

W162

FIELD BOOK

361

CITY OF  
SAN DIEGO ~ CALIFORNIA  
ADDITIONAL WATER SUPPLY  
EL CAPITAN CONDUIT LINE  
VIA MISSION GORGE

15

# KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

## Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

" Copyright, 1895, by Keuffel & Esser Co."

|    | 0    | .1   | .2   | .3   | .4   | .5   | .6   | .7   | .8   | .9   |    |
|----|------|------|------|------|------|------|------|------|------|------|----|
| 0  | 9.0  | 9.1  | 9.2  | 9.3  | 9.4  | 9.5  | 9.6  | 9.7  | 9.8  | 9.9  | 0  |
| 1  | 10.0 | 10.1 | 10.2 | 10.3 | 10.4 | 10.5 | 10.6 | 10.7 | 10.8 | 10.9 | 1  |
| 2  | 11.0 | 11.1 | 11.2 | 11.3 | 11.4 | 11.5 | 11.6 | 11.7 | 11.8 | 11.9 | 2  |
| 3  | 12.0 | 12.1 | 12.2 | 12.3 | 12.4 | 12.5 | 12.6 | 12.7 | 12.8 | 12.9 | 3  |
| 4  | 13.0 | 13.1 | 13.2 | 13.3 | 13.4 | 13.5 | 13.6 | 13.7 | 13.8 | 13.9 | 4  |
| 5  | 14.0 | 14.1 | 14.2 | 14.3 | 14.4 | 14.5 | 14.6 | 14.7 | 14.8 | 14.9 | 5  |
| 6  | 15.0 | 15.1 | 15.2 | 15.3 | 15.4 | 15.5 | 15.6 | 15.7 | 15.8 | 15.9 | 6  |
| 7  | 16.0 | 16.1 | 16.2 | 16.3 | 16.4 | 16.5 | 16.6 | 16.7 | 16.8 | 16.9 | 7  |
| 8  | 17.0 | 17.1 | 17.2 | 17.3 | 17.4 | 17.5 | 17.6 | 17.7 | 17.8 | 17.9 | 8  |
| 9  | 18.0 | 18.1 | 18.2 | 18.3 | 18.4 | 18.5 | 18.6 | 18.7 | 18.8 | 18.9 | 9  |
| 10 | 19.0 | 19.1 | 19.2 | 19.3 | 19.4 | 19.5 | 19.6 | 19.7 | 19.8 | 19.9 | 10 |
| 11 | 20.0 | 20.1 | 20.2 | 20.3 | 20.4 | 20.5 | 20.6 | 20.7 | 20.8 | 20.9 | 11 |
| 12 | 21.0 | 21.1 | 21.2 | 21.3 | 21.4 | 21.5 | 21.6 | 21.7 | 21.8 | 21.9 | 12 |
| 13 | 22.0 | 22.1 | 22.2 | 22.3 | 22.4 | 22.5 | 22.6 | 22.7 | 22.8 | 22.9 | 13 |
| 14 | 23.0 | 23.1 | 23.2 | 23.3 | 23.4 | 23.5 | 23.6 | 23.7 | 23.8 | 23.9 | 14 |
| 15 | 24.0 | 24.1 | 24.2 | 24.3 | 24.4 | 24.5 | 24.6 | 24.7 | 24.8 | 24.9 | 15 |
| 16 | 25.0 | 25.1 | 25.2 | 25.3 | 25.4 | 25.5 | 25.6 | 25.7 | 25.8 | 25.9 | 16 |
| 17 | 26.0 | 26.1 | 26.2 | 26.3 | 26.4 | 26.5 | 26.6 | 26.7 | 26.8 | 26.9 | 17 |
| 18 | 27.0 | 27.1 | 27.2 | 27.3 | 27.4 | 27.5 | 27.6 | 27.7 | 27.8 | 27.9 | 18 |
| 19 | 28.0 | 28.1 | 28.2 | 28.3 | 28.4 | 28.5 | 28.6 | 28.7 | 28.8 | 28.9 | 19 |
| 20 | 29.0 | 29.1 | 29.2 | 29.3 | 29.4 | 29.5 | 29.6 | 29.7 | 29.8 | 29.9 | 20 |
| 21 | 30.0 | 30.1 | 30.2 | 30.3 | 30.4 | 30.5 | 30.6 | 30.7 | 30.8 | 30.9 | 21 |
| 22 | 31.0 | 31.1 | 31.2 | 31.3 | 31.4 | 31.5 | 31.6 | 31.7 | 31.8 | 31.9 | 22 |
| 23 | 32.0 | 32.1 | 32.2 | 32.3 | 32.4 | 32.5 | 32.6 | 32.7 | 32.8 | 32.9 | 23 |
| 24 | 33.0 | 33.1 | 33.2 | 33.3 | 33.4 | 33.5 | 33.6 | 33.7 | 33.8 | 33.9 | 24 |
| 25 | 34.0 | 34.1 | 34.2 | 34.3 | 34.4 | 34.5 | 34.6 | 34.7 | 34.8 | 34.9 | 25 |
| 26 | 35.0 | 35.1 | 35.2 | 35.3 | 35.4 | 35.5 | 35.6 | 35.7 | 35.8 | 35.9 | 26 |
| 27 | 36.0 | 36.1 | 36.2 | 36.3 | 36.4 | 36.5 | 36.6 | 36.7 | 36.8 | 36.9 | 27 |
| 28 | 37.0 | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 37.6 | 37.7 | 37.8 | 37.9 | 28 |
| 29 | 38.0 | 38.1 | 38.2 | 38.3 | 38.4 | 38.5 | 38.6 | 38.7 | 38.8 | 38.9 | 29 |
| 30 | 39.0 | 39.1 | 39.2 | 39.3 | 39.4 | 39.5 | 39.6 | 39.7 | 39.8 | 39.9 | 30 |
| 31 | 40.0 | 40.1 | 40.2 | 40.3 | 40.4 | 40.5 | 40.6 | 40.7 | 40.8 | 40.9 | 31 |
| 32 | 41.0 | 41.1 | 41.2 | 41.3 | 41.4 | 41.5 | 41.6 | 41.7 | 41.8 | 41.9 | 32 |
| 33 | 42.0 | 42.1 | 42.2 | 42.3 | 42.4 | 42.5 | 42.6 | 42.7 | 42.8 | 42.9 | 33 |
| 34 | 43.0 | 43.1 | 43.2 | 43.3 | 43.4 | 43.5 | 43.6 | 43.7 | 43.8 | 43.9 | 34 |
| 35 | 44.0 | 44.1 | 44.2 | 44.3 | 44.4 | 44.5 | 44.6 | 44.7 | 44.8 | 44.9 | 35 |
| 36 | 45.0 | 45.1 | 45.2 | 45.3 | 45.4 | 45.5 | 45.6 | 45.7 | 45.8 | 45.9 | 36 |

Calculated by Julien A. Hall, M. Am. Soc. C. E.

FOR KEITH'S RAILROAD CURVE TABLES SEE END OF BOOK.

MICROFILMED

JAN 8 1965

A stadia Survey of Conduit Line from  
El Capitan Dam site #2 to Univ. Hqs.

"V" line - Continued from book #13

| Sta.        | Azi       | Rod  | Hor. Dist. | Vert. L | Elev.           |
|-------------|-----------|------|------------|---------|-----------------|
| TA11+17A    |           |      |            |         | 512.74          |
| BS. 407+02A | 24°-42'   | 4.13 |            |         | 510.08          |
| 412+32      | 233°-12'  | 1.16 | 115        | -7°-02' | 498.5<br>-14.24 |
| 413+99      | 233°-12'  | 2.84 | 282        | -5°-34' | 485.2<br>-27.52 |
| 415+47A     | 233°-12'  | 4.29 | 430        |         | 513.60 ✓        |
| TA15+47     |           |      |            |         |                 |
| BS. 411+17  | 53°-12'   | 4.28 |            |         | 512.81          |
| 416+26      | 273°-58½' | 0.78 | 79         |         | 505.3           |
| 417+28      | 273°-58½' | 1.80 | 181        |         | 515.4           |
| 418+77A     | 273°-58½' | 3.29 | 330        |         | 513.48 ✓        |
| TA18+77     |           |      |            |         |                 |
| BS. 415+47  | 93°-58½'  | 3.29 |            |         | 513.64          |
| 420+00      | 260°-12'  | 1.22 | 123        |         | 509.8           |
| 420+73      | 260°-12'  | 1.95 | 196        |         | 510.2           |
| 421+43A     | 260°-12'  | 2.65 | 266        |         | 514.23 ✓        |
| TA21+43     |           |      |            |         |                 |
| BS. 418+77  | 80°-12'   | 2.65 |            |         | 513.53          |
| 422+72      | 305°-57½' | 1.30 | 129        | -6°-32' | 499.4<br>-14.82 |
| 424+59      | 305°-57½' | 3.15 | 316        |         | 505.3           |
| 425+30A     | 305°-57½' | 3.86 | 387        |         | 513.83 ✓        |
| TA25+30     |           |      |            |         |                 |
| BS. 421+43  | 125°-57½' | 3.87 |            |         | 514.28          |
| 426+45      | 341-38    | 1.14 | 115        |         | 500.5           |
| 428+51      | 341-38    | 3.20 | 321        |         | 500.2           |

Hayler, Chief of Party  
Chilton, Inst.  
Witte Rear Flag

5-1-22

| FS.  | HI.      | BS.  |
|------|----------|------|
|      | 517.67 ✓ | 4.93 |
|      |          | 7.59 |
| 4.07 |          |      |
|      | 517.86 ✓ | 4.26 |
|      |          | 5.05 |
| 12.6 |          |      |
| 2.5  |          |      |
| 4.38 |          |      |
|      | 518.21 ✓ | 4.73 |
|      |          | 4.57 |
| 8.4  |          |      |
| 8.0  |          |      |
| 3.98 |          |      |
|      | 519.06 ✓ | 4.83 |
|      |          | 5.53 |
| 13.8 |          |      |
| 5.23 |          |      |
|      | 518.77 ✓ | 4.94 |
|      |          | 4.49 |
| 18.2 |          |      |
| 18.5 |          |      |

| Sta        | Azi       | Rod  | Hor. Dist | Vert. L | Elev                        |
|------------|-----------|------|-----------|---------|-----------------------------|
| 430+80 A   | 341°-38'  | 5.49 | 550       |         | 512.48 ✓                    |
| KA30+80    |           |      |           |         |                             |
| BS. 425+30 | 161°-38'  | 5.50 |           |         | 513.92                      |
| 432+09     | 358°-45½' | 1.28 | 129       |         | 511.7                       |
| 433+26 A ✓ | 358°-45½' | 2.45 | 246       |         | 512.58 ✓                    |
| KA33+26    |           |      |           |         |                             |
| BS. 430+80 | 178°-45½' | 2.45 |           |         | 512.52                      |
| 435+50 A ✓ | 319°-40½' | 2.23 | 224       |         | 512.19 ✓                    |
| KA35+50    |           |      |           |         |                             |
| BS. 433+26 | 139°-40½' | 2.24 |           |         | 512.62                      |
| 436+31     |           | 0.80 | 81        |         | 513.6                       |
| 437+00 A ✓ | 290°-24½' | 1.49 | 150 ✓     |         | 510.62 ✓                    |
|            | 332°-54½' | 4.98 | 486       | -9°-26' | <sup>-80.72</sup><br>431.47 |
| KS 389+52A |           |      |           |         |                             |
| BS. 435+50 | 152°-54½' | 4.98 |           | +9°-27' |                             |
| -          | 81°-24½'  |      |           |         |                             |
| KA37+00    |           |      |           |         |                             |
| BS. 435+50 | 110°-24½' | 1.49 |           |         | 512.23                      |
| 438+71 A ✓ | 233°-15½' | 1.70 | 171       |         | 510.90 ✓                    |
| KA38+71    |           |      |           |         |                             |
| BS. 437+00 | 53°-15½'  | 1.70 |           |         | 510.67                      |
| 439+75     | 228°-13½' | 1.03 | 104       |         | 502.9                       |
| -          | 216°-38'  | 1.57 |           |         | 511.1                       |
| -          | 228°-59'  | 2.52 |           |         | 503.9                       |
| 444+01A    | 228°-13½' | 5.29 | 530       |         | 505.34 ✓                    |

| FS.   | H.I.                   | BS.                   |
|-------|------------------------|-----------------------|
| 6.23  |                        |                       |
|       | 517.45 ✓               | 4.97                  |
|       |                        | 3.53                  |
| 5.7   |                        |                       |
| 4.87  |                        |                       |
|       | 517.52 ✓               | 4.94                  |
|       |                        | 5.00                  |
| 5.33  |                        |                       |
|       | 516.99 ✓               | 4.80                  |
|       |                        | 4.37                  |
| 3.4   |                        |                       |
| 6.37  |                        |                       |
|       | Side shot to S' 389+52 | (430.49)              |
|       |                        | 5.12                  |
|       | S' Azi = 81°-13½'      | to S' 384+00 (416.02) |
|       | 515.45 ✓               | 4.83                  |
|       |                        | 3.22                  |
| 4.55  |                        |                       |
|       | 515.30 ✓               | 5.00                  |
|       |                        | 5.23                  |
| 13.0  |                        |                       |
| 4.8   |                        |                       |
| 12.0  |                        |                       |
| 10.56 |                        |                       |

S.E. Fence Corner

Corner of fence running S. 00' from highway to top of Hill. Also west side of Street.

| Sta         | Azi       | Rod   | Hor. Dist | Vert     | Elev<br>505.34 |
|-------------|-----------|-------|-----------|----------|----------------|
| π 444+01    |           |       |           |          |                |
| B.S. 438+71 | 48°-13½'  | 529   |           | +0°-38'  | -32.83         |
| 445+28      |           | 134   | 127       | -4°-32'  | 472.5          |
| 453+24A     | 249°-36'  | 929   | 923       | -4°-53'  | -78.87         |
| π 453+24    |           |       |           |          | 426.47         |
| B.S. 444+01 | 69°-36'   | 930   |           | +4°-54'  |                |
| 451+78      | 69°-36'   | -1.45 | 146       |          | 427.3          |
| 452+57      | 69°-36'   | -0.66 | 67        |          | 428.3          |
| 452+86      | 68°-36'   | -0.37 | 38        |          | 423.6          |
| 454+35      | 249°-27'  | 110   | 111       |          | 417.4          |
| 457+41      | 249°-27'  | 4.16  | 417       |          | 417.0          |
| 459+39A     | 249°-27'  | 6.14  | 615       | -0°-50'  | -8.92          |
| π 459+39    |           |       |           |          | 417.55         |
| B.S. 453+24 | 69°-27'   | 6.12  |           | +0°-51½' |                |
| 462+54A     | 249°-14½' | 3.14  | 315       |          | 412.26         |
| π 462+54    | 6'        |       |           |          |                |
| B.S. 457+39 | 69°-14½'  | 3.14  |           |          | 417.60         |
| 465+62A     | 262°-27'  | 3.09  | 308       | +5°-15'  | +28.26         |
| π 465+62    |           |       |           |          | 447.52         |
| B.S. 462+54 | 82°-27'   | 3.10  |           | -5°-14'  | +8.72          |
| 467+06      |           | 144   | 144       | +3°-27'  | 455.2          |
| 468+52      |           | 230   | 290       | +4°-15'  | +21.85         |
| 470+25      |           | 4.66  | 463       | +5°-35'  | 469.37         |
| 471+70A     | 224°-28½' | 6.12  | 608       | +5°-18'  | +45.64         |
| π 471+70    |           |       |           |          | 493.16         |
|             |           |       |           |          | +56.41         |
|             |           |       |           |          | 503.93         |

| ES  | HI     | BS   |  |
|-----|--------|------|--|
|     | 510.15 | 481  |  |
|     |        |      | About 3' inside fence of Miller Place -              |
|     | 431.58 | 5.11 |  |
|     |        |      | back shot  |
|     |        |      | 43. - in olive orchard                               |
|     |        |      | 33 - bank above road                                 |
|     |        |      | 80 - center of highway                               |
| 142 |        |      | Edge of alfalfa                                      |
| 146 |        |      |  |
|     |        |      | on East edge of creek                                |
|     | 422.26 | 471  |  |
| 300 |        |      | in East edge of road near farm gate - angle in road. |
|     | 424.15 | 489  |  |
|     |        | 655  |  |
|     | 452.61 | 509  | At angle in country road                             |
|     |        |      |  |
|     | 509.03 | 510  | at E. edge road in saddle                            |

| Sta.        | Azi      | Rod    | Hor Dist | Vert L   | Elev     |
|-------------|----------|--------|----------|----------|----------|
| B.S. 465+62 | 44°-28'  | 6.12 ✓ |          | -5°-17'  | -6.24 ✓  |
| 473+43 A    | 252°-03' | 1.72   | 173      | -2°-04'  | 497.69 ✓ |
| KA73+43     |          |        |          |          |          |
| B.S. 471+70 | 72°-03'  | 1.72   |          | +2°-05'  | -0.95 ✓  |
| 475+32      | 261°-32' | 1.89   | 189      | -3°-00'  | 487.7 ✓  |
| FOIT        |          |        |          |          | -51.93 ✓ |
| 482+72 A    | 261°-32' | 9.31   | 929 ✓    | -3°-12'  | 445.76 ✓ |
| KA82+72     |          |        |          |          |          |
| B.S. 473+43 | 81°-32'  | 9.30   |          | +3°-13'  |          |
| 481+38      | 81°-32'  | -1.33  | 134      |          | 447.7    |
| 484+19      | 261°-32' | 1.46   | 147      |          | 432.9 ✓  |
| 487+59 A    | 261°-32' | 4.87   | 487 ✓    | -3°-00'  | 420.22 ✓ |
| KA87+59A    |          |        |          |          |          |
| B.S. 482+72 | 81°-32'  | 4.87   | 487      | +3°-01'  |          |
| 485+83      | 261°-32' | 2.29   | 230      |          | 416.3    |
| 491+85 A    | 261°-32' | 4.25   | 426 ✓    |          | 425.19 ✓ |
| KA91+85     |          |        |          |          |          |
| B.S. 487+59 | 81°-32'  | 4.26   |          |          | 420.26   |
| 493+26      | 261°-32' | 2.10   | 211      |          | 415.8    |
| 496+33 A    | 261°-32' | 4.47   | 448 ✓    |          | 419.60 ✓ |
| KA96+33     |          |        |          |          |          |
| B.S. 491+85 | 81°-32'  | 4.48   |          | +0°-43'  | -18.4    |
| -           | 19°-24'  | 8.21   |          | -1°-16'  | 401.46   |
| 497+19      | 261°-32' | 0.85   | 86       |          | 417.2    |
| 499+99      | 261°-32' | 3.65   | 366      |          | 420.7    |
| 501+85 A    | 261°-32' | 5.51   | 552 ✓    | +1°-29½' | 433.98 ✓ |

| ES   | HI       | BS    |   |
|------|----------|-------|---|
|      | 509.03 ✓ |       |   |
|      | 502.74 ✓ | 5.05  |   |
|      |          |       | in edge of road.                          |
|      | 450.91 ✓ | 5.15  |   |
| 32   |          |       | back shot - Center of Crossroads          |
| 110  |          |       |   |
|      |          |       | Edge of road.                             |
|      | 425.35 ✓ | 5.13  |   |
| 91   |          |       |   |
| 016  |          |       | 5-3-1922                                  |
|      | 430.31 ✓ | 5.12  |   |
|      |          | 10.05 | center cross roads                        |
| 145  |          |       | Summit Ave + County Road                  |
| 1071 |          |       | near house                                |
|      |          |       | Appr. center of Summit Ave.               |
|      | 424.78 ✓ | 5.18  |   |
|      |          |       | side shot to W. waste 400 Cont. T.P. #223 |
| 76   |          |       |   |
| 41   |          |       |   |
|      |          |       | On bank near angle in Summit Ave.         |

| Sta.       | AZI       | Rod  | Hor. Dist | Vert L  | Elev             |
|------------|-----------|------|-----------|---------|------------------|
| Σ 501+85   |           |      |           |         | 433.98           |
| BS. 496+33 | 81°-32'   | 5.51 |           | +1°-28' |                  |
| 502+58     | 278°-10'  | 0.72 | 73        |         | 434.7<br>+1668   |
| 505+19     | 278°-10'  | 3.33 | 334       | +2°-52' | 450.66<br>+41.41 |
| 508+24A    | 278°-10'  | 6.39 | 639       | +3°-43' | 475.39           |
| Σ 508+24   |           |      |           |         |                  |
| BS. 501+85 | 98°-10'   |      |           | -3°-42' |                  |
| 510+48     | 341-23    | 2.23 | 224       |         | 476.3<br>+19.24  |
| 512+84     | 341-23    | 4.59 | 460       | +2°-24' | 494.63<br>+22.10 |
| 513+78A    | 341°-23+  | 5.54 | 554       | +2°-17' | 497.49           |
| Σ 513+78   |           |      |           |         |                  |
| BS. 508+24 | 161°-23'  | 5.55 |           | -2°-11' |                  |
| 515+42     | 322-57    | 1.63 | 164       |         | 493.6            |
| 516+23A    | 322°-57'  | 2.44 | 245       |         | 499.36           |
| Σ 516+23   |           |      |           |         |                  |
| BS. 513+78 | 142°-57'  | 2.44 |           |         | 497.56           |
| 517+46A    | 292°-37½' | 1.22 | 123       |         | 498.61           |
| Σ 517+46   |           |      |           |         |                  |
| BS. 516+23 | 112°-37½' | 1.22 |           |         | 499.40           |
| 518+20     | 259-28    | 0.73 | 74        |         | 500.2            |
| 518+58A    | 259°-28'  | 1.11 | 112       |         | 499.58           |
| Σ 518+58   |           |      |           |         |                  |
| BS. 517+46 | 79°-28'   | 1.11 |           |         | 498.63           |
| 519+28     | 235°-34½' | 0.69 | 70        |         | 499.2            |
| 520+12A    | 235°-34½' | 1.53 | 154       |         | 501.54           |

| F.S.  | HI     | BS   |
|---|--------|------|
|   | 439.03 | 5.05 |
| 43  |        |      |
| Approximately at N.W. Corner of Intersection of<br>Summit Ave & Riverview Ave |        |      |
|   | 480.45 | 5.06 |
| 4.2   |        |      |
|   | 502.34 | 4.85 |
| 8.7   |        |      |
| 298   |        |      |
|   | 503.61 | 4.25 |
|   |        | 6.05 |
| 5.00  |        |      |
|   | 503.65 | 5.04 |
|   |        | 4.25 |
| 3.5   |        |      |
| 4.07  |        |      |
|   | 504.38 | 4.80 |
|   |        | 5.75 |
| 5.2   |        |      |
| 2.84  |        |      |

Pt. on rock - All Ground 5' Lower

| Sta        | Azi       | ROD  | Hor. Dist | Vert. L | Elev.<br>IPI. 54 |
|------------|-----------|------|-----------|---------|------------------|
| 7520+12    |           |      |           |         |                  |
| BS. 518+58 | 55°-34½'  | 1.52 |           |         | 499.62           |
| 522+46     | 236-32    | 2.33 | 234       | -4°06'  | 484.8            |
| 523+18     | 236-32    | 3.05 | 306       |         | 500.8            |
| 523+87 A   | 236°-32'  | 3.74 | 315       |         | 503.84           |
| 7523+87    |           |      |           |         |                  |
| BS. 520+12 | 56°-32'   | 3.74 |           |         | 501.63           |
| 525+53     | 225-26½   | 1.65 | 166       |         | 507.3            |
| 527+02     | 225-26½   | 3.14 | 315       |         | 504.4            |
| 528+44 A   | 225°-26½' | 4.56 | 457       |         | 503.99           |
| 7528+44    |           |      |           |         |                  |
| BS. 523+87 | 45°-26½'  | 4.55 |           |         | 503.89           |
| 529+88 A   | 221°-56½' | 1.93 | 1.94      |         | 502.57           |
| 7529+88    |           |      |           |         |                  |
| BS. 528+44 | 41°-56½'  | 1.43 |           |         | 504.03           |
| 530+27     | 210-52    | 1.08 | 109       |         | 501.5            |
| 532+04     | 210-52    | 2.15 | 216       |         | 496.5            |
| 532+62     | 210-52    | 2.73 | 274       |         | 497.3            |
| 533+44     | 210-52    | 3.55 | 356       |         | 494.6            |
| 534+13A    | 210°-52'  | 4.30 | 431       |         | 503.82           |
| 7534+19    |           |      |           |         |                  |
| BS. 529+88 | 30°-52'   | 4.31 |           |         | 502.63           |
| 535+86A    | 242°-24'  | 1.66 | 167       |         | 500.72           |
| 7535+86    |           |      |           |         |                  |
| BS. 534+19 | 62°-24'   | 1.66 |           |         | 503.84           |

| FS   | HI     | BS                    |
|------|--------|-----------------------|
|      | 506.68 | 5.07                  |
|      |        | 7.01                  |
| 5.8  |        |                       |
| 2.79 |        |                       |
|      | 508.90 | 5.06                  |
|      |        | 7.27                  |
| 1.6  |        |                       |
| 4.5  |        |                       |
| 4.91 |        |                       |
|      | 509.08 | 5.09                  |
|      |        | 5.19                  |
| 6.51 |        |                       |
|      | 507.49 | 4.92                  |
|      |        | 3.46                  |
| 6.0  |        |                       |
|      |        | 50' back is 15' lower |
| 11.0 |        |                       |
| 10.2 |        |                       |
| 12.9 |        | 25' back is 10' lower |
| 3.67 |        |                       |
|      | 508.79 | 4.97                  |
|      |        | 6.16                  |
| 8.67 |        |                       |
|      | 509.20 | 5.08                  |
|      |        | 1.36                  |



535486

| Sta        | Azi      | Rod  | Hor. Dist | Vert L   | Elev   |
|------------|----------|------|-----------|----------|--------|
| 537+02     | 274-57   | 119  | 116       | -10°-58  | 477.6  |
| 537+69     | 274-57   | 1.87 | 183       | -9°-40   | 469.0  |
| 539+99     | 274-57   | 4.12 | 413       | -2°-35   | 481.5  |
| 542+69 A   | 274°-57' | 6.82 | 683       | +0°-55'  | 511.06 |
| BS. 542+69 |          |      |           |          |        |
| BS. 545+86 | 24°-57'  | 6.82 |           | -0°-54'  |        |
| 543+34     |          | 0.64 | 65        |          | 511.2  |
| 545+23 A   | 288°-33½ | 2.53 | 254       |          | 504.65 |
| BS. 542+69 | 108°-33½ | 2.53 |           | +1°-28'  |        |
|            | 225°-04' | 2.36 |           | -4°-54'  |        |
| 547+34     | 261-16   | 2.10 | 211       |          | 493.7  |
| 549+09     | 261-16   | 3.85 | 386       | -2°-43'  | 486.4  |
| 550+32     | 261-16   | 5.68 | 569       | -0°-50'  | 496.4  |
| 552+10 A   | 261-16   | 6.86 | 687       |          | 503.80 |
| BS. 545+23 | 81°-16'  | 6.87 |           |          | 504.73 |
| 553+56 A   | 265°-40½ | 1.45 | 146       |          | 499.35 |
| BS. 552+10 | 85°-40½  | 1.45 |           | +1246'   |        |
| 554+90     | 317-41½  | 1.42 | 134       | -15°-06' | 468.0  |
| 555+42     | 317-41½  | 1.89 | 186       | -8°-15'  | 476.6  |
| 557+09 A   | 317°-41½ | 3.52 | 353       |          | 498.82 |
| BS. 553+56 | 137°-41½ | 3.52 |           |          | 499.45 |

| FS    | HI     | BS   |                                      |
|-------|--------|------|--------------------------------------|
|       | 505.20 |      | Center of road                       |
|       |        |      | Creek bottom                         |
|       |        |      | 50 ahead is 15' lower                |
|       |        |      | At Angle in old road                 |
|       |        |      | Near saddle                          |
|       | 516.20 | 5.14 |                                      |
| 5.0   |        |      | highest pt. in saddle                |
| 11.55 |        |      |                                      |
|       | 509.69 | 5.04 |                                      |
|       |        |      | 2x4 stake at corner of Learn's Fence |
| 16.0  |        |      |                                      |
|       |        |      | Fence line                           |
| 5.89  |        |      |                                      |
|       | 508.85 | 5.05 |                                      |
|       |        | 4.12 |                                      |
| 9.50  |        |      |                                      |
|       | 504.28 | 4.93 |                                      |
|       |        |      | Gully                                |
| 5.46  |        |      | 5-4-1922                             |
|       | 503.71 | 4.89 |                                      |
|       |        | 4.26 |                                      |

| Sta             | Azi                     | Rod  | Hor. Dist | Vert. $\angle$ | Elev   |
|-----------------|-------------------------|------|-----------|----------------|--------|
| 558+43A         | 304°-27 $\frac{1}{2}$ ' | 1.33 | 134       |                | 496.73 |
| $\Delta$ 558+43 |                         |      |           |                |        |
| B.S. 557+09     | 124°-27 $\frac{1}{2}$ ' | 1.33 |           |                | 498.86 |
| 559+78A         | 287°-53'                | 1.34 | 135       |                | 495.70 |
| $\Delta$ 559+78 |                         |      |           |                |        |
| B.S. 558+43     | 107°-53'                | 1.34 |           |                | 496.78 |
| 560+61A         | 266°-14'                | 0.82 | 83        |                | 495.92 |
| $\Delta$ 560+61 |                         |      |           |                |        |
| B.S. 559+78     | 86°-14'                 | 0.82 |           |                | 495.72 |
| 562+61A         | 245°-44'                | 1.99 | 200       |                | 494.82 |
| $\Delta$ 562+61 |                         |      |           |                |        |
| B.S. 560+61     | 65°-44'                 | 1.99 |           |                | 495.94 |
| 562+64          | -                       |      |           |                |        |
| 564+01A         | 236°-04 $\frac{1}{2}$ ' | 1.39 | 140       |                | 494.29 |
| $\Delta$ 564+01 |                         |      |           |                |        |
| B.S. 562+61     | 56°-04 $\frac{1}{2}$ '  | 1.39 |           |                | 494.84 |
| 565+04          | 238°-52 $\frac{1}{2}$ ' | 1.02 | 103       |                | 492.6  |
| 567+01A         | 238°-52 $\frac{1}{2}$ ' | 2.99 | 300       |                | 491.00 |
| $\Delta$ 567+01 |                         |      |           |                |        |
| B.S. 564+01     | 58°-52 $\frac{1}{2}$ '  | 2.99 |           |                | 494.35 |
| 567+85          | 265°-34 $\frac{1}{2}$ ' | 0.83 | 84        |                | 488.6  |
| 569+19A         | 265°-34 $\frac{1}{2}$ ' | 2.17 | 218       |                | 491.43 |
| $\Delta$ 569+19 |                         |      |           |                |        |
| B.S. 567+01     | 85°-34 $\frac{1}{2}$ '  | 2.17 |           |                | 491.04 |
| 570<br>568+67A  | 259°-54'                | 1.47 | 148       |                | 490.42 |

| FS.  | HI     | BS   |
|--|--------|------|
| 6.98   | 503.71 |      |
|  | 501.74 | 5.01 |
|  |        | 2.88 |
| 6.04   |        |      |
|  | 500.67 | 4.97 |
|  |        | 3.89 |
| 4.75   |        |      |
|  | 500.88 | 4.96 |
|  |        | 5.16 |
| 6.06   |        |      |
|  | 499.90 | 5.08 |
|  |        | 3.96 |
| Crosses Learn's South Fence - Approximate Azi-272°-06' |        |      |
| 5.61   |        |      |
|  | 499.33 | 5.04 |
|  |        | 4.49 |
| 6.8  |        |      |
| 8.33   |        |      |
|  | 495.96 | 4.96 |
|  |        | 1.61 |
| 7.4  |        |      |
| 4.53   |        |      |
|  | 496.40 | 4.97 |
|  |        | 5.36 |
| 5.98   |        |      |

| Sta               | Azi       | Rod  | Hor. Dist | Vert. L  | Elev.                     |
|-------------------|-----------|------|-----------|----------|---------------------------|
| 570+67            |           |      |           |          |                           |
| <del>568+67</del> |           |      |           |          |                           |
| BS 568+19         | 79°-54'   | 1.46 | ←         |          | 491.47                    |
| 571+58 A          | 248°-31½' | 0.90 | 91        |          | 489.27                    |
| 571+58            |           |      |           |          |                           |
| <del>568+58</del> |           |      |           |          |                           |
| BS 570+67         | 68°-31½'  | 0.90 | ←         |          | 490.44                    |
| 572+62 A          | 225°-19'  | 1.03 | 104       |          | 489.19                    |
| <del>572+62</del> |           |      |           |          |                           |
| BS 571+58         | 45°-15'   | 1.03 | ←         |          | 489.29                    |
| 573+57 A          | 212°-03'  | 0.94 | 95        |          | 489.44                    |
|                   | 318°-58'  | 5.20 | 490       | -14°-16' | <sup>-124.46</sup> 364.73 |
|                   | 322°-15'  | 6.00 |           | -12°-31' | <sup>-127.15</sup> 362.29 |
| <del>573+57</del> |           |      |           |          |                           |
| BS 572+62         | 32°-03'   | 0.93 |           |          | 489.22                    |
| 574+38 A          | 185°-45½' | 0.80 | 81        |          | 489.37                    |
| <del>574+38</del> |           |      |           |          |                           |
| BS 573+57         | 5°-49½'   | 0.80 | ←         |          | 489.45                    |
| 575+15 A          | 151°-24½' | 0.76 | 77        |          | 489.19                    |
| <del>575+15</del> |           |      |           |          |                           |
| BS 574+38         | 331°-24½' | 0.76 | ←         |          | 489.38                    |
| 576+63            | 184°-50'  | 1.56 | 148       | -14°-01' | <sup>-36.93</sup> 452.3   |
| 577+07            | 184°-50'  | 2.04 | 192       | -14°-50' | <sup>-50.79</sup> 438.4   |
| 578+71            | 184°-50'  | 3.55 | 356       |          | 481.2                     |
| 579+57 A          | 184°-50'  | 4.41 | 442       |          | 489.76                    |
| <del>579+57</del> |           |      |           |          |                           |
| BS 575+15         | 4°-50'    | 4.42 | ←         |          | 489.23                    |

| FS   | HI       | BS  |
|------|----------|---|
|      | 495.25 ✓ | 483   |
|      |          | 378   |
| 5.98 |          |   |
|      | 483.93 ✓ | 466   |
|      |          | 349   |
| 4.74 |          |   |
|      | 494.08 ✓ | 489   |
|      |          | 479   |
| 4.64 |          |   |
|      |          |   |
|      |          | Center of Pavement.<br>BM #15 Elev. 359.970 |
|      | 494.51 ✓ | 5.07  |
|      |          | 5.29  |
| 5.14 |          |   |
|      | 494.22 ✓ | 485   |
|      |          | 477   |
| 5.03 |          |   |
|      | 483.93 ✓ | 474   |
|      |          | 455   |
|      |          |   |
|      |          | bottom Gulch                                |
| 1.27 |          |   |
| 4.17 |          |   |
|      |          | on Point of Hill                            |
|      | 494.30 ✓ | 4.54  |
|      |          | 3.97  |

| Sta        | POB | Azi       | Rod  | Hor. Dist | Vert. $\angle$ | Elev.                      |
|------------|-----|-----------|------|-----------|----------------|----------------------------|
| 580+66     | A   | 177°-33½' | 1.08 | 109       |                | 481.41 ✓                   |
| 580+66     |     |           |      |           |                |                            |
| BS. 579+57 |     | 357°-33½' | 1.08 |           | +4°-25'        |                            |
| 582+85     |     | 177°-33½' | 2.22 | 219       | -7°-51'        | <sup>-30.2</sup> 451.2 ✓   |
| 583+69     | A   | 177°-33½' | 3.06 | 303       | -6°-33'        | <sup>-34.8</sup> 446.61 ✓  |
| 583+69     |     |           |      |           |                |                            |
| BS. 580+66 |     | 357°-33½' | 3.06 |           | +6°-35'        |                            |
| 586+63     |     | 183°-10'  | 2.93 | 294       |                | 433.9                      |
| 589+50     |     | 183°-10'  | 5.80 | 581       | -2°-18'        | <sup>-23.31</sup> 423.3 ✓  |
| 590+08     |     | 183°-10'  | 6.38 | 639       | -1°-28'        | <sup>-16.36</sup> 430.2 ✓  |
| 591+30     | A   | 183°-10'  | 8.20 | 821       |                | 449.06 ✓                   |
| 591+30     |     |           |      |           |                |                            |
| BS. 583+69 |     | 3°-10'    | 8.20 |           |                | 466.68                     |
| 593+33     | A   | 189°-58½' | 1.46 | 143       | +9°-46'        | <sup>+25.68</sup> 474.74 ✓ |
| 593+33     |     |           |      |           |                |                            |
| BS. 584+32 |     | 9°-58½'   | 1.46 |           | -10°-12'       |                            |
| 594+32     |     | 234°-33½' | 0.98 | 99        |                | 470.3                      |
| 596+69     | A   | 234°-33½' | 3.36 | 336       | +2°-34'        | <sup>+15.07</sup> 489.81 ✓ |
| 596+69     |     |           |      |           |                |                            |
| BS. 593+33 |     | 54°-33½'  | 3.37 |           | -2°-33'        |                            |
| -          |     | 355-31    | 1.49 | 145       | -11°-08'       | <sup>-28.04</sup> 461.5 ✓  |
| -          |     | 175°-31'  | 0.44 |           |                |                            |
| 596+73     |     | 212°-45½' |      |           |                |                            |
| 598+23     |     | 212°-45½' | 1.53 | 154       |                | 591.5                      |
| 601+37     | A   | 212°-45½' | 4.67 | 468       |                | 489.12 ✓                   |

| FS    | HI       | BS   |
|-------|----------|--|
| 12.89 |          |  |
|       | 486.37 ✓ | 496  |
|       |          |  |
|       | 451.66 ✓ | 505  |
|       |          | Edge of barley field                                   |
| 17.8  |          |  |
|       |          | Drainage   |
| 2.60  |          |  |
|       | 454.10 ✓ | 5.04   |
|       |          | 7.42   |
|       |          |  |
|       | 479.62   | 4.88   |
| 9.3   |          |  |
|       |          | Cross fence  |
|       | 494.52 ✓ | 5.11   |
|       |          |  |
|       |          | Azi of fence - shot to intersection of East-West fence |
|       |          | Side shot to Pt where fence angles to S.E.             |
|       |          | Cross fence.   |
| 3.4   |          |  |
| 5.80  |          |  |

| Sta       | Azi      | Rod  | Hor Dist | Vert. L  | Elev   |
|-----------|----------|------|----------|----------|--------|
| 7607+37   |          |      |          |          | 489.12 |
| BS 596+60 | 32°-45'  | 4.60 |          |          | 489.84 |
| 601+60    | 268-06½  | 0.32 | 32       | -12°-30' | 482.1  |
| 602+46    | "        | 1.12 | 109      | -11°-40' | 466.7  |
| 603+33    | "        | 2.00 | 196      | -9°-10'  | 457.5  |
| 603+85    | "        | 2.54 | 248      | -9°-56'  | 445.7  |
| 604+10    | "        | 2.76 | 273      | -7°-06'  | 455.1  |
| 605+74    | "        | 4.38 | 437      | -4°-10'  | 457.3  |
| 606+36    | "        | 5.00 | 499      | -3°-53'  | 455.2  |
| 607+68    | "        | 6.30 | 631      | -1°-31'  | 483.4  |
| 608+24 Δ  | 268°-06½ | 7.56 | 757      |          | 486.92 |
| 7608+24   |          |      |          |          |        |
| BS 601+37 | 88°-06½  | 7.58 |          |          | 489.17 |
| 609+60    | 225°-33½ | 0.74 | 75       |          | 488.4  |
| 610+70    | 225°-33½ | 1.84 | 185      |          | 481.3  |
| 611+10 Δ  | 225°-33½ | 3.15 | 316      |          | 488.14 |
| 7611+10   |          |      |          |          |        |
| BS 608+24 | 45°-33½  | 3.15 |          |          | 486.89 |
| 611+93    | 260-57   | 0.85 | 83       | -11°-01' | 472.0  |
| 612+72    | 260-57   | 1.48 | 142      | -12°-58' | 455.5  |
| 613+66    | 260-57   | 2.57 | 256      | -5°-44'  | 462.4  |
|           | 271-30   | 3.00 |          |          |        |
| 614+41    | 260°-57  | 4.30 | 431      | -0°-22'  |        |
| 617+37 Δ  | 260°-57  | 5.26 | 527      |          | 487.89 |
| 7617+37   |          |      |          |          |        |

| ES   | HI       | BS  |
|------|----------|---|
|      | 494.25 ✓ | 5.13  |
|      |          | 441   |
|      |          | Edge barley field   |
|      |          | Edge of Wash  |
|      |          | bottom  |
|      |          | Edge of Wash  |
|      |          | E Edge of Wash  |
|      |          | W Edge of Wash  |
|      |          | Fence - Edge of grain field   |
| 7.33 |          | on point below house - 5-4-1922   |
|      | 491.90 ✓ | 498   |
|      |          | 273   |
|      |          | 35  |
|      |          | 10.6  |
|      |          | 3.76  |
|      | 493.10 ✓ | 5.05  |
|      |          | 6.30  |
|      |          | 1½" Gas pipe in ground  |
|      |          | pt. on line with fence which intersects highway near Standard Oil Station |
| 5.30 |          | Azi of fence 272°-56'   |
|      | 493.08 ✓ | 5.19  |

617+37

487.89

| Sta         | Azi       | Rod  | Hor. Dist | Vert L   | Elev             |
|-------------|-----------|------|-----------|----------|------------------|
| B.S. 612+10 | 85°-51'   | 5.26 |           |          | 488.32           |
| —           | 67°-02'   | 0.43 |           |          |                  |
| 618+21      | 243°-36'  | 0.83 | 84        |          | 486.0<br>-15.08  |
| 620+09      | 243°-36'  | 2.72 | 272       | -3°-10'  | 472.8            |
| 621+52      | 243°-36'  | 4.14 | 415       |          | 486.9            |
| 622+34 A    | 243°-36'  | 4.96 | 497       |          | 487.81 ✓         |
| △622+34     |           |      |           |          |                  |
| B.S. 627+37 | 63°-36'   | 4.95 |           |          | 488.05           |
| 629+86      | 248°-41'  | 0.51 | 52        |          | 481.7<br>-41.77  |
| 625+02      | 248°-41'  | 2.73 | 268       | -8°-50'  | 446.0<br>-38.41  |
| —           | 251°-51'  | 2.87 | 283       | -7°-44'  | 449.4            |
| 627+45      | 248°-41'  | 5.10 | 511       |          | 477.8 ✓          |
| 627+73 Δ    | 248°-41'  | 5.38 | 539       |          | 484.75 ✓         |
| △627+73     |           |      |           |          |                  |
| B.S. 629+34 | 68°-41'   | 5.39 |           |          | 487.81<br>-15.96 |
| 629+86      | 248°-27½' | 2.13 | 213       | -4°-17'  | 468.8<br>-12.35  |
| 630+73 Δ    | 268°-27½' | 3.00 | 300       | -2°-21'  | 472.40 ✓         |
| △630+73     |           |      |           |          |                  |
| B.S. 627+73 | 88°-27½'  | 3.00 |           | +2°-21'  |                  |
| 631+58 Δ    | 245°-27½' | 0.84 | 85        |          | 465.17 ✓         |
| △631+58     |           |      |           |          |                  |
| B.S. 630+73 | 65°-37½'  | 0.84 |           | +4°-56'  | -46.39           |
| 633+16      | 245°-59½' | 1.71 | 158       | -16°-26' | 418.8<br>-69.81  |
| 634+57      | 245°-59½' | 3.15 | 299       | -12°-06' | 395.4<br>87.01   |
| 639+47 A    | 245°-59½' | 6.01 | 5.89      | -8°-24'  | 378.16 ✓         |

| FS    | H.I.     | BS   |
|-------|----------|--|
|       | 493.08 ✓ | 476  |
|       |          | to 1½" Pipe driven in ground                 |
| 7.1   |          | 50' back is 10' lower                        |
| 6.2   |          |  |
| 5.27  |          |  |
|       | 492.78 ✓ | 497  |
|       |          | 473  |
| 11.1  |          |  |
|       |          | 20' back is 5' lower                         |
|       |          | Fence Corner - Fences running North and S.E. |
| 15.0  |          |  |
| 8.03  |          |  |
|       | 489.55 ✓ | 4.84   |
|       |          | 1.78   |
|       |          | on point of hill                             |
|       | 477.35 ✓ | 4.95   |
| 12.18 |          | in rocks on point East of Sector             |
|       | 465.90 ✓ | 4.73   |
|       |          | Near edge of grain field                     |
|       |          | in grain field                               |

| Sta              | Azi                        | Rod  | Hor. Dist | Vert. $\angle$            | Elev                           |
|------------------|----------------------------|------|-----------|---------------------------|--------------------------------|
| $\Delta$ 637+47  |                            |      |           |                           |                                |
| B.S. 637+50      | $65^{\circ}55\frac{1}{2}$  | 6.02 |           | $+8^{\circ}24\frac{1}{2}$ |                                |
| 639+08           | $245^{\circ}59\frac{1}{2}$ | 1.60 | 161       |                           | 372.9                          |
| 640+24           | $245^{\circ}59\frac{1}{2}$ | 2.76 | 277       |                           | 375.5                          |
| 642+53A          | $245^{\circ}59\frac{1}{2}$ | 5.05 | 506       |                           | 372.93                         |
| $\Delta$ 642+53  |                            |      |           |                           |                                |
| B.S. 642+47      | $65^{\circ}59\frac{1}{2}$  | 5.04 |           | $+0^{\circ}37'$           |                                |
| —                | $63^{\circ}40'$            | 0.16 |           |                           | 371.7                          |
| —                | $59^{\circ}08'$            | 0.96 |           |                           | 373.9                          |
| 642+60           | $155^{\circ}30'$           |      |           |                           |                                |
| —                | $322^{\circ}53'$           |      |           |                           | $\frac{372.69}{369.71} + 4.72$ |
| 644+83A          | $242^{\circ}12'$           | 2.29 | 230       | $+1^{\circ}10\frac{1}{2}$ | 374.67                         |
| $\Delta$ 644+83  |                            |      |           |                           |                                |
| B.S. 642+53      | $67^{\circ}12'$            | 2.29 |           |                           | 370.05                         |
| 645+29           | $245^{\circ}09\frac{1}{2}$ | 0.45 | 46        |                           | 372.8                          |
| 647+17           | $245^{\circ}00\frac{1}{2}$ | 2.33 | 234       |                           | 374.0                          |
| 648+62A          | $245^{\circ}09\frac{1}{2}$ | 3.78 | 379       |                           | 374.73                         |
| $\Delta$ 648+83  | $21^{\circ}55\frac{1}{2}$  | 4.39 |           |                           |                                |
| $\Delta$ 5582+57 |                            |      |           |                           |                                |
| B.S. 642+83      | $201^{\circ}55\frac{1}{2}$ | 4.40 |           | $+1^{\circ}26'$           |                                |
| —                | $47^{\circ}31\frac{1}{2}$  | 5.14 |           | $+0^{\circ}12\frac{1}{2}$ |                                |
| $\Delta$ 648+62  |                            |      |           |                           |                                |
| B.S. 644+83      | $65^{\circ}09\frac{1}{2}$  | 3.79 |           |                           |                                |
| 657+33A          | $245^{\circ}09\frac{1}{2}$ | 3.30 | 331       |                           | 371.10                         |
| $\Delta$ 657+53  |                            |      |           |                           |                                |

| FS    | HI     | BS   |   |
|-------|--------|------|---|
|       | 383.03 | 4.87 |   |
| 10.1  |        |      |   |
| 7.5   |        |      |   |
| 10.10 |        |      |   |
|       | 377.93 | 5.00 |   |
| 6.2   |        |      | S.W. Fence Corner                                   |
| 4.0   |        |      | N.E. " "  |
|       |        |      | Edge Pavement - Approx. Azi of Paving               |
| 5.24  |        |      | County Highway BM #11 Elev 369.71                   |
|       | 374.95 |      | Corrected H.I.                                      |
|       | 379.76 | 5.09 | E of Quarry Spur                                    |
|       |        | 3.71 |   |
| 7.0   |        |      |   |
| 4.3   |        |      |   |
| 5.03  |        |      | in grain field..                                    |
|       |        |      | to "S" 580+57                                       |
|       |        | 4.55 |   |
|       |        |      | "S" Azi = $47^{\circ}07'$ to "S" 575+41             |
|       | 379.81 | 5.08 |   |
|       |        | 5.10 |   |
| 8.71  |        |      | Pt. between Main Line and sidetrack of S.D. & A. Ry |
|       | 376.28 | 5.18 |   |

| Sta            | Azi      | Rod    | Hor. Dist | Vert    | Elev                 |
|----------------|----------|--------|-----------|---------|----------------------|
| B.S. 648+62    | 65°-00'  | 3.30   |           |         |                      |
| 652+63         | 243°-40' | 0.75   | 76        |         | 367.8                |
| -              | 222°-12' | 1.95 ✓ |           |         |                      |
| -              | 230°-43' | 2.17 ✓ |           |         |                      |
| 656+02         | 243°-40' | 4.08   | 409 ✓     |         | -10.65 ✓             |
| 657+34A        | 243°-40' | 6.00   | 601 ✓     | -1°-01' | 360.45 ✓             |
| TK 657+94      |          |        |           |         |                      |
| B.S. 657+83    | 63°-40'  | 6.00   |           | 11°-02' |                      |
| -              | 181°-44' | 1.36 ✓ |           |         |                      |
| POY<br>667+17A | 243°-40' | 3.22   | 323       |         | 357.01 ✓             |
| TK 667+17      |          |        |           |         |                      |
| B.S. 657+84    | 63°-40'  | 3.21   |           |         | 360.48               |
| -              | 120°-13' | 0.82   |           |         | 358.77               |
| 664+11         | 243°-40' | 2.93   | 294       |         | 351.7                |
| 667+65A        | 243°-40' | 6.47   | 648       |         | 356.82 ✓             |
| TK 667+65      |          |        |           |         |                      |
| B.S. 667+17    | 63°-40'  | 6.47   |           |         | 357.08               |
| 666+84         | 63°-40'  | -0.80  | 81        |         | 356.2                |
| -              | 17°-01'  | 1.50   |           |         |                      |
| 668+55         | 243°-40' | 0.89   | 90        |         | 353.3 ✓              |
| 667+24A        | 243°-40' | 3.58   | 359       |         | 355.46               |
| TK 667+24      |          |        |           |         |                      |
| B.S. 667+65    | 63°-40'  | 3.58   |           |         | 356.97               |
| 667+62         | 243°-40' | 0.37   | 38        |         |                      |
| 675+43A        | 243°-40' | 4.18   | 419       |         | 351.40 <sup>00</sup> |

| FS  | HI                   | BS   |
|-----|----------------------|--|
|     | 376.28               | 1.51   |
| 85  |                      | Center of road                                       |
|     |                      | to N.E. Corner orchard + west line of RR. Rights way |
|     |                      | to Angle in fence.                                   |
|     |                      | to N.W. Corner orchard.                              |
|     |                      | 7. Near fork in road                                 |
|     | 365.61 ✓             | 5.16   |
|     |                      | Orchard.   |
|     |                      | Fence corner - 2x2 with rock - Apprx Azi of fence    |
| 860 |                      | Near last bunch of rocks.                            |
|     | 362.02 ✓             | 5.01   |
|     |                      | 1.54   |
| 325 |                      | 360 Contour Survey A 123                             |
| 103 |                      |  |
| 520 |                      | in grain field.                                      |
|     | 361.82 ✓             | 5.00   |
|     |                      | 4.74   |
| 5.6 |                      | E of Road  |
|     |                      | S.E. Corner Road intersection                        |
| 85  |                      |  |
| 636 |                      |  |
|     | 360.61 <sup>51</sup> | 5.05   |
|     |                      | 3.64   |
|     |                      | North + South Property line                          |
| 951 |                      |  |



| Sta         | Azi.      | Rod  | Hor. Dist | Vert L   | Elev           |
|-------------|-----------|------|-----------|----------|----------------|
| π 675+43    |           |      |           |          |                |
| B.S. 675+24 | 63°-40'   | 4.18 | ←         | 10°-38'  |                |
| 675+59      | 243°-40'  | 0.15 | 16        |          | 348.9          |
| 676+25      | 243°-40'  | 0.81 | 82        |          | 351.9<br>+4.58 |
| 679+13 A    | 243°-40'  | 3.69 | 370       | +0°-42½' | 355.58         |
| π 679+13    |           |      |           |          |                |
| B.S. 679+13 | 63°-40'   | 3.71 |           |          | 351.23         |
| 683+10 A    | 230°-34'  | 3.96 | 397       |          | 356.44<br>34   |
| π 683+10    |           |      |           |          |                |
| B.S. 679+13 | 50°-34'   | 3.96 |           |          | 355.74         |
| 689+95 A    | 230°-34'  | 4.84 | 485       |          | 355.86<br>16   |
| π 689+95    |           |      |           |          |                |
| B.S. 689+10 | 50°-34'   | 4.84 | ←         |          | 356.51         |
| 692+73 A    | 267°-04'  | 4.83 | 484       |          | 353.47<br>07   |
| π 692+73    |           |      |           |          |                |
| B.S. 689+25 | 87°-04'   | 4.83 |           |          | 355.28         |
| -           | 73°-38'   | 1.55 |           |          |                |
| -           | 355°-36'  | 0.47 |           |          |                |
| -           | 260°-11'  | 1.85 |           |          |                |
| 698+11 A    | 233°-51½' | 5.31 | 532       |          | 353.24<br>11   |
| π 698+11    |           |      |           |          |                |
| B.S. 692+73 | 59°-51½'  | 5.31 |           |          | 353.20         |
| 703+68 A    | 233°-51½' | 5.56 | 557       |          | 348.51<br>41   |
| π 703+68    |           |      |           |          |                |
| B.S. 698+11 | 59°-51½'  | 5.57 | ←         |          | 353.22         |

| FS  | HI  | BS   |
|-----|---|--|
|     | 356.01  | 5.02   |
| 72  |   | 2  |
| 42  |   | 2  |
|     |   | 5-5-1922   |
|     | 360.01  | 5.03   |
|     |   | 9.48   |
| 427 |   | in grain field   |
|     | 361.34  | 5.00   |
|     |   | 5.70   |
| 618 | North Side of road - 7' North to Stake which is S.E. corner of small Orchard. |  |
|     | 360.17  | 5.01   |
|     |   | 3.76   |
| 710 |   | in roadway - 5' N of S. road fence                       |
|     | 358.32  | 5.15   |
|     |   | 3.04   |
|     |   | to white post on N side of road - also N45 Property line |
|     |   | to Fence corner - N side of road                         |
|     |   | to white stake at N.W. corner of Grain + Alfalfa field   |
| 511 |   | in hay field   |
|     | 358.29  | 5.18   |
|     |   | 5.19   |
| 988 |   |  |
|     | 353.47  | 5.06   |
|     |   | 0.35   |

| Sta       | Azi      | Rod  | Hor Dist | Vert L  | Elev                     |
|-----------|----------|------|----------|---------|--------------------------|
| —         | 165°-24  | 0.75 |          |         | 348.41                   |
| 704+97    | 233°-51½ | 1.28 | 129      |         | 351.0                    |
| 705+26    | 233°-51½ | 1.57 | 158      |         | 343.7                    |
| 705+58    | 233°-51½ | 1.89 | 190      |         | 350.7                    |
| 709+37    | 233°-51½ | 5.68 | 565      | +0°-35' | 354.9 <sup>+46</sup>     |
| 717+18A   | 233°-51½ | 7.49 | 750      | +1°-30' | 368.46 <sup>+19.65</sup> |
| 717D+18   |          |      |          |         |                          |
| BS 703+68 | 59°-51½  | 7.50 |          | -1°-29½ | -8.41                    |
| —         | 304°-01½ | 5.45 |          | -0°-53' | 359.65                   |
| 712+33    | 243°-30  | 1.14 | 115      |         | 360.0                    |
| 712+71    | 243°-30  | 1.52 | 153      |         | 361.5                    |
| 713+95    | 243°-30  | 2.76 | 277      |         | 367.5 <sup>+32.95</sup>  |
| 716+81A   | 243°-30  | 5.64 | 5.63     | +3°-21' | 401.81                   |
| X # 111   |          |      |          |         |                          |
| BS 711+18 | 124°-01½ | 5.45 |          | +0°-54' |                          |
| —         | 115°-57  | 7.38 |          |         |                          |
| 716+81    |          |      |          |         | $\frac{401.01}{399.93}$  |
| BS 711+18 | 63°-30'  | 5.63 |          | -3°-21' |                          |
| —         | 123°-15' | 2.32 |          |         | 400.00                   |
| 718+85A   | 258°-40½ | 2.09 | 204      | +9°-51½ | 435.39 <sup>+35.46</sup> |
| 718+85    |          |      |          |         |                          |
| BS 718+81 | 78°-40½  | 2.07 |          | -9°-51' |                          |
| 719+86A   | 258°-40½ | 1.00 | 101      |         | 434.36                   |
| 719+86    |          |      |          |         |                          |
| BS 718+85 | 78°-40½  | 1.00 |          |         | 435.43                   |

| ES  | HI                   | BS  |
|---|----------------------|---|
| To hwy or hub on land tie - on Main East and West Fence line - and in line with East Fence of Druggan Place |                      |   |
| 2.6   |                      | East abutment of bridge                   |
| 9.9   |                      | bottom of Ditch - Main drainage of valley |
| 2.9   |                      | West abutment of bridge                   |
|   |                      | in roadway                                |
|   |                      | in road right of way - Near angle         |
|   | 373.24 <sup>14</sup> | 5.08                                      |
| to transit point # 111 on 360 contour   |                      |   |
| 10.3  |                      | West Line Thumb Bros Road - Fence         |
| 11.7  |                      | Drainage                                  |
| 5.3   |                      |   |
| = Level Point # 56 on 400 Contour   |                      |   |
|   | 364.63               | 5.04                                      |
| to Transit Point # 112 on 360 contour   |                      |   |
| 5.12  | 405.05               | Elevations Corrected on 400 Cont.         |
|   |                      | 5.05 to 400 Contour Point # 55            |
|   |                      | Point 2' beyond N+S fence - edge Grain    |
|   | 440.27               | 4.88                                      |
| 3.91  |                      | Near outcropping rocks and Elder bushes.  |
|   | 438.80               | 4.50                                      |
|   |                      | 3.43                                      |

| Sta        | Azi      | Rod  | Hor. Dist | Vert /   | Elev   |
|------------|----------|------|-----------|----------|--------|
| 718+86     |          |      |           |          | 434.36 |
| 721+87     | 264°-44  | 2.00 | 201       | -6°-50'  | 410.6  |
| 723+14     | 264°-44  | 3.28 | 328       | -4°-00'  | 411.3  |
| 724+26     | 264°-44  | 4.40 | 440       | -3°-37'  | 406.6  |
| 724+68A    | 264°-44  | 4.83 | 482       | -3°-19'  | 406.37 |
| 724+68     |          |      |           |          |        |
| BS. 712+86 | 84°-44'  | 4.83 |           | +3°-20'  |        |
| 729+58     | 264°-44' | 2.85 | 290       |          | 408.8  |
| 730+51A    | 264°-44' | 6.23 | 623       | +2°-00'  | 20.85  |
| 730+51A    | 264°-44' | 6.23 | 623       | +2°-00'  | 427.22 |
| 730+51     |          |      |           |          |        |
| BS. 724+68 | 84°-44'  | 6.22 |           | -1°-55'  |        |
| 737+54     | 276°-58½ | 0.62 | 63        |          | 429.1  |
| 734+55A    | 276°-58½ | 4.08 | 404       | +6°-08½' | 43.52  |
| 734+55A    | 276°-58½ | 4.08 | 404       | +6°-08½' | 470.74 |
| 734+55     |          |      |           |          |        |
| BS. 730+27 | 96°-58½  | 4.08 |           | -6°-08½' |        |
| -          | 243°-50  | 2.51 | 240       | +12°-27' | 533.8  |
| -          | 287°-30  | 2.26 | 225       | +5°-28'  | 492.3  |
| 736+49     |          | 1.53 | 154       |          | 4629   |
| 738+31A    | 320°-22+ | 3.35 | 336       | +0°-55'  | 576    |
| 738+31A    | 320°-22+ | 3.35 | 336       | +0°-55'  | 476.50 |
| 738+31     |          |      |           |          |        |
| BS. 734+35 | 140°-22+ | 3.36 |           |          | 470.85 |
| 740+11A    | 303°-46½ | 1.75 | 180       |          | 477.60 |
| 740+11     |          |      |           |          |        |
| BS. 738+31 | 123°-46½ | 1.80 |           |          | 476.53 |
| 741+83A    | 298°-01  | 1.71 | 172       |          | 474.32 |
| 741+83     |          |      |           |          |        |

| FS   | HI     | BS   |  |
|------|--------|------|--|
|      | 438.86 |      | Drainage   |
|      |        |      | Oat  |
|      |        |      | Drainage   |
|      |        |      | in grain field                                   |
|      | 411.30 | 493  |  |
| 25   |        |      |  |
|      |        |      | in grain field                                   |
|      | 432.21 | 499  |  |
| 31   |        |      |  |
|      | 475.54 | 480  |  |
|      |        |      | to Fence intersection - Approx Azi of West Fence |
|      |        |      | to S.E. Cor. of Orchard fence.                   |
| 126  |        |      |  |
|      |        |      | in edge of Orchard, crosses fence at 738+27      |
|      | 481.25 | 475  |  |
|      |        | 1040 |  |
| 3.65 |        |      | in orchard                                       |
|      | 482.35 | 475  |  |
|      |        | 582  |  |
| 748  |        |      | in orchard                                       |
|      | 478.66 | 474  |  |

| Sta       | Azi       | Rod  | Hor. Dist | Vert L   | Elev             |
|-----------|-----------|------|-----------|----------|------------------|
| BS 740+11 | 118°-01'  | 171  | L         |          |                  |
| 743+57 A  | 286°-27½' | 1.73 | 174       |          | 473.78           |
| 743+57    |           |      |           |          |                  |
| BS 741+83 | 106°-27½' | 1.73 |           |          | 474.94           |
| 744+01    | 297°-55'  | 0.43 | 44        |          | 469.0            |
| 745+09    | 297-55    | 1.51 | 152       |          | 463.7            |
| 746+06    | 297-55    | 2.48 | 249       |          | 473.2            |
| 747+07 A  | 297°-55'  | 3.49 | 350       |          | 475.48           |
| 749+07    |           |      |           |          |                  |
| BS 743+57 | 117°-55'  | 3.49 | L         |          | 473.84           |
| -         | 222°-30'  | 1.97 |           | +11°-21' |                  |
| -         | 236°-59'  | 2.63 |           | +8°-52'  |                  |
| 748+07 A  | 286°-59½' | 1.89 | 190       |          | 475.36           |
| 748+07    |           |      |           |          |                  |
| BS 749+07 | 106°-59½' | 1.89 |           |          | 475.51           |
| 749+28    | 249°-52½' | 0.30 | 31        |          | 474.6            |
| 750+07 A  | 249°-52½' | 3.10 | 310       | -2°-49'  | -15.28<br>460.68 |
| 750+07    |           |      |           |          |                  |
| BS 748+07 | 69°-52½'  | 3.09 |           | +2°-50'  |                  |
| 753+30    | 249°-52½' | 1.25 | 123       | -8°-53'  | -19.26<br>441.4  |
| 754+36 A  | 249°-52½' | 2.32 | 229       | -7°-10'  | -28.87<br>431.81 |
| 754+36    |           |      |           |          |                  |
| BS 750+07 | 69°-52½'  | 2.32 |           | +7°-11'  |                  |
| 757+09    | 270°-40½' | 2.80 | 273       | -5°-32'  | -45.91<br>385.9  |
| 758+28    | 270°-40½' | 3.99 | 392       | -8°-02'  | -15.39<br>376.4  |

| FS   | HI     | BS  |
|------|--------|---|
|      | 479.66 | 203                                       |
| 5.88 |        | in Orchard                                |
|      | 478.73 | 495                                       |
|      |        | 3.79                                      |
| 9.7  |        | Fence Line between Orchard & Graph        |
| 150  |        |   |
| 55   |        |   |
| 3.25 |        |   |
|      | 480.46 | 498                                       |
|      |        | 6.62                                      |
|      |        | to N.W. Cor. Orchard                      |
|      |        | to Main E-W Fence and Fence running North |
| 450  |        |   |
|      | 481.00 | 504                                       |
|      |        | 5.49                                      |
| 6.4  |        | N+S Fence                                 |
|      | 465.78 | 5.10                                      |
|      |        |   |
|      |        | 5-G-1522                                  |
|      |        | 5' North of E-W Fence                     |
|      | 436.93 | 5.12                                      |

| Sta             | Azi                   | Rod   | Hor. Dist | Vert L  | Elev   |
|-----------------|-----------------------|-------|-----------|---------|--------|
| X 754+36        |                       |       |           |         | 431.81 |
| 759+70          | 270°-40 $\frac{1}{2}$ | 5.42  | 534       | -6°-57' | 366.6  |
| 760+94          | 270°-40 $\frac{1}{2}$ | 6.62  | 658       | -4°-54' | 375.3  |
| 762+89          | 270°-40 $\frac{1}{2}$ | 8.52  | 853       | -2°-12' | 399.0  |
| 764+34 A        | 270°-40 $\frac{1}{2}$ | 9.97  | 958       |         | 436.05 |
| $\Delta$ 764+34 |                       |       |           |         |        |
| BS 754+36       | 90°-40 $\frac{1}{2}$  |       |           |         | 431.90 |
| 766+07          | 270°-32 $\frac{1}{2}$ | 1.74  | 173       | +6°-10' | 454.8  |
| 769+21          | 270°-32 $\frac{1}{2}$ | 4.90  | 467       | +5°-20' | 481.5  |
| 768+29 A        | 270°-32 $\frac{1}{2}$ | 3.98  | 395       | +5°-39' | 475.16 |
| $\Delta$ 768+29 |                       |       |           |         |        |
| BS 764+34       | 99°-32 $\frac{1}{2}$  | 3.97  | -         | -5°-39' | 426.80 |
| -               |                       | 2.36  | 234       | +6°-32' | 448.4  |
| 797+34 A        | 304°-58 $\frac{1}{2}$ | 3.04  | 305       |         | 477.18 |
| $\Delta$ 797+34 |                       |       |           |         |        |
| BS 768+29       | 124°-58 $\frac{1}{2}$ | 3.04  |           |         | 475.22 |
| 790+97          | 124°-58 $\frac{1}{2}$ | -0.36 | 37        |         | 477.6  |
| 773+88          | 307°-40'              | 2.54  | 254       | -3°-32' | 461.5  |
| 776+43 A        | 307°-40'              | 5.08  | 509       |         | 478.24 |
| $\Delta$ 776+43 |                       |       |           |         |        |
| BS 771+34       | 127°-40'              | 5.07  |           |         | 477.36 |
| 778+05          | 281°-20 $\frac{1}{2}$ | 1.61  | 162       |         | 481.4  |
| 779+06 A        | 281°-20 $\frac{1}{2}$ | 2.62  | 263       |         | 479.58 |
| $\Delta$ 779+06 |                       |       |           |         |        |
| BS 776+43       | 101°-20 $\frac{1}{2}$ | 2.61  |           |         | 478.31 |
| 780+07          | 258-07                | 1.00  | 101       |         | 481.3  |

| FS   | #1     | BS  |
|------|--------|---|
|      |        |   |
|      |        | 5' East of East Fence of Fanita Heights Road.   |
|      |        |   |
| 0.88 |        | 8' N of E+W Fence                               |
|      | 440.74 | 4.69  |
|      |        | 884   |
|      |        |   |
|      |        | Pasture   |
|      | 480.02 | 4.86  |
|      |        |   |
|      |        | E+W Fence and North Fence.                      |
|      |        | Pasture   |
|      | 482.32 | 5.14  |
|      |        | 710   |
|      |        | (the Highway)                                   |
| 4.7  |        | First Fence East of Old Sycamore Canyon Road at |
|      |        |   |
|      |        | Pasture   |
|      | 483.38 | 5.14  |
|      |        | 6.02  |
|      |        |   |
| 2.0  |        |   |
| 3.80 |        | Pasture   |
|      | 484.62 | 5.04  |
|      |        | 6.31  |
|      |        |   |
| 3.3  |        |   |

| Sta        | Azi       | Rod  | Hor. Dist | Vert L  | Elev   |
|------------|-----------|------|-----------|---------|--------|
| 782+21A    | 258°-07'  | 3.14 | 315       |         | 479.79 |
| Δ782+21    |           |      |           |         |        |
| BS. 779+06 | 78°-07'   | 3.14 |           |         | 479.62 |
| 782+71     | 232°-29½' | 0.99 | 50        |         | 481.8  |
| 783+67     | 232°-29½' | 1.45 | 146       |         | 469.8  |
| 786+04     | 232°-29½' | 3.82 | 383       |         | 476.7  |
| 788+57A    | 232°-29½' | 6.37 | 638       |         | 479.32 |
| Δ788+57    |           |      |           |         |        |
| BS. 782+21 | 52°-29½'  | 6.38 |           |         | 479.86 |
| 789+68     | 232°-29½' | 1.08 | 109       |         | 473.7  |
| 791+74     |           |      |           |         | 437.4  |
| 792+24     | 232°-29½' | 3.67 | 365       | -5°-05' | 447.4  |
| 793+04     | 232°-29½' | 4.44 | 445       | -2°-32' | 460.2  |
| 794+50A    | 232°-29½' | 5.20 | 521       |         | 479.99 |
| Δ794+50    |           |      |           |         |        |
| BS. 780+80 | 52°-29½'  | 5.91 |           |         | 480.01 |
| 797+31     | 294°-13'  | 2.80 | 281       |         | 468.0  |
| 798+55A    | 294°-13'  | 4.04 | 405       |         | 478.41 |
| Δ798+55    |           |      |           |         |        |
| BS. 794+50 | 114°-13'  | 4.04 |           |         | 480.07 |
| 801+35A    | 308°-29½' | 2.79 | 280       |         | 478.26 |
| Δ801+35    |           |      |           |         |        |
| BS. 796+58 | 128°-29½' | 2.79 |           |         | 478.47 |
| 803+73A    | 293°-04'  | 2.37 | 238       |         | 477.69 |
| Δ803+73    |           |      |           |         |        |
| BS. 804+35 | 113°-04'  | 2.37 |           |         | 478.30 |

| FS   | HI     | BS                  |
|------|--------|---------------------|
| 4.83 |        |                     |
|      | 484.83 | 5.04                |
|      |        | 5.21                |
| 30   |        |                     |
| 15.0 |        |                     |
| 8.1  |        |                     |
|      |        | N+S fence line      |
| 49.1 |        | in Pasture          |
|      | 485.01 | 5.09                |
|      |        | 5.15                |
| 11.3 |        |                     |
|      |        | 50 back is 10 lower |
| 5.02 |        | Pasture             |
|      | 484.57 | 4.98                |
|      |        | 4.36                |
| 17.0 |        |                     |
| 6.56 |        | Pasture             |
|      | 483.49 | 5.08                |
|      |        | 3.42                |
| 5.23 |        | Pasture             |
|      | 483.31 | 5.05                |
|      |        | 4.84                |
| 5.62 |        | in Pasture          |
|      | 482.77 | 5.08                |
|      |        | 4.47                |

| Sta        | Azi       | Rod | Hor Dist | Vert L   | Elev             |
|------------|-----------|-----|----------|----------|------------------|
| B5.806+86A | 264°-33½' | 312 | 313      |          | 477.44           |
| △806+86    |           |     |          |          |                  |
| B5.803+73  | 84°-33½'  | 312 |          |          | 477.74           |
| 807+95     | 264°-08   | 108 | 109      |          | 472.8            |
| 810+04     | 264°-08   | 318 | 318      | -3°-17'  | 459.2<br>-18.26  |
| 812+26A    | 264°-08   | 540 | 540      | -2°-14'  | 456.39<br>-21.05 |
| △812+26    |           |     |          |          |                  |
| B5.808+86  | 84°-08    | 540 |          | +2°-15'  | 423.7<br>-32.71  |
| 814+04     | 264°-08   | 183 | 178      | -10°-24' | 422.76<br>33.63  |
| 815+68A    | 264°-08   | 344 | 342      | -6°-37'  | 422.76           |
| △815+68    |           |     |          |          |                  |
| B5.812+76  | 84°-08    | 343 |          | +6°-38'  | 386.5<br>-36.3   |
| 818+34     | 264°-08   | 270 | 266      | -7°-46'  | 381.3<br>-4.5    |
| 818+79     | 264°-08   | 315 | 311      | -7°-37'  | 381.3            |
| 821+19     | 264°-08   | 550 | 551      |          | 419.6            |
| 827+68A    | 264°-08   | 599 | 600      |          | 424.13           |
| △827+68    |           |     |          |          |                  |
| B5.815+68  | 84°-08    | 598 |          |          | 422.83<br>-22.06 |
| 822+84     | 264°-08   | 120 | 116      | -11°-11' | 401.0<br>-4.75   |
| —          | 264°-45   | 325 | 321      | -7°-25'  | 382.3<br>-41.75  |
| 824+89     | 264°-08   | 325 | 321      | -7°-25'  | 382.3<br>-26.58  |
| 827+05A    | 264°-08   | 537 | 537      | -2°-50'  | 397.55           |
| △827+05    |           |     |          |          |                  |
| B5.821+68  | 84°-08    | 538 |          | +2°-50'  |                  |
| 828+44     | 264°-08   | 138 | 139      |          | 402.6            |

| FS  | HL     | BS   |  |
|-----|--------|------|--|
| 533 |        |      | in Pasture                               |
|     | 482.48 | 5.04 |  |
|     |        | 4.74 |  |
| 97  |        |      | N+S Fence                                |
|     | 461.52 | 5.13 |  |
|     |        |      |  |
|     | 427.91 | 5.15 |  |
|     |        |      | Fence on West side of road to Murray Dam |
|     |        |      | Drainage                                 |
| 83  |        |      |  |
| 378 |        |      | On rocky knoll                           |
|     | 429.21 | 5.08 |  |
|     |        | 6.38 |  |
|     |        |      | Fence Corner                             |
|     |        |      | Bottom of Creek bed                      |
|     | 402.64 | 5.09 |  |
| 00  |        |      |  |





| Sta                | Azi                     | Rod  | Hor Dist | Vert. $\angle$ | Elev   |
|--------------------|-------------------------|------|----------|----------------|--------|
| T 849+57           |                         |      |          |                |        |
| BS 844+06          | 170°-15'                | 5.51 |          |                | 472.21 |
| BS 841+84 A        | 357°-16 $\frac{1}{2}$ ' | 2.26 | 227      |                | 467.89 |
| T 857+84           |                         |      |          |                |        |
| BS 849+57          | 177°-16 $\frac{1}{2}$ ' | 2.26 |          |                | 469.14 |
| 853+05             | 344°-26'                | 1.20 | 121      |                | 461.5  |
| 854+65             | 344°-26'                | 2.80 | 281      |                | 466.9  |
| BS 4+87 $\Delta$   | 344°-26'                | 2.12 | 313      |                | 467.71 |
| T 854+57           |                         |      |          |                |        |
| BS 851+84          | 164°-26'                | 3.12 |          |                | 467.92 |
|                    | 51°-47'                 | 2.62 |          | -12°-05'       |        |
| BS 851+75 A        | 308°-44'                | 0.77 | 78       |                | 468.44 |
| T 853+75           |                         |      |          |                |        |
| BS 854+57          | 128°-44'                | 0.77 |          |                | 467.73 |
| 858+53             | 286°-50'                | 2.77 | 278      |                | 457.5  |
| 858+98             |                         |      |          |                | 447.9  |
| 859+18             | 286°-50'                | 3.42 | 343      |                | 462.2  |
| BS 870+10 $\Delta$ | 286°-50'                | 3.34 | 335      |                | 463.42 |
| T 859+70           |                         |      |          |                |        |
| BS 858+75          | 106°-50'                | 3.24 |          |                | 468.49 |
| 867+63             | 308-05 $\frac{1}{2}$ '  | 1.92 | 193      |                | 461.0  |
| 862+05             | 308-05 $\frac{1}{2}$ '  | 2.34 | 235      |                | 456.4  |
| 862+42             | 308-05 $\frac{1}{2}$ '  | 2.71 | 272      |                | 466.6  |
| BS 871+27 $\Delta$ | 308°-05 $\frac{1}{2}$ ' | 3.56 | 357      |                | 467.64 |
| T 863+27           |                         |      |          |                |        |
| BS 859+70          | 128°-05 $\frac{1}{2}$ ' | 3.58 |          |                | 468.49 |

| FS  | HI     | BS   |                       |
|---|--------|------|-----------------------|
|   | 474.17 | 5.06 |                       |
|   |        | 1.96 |                       |
| 6.28  |        |      | 5-9-27                |
|   | 472.82 | 4.33 |                       |
|   |        | 3.68 |                       |
| 11.3  |        |      |                       |
| 5.3   |        |      | Fence                 |
| 5.11  |        |      |                       |
|   | 472.68 | 4.97 | 5-10-27               |
|   |        | 4.76 |                       |
| To intersection of three fences - one north to River - one SW. over hill - one SE to road leading to Murray Dam |        |      |                       |
| 4.24  |        |      |                       |
|   | 473.52 | 5.08 |                       |
|   |        | 5.79 |                       |
| 16.0  |        |      |                       |
| 10.6  |        |      | 20' back is 15' lower |
| 5.10  |        |      |                       |
|   | 473.41 | 4.99 |                       |
|   |        | 4.92 |                       |
| 12.4  |        |      |                       |
| 17.0  |        |      |                       |
| 6.8   |        |      |                       |
| 5.77  |        |      |                       |
|   | 472.80 | 5.16 |                       |
|   |        | 4.31 |                       |

| Sta       | Azi     | Rod   | Hor. Dist | Vert L | Elev   |
|-----------|---------|-------|-----------|--------|--------|
| 863+87    | 299-35  | 0.59  | 60        |        | 466.2  |
| 865+63    | 299-35  | 2.35  | 236       |        | 468.7  |
| 867+45A   | 299-35  | 4.17  | 418       |        | 467.43 |
| TS 867+45 |         |       |           |        |        |
| BS 863+27 | 119-35  | 4.18  |           |        | 467.66 |
| 868+04    | 293-44  | 0.58  | 59        |        | 460.0  |
| 868+37    | 293-44  | 0.91  | 92        |        | 463.1  |
| 870+75A   | 293-44  | 3.33  | 334       |        | 467.57 |
| TS 870+75 |         |       |           |        |        |
| BS 867+45 | 113-44  | 3.35  |           |        | 467.52 |
| 870+81    | 292-21  | 2.01  | 202       |        | 462.9  |
| 873+74A   | 292-21  | 2.94  | 295       |        | 468.24 |
| TS 873+74 |         |       |           |        |        |
| BS 870+75 | 112-21  | 2.95  |           |        | 467.66 |
| 875+45    | 279-36½ | 1.66  | 161       | -9-53  | 440.0  |
| 875+75    | 279-36½ | 2.03  | 201       | -6-42  | 444.5  |
| 879+06    | 279-36½ | 5.32  | 532       | -2-54  | 441.3  |
| 881+57A   | 279-36½ | 7.82  | 783       | -2-20½ | 436.24 |
| TS 881+57 |         |       |           |        |        |
| BS 873+74 | 99-36½  | 7.84  |           | +2-21  | 412.2  |
| 880+15    | 99-36½  | -0.81 | 82        |        | 432.2  |
| 880+75    | 99-36½  |       |           |        |        |
| 882+24    | 279-36½ | 0.66  | 67        |        | 429.6  |
| 883+80    | 279-36½ | 2.26  | 223       | -7-44  | 406.0  |
| —         | 313-06  | 2.20  | 217       | -7-49  | 406.4  |
| 884+62    | 279-36½ | 3.09  | 305       | -6-57  | 399.0  |

| FS   | HI     | BS                      |
|------|--------|-------------------------|
| 6.6  | 472.80 |                         |
| 4.1  |        |                         |
| 5.37 |        |                         |
|      | 472.54 | 5.11                    |
|      |        | 4.88                    |
| 12.5 |        |                         |
| 9.4  |        |                         |
| 4.97 |        |                         |
|      | 472.72 | 5.15                    |
|      |        | 5.20                    |
| 9.8  |        |                         |
| 4.48 |        |                         |
|      | 473.35 | 5.11                    |
|      |        | 5.69                    |
|      |        |                         |
|      | 441.36 | 5.12                    |
| 9.2  |        |                         |
| 11.8 |        |                         |
|      |        | 60' back - is 20' lower |
|      |        | Center of old road      |
|      |        | to Fence Corner         |



| Sta          | Azi      | Rod  | Horizontal | Vert       | Elev                      |
|--------------|----------|------|------------|------------|---------------------------|
| 20526 A      | 291°-20' | 520  | 521        | -1°-07'    | -10.17<br>472.26          |
| ↖ 20526      |          |      |            |            |                           |
| BS 200105    | 111°-20' | 520  |            | +1°-07' ✓  | -25.44                    |
| 208+23 A     | 262°-34' | 3.04 | 303        | -4°-48'    | 446.82                    |
| ↖ 208+23     |          |      |            |            |                           |
| BS 203+26    | 82°-34'  | 3.04 | ←          | +4°-49' ✓  |                           |
| 208+74       | 283°-05½ | 0.44 | 45         |            | 436.2                     |
| 909+77       | 283°-05½ | 1.53 | 148        | -11°-33'   | <sup>-3025</sup><br>416.5 |
| 911          |          |      |            |            |                           |
| 209+56       | 283°-05½ | 3.26 | 327        |            | 447.3<br>+12.21           |
| 212+40 A     | 283°-05½ | 4.10 |            | +1°-42'    | 454.28                    |
| —            | 340°-08' | 2.76 |            | -12°-10'   | -57.11<br>397.17          |
| ↖ 25-1820+75 |          |      |            |            |                           |
| BS 208+23    | 160°-08' | 2.75 |            | +12°-10' ✓ |                           |
| —            | 265°-05' | 3.55 |            | -4°-06'    |                           |
| ↖ 212+40     |          |      |            |            |                           |
| BS 208+23    | 103°-05½ | 4.10 |            | -12°-41'   |                           |
| 213+77 A     | 268°-21½ | 1.36 | 137        |            | 455.61                    |
| ↖ 213+77     |          |      |            |            |                           |
| BS 212+40    | 88°-21½  | 1.36 | ←          |            | 454.43                    |
| 214+37 A     | 246°-36½ | 1.19 | 120        |            | 455.25                    |
| ↖ 214+37     |          |      |            |            |                           |
| BS 213+77    | 66°-36½  | 1.19 | ←          |            | 455.65                    |
| 217+06 A     | 230°-43' | 2.08 | 209        |            | 456.41                    |
| ↖ 219+06     |          |      |            |            |                           |
| BS 214+37    | 50°-43'  | 2.08 | ←          |            | 455.99                    |

| FS                 | HI     | BS                       |
|--------------------|--------|--------------------------|
|                    |        | 474                      |
|                    |        |                          |
| Corrected to Elev. | 442.17 |                          |
|                    | 447.28 | 5.11                     |
|                    |        |                          |
| 105                |        |                          |
|                    |        |                          |
| 0.0                |        |                          |
| Corrected Elev     |        | beginning of thick brush |
| Elev 385.06        |        | to S-P 824+29            |
|                    | 5.08   | 5-11-1922                |
|                    |        |                          |
| S-P Azi - 264°-17' |        |                          |
| 459.26             | 488    |                          |
|                    |        |                          |
| 365                |        |                          |
|                    | 460.20 | 459                      |
|                    |        | 5.17                     |
| 425                |        |                          |
|                    | 460.70 | 4.75                     |
|                    |        | 5.05                     |
| 429                |        |                          |
|                    | 461.18 | 4.77                     |
|                    |        | 5.10                     |

| Sta      | Azi                   | Rod  | Hor Dist | Vert L  | Elev            |
|----------|-----------------------|------|----------|---------|-----------------|
| 918+10   | 220°-00 $\frac{1}{2}$ | 1.03 | 104      |         | 457.2           |
| 918+58 A | 220°-00 $\frac{1}{2}$ | 1.51 | 152      |         | 453.32          |
| X918+58  |                       |      |          |         |                 |
| B5919+06 | 40°-00 $\frac{1}{2}$  | 1.51 | -        | +12.11  |                 |
| 920+33A  | 190°-22 $\frac{1}{2}$ | 1.74 | 175      |         | 454.57          |
| -        | 142°-52 $\frac{1}{2}$ | 0.39 |          | +16°-34 | 36.34           |
| -        | 140°-10 $\frac{1}{2}$ | 1.18 |          | -18°-47 | 416.98-         |
| -        | 219°-17               | 1.35 |          | -9°-35  | 22.50<br>430.22 |
| X920+33  |                       |      |          |         |                 |
| B5921+58 | 10°-22 $\frac{1}{2}$  | 1.74 | -        |         | 453.36          |
| 921+30A  | 166°-01 $\frac{1}{2}$ | 1.56 | 157      |         | 457.00          |
| X921+30  |                       |      |          |         |                 |
| B5922+33 | 346°-01 $\frac{1}{2}$ | 1.57 | 157      |         | 454.59          |
| 923+03   | 181°-40               | 1.18 | 113      | -13°-24 | -26.36<br>430.1 |
| 924+23   | 181°-40               | 2.42 | 233      | -12°-00 | -49.47<br>407.5 |
| 924+86   | 181°-40               | 2.56 | 296      | -3°-48  | -19.64<br>437.4 |
| 925+32 A | 181°-40               | 3.41 | 342      |         | 454.03          |
| X925+32  |                       |      |          |         |                 |
| B5927+30 | 1°-40                 | 3.42 | -        |         | 457.06          |
| 926+59 A | 208°-53               | 1.26 | 127      |         | 454.64          |
| X926+59  |                       |      |          |         |                 |
| B5928+32 | 28°-53                | 1.26 |          |         | 454.04          |
| 928+15   | 207°-51 $\frac{1}{2}$ | 1.55 | 156      |         | 452.2           |
| 929+46 A | 207°-51 $\frac{1}{2}$ | 2.86 | 287      |         | 454.44          |
| X929+46  |                       |      |          |         |                 |

| FS                                     | HI          | BS   |
|--|-------------|------|
| 40                                     | 461.18      |      |
| 7.86                                   |             |      |
|  | 458.31      | 499  |
| 37A                                    |             |      |
| Loth on Fletcher's Axis of Dam site 1A |             |      |
| to                                     | S-1, 830+40 |      |
| to                                     | S-1, 832+50 |      |
|  | 459.38      | 4.81 |
|  |             | 6.02 |
| 238                                    |             |      |
|  | 461.80      | 480  |
|  |             | 7.21 |
| 7.77                                   |             |      |
|  | 458.75      | 4.72 |
|  |             | 1.69 |
| 411                                    |             |      |
|  | 459.46      | 4.82 |
|  |             | 5.42 |
| 7.3                                    |             |      |
| 5.02                                   |             |      |
|  | 459.07      | 4.63 |

| Sta.        | Azi.        | Rod   | Hor. | Dist     | Vert              | Elev   |
|-------------|-------------|-------|------|----------|-------------------|--------|
| B.S. 224+55 | 27°-51 1/2  | 2.86  | ←    |          |                   | 454.67 |
| 230+47 A    | 200-56 1/2  | 1.00  | 101  |          |                   | 455.85 |
| 230+47      |             |       |      |          |                   |        |
| B.S. 229+46 | 20°-56 1/2  | 1.00  | ←    |          |                   | 454.46 |
| 231+28 A    | 170°-58 1/2 | 0.80  | 81   |          |                   | 454.83 |
| 231+28      |             |       |      |          |                   |        |
| B.S. 230+7  | 10°-58 1/2  | 0.80  | ←    |          |                   | 455.88 |
| 232+19      | 170°-33 1/2 | 0.90  | 91   |          |                   | 454.9  |
| 232+87 A    | 170-33 1/2  | 1.58  | 159  |          |                   | 454.78 |
| 232+87      |             |       |      |          |                   |        |
| B.S. 231+28 | 350-33 1/2  | 1.58  |      |          |                   | 454.85 |
| 232+51      | 350-33 1/2  | -0.42 | -36  | -24°-00' | <sup>-16.09</sup> | 438.7  |
| 233+95      | 255-19 1/2  | 1.26  | 108  | -22-55   | <sup>-45.66</sup> | 409.1  |
| 234+82      | 255-19 1/2  | 1.95  | 195  | -4°-48'  | <sup>-16.35</sup> | 438.4  |
| 235+33      | 255-19 1/2  | 2.46  | 246  | -2°-54'  | <sup>-12.48</sup> | 442.3  |
| 235+69 A    | 255-19 1/2  | 2.82  | 282  | -3°-21'  | <sup>-16.51</sup> | 438.27 |
| 235+69      |             |       |      |          |                   |        |
| B.S. 232+87 | 75°-19 1/2  | 2.82  |      | +3°-21'  |                   |        |
| -           | 318-47 1/2  | 0.15  |      |          |                   | 428.75 |
| 236+72 A    | 237°-40     | 1.02  | 103  |          |                   | 433.90 |
| 236+72      |             |       |      |          |                   |        |
| B.S. 235+69 | 57°-40      | 1.02  |      | 3°-02'   |                   |        |
| 237+07      | 240-41      | 0.34  | 35   |          |                   | 424.9  |
| 237+79      | 240-41      | 1.06  | 107  |          |                   | 428.1  |
| 237+63 A    | 240-41      | 2.91  | 291  | -2°-32'  | <sup>-12.91</sup> | 420.99 |

| IS    | HI              | BS                               |
|-------|-----------------|----------------------------------|
|       | 459.07          | 440                              |
| 3.28  |                 |                                  |
|       | 460.85          | 5.04                             |
|       |                 | 6.43                             |
| 6.06  |                 |                                  |
|       | 459.32          | 4.43                             |
|       |                 | 3.44                             |
| 5.4   |                 |                                  |
| 4.54  |                 | in diffy cañon                   |
|       | 459.43          | 4.65                             |
|       |                 | 4.58                             |
|       |                 |                                  |
|       |                 |                                  |
|       |                 | 5-11-1922                        |
|       | 442.97          | 4.70                             |
| 14.18 | S-2 Elev 428.24 | to S-2 846+30                    |
| 3.07  |                 |                                  |
|       | 439.12          | 5.22                             |
|       |                 | Read 6.22 on Rod instead of 5.22 |
| 14.2  |                 |                                  |
| 11.0  |                 |                                  |
|       | S-2 Elev 420.58 | = S-2 - 850+83                   |



| Sta        | Azi       | Rod  | Hor Dist | Vert L   | Elev   |
|------------|-----------|------|----------|----------|--------|
| 7950+05    |           |      |          |          | 441.42 |
| 950+67     | 210°-17½' | 0.62 | 62       | +8°-05'  | 450.2  |
| 950+87A    | 210°-17½' | 0.84 | 84       | +4°-51'  | 449.59 |
| BS 950+85  | 30°-17½'  | 0.84 |          | -4°-51'  |        |
| 951+30     | 210°-45'  | 0.40 | 41       |          | 446.7  |
| 951+80A    | 210°-45'  | 0.90 | 91       |          | 449.50 |
| BS 951+80  | 30°-45'   | 0.90 |          |          | 449.60 |
| 952+66A    | 188°-37'  | 0.85 | 86       |          | 450.08 |
| BS 952+66  | 30°-37'   | 0.85 |          |          | 449.51 |
| 953+26     | 152°-22'  | 0.59 | 60       |          | 451.4  |
| 953+73     | 152°-22'  | 1.06 | 107      |          | 444.5  |
| BS 954+03A | 152°-22'  | 1.43 | 144      |          | 449.91 |
| BS 952+66  | 332°-22'  | 1.43 |          |          | 450.08 |
| 954+88     | 200°-04'  | 0.98 | 10       | -26°-54' | 409.8  |
| 955+97     | 200°-04'  | 1.84 | 185      |          | 451.8  |
| 956+42A    | 200°-04'  | 2.32 | 233      |          | 450.33 |
| BS 954+03  | 20°-04'   | 2.32 |          |          | 449.90 |
| 957+20A    | 192°-55'  | 0.77 | 78       |          | 449.50 |
| BS 958+42  | 12°-55'   | 0.77 |          | +0°-37'  |        |
| 959+63     | 191°-51'  | 0.42 | 43       |          | 443.7  |

| FS   | HI     | BS  |
|------|--------|---|
|      | 454.76 | 5.37  |
| 83   |        |   |
| 546  |        |   |
|      | 453.97 | 447   |
|      |        | 437   |
| 389  |        |   |
|      | 455.00 | 492   |
|      |        | 549   |
| 3.6  |        |   |
| 10.5 |        |   |
| 5.03 |        |   |
|      | 454.96 | 5.05  |
|      |        | 4.88  |
|      |        | Point   |
|      |        | bottom of Canyon heading against high precipice at this |
| 3.2  |        |   |
| 4.63 |        |   |
|      | 455.12 | 4.79  |
|      |        | 5.22  |
| 562  |        |   |
|      | 454.08 | 4.58  |
| 104  |        |   |



| Sta                 | Azi                   | Rod   | Hor. Dist | Vert L.  | Elev                    |
|---------------------|-----------------------|-------|-----------|----------|-------------------------|
| 958+32 <sup>✓</sup> | 191°-51'              | 1.11  | 112       |          | 444.88                  |
| BS 958+32           |                       |       |           |          |                         |
| BS 957+20           | 11°-51'               | 1.11  | ✓         |          | 445.50                  |
| 958+68              | 191-31 $\frac{1}{2}$  | 0.35  | 36        |          | 437.7                   |
| 959+34              | 191-31 $\frac{1}{2}$  | 1.01  | 102       |          | 437.5                   |
| 959+98              | 191-31 $\frac{1}{2}$  | 1.65  | 166       |          | 432.3                   |
| 963+11 <sup>Δ</sup> | 191°-31 $\frac{1}{2}$ | 4.78  | 479       |          | 446.48                  |
| BS 958+32           | 11°-31 $\frac{1}{2}$  | 4.75  | ✓         |          | 444.89                  |
| 961+12              | 11-31 $\frac{1}{2}$   | -2.08 | 199       | -12°-30' | <sup>-44.2</sup> 402.3  |
| 964+64 <sup>Δ</sup> | 200°-45 $\frac{1}{2}$ | 1.52  | 153       |          | 447.25                  |
| BS 964+64           |                       |       |           |          |                         |
| BS 963+11           | 20°-45 $\frac{1}{2}$  | 1.52  | ✓         |          |                         |
| 968+43 <sup>Δ</sup> | 192°-31'              | 0.78  | 79        |          | 446.24                  |
| BS 964+64           | 12°-31'               | 0.78  |           |          | 447.24                  |
| 965+81              | 190-34                | 0.40  | 38        | -15°-04' | <sup>-10.34</sup> 435.9 |
| 966+23              | 190-34                | 0.75  | 80        |          | 441.6                   |
| 966+69              | 190-34                | 1.25  | 126       |          | 441.3                   |
| 966+94              |                       |       |           |          | 416.3                   |
| 967+76              | 190-34                | 2.32  | 233       |          | 436.1                   |
| 968+10              | 190-34                | 2.66  | 267       |          | 448.8                   |
| 968+37 <sup>Δ</sup> | 190°-34'              | 2.93  | 294       |          | 446.76                  |
| BS 968+37           |                       |       |           |          |                         |
| BS 965+43           | 10°-34'               | 2.93  | ✓         |          | 446.26                  |
| 968+87              | 196-14 $\frac{1}{2}$  | 0.49  | 50        |          | 442.7                   |

| FS   | HI        | BS                       |
|------|-----------|--------------------------|
| 9.20 | 454.08    |                          |
|      | 449.34    | 4.66                     |
|      |           | 0.04                     |
| 11.8 |           |                          |
| 10.0 |           |                          |
| 17.2 |           |                          |
| 3.06 |           |                          |
|      | 451.01    | 1.53                     |
|      |           | 6.12                     |
|      |           | 5-12-1922                |
|      | back shot |                          |
| 3.76 |           |                          |
|      | 451.83    | 4.58                     |
|      |           | 5.36                     |
| 5.52 |           |                          |
|      | 451.27    | 5.03                     |
|      |           | 1.03                     |
| 9.7  |           |                          |
| 10.0 |           | 25' further is 15' lower |
| 15.2 |           |                          |
| 2.5  |           |                          |
| 4.51 |           |                          |
|      | 451.86    | 5.10                     |
|      |           | 5.60                     |
| 7.3  |           |                          |

| Sta      | Azi      | Rod  | Hor. Dist | Vert /   | Elev                    |
|----------|----------|------|-----------|----------|-------------------------|
| 968+37   |          |      |           |          | 446.76                  |
| 970+06   | 126-14½  | 1.23 | 189       | -9°-06'  | <sup>-30.35</sup> 411.4 |
| 970+26   | 126-14½  | 2.15 | 215       | -3°-42'  | 416.4                   |
| 970+52   | 126-14½  | 2.15 | 215       | -3°-42'  | <sup>-13.92</sup> 432.8 |
| 970+98   | 126-14½  | 2.60 | 261       |          | 447.2                   |
| 971+72 A | 126-14½  | 3.34 | 335       |          | 447.72                  |
| 971+72   |          |      |           |          |                         |
| 971+37   | 16°-14½  | 3.23 |           |          | 446.78                  |
| 972+50   | 182°-00½ | 0.77 | 78        |          | 447.9                   |
| 972+75   |          |      |           |          | 432.9                   |
| 973+61   | 182°-00½ | 1.88 | 189       |          | 431.0                   |
| 973+88   | 182°-00½ | 2.15 | 216       |          | 446.1                   |
| 974+68 A | 182°-00½ | 2.95 | 296       |          | 447.20                  |
| 974+68   |          |      |           |          |                         |
| 974+72   | 2°-00½   | 2.95 |           |          | 447.70                  |
| 975+40   | 181-08   | 0.76 | 72        | -14°-26' | <sup>-18.63</sup> 428.6 |
| 975+72   | 181-08   | 1.03 | 104       |          | 437.5                   |
| 977+16   | 181-08   | 2.49 | 248       | -5°-39'  | <sup>-24.14</sup> 423.1 |
| 977+74   |          |      |           |          | <sup>-30.9°</sup> 396.3 |
| 978+04   | 181-08   | 3.38 | 336       | -5°-15'  | (416.3)-                |
| 978+29   |          |      |           |          | <sup>-33.9°</sup> 398.3 |
| 978+49   | 181-08   | 3.83 | 381       | -5°-05'  | 413.3                   |
| 978+96   | 181-08   | 4.28 | 428       | -2°-43'  | <sup>-20.32</sup> 426.9 |
| 979+76   | 181-08   | 5.08 | 509       |          | 441.8                   |
| 981+13 A | 181°-08' | 6.44 | 645       |          | 448.75                  |
| 981+13   |          |      |           |          |                         |
| 981+68   | 1°-08'   | 6.45 |           |          | 447.10                  |
|          |          |      |           |          | <sup>-40.43</sup>       |
|          | 226°-05' | 1.79 |           | -13°-20' | 408.32                  |
| 981+66   | 171°-26½ | 0.52 | 53        |          | 448.5                   |
| 981+90   | 171-26½  | 0.76 | 77        |          | 438.5                   |

| ES    | HI                                 | BS                     |
|-------|------------------------------------|------------------------|
|       | 451.86                             | 20' back is 5' lower   |
| 47    |                                    |                        |
| 41.4  |                                    |                        |
|       | 452.40                             | 4.68                   |
|       |                                    | 5.62                   |
| 45    |                                    | 25' ahead is 15' lower |
| 21.4  |                                    |                        |
| 6.3   |                                    |                        |
| 5.20  |                                    |                        |
|       | 452.17                             | 4.97                   |
|       |                                    | 4.47                   |
| 14.7  |                                    |                        |
| 409.3 | This point 7.0' lower than reading | 30' back is 20' lower  |
|       |                                    | 20' back is 15' lower  |
| 10.4  |                                    |                        |
| 3.42  |                                    |                        |
|       | 453.70                             | 4.95                   |
|       |                                    | 6.60                   |
|       | Side shot to S-2, 983+83           |                        |
| 5.2   |                                    |                        |
| 15.2  |                                    |                        |

| Sta              | Azi       | Rod   | Hor Dist | Vert L   | Elev           |
|------------------|-----------|-------|----------|----------|----------------|
| 982+10           | 171°-26½' | 0.96  | 97       |          | 446.7          |
| 982+47A          | 171°-26½' | 1.33  | 134      |          | 447.83         |
| BS 982+47        |           |       |          |          |                |
| BS 982+13        | 351°-26½' | 1.33  |          |          | 448.75         |
| 982+95           | 148°-30'  | 0.49  | 48       | -12°-20' | 437.3          |
| 983+46           | 148°-30'  | 0.98  | 99       |          | 445.7          |
| 984+84           | 148°-30'  | 2.36  | 237      |          | 439.2          |
| 985+78           | 148°-30'  | 3.30  | 331      |          | 441.1          |
| 986+28<br>986+68 | 148°-30'  | 3.80  | 381      |          | 434.5<br>400.0 |
| 987+06A          | 148°-30'  | 4.58  | 459      |          | 448.35         |
| BS 987+06        |           |       |          |          |                |
| BS 987+47        | 328°-30'  | 4.55  |          |          | 447.79         |
| 988+62           | 153°-56'  | 1.56  | 156      | -5°-17'  | 434.0          |
| 988+19           | 153°-56'  | 3.12  | 313      |          | 439.4          |
| 989+29A          | 153°-56'  | 4.22  | 423      |          | 449.11         |
| BS 989+29        |           |       |          |          |                |
| BS 989+02        | 333°-56'  | 4.22  |          |          | 448.32         |
| 990+68A          | 150°-47½' | 1.38  | 139      |          | 450.27         |
| BS 990+68        |           |       |          |          |                |
| 991+29           | 330°-47½' | 1.38  |          |          | 449.11         |
| 993+56           | 158°-35½' | 0.89  | 88       | -8°-54'  | 436.5          |
| 993+52A          | 158°-35½' | 4.90  | 484      | -6°-43'  | 393.23         |
| BS 993+52        |           |       |          |          |                |
| BS 992+68        | 338°-35½' | 4.91  |          | +6°-43'  |                |
| 995+61           | 338°-35½' | -1.90 | 191      |          | 393.2          |

| FS   | HI     | BS   |
|------|--------|------|
| 70   |        |      |
| 587  |        |      |
|      | 452.66 | 4.83 |
|      |        | 3.91 |
| 73   |        |      |
| 135  |        |      |
| 116  |        |      |
| 182  |        |      |
| 431  |        |      |
|      | 453.41 | 5.06 |
|      |        | 5.62 |
| 140  |        |      |
| 430  |        |      |
|      | 453.96 | 4.85 |
|      |        | 5.64 |
| 3.69 |        |      |
|      | 455.09 | 4.82 |
|      |        | 5.78 |
|      |        |      |
|      | 398.34 | 5.11 |
| 51   |        |      |

986+68 is Elev. 400.0

4-13-1922

| Sta        | Azi       | Rod   | Hor. Dist | Vert L  | Elev   |
|------------|-----------|-------|-----------|---------|--------|
| π 997+52   |           |       |           |         | 393.23 |
| 996+40     | 338°-35½' | -1.11 | 112       |         | 385.5  |
| 996+53     | 338°-35½' | -0.58 | 55        |         | 390.3  |
| 999+35     | 201°-30'  | 1.84  | 183       | -6°-18' | 373.0  |
| 999+55     |           |       |           |         | 368.0  |
| 1000+48    | 201°-30'  | 2.55  | 256       |         | 390.9  |
| —          | 285°-47½' | 4.10  | 409       | -4°-15' | 362.8  |
| 1001+78    | 201°-30'  | 4.26  | 426       | +2°-54' | 414.7  |
| 1002+70    | 201°-30'  | 5.15  | 518       | +4°-54' | 437.6  |
| 1003+53A   | 201°-30'  | 6.06  | 601       | +5°-49' | 454.43 |
| π 1003+53  |           |       |           |         |        |
| BS 999+52  | 21°-30'   | 6.06  |           | -5°-49' |        |
| 1004+02    | 244°-01½' | 0.48  | 49        |         | 453.7  |
| 1005+03    | 244°-01½' | 1.49  | 150       |         | 442.1  |
| 1006+45    | 244°-01½' | 2.91  | 292       |         | 451.6  |
| 1007+47A   | 244°-01½' | 3.93  | 394       |         | 456.39 |
| π 1007+47  |           |       |           |         |        |
| BS 1003+53 | 64°-01½'  | 3.94  |           |         | 454.43 |
| 1008+87A   | 238°-48'  | 1.39  | 140       |         | 457.77 |
| π 1008+87  |           |       |           |         |        |
| BS 1007+47 | 58°-48'   | 1.39  |           |         | 456.39 |
| 1009+83A   | 235°-03'  | 0.95  | 96        |         | 454.10 |
| π 1009+83  |           |       |           |         |        |
| BS 1008+87 | 55°-03'   | 0.95  |           |         | 457.79 |
| 10φ0+94A   | 235°+03'  | 1.11  | 111       | -6°-06' | 442.84 |
| π 10φ0+94  |           |       |           |         |        |
| BS 1009+83 | 55°-03'   | 1.10  |           | +6°-01' |        |

| ES   | HI  | BS       |
|------|---|----------|
| 12.8 | 398.34  |          |
| 8.0  |   |          |
|      | 20' further is E Lower-bottom of Dog Springs Canyon |          |
| 7.4  |   |          |
|      | to Sta # 29 on 360 Contour                          |          |
|      | 459.37  | 494      |
| 5.7  |   |          |
| 17.3 |   |          |
| 7.8  |   |          |
| 2.58 |   |          |
|      | 461.23  | 484      |
|      |   | 680      |
| 3.46 |   | on ridge |
|      | 462.62  | 485      |
|      |   | 623      |
| 8.52 |   |          |
|      | 458.87  | 477      |
|      |   | 1.08     |
|      |   | 480      |

| Sta        | Azi       | Rod   | Hor. Dist | Vert L   | Elev             |
|------------|-----------|-------|-----------|----------|------------------|
| 1012+84 A  | 235°-03   | 1.97  | 190       | -11°-28' | -38.61<br>403.63 |
| TI012+84   | POT       |       |           |          |                  |
| BS 1012+84 | 55°-03    | 1.96  | ✓         | +11°-28' | -29.3            |
| 1013+93    | 235-03    | 1.16  | 109       | -15°-00' | 374.3            |
| 1016+11    | 235-03    | 3.40  | 327       | -11°-50' | -68.49<br>335.1  |
| 1017+06    | 235-03    | 4.34  | 422       | -10°-08' | -75.38<br>328.2  |
| 1018+19    | 235-03    | 5.40  | 535       | -5°-48'  | -54.39<br>349.2  |
| 1020+20 A  | 235°-03'  | 7.36  | 737       | -0°-57'  | -12.24<br>391.39 |
| TI020+20   |           |       |           |          |                  |
| BS 1012+84 | 55°-03'   | 7.36  | ✓         | +0°-58'  |                  |
| 1019+62    | 55-03     | -0.58 | 59        |          | 386.0            |
| 1021+39    | 275-26    | 1.21  | 119       | -9°-25'  | -7.62<br>383.8   |
| 1022+12    | 275-26    | 1.90  | 191       |          | 386.6            |
| 1024+05    | 275-26    | 3.86  | 385       | +4°-04'  | +27.4<br>418.8   |
| 1026+67 A  | 275°-26'  | 6.50  | 646       | +5°-12'  | +58.81<br>450.20 |
| TI026+67   |           |       |           |          |                  |
| BS 1026+21 | 95°-26'   | 6.50  | ✓         | -5°-12'  |                  |
| 1027+90 A  | 273°-01½' | 1.22  | 123       |          | 450.20           |
| TI027+90   |           |       |           |          |                  |
| BS 1026+67 | 93°-01½'  | 1.22  | ✓         |          | 450.22           |
| 1028+94 A  | 237°-59'  | 1.03  | 104       |          | 443.20           |
| TI028+94   |           |       |           |          |                  |
| BS 1027+90 | 57°-59'   | 1.03  |           | +3°-53'  |                  |
| 1029+50    |           | 0.58  | 56        | -13°-00' | -12.97<br>430.2  |
| 1030+42    |           | 1.54  | 148       | -12°-20' | -32.39<br>410.8  |

| FS   | HI     | BS       |
|------|--------|----------|
|      |        | 494      |
|      | 396.45 | 5.06     |
| 10A  |        |          |
| 9B   |        |          |
|      | 455.01 | 4.81     |
| 4B1  |        | On ridge |
|      | 455.14 | 494      |
|      |        | 492      |
| 1194 |        |          |
|      |        | 4.83     |

| Sta           | Azi      | Rod  | Hor. Dist | Vert. L  | Elev   |
|---------------|----------|------|-----------|----------|--------|
| T 1028+94     |          |      |           |          | 443.20 |
| 1031+96       | 237-59   | 3.15 | 302       | -12°-06' | 378.4  |
| 1033+16       | 237-59   | 4.24 | 422       | -4°-54'  | 407.0  |
| 1033+95       | 237-59   | 5.00 | 501       | -2°-38'  | 420.2  |
| 1035+01 A     | 237°-59' | 6.06 | 607       | -1°-33'  | 426.80 |
| T 1035+01     |          |      |           |          |        |
| BS 1035+01    | 57°-55'  | 6.06 | -         | +1°-33'  | -11.44 |
| 1036+14 A     | 264°-44' | 1.13 | 113       | -5°-47'  | 415.36 |
| T 1036+14     |          |      |           |          |        |
| BS 1035+01    | 84°-44'  | 1.12 | -         | +5°-47'  | -34.84 |
| 1037+36       | 267-33   | 1.31 | 122       | -15°-54' | 380.5  |
| 1039+07       | 267-33   | 3.09 | 293       | -13°-26' | 345.3  |
| 1040+85       | 267-33   | 4.70 | 471       | -2°-16'  | 396.8  |
| 1041+24 A     | 267°-33' | 5.79 | 580       |          | 416.50 |
| T 1041+24     |          |      |           |          |        |
| BS 1036+14    | 87°-33'  | 5.82 | -         |          | 415.41 |
| 1042+40       | 293-33½  | 1.45 | 146       |          | 421.4  |
| 1045+01 A     | 293°-33½ | 3.07 | 307       | +3°-32'  | 435.45 |
| -             | 332°-45½ | 2.30 |           | -4°-25'  | 398.84 |
| T S-2, 951+30 |          |      |           |          |        |
| BS 1041+34    | 152°-45½ | 2.29 |           | +4°-24'  | -17.62 |
| -             | 84-22    | 5.38 |           | -1°-41'  | 417.83 |
| T 1045+01     |          |      |           |          |        |
| BS 1041+34    | 113°-33½ | 3.07 | ←         | -3°-32'  |        |
| 1046+50 A     | 269°-55' | 1.48 | 149       |          | 435.35 |
| T 1046+50     |          |      |           |          |        |

| FS  | HI     | BS                             |
|-----|--------|--------------------------------|
|     |        | Bottom Canyon                  |
|     |        | on Ridge                       |
|     |        | 4.87                           |
|     | 420.28 | 492                            |
|     |        | Bottom of Canyon               |
| 378 |        |                                |
|     | 421.38 | 488                            |
|     |        | 597                            |
| 0.0 |        |                                |
|     |        | S-2 Elev 398.77 to S-2, 951+30 |
|     |        | 452                            |
|     |        | 421 on S-2 line = 82°-05'      |
|     | 440.23 | 418                            |
| 488 |        |                                |
|     | 440.14 | 419                            |

| Sta          | Azi       | Rod  | Hor. Dist. | Vert. L  | Elev            |
|--------------|-----------|------|------------|----------|-----------------|
| B.S. 1045+01 | 85°-55'   | 1.48 |            |          | 435.46          |
| 1047+86      | 222°-13'  | 1.35 | 136        |          | 434.4           |
| 1050+00 ✓    | 222°-13'  | 3.49 | 350        |          | 435.59          |
| T 1050+00    |           |      |            |          |                 |
| B.S. 1046+50 | 42°-13'   | 3.49 | ←          |          | 435.40          |
| 1050+85      | 222°-23½' | 0.88 | 89         |          | 426.4           |
| 1051+36      |           |      |            |          | -20.53 405.1    |
| 1051+86      | 222°-23½' | 1.87 | 186        | -6°-18'  | 415.1           |
| 1053+35      | 222°-23½' | 3.34 | 335        |          | 432.4           |
| 1056+05 ✓    | 222°-23½' | 6.04 | 605        |          | 437.17          |
| T 1056+05    |           |      |            |          |                 |
| B.S. 1050+00 | 42°-23½'  | 6.05 | ←          |          | 435.60          |
| -            | 268°-10'  | 1.75 |            | -5°-06'  |                 |
| -            | 326°-18'  | 2.03 |            | -4°-20'  |                 |
| 1057+10      | 178°-38½' | 1.13 | 114        |          | 434.1           |
| 1058+35 ✓    | 178°-38½' | 2.29 | 230        |          | 431.99          |
| T 1058+35    |           |      |            |          |                 |
| B.S. 1058+05 | 358°-38½' | 2.29 |            | +12°-19' |                 |
| 1059+56      | 183°-16'  | 1.20 | 121        |          | 420.0           |
| 1060+58      | 183°-16'  | 2.22 | 223        |          | 420.5           |
| 1062+33      | 183°-16'  | 3.98 | 398        | -3°-05'  | 410.1           |
| 1062+81      | 183°-16'  | 4.45 | 446        | -2°-05'  | 415.8           |
| 1063+65      |           |      |            |          | -19.72 397.3    |
| 1063+90      | 183°-16'  | 5.54 | 555        | -2°-02'  | 412.3           |
| 1064+52      | 183°-16'  | 6.16 | 617        |          | 423.7           |
| 1065+56 ✓    | 183°-16'  | 7.20 | 721        |          | 434.26          |
| T 1058+35    | 270°-06'  | 4.16 | 412        | -6°-02'  | 43.60<br>388.39 |

| ES    | HI     | BS                                  |
|-------|--------|-------------------------------------|
|       | 440.14 | 468                                 |
| 57    |        |                                     |
| 455   |        |                                     |
|       | 440.44 | 485                                 |
|       |        | 5.04                                |
| 140   |        |                                     |
|       |        | 50 back is 10 lower                 |
| 8.0   |        |                                     |
| 327   |        |                                     |
|       | 442.14 | 497                                 |
|       |        | 654                                 |
|       |        | to S-2, 366+68                      |
|       |        | to S-2, 364+78                      |
| 80    |        |                                     |
| 10.15 |        |                                     |
|       | 436.76 | 477                                 |
| 16.8  |        |                                     |
| 16.3  |        |                                     |
|       |        |                                     |
|       |        | 25 back is 15 lower                 |
| 13.1  |        |                                     |
| 250   |        |                                     |
|       |        | To Land Corner 8x3 in pile of rocks |







| Sta        | Azi       | Rod   | Hor. Dist | Vert L   | Elev             |
|------------|-----------|-------|-----------|----------|------------------|
| 1105+19 A  | 207°-34½' | 2.81  | 271       | +7°-36'  | +37.00<br>439.99 |
| π 1105+19  |           |       |           |          |                  |
| BS 1102+42 | 27°-34½'  | 2.82  | ✓         | -7°-36'  |                  |
| 1105+19    | 215°-23½' | 0.59  | 60        |          | 439.4            |
| 1109+60    | 215°-23½' | 4.40  | 441       |          | 428.1            |
| 1113+34 A  | 215°-23½' | 8.14  | 8.15      |          | 436.23           |
| π 1105+19  | 41°-11'   |       |           |          |                  |
| π 1113+34  |           |       |           |          |                  |
| BS 1105+19 | 35°-22½'  | 8.15  | ✓         | +0°-16'  |                  |
| 1114+85    | 199°-24'  | 1.50  | 151       |          | 433.0            |
| 1117+00    | 199°-24'  | 3.65  | 366       | -2°-26'  | -15.53<br>420.7  |
| 1118+43    | 199°-24'  | 5.08  | 509       |          | 429.9            |
| 1119+20 A  | 199°-24'  | 5.85  | 586       |          | 434.50           |
| π 1119+20  |           |       |           |          |                  |
| BS 1113+34 | 19°-24'   | 5.87  | -         |          | 436.27           |
| 1127+78    | 201°-56'  | 2.57  | 258       |          | 425.5            |
| 1123+42    |           | 4.21  | 422       |          | 432.3            |
| 1126+17 A  | 201°-56'  | 6.56  | 657       |          | 437.50           |
| π 1126+17  |           |       |           |          |                  |
| BS 1119+20 | 21°-56'   | 6.56  |           |          | 434.49           |
| 1128+53    | 203°-34½' | 2.35  | 236       |          | 438.5            |
| 1130+01    | 203°-34½' | 3.83  | 384       |          | 429.4            |
| 1130+57 A  | 203°-34½' | 4.79  | 480       |          | 433.01           |
| π 1130+57  |           |       |           |          |                  |
| BS 1126+17 | 27°-34½'  | 1.80  |           | +0°-34'  |                  |
|            | 97° 45½'  | 19.66 | 1880      | +12°06½' |                  |

| FS   | HI     | BS   |
|--|--------|------|
|  | 444.65 | 416  |
| 5.2  |        |      |
| 16.5                                       |        |      |
| 8.42                                       |        |      |
| to Post - Same one trusted to from 1089+36 |        |      |
|  | 441.00 | 477  |
| 80   |        |      |
| 111  |        |      |
| 6.50                                       |        |      |
|  | 437.43 | 495  |
|  |        | 3.18 |
| 140  |        |      |
| 72   |        |      |
| 1.95                                       |        |      |
|  | 442.43 | 495  |
|  |        | 7.56 |
| 8.9  |        |      |
| 130  |        |      |
| 9.44                                       |        |      |
|  | 438.08 | 507  |

Plus 22' = 1902' to long 3x3' in Mound of rocks on top of hill

| Sta         | Azi      | Rod  | Hor. Dist | Vert /    | Elev             |
|-------------|----------|------|-----------|-----------|------------------|
| 1134+25 A   | 200°-45½ | 3.97 | 398       |           | 430.80           |
| TI134+25    |          |      |           |           |                  |
| BS 1130+27  | 25°-45½  | 3.98 | ←         |           | 433.02           |
| 1136+73 A   | 213°-56½ | 1.77 | 178       |           | 423.11           |
| TI136+73    |          |      |           |           |                  |
| BS 1134+25  | 33°-56½  | 1.76 |           | +2°31' ✓  | -52.7            |
| 1138+43     | 213°-24½ | 1.85 | 170       | -17°15'   | 370.4            |
| 1139+43     | 213°-24½ | 2.70 | 270       | -3°15'    | 407.7            |
| 1140+36     | 213°-24½ | 3.62 | 363       | -0°-12'   | 421.8            |
| 1141+47 A   | 213°-24½ | 4.73 | 474       | +10°-41'  | +5.64<br>428.75  |
| TI141+47    |          |      |           |           |                  |
| BS 1136+73  | 23°-24½  | 4.75 | ←         |           | 423.01           |
|             | 181°-50½ |      |           |           |                  |
| 1145+63 A ✓ | 244°-37½ | 4.15 | 416       | +10°-58'  | 7.14<br>435.89   |
| TI145+63    |          |      |           |           |                  |
| BS 1141+47  | 64°-37½  | 4.16 | ←         |           | 428.73           |
| 1150+23 A   | 221°-07' | 4.59 | 460       |           | 422.52           |
| TI150+23    | 3.07     |      |           |           |                  |
| BS 1145+63  | 41°-07'  | 4.59 |           |           |                  |
| 1157+36 A   | 221°-07' | 1.13 | 113       | -5°-09'   | -10.21<br>422.31 |
| TI157+36    |          |      |           |           |                  |
| BS 1150+23  | 41°-07'  | 1.13 |           | +5°-09' ✓ |                  |
| 1153+48     | 221°-07' | 2.52 | 212       | -23°-52'  | -93.7<br>328.6   |
| 1155+24     | 221°-07' | 3.89 | 388       | -1°-08'   | -28.1<br>394.2   |
| 1155+65     | 221°-07' | 4.28 | 429       | -2°-12'   | -16.5<br>405.8   |

| FS    | HI                 | BS              |
|-------|--------------------|-----------------|
| 7.28  |                    |                 |
|       | 435.61             | 4.21            |
|       |                    | 2.59            |
| 12.50 |                    |                 |
|       |                    | 4.63            |
|       |                    |                 |
|       | bottom             |                 |
|       |                    |                 |
|       |                    |                 |
|       | = S-2, 1095+80     | S-2 Elev 429.63 |
|       | 433.26             | 4.51            |
|       |                    | 10.25           |
|       | S-2 AZI = 179°-15' | S-2, 1055+88    |
|       |                    |                 |
|       | 440.55             | 4.66            |
|       |                    | 11.82           |
| 8.03  |                    |                 |
|       | 437.65             | 5.13            |
|       |                    | 17.8            |
|       |                    |                 |
|       | 427.51             | 5.26            |
|       |                    |                 |
|       |                    |                 |
|       |                    | bottom canyon   |

| Sta        | Azi       | Rod  | Hor. Dist | Vert L    | Elev             |
|------------|-----------|------|-----------|-----------|------------------|
| 1156+56    | 221°-07'  | 5.19 | 520       |           | 422.7            |
| 1157+32 A  | 221°-07'  | 5.95 | 596       |           | 426.68           |
| 1157+32    | P.O.T.    |      |           |           |                  |
| BS 1157+36 | 41°-07'   | 5.96 |           |           | 422.32           |
| 1158+66 A  | 221°-07'  | 1.33 | 134       | +2°-53'   | +6.74<br>423.42  |
| 1158+66    | P.O.T.    |      |           |           |                  |
| BS 1159+32 | 41°-07'   | 1.33 |           |           | 426.71           |
| 1167+64 A  | 221°-07'  | 2.27 | 298       |           | 431.32           |
| 1167+64    |           |      |           |           |                  |
| BS 1158+66 | 41°-07'   | 2.27 |           |           |                  |
| 1163+67 A  | 230°-28½' | 2.02 | 203       |           | 423.80           |
| 1163+67    |           |      |           |           |                  |
| BS 1167+64 | 50°-28½'  | 2.03 |           | +2°-09' ✓ |                  |
| 1164+43    | 235°-20'  | 0.75 | 76        |           | 419.5            |
| 1164+86    | 225°-20'  | 1.18 | 119       |           | 417.9            |
| 1169+05 A  | 235°-20'  | 3.38 | 338       | -3°-17'   | -19.46<br>404.40 |
| 1169+05    |           |      |           |           |                  |
| BS 1163+67 | 55°-20'   | 3.38 |           | +3°-18' ✓ |                  |
| 1169+52    |           | 0.46 | 47        |           | 400.9            |
| 1168+14 A  | 228°-31½' | 1.10 | 109       | -7°-32'   | -14.46<br>389.24 |
| 1168+14    |           |      |           |           |                  |
| BS 1169+05 | 48-31½'   |      |           | +7°-34' ✓ |                  |
| 1168+89    | 238-42½'  | 0.79 | - 15      | -14°-24'  | -19.31<br>370.6  |
| 1169+84    | 238-42½'  | 1.82 | 170       | -15°-13'  | -46.9<br>343.0   |
| 1191+41    | 238-42½'  | 3.26 | 327       |           | 381.2            |

| FS    | HI               | BS        |
|-------|------------------|-----------|
| 49    | 427.57           |           |
| 0.89  |                  | 5-17-1922 |
|       | 431.66           | 498       |
|       |                  | 9.34      |
|       | 438.46           | 504       |
|       |                  | 11.75     |
| 7.14  |                  |           |
|       | 436.23           | 491       |
|       |                  | 2.83      |
| 12.43 |                  |           |
|       | 428.85           | 505       |
|       |                  |           |
|       | 409.48           | 508       |
| 86    |                  |           |
|       | 394.89           | 495       |
|       |                  |           |
|       | bottom of canyon |           |
| 130   |                  |           |

| Sta        | Azi       | Rod | Hor. Dist | Vert L   | Elev             |
|------------|-----------|-----|-----------|----------|------------------|
| 1172+65A   | 238°-42½' | 450 | 451       | +1°-42'  | +13.40<br>403.34 |
| 1172+65    |           |     |           |          |                  |
| BS 1168+14 | 58°-42½'  | 452 | -         | -1°-42'  |                  |
| 1173+36    | 276°-54'  | 070 | 71        |          | 406.9            |
| 1174+37    | 276°-54'  | 171 | 172       | +1°-25'  | +42.5<br>407.6   |
| 1176+51A   | 276°-54'  | 386 | 386       | +2°-35'  | +17.42<br>420.76 |
| 1176+51    |           |     |           |          |                  |
| BS 1172+65 | 26°-54'   | 386 |           | -2°-35'  |                  |
| 1178+51A   | 276°-30'  | 239 | 240       |          | 421.44           |
| 1178+51    |           |     |           |          |                  |
| BS 1176+51 | 26°-30'   | 239 | -         |          | 420.74           |
| 1180+47    | 261°-41½' | 155 | 156       |          | 416.8            |
| 1181+51    | 261°-41½' | 289 | 300       |          | 411.1            |
| 1183+08A   | 261°-41½' | 416 | 417       | -1°-13'  | -8.55<br>412.59  |
| 1183+08    |           |     |           |          |                  |
| BS 1178+51 | 81°-41½'  | 417 |           | +1°-13'  |                  |
| 1184+06    | 247°-12'  | 037 | 38        |          | 410.0            |
| 1185+38A   | 247°-12'  | 229 | 230       |          | 410.38           |
| 1185+38    |           |     |           |          |                  |
| BS 1183+08 | 67°-12'   | 229 | -         |          | 412.60           |
| 1186+83A   | 220°-34½' | 147 | 145       | -7°-54'  | -20.18<br>390.20 |
| 1186+83    |           |     |           |          |                  |
| BS 1185+38 | 40°-34½'  | 146 | -         | +7°-54'  | -40.20           |
| 1188+74A   | 215°-42½' | 198 | 191       | -11°-54' | 350.00           |
| 1188+74    |           |     |           |          |                  |

| FS  | HI     | BS  |
|-----|--------|---|
|     | 408.31 | 497   |
| 14  |        |   |
|     | 425.71 | 455   |
| 427 |        |   |
|     | 426.12 | 468   |
|     |        | 538   |
| 93  |        |   |
| 150 |        |   |
|     | 417.53 | 494   |
| 75  |        |   |
|     |        | - Alvarado Canyon<br>at head of canyon turning into - |
| 715 |        |   |
|     | 415.05 | 471   |
|     |        | 249   |
|     |        | Edge of Alvarado Canyon                               |
|     |        | 473   |
|     |        |   |
|     |        | 453   |

| Sta        | Azi                    | Rod  | Hor. Dist | Vert     | Elev    |
|------------|------------------------|------|-----------|----------|---------|
| BS 1186+83 | 35°-42 $\frac{1}{2}$ ' | 197  |           | +11°-54' | -33.69  |
| 1189+75 A  | 217°-56'               | 111  | 101       | -16°-27' | 316.31  |
| TI 1189+75 |                        |      |           |          |         |
| BS 1188+71 | 37°-56'                | 110  | -         | +18°-27' | -44.8   |
| 1190+64    | 220-42                 | 110  | 89        | -26°-48' | 271.5   |
| 1191+94    | 220-42                 | 275  | 219       | -27°-12' | -112.3  |
| 1193+08A   | 220°-42'               | 383  | 333       | -21°-26' | -130.69 |
| TI 1193+08 |                        |      |           |          | 185.62  |
| BS 1189+75 | 40°-42'                | 3.82 |           |          |         |
| 1193+69    | 226-08 $\frac{1}{2}$   | 0.67 | 61        | -18°-16' | -20.31  |
| 1194+16    | 226-08 $\frac{1}{2}$   | 120  | 108       | -19°-24' | 38.0    |
| 1195+25    |                        |      |           |          | 120.0   |
| 1195+75 A  | 226-08 $\frac{1}{2}$   | 2.86 | 2.67      | -14°-50' | -70.83  |
| TI 1195+75 |                        |      |           |          | 114.79  |
| BS 1193+08 | 46°-08 $\frac{1}{2}$   | 2.85 |           | +14°-50' |         |
| 1196+56    | 233-57                 | 080  | 81        |          | 111.1   |
| 1197+25    | 233-57                 | 1.49 | 150       |          | 110.8   |
| 1198+76    | 233-57                 | 3.00 | 301       |          | 112.2   |
| 1201       |                        |      |           |          |         |
| 1199+46    | 233-57                 | 5.70 | 571       |          | 108.2   |
| 1203+56    | 233-57                 | 7.80 | 781       | +1°-06'  | +15.0   |
| 1203+56    | 233-57                 | 7.80 | 781       | +1°-06'  | 129.8   |
| 1204+66 A  | 233°-57'               | 9.00 | 891       | +6°-19'  | +38.55  |
| TI 1204+66 |                        |      |           |          | 213.34  |
| BS 1195+75 | 53°-57'                | 9.05 |           | -6°-19'  |         |
| 1205+60    |                        |      |           |          | 176.7   |
| 1205+90    | 236°-28'               | 1.34 | 124       | -16°-24' | -36.6   |
| 1206+75    | "                      | 2.08 | 209       |          | 215.4   |
| 1207+72    | 236°-28'               | 3.14 | 306       | +9°-48'  | +57.9   |
| 1207+72    | 236°-28'               | 3.14 | 306       | +9°-48'  | 266.2   |

| FS  | HI     | BS                   |
|-----|--------|----------------------|
|     |        | 4.89                 |
|     |        | 4.71                 |
|     |        | 119.72               |
|     |        | 4.93                 |
| 86  |        | Edge of Stream       |
| 89  |        | "                    |
| 75  |        | "                    |
| 115 |        | "                    |
|     | 218.28 | 494                  |
| 83  |        | 30 back is Same Elev |

50' back is 5' higher  
at bottom of Alvarado Canyon 5-18-1922

| Sta       | Azi      | Rod  | Hor Dist | Vert L   | Elev             |
|-----------|----------|------|----------|----------|------------------|
| 1206+59A  | 236°-28' | 3.87 | 373      | +11°-26' | +75.44<br>288.78 |
| TI208+59  |          |      |          |          |                  |
| BS1204+66 | 56°-28'  | 3.89 | ←        | -11°-26' |                  |
| 1209+23A  | 232°-02' | 0.64 | 64       | +5°-08'  | +58.1<br>294.59  |
| TI209+23  |          |      |          |          |                  |
| BS1208+59 | 52°-02'  | 0.63 |          |          | 288.80           |
| 1210+16   | 220-19   | 0.52 | 93       |          | 290.6            |
| 1211+29   | 220-19   | 2.06 | 206      | -4°-00'  | -14.4<br>280.2   |
| 1212+74   | 220-19   | 3.55 | 351      | +6°-48'  | +41.9<br>336.6   |
| 1213+18A  | 220°-19' | 4.09 | 395      | +7°-52'  | +55.62<br>350.21 |
| TI213+18  |          |      |          |          |                  |
| BS1209+23 | 40°-19'  | 4.10 | ←        | -7°-52'  |                  |
| —         | —        | —    | —        | —        | 350.53           |
| 1216+18A  | 197°-57' | 3.05 | 300      | +8°-11'  | +43.14<br>393.35 |
| TI216+18  |          |      |          |          |                  |
| BS1213+18 | 17°-57'  | 3.06 | ←        | -8°-11'  |                  |
| 1217+39A  | 164°-56' | 1.22 | 121      | +6°-54'  | +14.70<br>408.05 |
| TI217+39  |          |      |          |          |                  |
| BS1216+18 | 344°-56' | 1.23 |          | -6°-54'  |                  |
| 1218+32A  | 144°-05' | 1.53 | 153      | +4°-09'  | +11.14<br>419.19 |
| TI218+32  |          |      |          |          |                  |
| BS1219+39 | 324°-05' | 1.54 |          | -4°-10'  |                  |
| 1220+13   | 156-22   | 1.21 | 121      | -6°-10'  | -130.5<br>406.1  |
| 1221+73   | 156-22   | 2.80 | 281      | -2°-50'  | -13.94<br>405.2  |
| 1222+70A  | 156°-22' | 3.77 | 378      |          | 422.91           |

| FS   | H.I.   | BS   |
|------|--------|--|
|      |        | 5.00   |
|      | 299.28 | 4.65   |
|      |        | 10.48  |
| 87   |        |  |
|      | 354.86 | 4.65   |
|      |        | 4.33   |
|      |        | check level<br>Shot across Canyon to 1186+74 |
|      |        | 4.99   |
|      |        | 5.03   |
|      | 424.11 | 4.92   |
| 1.20 |        |  |







Sta

|   |              |         |      |     |         |                  |
|---|--------------|---------|------|-----|---------|------------------|
| 7 | T1252+02     |         |      |     |         | 361.13           |
|   | B.S. 1249+75 | 340°-54 | 4.29 |     | -3°-16' |                  |
|   | —            | 37°-46' | 5.38 | 539 | +12.58' | +18.50<br>379.63 |
|   | —            | 32-45   | 4.03 | 404 | +0°-56' | +6.60<br>367.73  |
|   | —            | 220°-49 | 3.52 | 393 | -2°-00' | -13.73<br>359.40 |

365.65

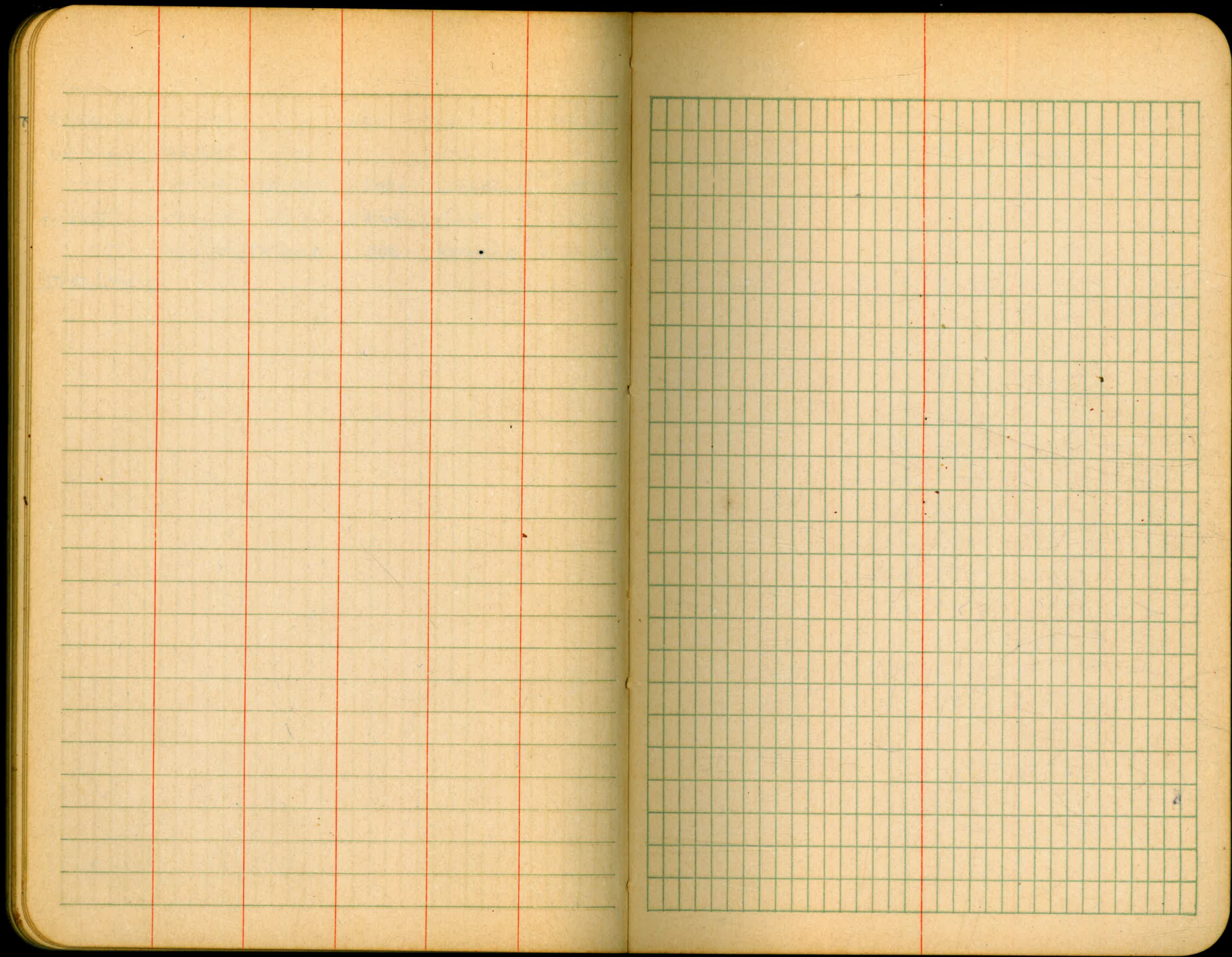
4.52

to S-2, 1138+26 - AZI = 34°-45'

to 1/2 x 1/2 White Stake - Someone turned to from 1245+75

to S-2, 1147+72 - AZI = 217°-47 1/2

S-20-1322



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

|    | 0    | .1   | .2   | .3   | .4   | .5   | .6   | .7   | .8   | .9   |    |
|----|------|------|------|------|------|------|------|------|------|------|----|
| 0  | 7.0  | 7.2  | 7.3  | 7.5  | 7.6  | 7.8  | 7.9  | 8.1  | 8.2  | 8.4  | 0  |
| 1  | 8.5  | 8.7  | 8.8  | 9.0  | 9.1  | 9.3  | 9.4  | 9.6  | 9.7  | 9.9  | 1  |
| 2  | 10.0 | 10.2 | 10.3 | 10.5 | 10.6 | 10.8 | 10.9 | 11.1 | 11.2 | 11.4 | 2  |
| 3  | 11.5 | 11.7 | 11.8 | 12.0 | 12.1 | 12.3 | 12.4 | 12.6 | 12.7 | 12.9 | 3  |
| 4  | 13.0 | 13.2 | 13.3 | 13.5 | 13.6 | 13.8 | 13.9 | 14.1 | 14.2 | 14.4 | 4  |
| 5  | 14.5 | 14.7 | 14.8 | 15.0 | 15.1 | 15.3 | 15.4 | 15.6 | 15.7 | 15.9 | 5  |
| 6  | 16.0 | 16.2 | 16.3 | 16.5 | 16.6 | 16.8 | 16.9 | 17.1 | 17.2 | 17.4 | 6  |
| 7  | 17.5 | 17.7 | 17.8 | 18.0 | 18.1 | 18.3 | 18.4 | 18.6 | 18.7 | 18.9 | 7  |
| 8  | 19.0 | 19.2 | 19.3 | 19.5 | 19.6 | 19.8 | 19.9 | 20.1 | 20.2 | 20.4 | 8  |
| 9  | 20.5 | 20.7 | 20.8 | 21.0 | 21.1 | 21.3 | 21.4 | 21.6 | 21.7 | 21.9 | 9  |
| 10 | 22.0 | 22.2 | 22.3 | 22.5 | 22.6 | 22.8 | 22.9 | 23.1 | 23.2 | 23.4 | 10 |
| 11 | 23.5 | 23.7 | 23.8 | 24.0 | 24.1 | 24.3 | 24.4 | 24.6 | 24.7 | 24.9 | 11 |
| 12 | 25.0 | 25.2 | 25.3 | 25.5 | 25.6 | 25.8 | 25.9 | 26.1 | 26.2 | 26.4 | 12 |
| 13 | 26.5 | 26.7 | 26.8 | 27.0 | 27.1 | 27.3 | 27.4 | 27.6 | 27.7 | 27.9 | 13 |
| 14 | 28.0 | 28.2 | 28.3 | 28.5 | 28.6 | 28.8 | 28.9 | 29.1 | 29.2 | 29.4 | 14 |
| 15 | 29.5 | 29.7 | 29.8 | 30.0 | 30.1 | 30.3 | 30.4 | 30.6 | 30.7 | 30.9 | 15 |
| 16 | 31.0 | 31.2 | 31.3 | 31.5 | 31.6 | 31.8 | 31.9 | 32.1 | 32.2 | 32.4 | 16 |
| 17 | 32.5 | 32.7 | 32.8 | 33.0 | 33.1 | 33.3 | 33.4 | 33.6 | 33.7 | 33.9 | 17 |
| 18 | 34.0 | 34.2 | 34.3 | 34.5 | 34.6 | 34.8 | 34.9 | 35.1 | 35.2 | 35.4 | 18 |
| 19 | 35.5 | 35.7 | 35.8 | 36.0 | 36.1 | 36.3 | 36.4 | 36.6 | 36.7 | 36.9 | 19 |
| 20 | 37.0 | 37.2 | 37.3 | 37.5 | 37.6 | 37.8 | 37.9 | 38.1 | 38.2 | 38.4 | 20 |
| 21 | 38.5 | 38.7 | 38.8 | 39.0 | 39.1 | 39.3 | 39.4 | 39.6 | 39.7 | 39.9 | 21 |
| 22 | 40.0 | 40.2 | 40.3 | 40.5 | 40.6 | 40.8 | 40.9 | 41.1 | 41.2 | 41.4 | 22 |
| 23 | 41.5 | 41.7 | 41.8 | 42.0 | 42.1 | 42.3 | 42.4 | 42.6 | 42.7 | 42.9 | 23 |
| 24 | 43.0 | 43.2 | 43.3 | 43.5 | 43.6 | 43.8 | 43.9 | 44.1 | 44.2 | 44.4 | 24 |
| 25 | 44.5 | 44.7 | 44.8 | 45.0 | 45.1 | 45.3 | 45.4 | 45.6 | 45.7 | 45.9 | 25 |
| 26 | 46.0 | 46.2 | 46.3 | 46.5 | 46.6 | 46.8 | 46.9 | 47.1 | 47.2 | 47.4 | 26 |
| 27 | 47.5 | 47.7 | 47.8 | 48.0 | 48.1 | 48.3 | 48.4 | 48.6 | 48.7 | 48.9 | 27 |
| 28 | 49.0 | 49.2 | 49.3 | 49.5 | 49.6 | 49.8 | 49.9 | 50.1 | 50.2 | 50.4 | 28 |
| 29 | 50.5 | 50.7 | 50.8 | 51.0 | 51.1 | 51.3 | 51.4 | 51.6 | 51.7 | 51.9 | 29 |
| 30 | 52.0 | 52.2 | 52.3 | 52.5 | 52.6 | 52.8 | 52.9 | 53.1 | 53.2 | 53.4 | 30 |
| 31 | 53.5 | 53.7 | 53.8 | 54.0 | 54.1 | 54.3 | 54.4 | 54.6 | 54.7 | 54.9 | 31 |
| 32 | 55.0 | 55.2 | 55.3 | 55.5 | 55.6 | 55.8 | 55.9 | 56.1 | 56.2 | 56.4 | 32 |
| 33 | 56.5 | 56.7 | 56.8 | 57.0 | 57.1 | 57.3 | 57.4 | 57.6 | 57.7 | 57.9 | 33 |
| 34 | 58.0 | 58.2 | 58.3 | 58.5 | 58.6 | 58.8 | 58.9 | 59.1 | 59.2 | 59.4 | 34 |
| 35 | 59.5 | 59.7 | 59.8 | 60.0 | 60.1 | 60.3 | 60.4 | 60.6 | 60.7 | 60.9 | 35 |
| 36 | 61.0 | 61.2 | 61.3 | 61.5 | 61.6 | 61.8 | 61.9 | 62.1 | 62.2 | 62.4 | 36 |

Calculated by Julien A. Hall, M. Am. Soc. C. E.