750 | 3.000  | 25.0    |         |
| 81          |  | BLANKED-OFF RUNNING CASE..... | 5.750 |        | 4.0     | 12633.0 |
| TOTAL DEPTH |                                                                                     |                               |       |        | 12636.0 |         |

EQUIPMENT DATA

TICKET NO 00567600

GAUGE NO CIP 1 2 3  
5618

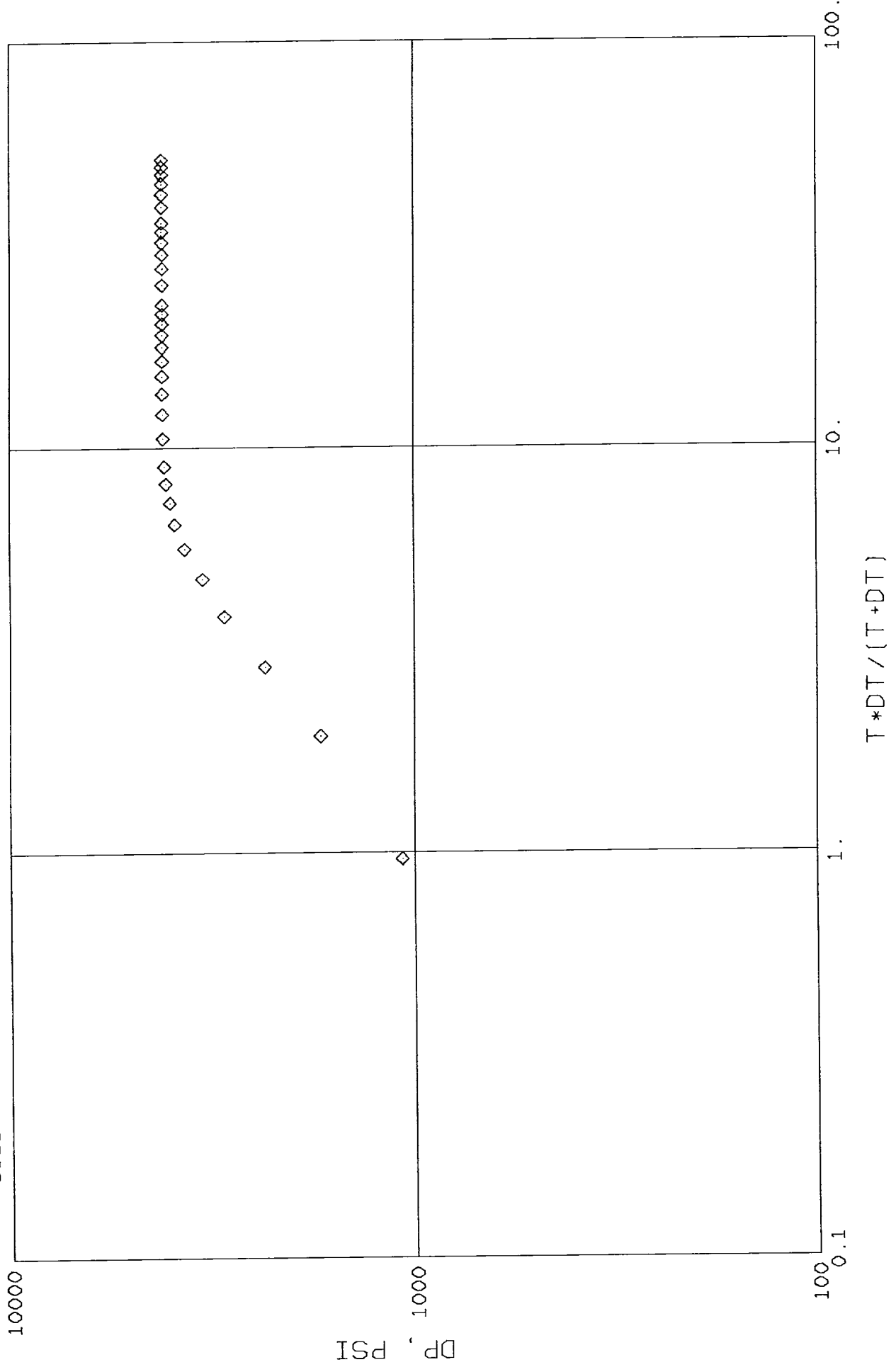
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5619



TICKET NO 00567600

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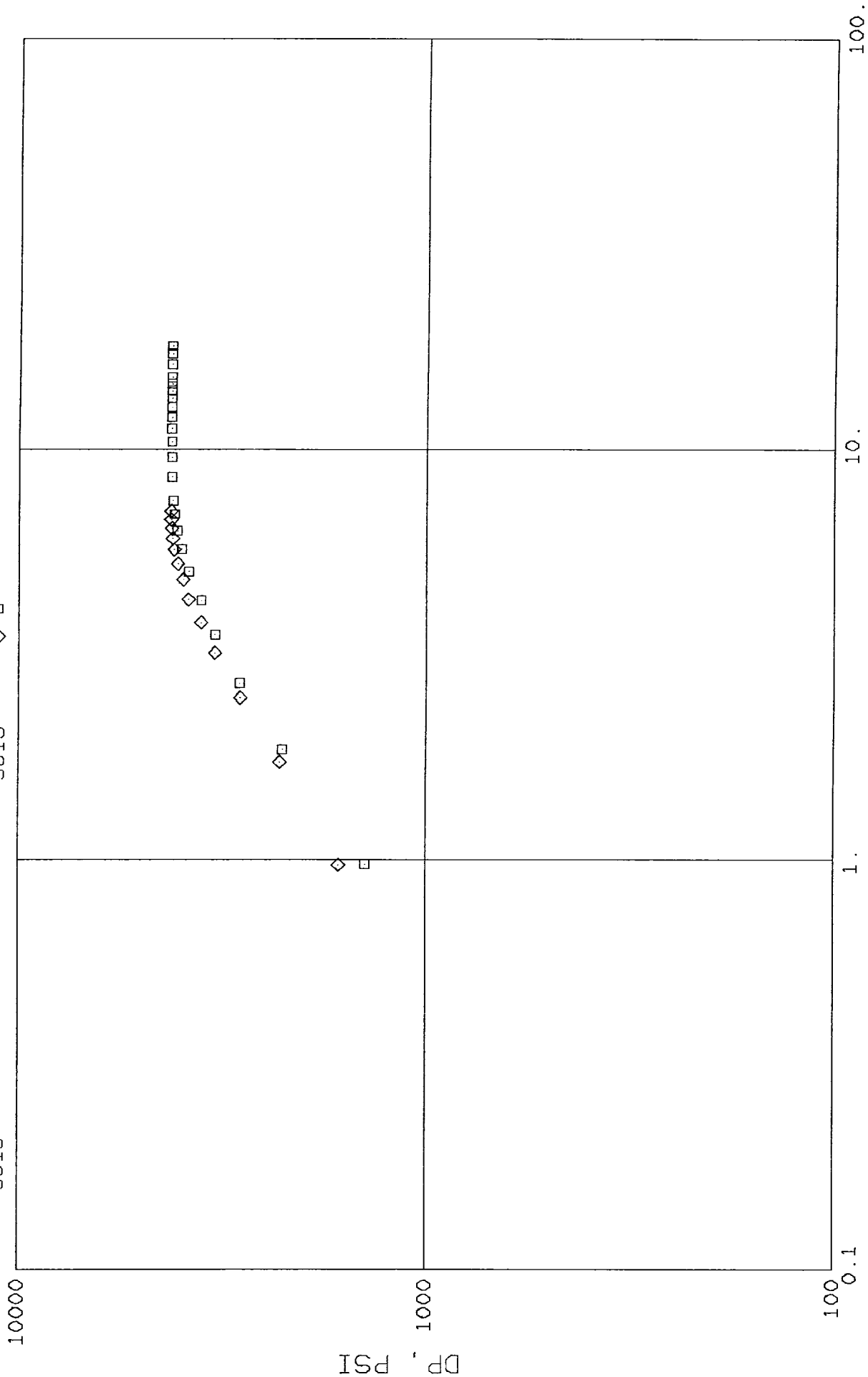
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TICKET NO 00567600

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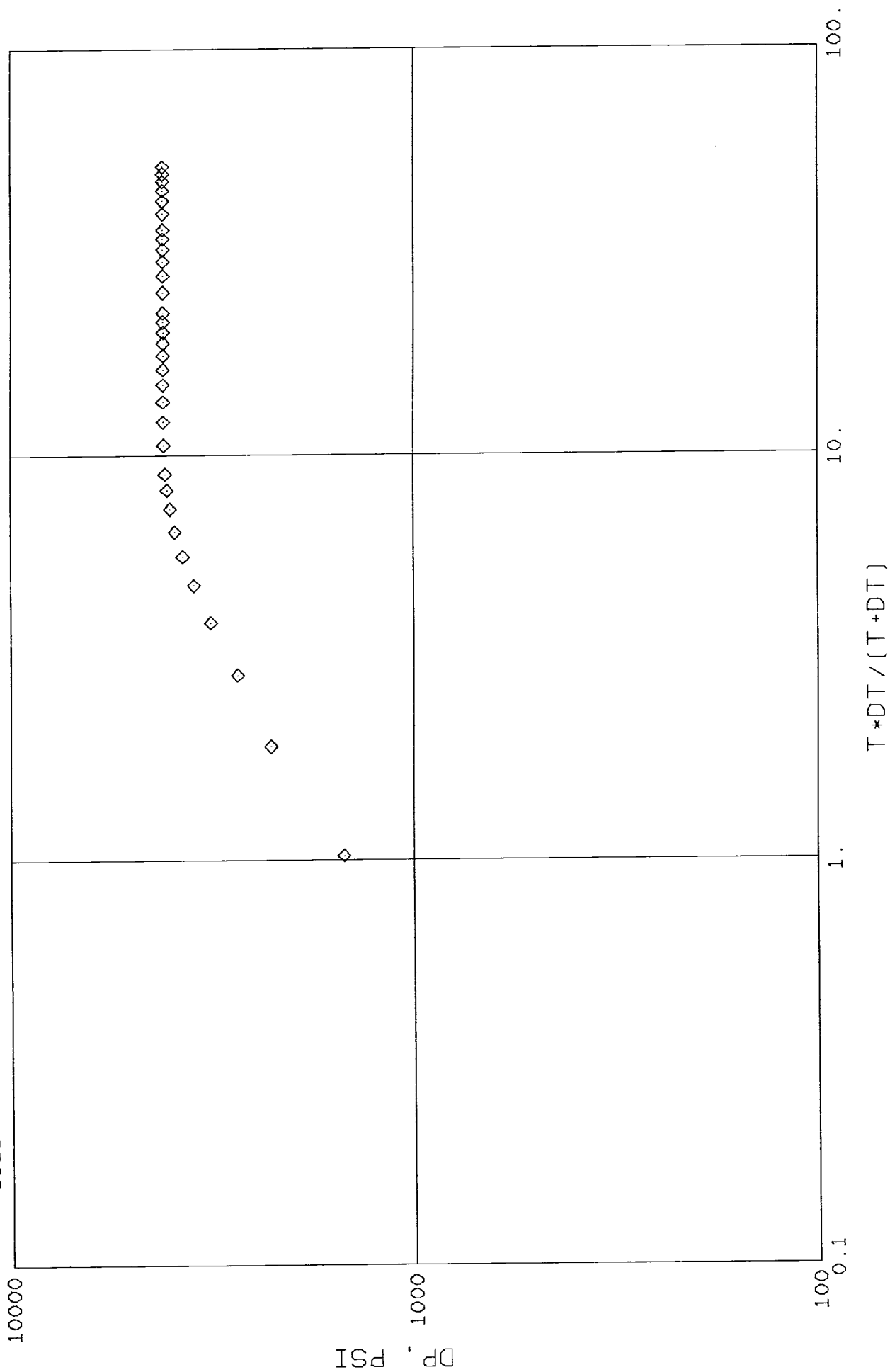
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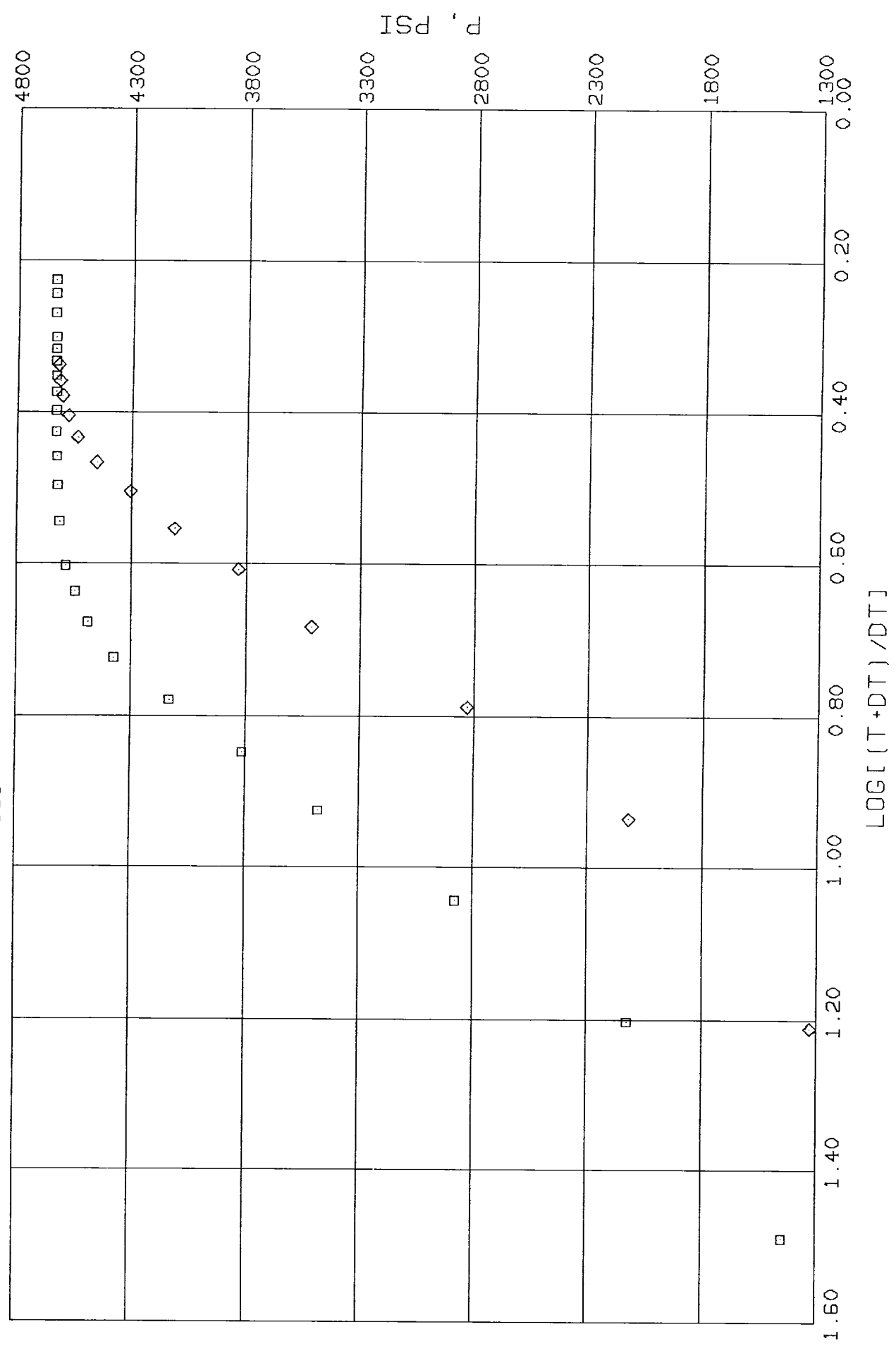
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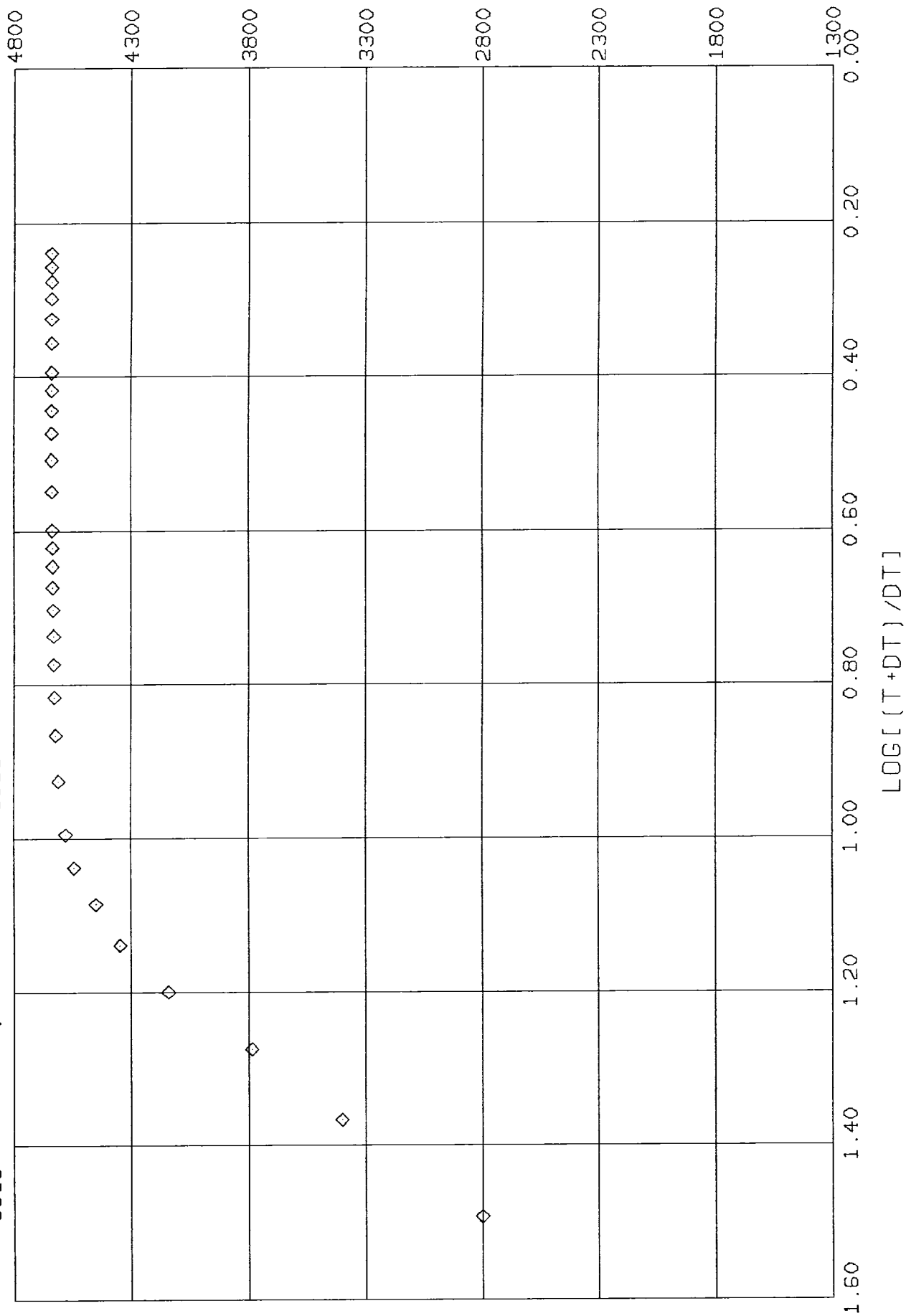
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GAUGE NO 5618 CIP 1 2 3



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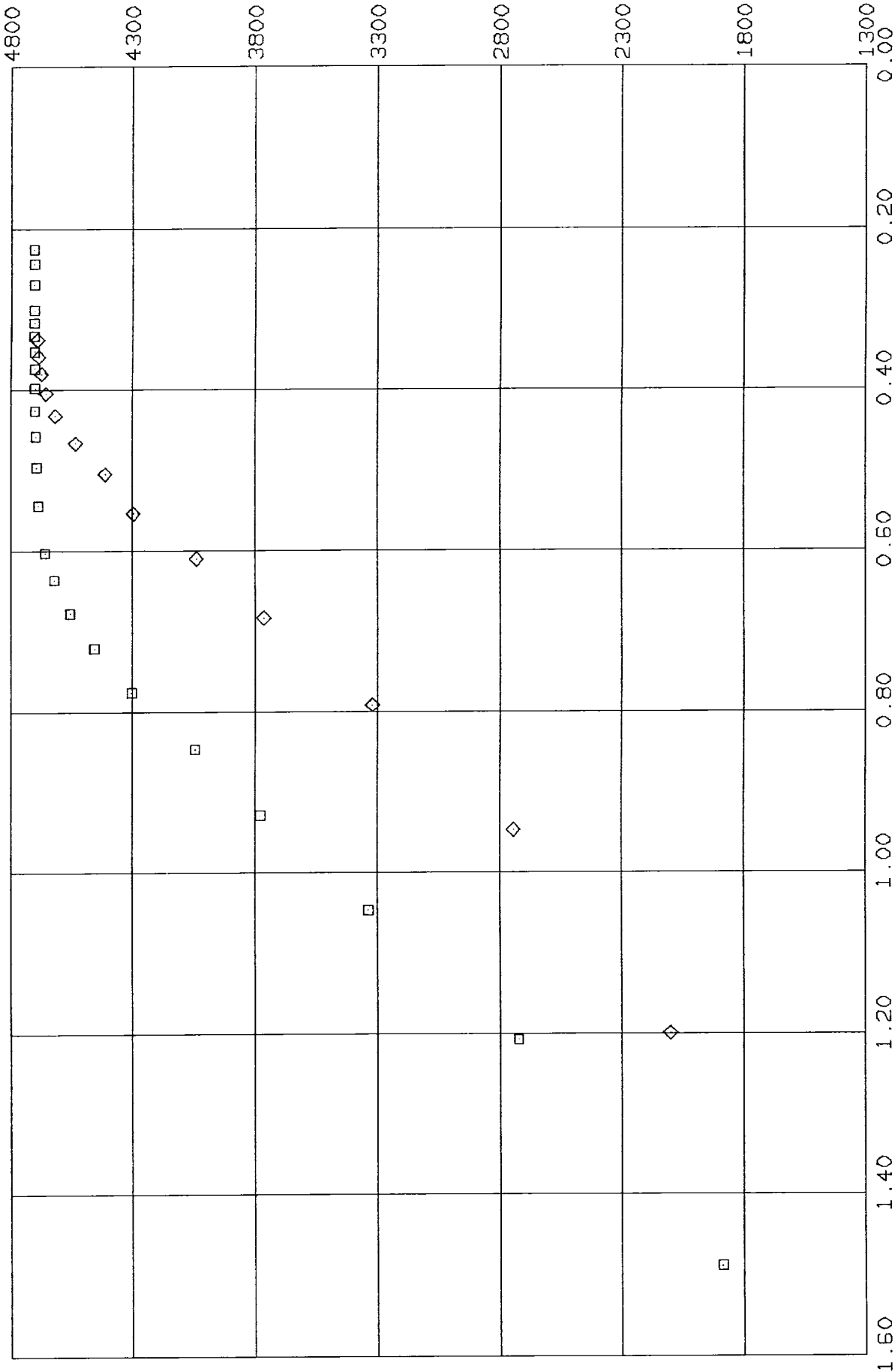
GAUGE NO CIP 1 2 3  
5619



TICKET NO 00567600

GAUGE NO CIP 1 2 3  
5619

GAUGE NO CIP 1 2 3  
5618



$\text{LOG}[(T+DT)/DT]$

TICKET NO 00567600

GAUGE NO CIP 1 2 3  
5618

GAUGE NO CIP 1 2 3  
5619

