

3-21-77

12

162.572

6107305-12

RR4E-2

3-21~~22~~-77

Q = 210 gpm

FLOW TEST

| Δ TIME | TIME | WHP | ΔP |
|---------------|------|---------|------------|
| 2 | 1203 | 145.024 | 17.55 |
| 3 | 3 | 143.528 | 19.00 |
| 4 | 4 | 142.707 | 19.87 |
| 5 | 5 | 142.204 | 20.37 |
| 6 | 6 | 141.753 | 20.82 |
| 7 | 7 | 141.482 | 21.09 |
| 8 | 8 | 141.221 | 21.35 |
| 9 | 9 | 140.961 | 21.61 |
| 10 | 1210 | 140.771 | 21.80 |
| 12 | 1212 | 140.548 | 22.02 |
| 14 | 1214 | 140.309 | 22.26 |
| 16 | 1216 | 140.185 | 22.39 |
| 18 | 1218 | 140.100 | 22.47 |
| 20 | 1220 | 140.019 | 22.55 |
| 25 | 1225 | 139.864 | 22.71 |
| 30 | 1230 | 139.731 | 22.84 |
| 35 | 1235 | 139.675 | 22.90 |
| 40 | 1240 | 139.609 | 22.96 |
| 45 | 1245 | 139.465 | 23.11 |
| 50 | 1250 | 139.243 | 23.33 |
| 60 | 1300 | 139.288 | 23.28 |
| 70 | 1310 | 139.066 | 23.51 |
| 80 | 1320 | 138.857 | 23.72 |
| 90 | 1330 | 138.438 | 24.13 |
| 100 | 1340 | 138.174 | 24.40 |

3-21-77 Obs [2]

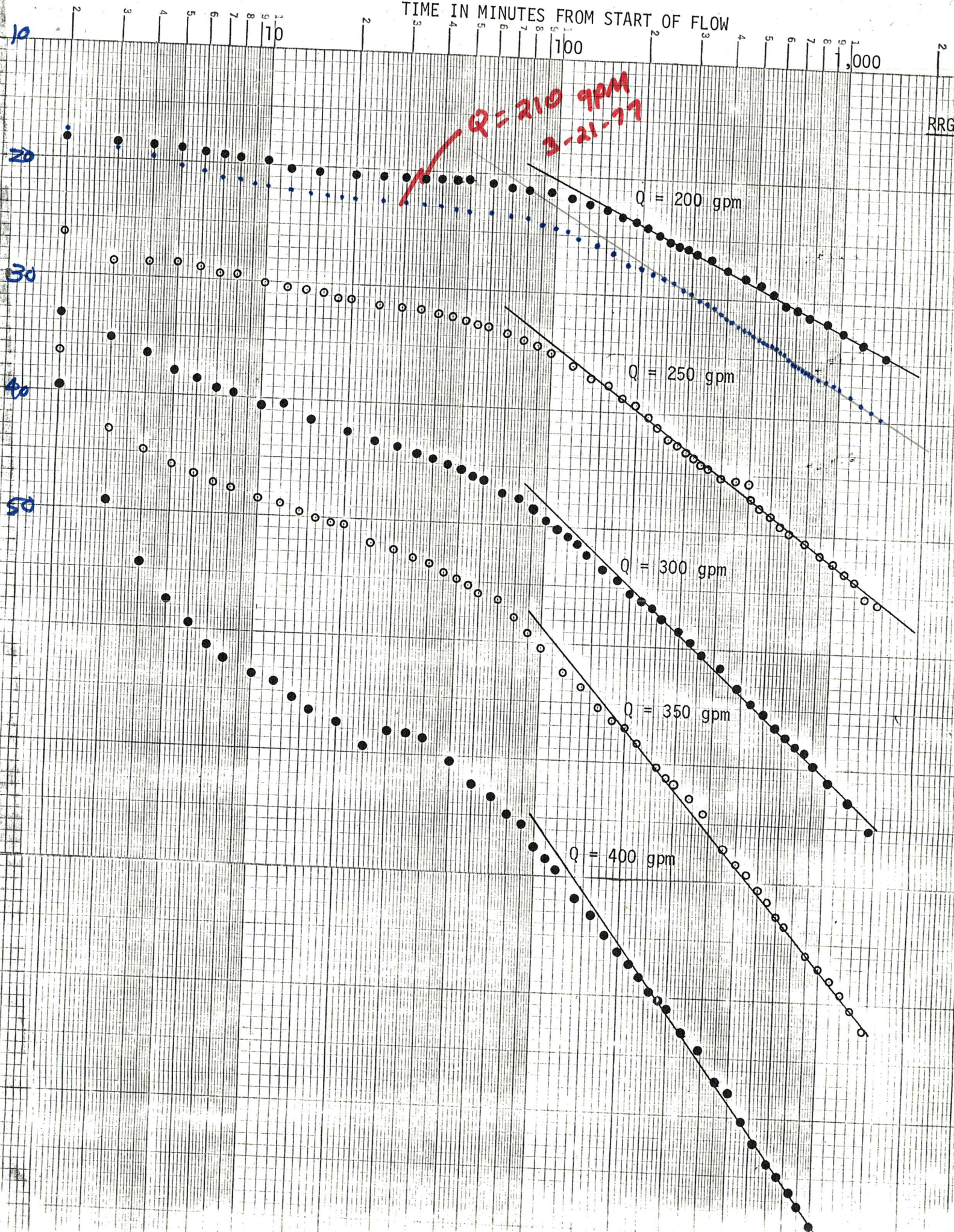
| Δ TIME Minutes | TIME MST | WHP PSIA | Δ P PSIA |
|--------------------------|-------------|-------------|--------------------|
| 110 | 1350 | 137.738 | 24.83 |
| 120 | 1400 | 137.472 | 25.10 |
| 140 | 1420 | 136.806 | 25.77 |
| 160 | 1440 | 136.149 | 26.42 |
| 180 | 1500 | 135.286 | 27.29 |
| 200 | 1520 | 134.972 | 27.60 |
| 220 | 1540 | 134.584 | 27.99 |
| 240 | 1600 | 134.138 | 28.43 |
| 260 | 1620 | 133.718 | 28.85 |
| 280 | 1640 | 133.383 | 29.19 |
| 300 | 1700 | 132.984 | 29.59 |
| 320 | 1720 | 132.516 | 30.06 |
| 340 | 1740 | 132.133 | 30.44 |
| 360 | 1800 | 131.835 | 30.74 |
| 380 | 1820 | 131.450 | 31.12 |
| 400 | 1840 | 130.899 | 31.67 |
| 420 | 1900 | 130.611 | 31.96 |
| 440 | 1920 | 130.373 | 32.20 |
| 460 | 1940 | 130.130 | 32.44 |
| 480 | 2000 | 129.822 | 32.75 |
| 500 | 2020 | 129.552 | 33.02 |

162.572

| Δ TIME | TIME | WHP | Δ P |
|----------------|-----------------|---------|------------|
| Minutes | MST | PSIA | PSI |
| 520 | 2040 | 129.341 | 33.23 |
| 540 | 2100 | 129.118 | 33.45 |
| 560 | 2120 | 128.964 | 33.61 |
| 580 | 2140 | 128.806 | 33.77 |
| 600 | 2200 | 128.527 | 34.05 |
| 620 | 2220 | 128.312 | 34.26 |
| 640 | 2240 | 128.168 | 34.40 |
| 660 | 2300 | 127.607 | 34.97 |
| 680 | 2320 | 127.433 | 35.14 |
| 700 | 2340 | 127.240 | 35.33 |
| 3-22-77 720 | 2400 | 127.075 | 35.50 |
| 740 | 0020 | 126.901 | 35.67 |
| 760 | 0040 | 126.733 | 35.84 |
| 780 | 0100 | 126.604 | 35.97 |
| 800 | 0120 | 126.452 | 36.12 |
| 850 | 0210 | 126.099 | 36.47 |
| 900 | 0300 | 125.786 | 36.79 |
| 950 | 0350 | 125.597 | 36.98 |
| 1000 | 0440 | 125.316 | 37.26 |
| 1100 | 0620 | 124.578 | 37.99 |
| 1200 | 0800 | 123.923 | 38.65 |
| 1300 | 0940 | 123.422 | 39.15 |
| 1400 | 1120 | 122.783 | 39.79 |

TIME IN MINUTES FROM START OF FLOW

RRGE



3-21-77

DWS

①

| Time MST | ΔT Minutes | WHP PSIA | WHP PSIG | ΔP PSIA | Temp. flow OF | |
|-------------|-----------------------|---------------------|-------------|--------------------|---------------------|---------------|
| 1135 | | Well flowing | ~19 gpm | small line | | |
| | | Reserve jet | ~36" | | | |
| 1140 | | 162.572 | 151 | | 230 | |
| 1200 | | Started flow | 200 gpm | | 1.713 | orifice plate |
| | | stopped | 19 gpm | | | |
| | | Printer won't print | 10 sec | steps | | |
| 1204 | 4 | 142.707 | 131.5 | 14 | 236 | |
| 1210 | 10 | 140.771 | 130 | 14 | 240 | |
| 1220 | 20 | 140.019 | 129 | 14 | 245 | |
| 1230 | 30 | 139.731 | 129 | 14 | 249 | |
| 1240 | 40 | 139.609 | 128.5 | 14 | 252 | |
| 1250 | 50 | 139.243 | 128.+ | 14 | 255 | |
| 1300 | 60 | 139.288 | 128.+ | 14 | 255 | |
| 1310 | 70 | 139.066 | 128 | 14 | 259 | |
| 1320 | 80 | 138.857 | 128 | 14 | 260 | |
| 1330 | 90 | 138.438 | 127.9 | 14 | 264 | |
| 1340 | 100 | 138.174 | 127.5 | 14 | 264 | |
| 1350 | 110 | 137.738 | 127 | 14 | 266 | |
| 1400 | 120 | 137.472 | 126.5 | 14 | 265 | |
| 1420 | 140 | 136.806 | 126 | 14 | 267 | |
| 1440 | 180 | 136.149 | 126 | 14 | 269 | |
| 1500 | 180 180 | 135.286 | 125 | 14 | 270 | |

162.572

3-21-77 ~~DWS~~ (2)

| TIME MST | ΔT Mumder | WHD PSIA | WHP PSIG | ΔP PSIG | Temp. $^{\circ}F$ |
|-------------|----------------------|-------------|-------------|--------------------|----------------------|
| 1520 | 200 | 134.972 | 124 | 14 | 269 |
| 1540 | 220 | 134.584 | 124 | 14 | 270 |
| 1600 | 240 | 134.138 | 124 | 14 | 271 |
| 1620 | 260 | 133.718 | 123 | 14 | 272 |
| 1640 | 280 | 133.383 | 123 | 14 | 270 |
| 1700 | 300 | 132.984 | 122 | 14 | 273 |
| 1720 | 320 | 132.516 | 122 | 14 | 269 |
| 1740 | 340 | 132.133 | 122 | 14 | 271 |
| 1800 | 360 | 131.835 | 122 | 14 | 272 |
| 1820 | 380 | 131.450 | 121 | 14 | 272 |
| 1840 | 400 | 130.899 | 121 | 14 | 272 |
| 1900 | 420 | 130.611 | 120 | 14 | 269 |
| 1920 | 440 | 130.373 | 120 | 14 | 270 |
| 1940 | 460 | 130.130 | 120 | 14 | 271 |
| 2000 | 480 | 129.822 | 120 | 14 | 272 |
| 2020 | 500 | 129.552 | 119 | 14 | 271 |
| 2040 | 520 | 129.341 | 118.5 | 14 | 270 |
| 2100 | 540 | 129.118 | 118 | 14 | 270 ² |
| 2120 | 560 | 128.964 | 118 | 14 | 272 |
| 2140 | 580 | 128.806 | 118 | 14 | 273 |
| 2200 | 600 | 128.527 | 118 | 14 | 273 |

3-21-77 QUB (3)

162572

| TIME MST | ΔT MINUTES | WHP PSIA | WAP PSIG | ΔP PSI | TEMP OF |
|-----------------|-----------------------|-------------|----------------|-------------------|------------|
| 2220 | 620 | 128.312 | 118 | 14 | 273 |
| 2240 | 640 | 128.168 | 117.5 | 14 | 272 |
| 2300 | 660 | 127.607 | 117 | 14 | 273 |
| 2320 | 680 | 127.433 | 117 | 14 | 272 |
| 2340 | 700 | 127.240 | 117 | 14 | 271 |
| 3-22-77 0000 | 720 | 127.075 | 116.5 | 14 | 270 |
| 0020 | 740 | 126.901 | 116 | 14 | 269 |
| 0040 | 760 | 126.733 | 116 | 14 | 271 |
| 0100 | 780 | 126.604 | 116 | 14 | 271 |
| 0120 | 800 | 126.452 | 116 | 14 | 271 |
| 0140 | 820 | 126.414 | 116 | 14 | 271 |
| 0200 | 840 | 126.211 | 116 | 14 | 271 |
| 0220 | 860 | 126.061 | 116 | 14 | 271 |
| 0240 | 880 | 125.995 | 116 | 14 | 272 |
| 0300 | 900 | 125.786 | 116 | 14 | 269 |
| 0320 | 920 | 125.724 | 115.5 | 14 | 269 |
| 0340 | 940 | 125.624 | 115.5 | 14 | 269 |
| 0400 | 960 | 125.556 | 115.0 | 14 | 269 |
| 0420 | 980 | 125.394 | 115 | 14 | 269 |
| 0440 | 1000 | 125.316 | 115 | 14 | 269 |
| 0500 | 1020 | 125.186 | 115 | 14 | 269 |
| 0520 | 1040 | 125.135 | 114.5 114.5 | 14 | 269 |
| 0540 | 1060 | 125.024 | 114.5 | 14 | 269 |

3-22-77 018 (4)

| TIME MST | ΔT MINUTES | WHP PSIA | WHD PSIG | ΔP PSI | TEMP °F |
|--|-------------------------|-------------|-------------|-------------------|------------|
| 0600 | 1080 | 125.947 | 114.5 | 14 | 269 |
| 0620 | 1100 | 124.578 | 114.5 | 14 | 269 |
| 0640 | 1120 | 124.621 | 114.5 | 14 | 269 |
| 0700 | 1140 | 124.503 | 114.0 | 14 | 269 |
| 0720 | 1160 | 124.243 | 114.0 | 14 | 269 |
| 0740 | 1180 | 124.151 | 114 | 14 | 272 |
| 0800 | 1200 | 123.923 | 114 | 14 | 272 |
| 0820 | 1220 | 123.759 | 114 | 14 | 272 |
| 0840 | 1240 | 123.712 | 113.5 | 14 | 272 |
| 0900 | 1260 | 123.546 | 113.5 | 14 | 272 |
| 0920 | 1280 | 123.517 | 113 | 14 | 272 |
| 0940 | 1300 | 123.422 | 113.5 | 14 | 273 |
| 1000 | 1320 | 123.338 | 113.5 | 14 | 271 |
| 1020 | 1340 | 123.064 | 113.5 | 14 | 270 |
| 1040 | 1400 1360 | 122.953 | 113 | 14 | 272 |
| 1100 | 1380 | 122.921 | 113 | 14 | 272 |
| 1120 | 1400 | 122.783 | 112.5 | 14 | 274 |
| 1140 | 1420 | 122.671 | 112 | 14 | 272 |
| 1200 | 1440 | 122.696 | 112.5 | 14 | 272 |
| Closed in 200 gpm well flow opened ~19 gpm flow | | | | Reserve Pit ~49" | |
| 1206 | | 145.084 | | | 270 |