# Appendix A

# Summary of Monitor Well Information

MONITOR WELL REPORT (USEE300) FOR SITE SRK01, SLICK ROCK (BOTH SITES)
REPORT DATE: 9/18/2001 1:34 pm

| LOCATION CODE | NORTH COORD. (FT STATE-PLANE) | EAST COORD. (FT STATE-PLANE) | GROUND ELEV. (FT NGVD) | BORE HOLE DEPTH (FT BLS) | BORE HOLE DIA. (INCHES) | TOP OF CASING ELEV. (FT NGVD) | CASING LENGTH (FT) | CASING DIAMETER (INCHES) | SCREEN DEPTH (FT BLS) | SCREEN LENGTH (FT) | FLOW CODE | ZONE OF COMPL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0300 | 514743 | 1025172 | 5464.9 | 20.0 | - | 5467.4 | 22.4 | 2.0 | 9.5 | 10.0 | U | AL |
| 0301 | 515354 | 1024746 | 5461.7 | 20.0 | - | 5464.1 | 22.5 | 2.0 | 9.5 | 10.0 | U | AL |
| 0302 | 519280 | 1023022 | 5445.3 | 15.8 | - | 5447.9 | 18.1 | 2.0 | 5.0 | 10.0 | O | AL |
| 0303 | 519058 | 1022579 | 5444.4 | 14.8 | - | 5446.9 | 17.4 | 2.0 | 4.3 | 10.0 | O | AL |
| 0304 | 518887 | 1022299 | 5444.8 | 15.0 | - | 5447.3 | 17.4 | 2.0 | 4.4 | 10.0 | O | AL |
| 0305 | 518727 | 1022526 | 5446.2 | 20.5 | - | 5448.8 | 22.7 | 2.0 | 8.7 | 10.0 | O | AL |
| 0306 | 518636 | 1022254 | 5444.7 | 15.6 | - | 5447.2 | 18.1 | 6.0 | 4.8 | 10.0 | O | AL |
| 0307 | 518646 | 1022265 | 5444.6 | 15.0 | - | 5447.1 | 17.4 | 2.0 | 4.4 | 10.0 | O | AL |
| 0308 | 518663 | 1022221 | 5444.1 | 15.0 | - | 5446.6 | 17.4 | 2.0 | 4.5 | 10.0 | O | AL |
| 0309 | 518177 | 1021860 | 5447.7 | 21.8 | - | 5450.2 | 23.2 | 2.0 | 10.2 | 10.0 | O | AL |
| 0310 | 517937 | 1021363 | 5447.9 | 20.2 | - | 5450.6 | 22.9 | 2.0 | 14.7 | 5.0 | D | AL |
| 0311 | 518013 | 1021342 | 5448.1 | 20.0 | - | 5450.7 | 22.2 | 2.0 | 14.1 | 5.0 | D | AL |
| 0312 | 518098 | 1021326 | 5448.5 | 21.8 | - | 5451.1 | 22.7 | 2.0 | 14.5 | 5.0 | D | AL |
| 0313 | 519657 | 1019552 | 5436.0 | 21.0 | - | 5438.4 | 21.1 | 2.0 | 3.1 | 15.1 | O | AL |
| 0314 | 520090 | 1019684 | 5432.2 | 17.0 | - | 5434.6 | 19.4 | 6.0 | 6.1 | 10.0 | O | AL |
| 0315 | 520110 | 1019677 | 5432.1 | 16.7 | - | 5434.6 | 19.2 | 2.0 | 6.0 | 10.4 | O | AL |
| 0316 | 520065 | 1019710 | 5432.6 | 15.5 | - | 5435.1 | 17.7 | 2.0 | 4.8 | 10.0 | O | AL |
| 0317 | 520079 | 1019670 | 5432.9 | 43.0 | - | 5435.2 | 42.4 | 2.0 | 19.5 | 20.1 | | JE |
| 0318 | 520142 | 1019249 | 5432.8 | 15.6 | - | 5435.2 | 18.0 | 2.0 | 5.0 | 10.0 | O | AL |
| 0319 | 520757 | 1018395 | 5428.1 | 15.1 | - | 5430.7 | 17.6 | 2.0 | 4.6 | 10.0 | O | AL |
| 0320 | 521075 | 1018326 | 5424.8 | 13.0 | - | 5427.4 | 13.1 | 2.0 | 4.9 | 5.0 | O | AL |
| 0321 | 521961 | 1018562 | 5429.6 | 21.0 | - | 5432.1 | 22.8 | 6.0 | 14.4 | 5.0 | D | AL |
| 0322 | 521971 | 1018561 | 5429.3 | 19.6 | - | 5431.8 | 22.1 | 2.0 | 9.1 | 10.0 | D | AL |
| 0323 | 521959 | 1018596 | 5429.0 | 19.6 | - | 5431.5 | 22.1 | 2.0 | 9.1 | 10.0 | D | AL |
| 0324 | 520476 | 1019106 | 5428.7 | 37.0 | - | 5431.2 | 38.7 | 2.0 | 15.6 | 20.1 | | JE |

MONITOR WELL REPORT (USEE300) FOR SITE SRK01, SLICK ROCK (BOTH SITES)
REPORT DATE: 9/18/2001 1:34 pm

| LOCATION CODE | NORTH COORD. (FT STATE-PLANE) | EAST COORD. (FT STATE-PLANE) | GROUND ELEV. (FT NGVD) | BORE HOLE DEPTH (FT BLS) | BORE HOLE DIA. (INCHES) | TOP OF CASING ELEV. (FT NGVD) | CASING LENGTH (FT) | CASING DIAMETER (INCHES) | SCREEN DEPTH (FT BLS) | SCREEN LENGTH (FT) | FLOW CODE | ZONE OF COMPL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0325 | 519852 | 1018740 | 5480.8 | 71.0 | - | 5483.3 | 73.5 | 2.0 | 40.5 | 30.0 | | JE |
| 0326 | 520374 | 1018113 | 5476.4 | 71.5 | - | 5478.9 | 73.7 | 2.0 | 55.7 | 15.1 | | JE |
| 0327 | 518618 | 1022236 | 5445.0 | 17.1 | - | 5447.5 | 19.7 | 2.0 | 6.6 | 10.0 | O | AL |
| 0328 | 517778 | 1020539 | 5444.1 | 21.5 | - | 5446.6 | 23.7 | 2.0 | 10.5 | 10.4 | D | AL |
| 0329 | 517938 | 1019897 | 5443.2 | 18.0 | - | 5445.8 | 20.5 | 2.0 | 7.2 | 10.4 | D | AL |
| 0330 | 518124 | 1019458 | 5439.9 | 17.5 | - | 5442.4 | 19.9 | 2.0 | 7.0 | 10.1 | D | AL |
| 0331 | 518859 | 1019281 | 5439.6 | 20.2 | - | 5442.2 | 22.8 | 2.0 | 9.5 | 10.4 | D | AL |
| 0332 | 520706 | 1018404 | - | 10.3 | 2.0 | - | - | 1.0 | 5.0 | 5.0 | O | AL |
| 0333 | 520756 | 1018358 | - | 12.5 | 2.0 | - | - | 1.0 | 7.3 | 5.0 | O | AL |
| 0334 | 520805 | 1018389 | - | 11.5 | 2.0 | - | - | 1.0 | 4.3 | 5.0 | O | AL |
| 0335 | 520710 | 1018525 | - | 12.5 | 2.0 | - | - | 1.0 | 2.3 | 5.0 | O | AL |
| 0336 | 520869 | 1018297 | - | 12.5 | 2.0 | - | - | 1.0 | 5.0 | 5.0 | O | AL |
| 0337 | 520812 | 1018348 | - | 12.8 | 2.0 | - | - | 1.0 | 5.3 | 5.0 | O | AL |
| 0338 | 520772 | 1018431 | - | 12.5 | 2.0 | - | - | 1.0 | 1.3 | 5.0 | O | AL |
| 0501 | 519318 | 1023177 | 5454.8 | 22.0 | - | 5456.5 | 23.7 | 4.0 | 12.0 | 9.0 | O | AL |
| 0503 | 519042 | 1022758 | 5457.9 | 27.0 | - | 5459.4 | 28.5 | 4.0 | 20.0 | 6.0 | O | AL |
| 0504 | 518897 | 1022572 | 5448.5 | 19.0 | - | 5450.8 | 21.3 | 4.0 | 14.0 | 4.0 | D | AL |
| 0505 | 519533 | 1019571 | 5436.4 | 19.0 | - | 5441.1 | 23.6 | 4.0 | 11.0 | 8.0 | O | AL |
| 0506 | 520831 | 1018447 | 5431.1 | 21.0 | - | 5431.4 | 19.3 | 4.0 | 12.0 | 7.0 | D | AL |
| 0507 | 520980 | 1018261 | 5431.5 | 20.0 | - | 5433.1 | 21.6 | 4.0 | 10.0 | 10.0 | D | AL |
| 0508 | 520477 | 1019119 | 5428.3 | 12.0 | - | 5430.2 | 12.9 | 4.0 | 1.0 | 10.0 | O | AL |
| 0509 | 520111 | 1019661 | 5432.5 | 18.4 | - | 5434.1 | 20.0 | 4.0 | 8.4 | 10.0 | O | AL |
| 0510 | 520668 | 1018778 | 5426.3 | 15.9 | - | 5427.9 | 15.5 | 4.0 | 4.9 | 9.0 | O | AL |
| 0512 | 519189 | 1022762 | 5450.4 | 20.0 | - | 5452.7 | 22.3 | 4.0 | 12.0 | 8.0 | O | AL |
| 0551 | 519433 | 1018011 | 5524.5 | 80.0 | 8.0 | 5524.0 | 57.5 | 4.0 | 46.0 | 10.0 | U | JE |

MONITOR WELL REPORT (USEE300) FOR SITE SRK01, SLICK ROCK (BOTH SITES)
REPORT DATE: 9/18/2001 1:34 pm

| LOCATION CODE | NORTH COORD. (FT STATE-PLANE) | EAST COORD. (FT STATE-PLANE) | GROUND ELEV. (FT NGVD) | BORE HOLE DEPTH (FT BLS) | BORE HOLE DIA. (INCHES) | TOP OF CASING ELEV. (FT NGVD) | CASING LENGTH (FT) | CASING DIAMETER (INCHES) | SCREEN DEPTH (FT BLS) | SCREEN LENGTH (FT) | FLOW CODE | ZONE OF COMPL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0552 | 519450 | 1017977 | 5524.8 | 80.0 | 8.0 | 5525.0 | 80.2 | 4.0 | 68.0 | 10.0 | U | NA |
| 0553 | 519466 | 1018041 | 5524.5 | 25.0 | 8.0 | 5525.0 | 24.5 | 4.0 | 12.0 | 10.0 | O | AL |
| 0554 | 520139 | 1018075 | 5500.9 | 50.0 | 8.0 | 5500.5 | 49.1 | 4.0 | 37.5 | 10.0 | U | JE |
| 0555 | 520095 | 1018093 | 5502.5 | 35.0 | 8.0 | 5502.0 | 32.6 | 4.0 | 21.0 | 10.0 | O | AL |
| 0556 | 519511 | 1017763 | 5525.3 | 95.0 | 8.0 | 5527.9 | 92.6 | 4.0 | 78.0 | 10.0 | U | NA |
| 0557 | 519537 | 1017775 | 5527.1 | 45.0 | 8.0 | 5527.0 | 41.9 | 4.0 | 30.0 | 10.0 | O | AL |
| 0558 | 519088 | 1018352 | 5524.8 | 82.0 | 8.0 | 5526.0 | 81.2 | 4.0 | 68.0 | 10.0 | U | NA |
| 0559 | 519357 | 1018618 | 5515.3 | 52.0 | 8.0 | 5515.0 | 49.7 | 4.0 | 38.0 | 10.0 | U | JE |
| 0560 | 520319 | 1018001 | 5489.5 | 25.0 | 8.0 | 5492.4 | 25.0 | 4.0 | 10.0 | 10.0 | O | AL |
| 0668 | 519632 | 1018224 | 5520.3 | 246.4 | 8.0 | 5522.5 | 154.3 | 2.0 | 108.4 | 40.0 | U | NA |
| 0669 | 520485 | 1019095 | 5428.5 | 99.6 | 8.0 | 5430.3 | 101.4 | 2.0 | 92.6 | 5.0 | O | NA |
| 0670 | 520741 | 1018724 | 5426.3 | 89.2 | - | 5427.9 | 90.9 | 2.0 | 77.2 | 10.0 | O | NA |
| 0672 | 519085 | 1021098 | - | - | 9.9 | - | - | - | - | - | U | NA |
| 0675 | 518369 | 1019551 | 5443.2 | 14.0 | 36.0 | 5443.2 | 14.0 | 36.0 | - | - | N | AL |
| 0684 | 521938 | 1018561 | 5430.3 | 23.0 | 6.0 | 5432.7 | 25.3 | 2.0 | 11.0 | 10.0 | D | AL |
| 0685 | 523139 | 1018568 | 5426.5 | 27.0 | 6.0 | 5428.6 | 29.1 | 2.0 | 15.0 | 10.0 | D | AL |
| 0686 | 519397 | 1023272 | 5455.1 | 22.0 | 6.0 | 5457.3 | 24.2 | 2.0 | 15.0 | 5.0 | U | AL |
| 0687 | 518032 | 1022388 | 5491.8 | 195.0 | 6.0 | 5493.6 | 196.9 | 2.0 | 173.0 | 20.0 | U | NA |
| 0688 | 521009 | 1017519 | 5453.7 | 70.0 | 6.0 | 5455.5 | 71.8 | 2.0 | 53.0 | 15.0 | U | NA |
| 0690 | 518774 | 1021384 | 5506.6 | 182.0 | 6.0 | 5508.9 | 184.4 | 2.0 | 160.0 | 20.0 | U | NA |
| 0702 | 519822 | 1018792 | 5489.6 | 70.0 | 8.0 | 5486.5 | 64.9 | 4.0 | 55.0 | 10.0 | O | JE |
| 0703 | 519680 | 1018242 | 5522.3 | 55.0 | 8.0 | 5526.5 | 59.0 | 4.0 | 41.8 | 10.0 | U | JE |
| 0704 | 520128 | 1018405 | 5489.3 | 61.5 | 8.0 | 5491.7 | 63.9 | 4.0 | 46.0 | 10.0 | O | JE |
| 0807 | 521127 | 1016693 | - | - | - | 5523.5 | - | - | - | - | D | JE |

MONITOR WELL REPORT (USEE300) FOR SITE SRK01, SLICK ROCK (BOTH SITES)
REPORT DATE: 9/18/2001 1:34 pm

| LOCATION CODE | NORTH COORD. (FT STATE-PLANE) | EAST COORD. (FT STATE-PLANE) | GROUND ELEV. (FT NGVD) | BORE HOLE DEPTH (FT BLS) | BORE HOLE DIA. (INCHES) | TOP OF CASING ELEV. (FT NGVD) | CASING LENGTH (FT) | CASING DIAMETER (INCHES) | SCREEN DEPTH (FT BLS) | SCREEN LENGTH (FT) | FLOW CODE | ZONE OF COMPL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

RECORDS: SELECTED FROM USEE300 WHERE site_code='SRK01' AND location_code in('0275','0300','0301','0302','0303','0304','0305','0306','0307','0308','0309','0310','0311','0312','0313','0314','0315','0316','0317','0318','0319','0320','0321','0322','0323','0324','0325','0326','0327','0328','0329','0330','0331','0332','0333','0334','0335','0336','0337','0338','0501','0503','0504','0512','0687','0690','0675','0505','0509','0508','0510','0506','0551','0552','0556','0558','0554','0560','0672','0668','0688','0702','0703','0704','0669','0670','0684','0685','0686','0807','0507','0553','0557','0559','0555')

FLOW CODES: D DOWN GRADIENT N UNKNOWN O ON-SITE U UPGRADIENT

ZONES OF COMPLETION:

AL ALLUVIUM JE JURASSIC ENTRADA SANDSTONE FORMATION NA NAVAJO SANDSTONE

# Appendix B

# Monitor Well Logs and Borehole Logs (SRK01)

**provided on CD-ROM**

# Appendix C

# Ground Water and Surface Water Levels

**provided on CD-ROM**

# Appendix D

# Summary of Ground Water and Surface Water Quality (2000-2001)

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface Water | | | | | | | | | | | | | | |
| SRK01 | 0346 | 02/26/2001 | 67 | --- | 0.0775 | 51.2 | <0.0003 | 26.3 | --- | 555 | --- | 0.0122 | <3.53 | <3.95 |
| | | 05/15/2001 | 100 | --- | --- | 61.5 | <0.0002 | 15.2 | --- | 620 | --- | 0.0407 | <3.48 | <3.95 |
| SRK01 | 0347 | 02/26/2001 | 97 | --- | 0.0692 | 51.9 | <0.0003 | 26.4 | --- | 554 | --- | 0.013 | <3.58 | <3.95 |
| | | 05/15/2001 | 106 | --- | --- | 61.7 | <0.0002 | 15.3 | --- | 608 | --- | 0.167 | <3.53 | <3.96 |
| SRK01 | 0349 | 02/27/2001 | 126 | --- | 0.0965 | 56.3 | <0.0003 | 30.2 | --- | 608 | --- | 0.302 | <3.75 | <3.97 |
| | | 05/15/2001 | 117 | --- | --- | 61.4 | <0.0002 | 15.1 | --- | 622 | --- | 0.0378 | <3.5 | <3.94 |
| SRK01 | 0692 | 09/27/2000 | 102 | --- | <0.0665 | 38 | <0.0003 | 21.8 | --- | 310 | --- | 0.0161 | <4.6 | <6.06 |
| | | 09/27/2000 | --- | --- | <0.0665 | 38 | <0.0003 | 21.8 | --- | --- | --- | 0.0195 | <4.44 | <6.05 |
| | | 12/19/2000 | 133 | --- | <0.0665 | 49.8 | <0.0003 | 37.2 | --- | 490 | --- | 0.0594 | <3.36 | <3.88 |
| | | 02/26/2001 | 82 | --- | 0.0833 | 55 | <0.0003 | 26.1 | --- | 572 | --- | <0.0134 | <3.71 | 4.01 |
| | | 02/26/2001 | --- | --- | <0.0665 | 55.4 | <0.0003 | 26.1 | --- | --- | --- | 0.025 | <3.65 | <3.96 |
| | | 05/15/2001 | 137 | --- | --- | 63.5 | <0.0002 | 15.7 | --- | 603 | --- | 0.0371 | <3.54 | <3.94 |
| | | 05/15/2001 | --- | --- | --- | 63.3 | <0.0002 | 15.6 | --- | --- | --- | 0.0391 | <3.58 | <3.95 |
| SRK01 | 0693 | 09/21/2000 | 97 | --- | <0.0665 | 35.7 | <0.0003 | 19.1 | --- | 299 | --- | 0.0223 | <4.2 | <6.01 |
| | | 12/19/2000 | 103 | --- | 0.124 | 49.2 | <0.0003 | 44.2 | --- | 310 | --- | 0.0253 | <3.39 | <3.88 |
| | | 02/26/2001 | 88 | --- | 0.0681 | 51.2 | <0.0003 | 26.7 | --- | 554 | --- | 0.0159 | <3.55 | <3.94 |
| | | 05/15/2001 | 115 | --- | --- | 61.7 | <0.0002 | 15.4 | --- | 607 | --- | 0.0389 | <3.6 | <3.95 |
| SRK01 | 0694 | 09/21/2000 | 97 | --- | <0.0665 | 36.2 | <0.0003 | 18.8 | --- | 305 | --- | <0.0179 | <4.2 | <6 |
| | | 12/14/2000 | 89 | --- | <0.0665 | 43.2 | <0.0003 | 26.7 | --- | 430 | --- | 0.0184 | <3.12 | <3.86 |
| | | 12/14/2000 | --- | --- | <0.0665 | 43.6 | <0.0003 | 26.7 | --- | --- | --- | 0.0121 | <3.11 | <3.86 |
| | | 02/26/2001 | 108 | --- | 0.0749 | 51.9 | <0.0003 | 27 | --- | 565 | --- | 0.0167 | <3.58 | <3.95 |
| | | 05/15/2001 | 117 | --- | --- | 62.4 | <0.0002 | 15.3 | --- | 619 | --- | 0.136 | <3.57 | <3.95 |
| SRK01 | 0696 | 09/27/2000 | 110 | --- | <0.0665 | 37.5 | <0.0003 | 19.6 | --- | 376 | --- | 0.0201 | <4.37 | <6.02 |
| | | 12/19/2000 | 181 | --- | <0.0665 | 49.5 | <0.0003 | 36.2 | --- | 590 | --- | 0.0241 | <3.35 | <3.88 |
| | | 02/26/2001 | 100 | --- | <0.0665 | 53.8 | <0.0003 | 26.1 | --- | 563 | --- | <0.0271 | <3.6 | <3.95 |
| | | 05/15/2001 | 106 | --- | --- | 61.7 | <0.0002 | 15.1 | --- | 574 | --- | 0.0465 | <3.56 | 4.12 |

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ground Water | | | | | | | | | | | | | | |
| SRK01 | 0300 | 09/27/2000 | 589 | --- | 3.68 | 587 | <0.0003 | 190 | --- | 9490 | --- | 19.6 | <78.89 | <78.33 |
| | | 12/19/2000 | 530 | --- | 2.65 | 490 | <0.0003 | 841 | --- | 6970 | --- | 12.4 | <60.23 | <58.97 |
| | | 02/28/2001 | 547 | --- | 2.91 | 488 | 0.00037 | 858 | --- | 8030 | --- | 6.81 | <57.07 | <59.58 |
| | | 05/14/2001 | 506 | --- | ~3 | 554 | <0.0002 | 870 | --- | 8020 | --- | 6.49 | <57.69 | <59.69 |
| | | 05/14/2001 | --- | --- | ~3.02 | 549 | <0.0002 | 848 | --- | --- | --- | 6.2 | <57.64 | <59.5 |
| SRK01 | 0301 | 09/27/2000 | 360 | --- | 0.464 | 173 | <0.0003 | ~153 | --- | 2520 | --- | 2.73 | <16.7 | <15.81 |
| | | 09/27/2000 | --- | --- | 0.48 | 174 | <0.0003 | 155 | --- | --- | --- | 2.75 | <16.98 | <15.84 |
| | | 12/19/2000 | --- | --- | 0.402 | 160 | <0.0003 | 141 | --- | 1950 | --- | 3.97 | <13.03 | <11.85 |
| | | 02/28/2001 | 351 | --- | 0.451 | 135 | <0.0003 | 138 | --- | 2280 | --- | 0.719 | <12.85 | <12.01 |
| | | 05/14/2001 | 367 | --- | ~0.541 | 191 | <0.0002 | 202 | --- | 2720 | --- | 0.0131 | <16.87 | <17.03 |
| SRK01 | 0302 | 09/27/2000 | 391 | --- | 0.564 | 119 | <0.0003 | 185 | --- | 2320 | --- | 0.133 | ~172.94 | 66.18 |
| | | 12/15/2000 | 394 | --- | 0.465 | 124 | <0.0003 | 203 | --- | 2530 | --- | 0.175 | 252.38 | 79.72 |
| | | 02/28/2001 | 374 | --- | 0.555 | 123 | <0.0003 | 176 | --- | 2390 | --- | 0.113 | 213.57 | 66.05 |
| | | 05/14/2001 | 293 | --- | ~0.536 | 123 | <0.0002 | 179 | --- | 2300 | --- | 0.0034 | ~181.3 | 49.12 |
| SRK01 | 0303 | 09/26/2000 | 480 | --- | 0.316 | 110 | <0.0003 | ~250 | --- | 2860 | --- | 1.92 | ~895.15 | 295.61 |
| | | 12/19/2000 | 502 | --- | 0.263 | 91.9 | <0.0003 | 298 | --- | 2960 | --- | 2.67 | 1385.87 | 354.66 |
| | | 02/28/2001 | 428 | --- | 0.303 | 86.3 | <0.0003 | 234 | --- | 2630 | --- | 1.71 | 1266.07 | 233.73 |
| | | 05/15/2001 | 376 | --- | ~0.233 | 95.2 | <0.0002 | 190 | --- | 2130 | --- | 1.52 | ~959.3 | 172.19 |
| SRK01 | 0304 | 09/26/2000 | 251 | --- | 0.077 | 95 | <0.0003 | ~38.6 | --- | 1038 | --- | 0.299 | ~71.65 | 45.96 |
| | | 12/15/2000 | 266 | --- | <0.0665 | 92.4 | <0.0003 | 46.2 | --- | 1090 | --- | 0.129 | 105.91 | 61.03 |
| | | 02/28/2001 | 251 | --- | 0.104 | 94 | <0.0003 | 45.9 | --- | 1044 | --- | 0.0529 | 79.85 | 50.03 |
| | | 05/15/2001 | 230 | --- | --- | 104 | <0.0002 | 48.1 | --- | 990 | --- | 0.01 | ~91.47 | 39.04 |
| SRK01 | 0305 | 09/26/2000 | 451 | --- | 0.778 | 153 | <0.0003 | ~321 | --- | 3550 | --- | 0.281 | ~885.24 | 325.2 |
| | | 12/15/2000 | 447 | --- | 0.663 | 145 | <0.0003 | 56.4 | --- | 3040 | --- | 0.454 | 1302.93 | 355.47 |
| | | 02/28/2001 | 418 | --- | 0.777 | 135 | <0.0003 | 311 | --- | 3470 | --- | 0.164 | 1243.7 | 301.71 |
| | | 05/14/2001 | 415 | --- | ~0.743 | 156 | <0.0002 | 320 | --- | 3420 | --- | 0.0246 | ~1147.12 | 236.41 |
| SRK01 | 0306 | 09/26/2000 | 610 | --- | 1.18 | 193 | <0.0003 | 677 | --- | 6840 | --- | 4.07 | ~396.05 | 108.47 |
| | | 09/26/2000 | --- | --- | 1.22 | 194 | <0.0003 | 687 | --- | --- | --- | 4.19 | ~331.58 | 121.05 |
| SRK01 | 0307 | 09/26/2000 | 657 | --- | 1.04 | 169 | <0.0003 | ~633 | --- | 6400 | --- | 2.32 | ~381.45 | 130.98 |

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12/15/2000 | 616 | --- | 0.863 | 160 | <0.0003 | 636 | --- | 5730 | --- | 2.53 | 360.64 | 162.05 |
| | | 03/01/2001 | 615 | --- | 1.12 | 152 | <0.0003 | 626 | --- | 6710 | --- | 2.31 | 455.54 | 140.46 |
| | | 05/14/2001 | 619 | --- | ~1.08 | 170 | <0.0002 | 568 | --- | 6560 | --- | 2.57 | ~475.64 | 122.68 |
| SRK01 | 0308 | 09/26/2000 | 446 | --- | 0.556 | 188 | <0.0003 | ~313 | --- | 3800 | --- | 2.46 | ~435.74 | 131.21 |
| SRK01 | 0309 | 09/26/2000 | 1063 | --- | 1.19 | 67.2 | <0.0003 | 890 | --- | 6570 | --- | 2.03 | ~227.09 | 93.71 |
| | | 12/15/2000 | 1020 | --- | 0.876 | 71.6 | <0.0003 | 809 | --- | 6200 | --- | 2.26 | 141 | 52.29 |
| | | 03/01/2001 | 905 | --- | 1.02 | 78.2 | <0.0003 | 672 | --- | 5620 | --- | 2.59 | 132.53 | 62.98 |
| | | 05/14/2001 | 933 | --- | ~1.02 | 92.2 | <0.0002 | 653 | --- | 6000 | --- | 1.48 | ~129.45 | 36.73 |
| SRK01 | 0310 | 09/27/2000 | 153 | --- | <0.0665 | 64.7 | <0.0003 | 17.7 | --- | 619 | --- | 0.573 | ~6.83 | 8.05 |
| | | 12/14/2000 | 160 | --- | <0.0665 | 66.7 | <0.0003 | 19.4 | --- | 660 | --- | 0.641 | ~7.61 | 8.2 |
| | | 02/28/2001 | 156 | --- | 0.0884 | 63.3 | <0.0003 | 22.3 | --- | 636 | --- | 0.512 | 5.93 | 5.19 |
| | | 05/16/2001 | 146 | --- | ~0.07 | 71.7 | <0.0002 | 21.9 | --- | 636 | --- | ~0.532 | ~5.25 | 5.83 |
| SRK01 | 0311 | 09/27/2000 | 262 | --- | 0.0764 | 104 | <0.0003 | 19.4 | --- | 894 | --- | <0.0117 | ~18.94 | 13.95 |
| | | 12/14/2000 | --- | --- | <0.0665 | 101 | <0.0003 | 20.1 | --- | 690 | --- | 0.0188 | ~17.98 | 10.07 |
| | | 02/28/2001 | 220 | --- | 0.0725 | 95.1 | <0.0003 | 20.1 | --- | 852 | --- | 0.0168 | 18.05 | 9.53 |
| | | 05/16/2001 | 220 | --- | --- | 115 | <0.0002 | 26.3 | --- | 904 | --- | <0.001 | ~15.55 | 11.44 |
| SRK01 | 0312 | 09/27/2000 | 271 | --- | 0.249 | 57.7 | <0.0003 | 67.4 | --- | 1586 | --- | 0.0696 | 23.05 | 20.36 |
| | | 12/15/2000 | 235 | --- | 0.137 | 53.8 | <0.0003 | 47.2 | --- | 1360 | --- | 0.0371 | 21.99 | 20.49 |
| | | 02/28/2001 | 212 | --- | 0.158 | 50.3 | <0.0003 | 38.9 | --- | 1143 | --- | 0.0362 | 18.7 | 12.07 |
| | | 05/16/2001 | 210 | --- | --- | 50.8 | <0.0002 | 38.3 | --- | 1012 | --- | <0.008 | ~17.21 | 12.24 |
| SRK01 | 0313 | 09/19/2000 | 320 | --- | 0.279 | 106 | <0.0003 | 65.9 | --- | 1693 | --- | 0.471 | 14.46 | 16.11 |
| | | 12/19/2000 | 347 | --- | 0.245 | 102 | <0.0003 | 65.4 | --- | 1410 | --- | 0.306 | 31.92 | 16.64 |
| | | 02/27/2001 | 357 | --- | 0.277 | 101 | <0.0003 | 64.5 | --- | 1719 | --- | 0.518 | ~15.2 | 12.28 |
| | | 05/16/2001 | 341 | --- | ~0.252 | 107 | <0.0002 | 71.8 | --- | 1638 | --- | ~0.35 | ~19.73 | 11.07 |
| SRK01 | 0314 | 09/19/2000 | 324 | --- | 0.233 | 196 | <0.0003 | 57 | --- | 1812 | --- | 1.02 | 18.38 | 15.84 |
| SRK01 | 0315 | 09/20/2000 | 343 | --- | 0.228 | 209 | <0.0003 | 57.3 | --- | 1747 | --- | 0.0215 | 12.87 | 16.58 |
| | | 12/13/2000 | 368 | --- | 0.176 | 202 | <0.0003 | 53.2 | --- | 1776 | --- | <0.011 | ~23.34 | 14.45 |
| SRK01 | 0316 | 09/20/2000 | 287 | --- | 0.175 | 173 | <0.0003 | 46.1 | --- | 1693 | --- | <0.0117 | 10.24 | 17.21 |

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SRK01 | 0317 | 09/28/2000 | 237 | --- | 0.189 | 105 | <0.0003 | 56.8 | --- | 1778 | --- | 0.97 | 11.92 | 12.21 |
| | | 12/14/2000 | 229 | --- | 0.154 | 119 | <0.0003 | 62.2 | --- | 2400 | --- | 0.0614 | ~12.06 | 25.28 |
| | | 03/01/2001 | 268 | --- | 0.162 | 98.6 | <0.0003 | 43.6 | --- | 1610 | --- | 0.0779 | 13.44 | 13.48 |
| | | 05/17/2001 | 238 | --- | --- | 128 | 0.00024 | 69.4 | --- | 2370 | --- | <0.001 | ~17.72 | 22.78 |
| SRK01 | 0318 | 09/19/2000 | 290 | --- | 0.62 | 1060 | 0.0014 | 106 | --- | 7230 | --- | 0.0199 | <50.39 | <43.05 |
| | | 12/13/2000 | 312 | --- | 0.345 | 665 | 0.00083 | 92 | --- | 5210 | --- | <0.011 | <22.26 | <19.84 |
| | | 02/27/2001 | 295 | --- | 0.517 | 786 | 0.0012 | 97 | --- | 6320 | --- | <0.011 | <43.13 | <40.03 |
| | | 05/17/2001 | 273 | --- | --- | 1250 | 0.0017 | 124 | --- | 8120 | --- | ~0.0244 | <55.3 | <50.23 |
| SRK01 | 0319 | 09/28/2000 | 1373 | 14100 | 10.4 | 177 | <0.0003 | 3640 | --- | 10010 | 345 | 22.2 | <73.12 | <64.09 |
| | | 12/19/2000 | 1324 | 6940 | 14.7 | 211 | <0.0003 | 5470 | --- | 12640 | 367 | 26.1 | <69.43 | <59.51 |
| | | 03/02/2001 | 1407 | 10200 | 11.3 | 266 | <0.0003 | 4050 | 0 | 11200 | 358 | 32 | <72.71 | <66.62 |
| | | 05/18/2001 | 1149 | 19800 | ~22.1 | 147 | <0.0002 | 4250 | --- | 8090 | 475 | ~18 | <48.13 | <49.62 |
| SRK01 | 0320 | 09/20/2000 | 312 | --- | 0.199 | 97.2 | <0.0003 | 28.3 | --- | 1089 | --- | 1.13 | 11.55 | 15.15 |
| | | 09/29/2000 | 312 | <5 | --- | --- | --- | --- | --- | 1089 | <5 | --- | --- | --- |
| | | 12/14/2000 | 406 | --- | 0.145 | 100 | <0.0003 | 30.6 | --- | 1140 | --- | 0.798 | ~15.46 | 13.83 |
| | | 12/14/2000 | --- | --- | 0.16 | 97.6 | <0.0003 | 32.8 | --- | --- | --- | 0.748 | ~14.12 | 14.09 |
| | | 03/02/2001 | 484 | <5 | 0.197 | 92.3 | <0.0003 | 28.2 | 0.7 | 1100 | <5 | 0.781 | 16.37 | 13.28 |
| | | 05/17/2001 | 402 | <5 | ~0.184 | 96.3 | <0.0002 | 32.8 | --- | 1055 | <5 | ~0.748 | ~13.7 | 13.4 |
| SRK01 | 0321 | 09/19/2000 | 185 | --- | <0.0665 | 78.1 | <0.0003 | 17.2 | --- | 686 | --- | 0.249 | <5.71 | 6.44 |
| SRK01 | 0322 | 09/28/2000 | 177 | --- | <0.0665 | 77.9 | <0.0003 | 17.2 | --- | 672 | --- | 0.43 | <5.78 | <6.23 |
| SRK01 | 0323 | 09/28/2000 | 183 | --- | 0.0679 | 76.3 | <0.0003 | 18 | --- | 635 | --- | <0.0117 | <5.6 | <6.19 |
| | | 09/28/2000 | --- | --- | 0.0718 | 75.8 | <0.0003 | 18.1 | --- | --- | --- | <0.0117 | <5.61 | <6.19 |
| SRK01 | 0324 | 09/19/2000 | 259 | --- | 0.115 | 75.5 | <0.0003 | 20.6 | --- | 1321 | --- | 0.0165 | 28.42 | 19.15 |
| | | 12/14/2000 | 237 | --- | <0.0665 | 59.6 | <0.0003 | 15.5 | --- | 1130 | --- | 0.0141 | ~14.35 | 11.29 |
| | | 02/27/2001 | 228 | --- | 0.0713 | 52.7 | <0.0003 | 15.6 | --- | 1111 | --- | 0.0513 | ~21.75 | 11.96 |
| SRK01 | 0325 | 09/20/2000 | 146 | --- | 0.145 | 23.5 | <0.0003 | 12.7 | --- | 341 | --- | 0.0283 | <4.36 | <6.03 |
| | | 12/18/2000 | 157 | --- | 0.135 | 22.8 | <0.0003 | 14 | --- | 370 | --- | 0.013 | <3.06 | <3.87 |
| | | 03/05/2001 | 163 | --- | 0.173 | 20.6 | <0.0003 | 12.9 | --- | 349 | --- | <0.011 | <3.08 | <3.91 |

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 05/15/2001 | 163 | --- | ~0.171 | 25.9 | <0.0002 | 16.1 | --- | 357 | --- | 0.282 | <3.02 | 6.6 |
| SRK01 | 0326 | 09/29/2000 | 276 | 114 | 0.255 | 29 | <0.0003 | 49.4 | --- | 811 | 2 | 0.285 | <6.54 | 14.5 |
| | | 12/19/2000 | --- | 8 | <0.0665 | 26.3 | <0.0003 | 14.8 | --- | 670 | <5 | 0.0143 | 7.92 | 13.69 |
| | | 03/05/2001 | 294 | <5 | 0.099 | 25.2 | <0.0003 | 12.5 | 2 | 575 | <5 | 0.0127 | 4.83 | 9.1 |
| | | 05/16/2001 | 303 | <5 | ~0.0926 | 29.2 | <0.0002 | 13.7 | --- | 494 | <5 | 0.009 | <3.94 | 9.15 |
| SRK01 | 0327 | 09/26/2000 | 599 | --- | 1.52 | 173 | <0.0003 | ~797 | --- | 8100 | --- | 0.697 | ~421.03 | 228.01 |
| SRK01 | 0328 | 09/27/2000 | 381 | --- | 0.19 | 89.1 | <0.0003 | ~37 | --- | 1302 | --- | 0.0166 | <8.92 | <8 |
| | | 12/14/2000 | 389 | --- | 0.164 | 92 | <0.0003 | 39.8 | --- | 1350 | --- | 0.0684 | <8.01 | <7.4 |
| | | 02/28/2001 | 357 | --- | 0.222 | 82.8 | <0.0003 | 42.1 | --- | 1365 | --- | <0.011 | <7.13 | <6.06 |
| SRK01 | 0329 | 09/27/2000 | 299 | --- | 0.207 | 92.3 | <0.0003 | 47.7 | --- | 1271 | --- | 0.0254 | 9.42 | 11.04 |
| | | 12/14/2000 | --- | --- | 0.173 | 84.1 | <0.0003 | 46.9 | --- | 1240 | --- | 0.155 | ~13.24 | 10.82 |
| | | 02/28/2001 | 298 | --- | 0.176 | 92.2 | <0.0003 | 44.5 | --- | 1421 | --- | 0.0803 | 8 | <6.71 |
| | | 05/16/2001 | 273 | --- | ~0.198 | 93.1 | <0.0002 | 55.3 | --- | 1440 | --- | ~0.0775 | <8.13 | 11.92 |
| SRK01 | 0330 | 09/27/2000 | 302 | --- | 0.155 | 92.8 | <0.0003 | 36.3 | --- | 1255 | --- | 0.0271 | 13.43 | 8.62 |
| | | 12/14/2000 | 293 | --- | 0.114 | 85.7 | <0.0003 | 60.1 | --- | 1110 | --- | 0.0333 | ~6.9 | 8.09 |
| | | 02/27/2001 | 300 | --- | 0.169 | 80.6 | <0.0003 | 36.9 | --- | 1240 | --- | 0.0274 | ~7.61 | 8.91 |
| | | 05/16/2001 | 273 | --- | ~0.158 | 88 | <0.0002 | 44.7 | --- | 1235 | --- | <0.001 | ~9.57 | 6.57 |
| SRK01 | 0331 | 09/28/2000 | 349 | --- | 0.293 | 111 | <0.0003 | 66.5 | --- | 1787 | --- | 0.025 | 25.1 | 17.37 |
| | | 12/14/2000 | 349 | --- | 0.194 | 103 | <0.0003 | 60.4 | --- | 1390 | --- | 0.0324 | ~15.39 | 15.05 |
| | | 02/27/2001 | 324 | --- | 0.258 | 92.3 | <0.0003 | 57.5 | --- | 1665 | --- | <0.011 | ~28.76 | 20.63 |
| | | 05/15/2001 | 338 | --- | ~0.256 | 107 | <0.0002 | 66 | --- | 1703 | --- | <0.0033 | ~18.6 | 9.5 |
| SRK01 | 0332 | 12/19/2000 | --- | 14100 | --- | --- | --- | --- | --- | --- | 319 | --- | --- | --- |
| | | 03/02/2001 | --- | 17400 | --- | --- | --- | --- | 0.2 | 36700 | 244 | --- | --- | --- |
| | | 05/18/2001 | --- | 14600 | --- | --- | --- | --- | --- | 21300 | 414 | --- | --- | --- |
| SRK01 | 0333 | 12/19/2000 | --- | 5340 | --- | --- | --- | --- | --- | --- | 329 | --- | --- | --- |
| | | 03/02/2001 | --- | 8520 | --- | --- | --- | --- | 2.6 | 20600 | 256 | --- | --- | --- |
| | | 05/17/2001 | --- | 7990 | --- | --- | --- | --- | --- | 26700 | 342 | --- | --- | --- |
| SRK01 | 0334 | 12/19/2000 | --- | <5 | --- | --- | --- | --- | --- | --- | <5 | --- | --- | --- |

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 03/01/2001 | --- | <5 | --- | --- | --- | --- | 0 | 4450 | <5 | --- | --- | --- |
| | | 05/17/2001 | --- | <5 | --- | --- | --- | --- | --- | 4190 | <5 | --- | --- | --- |
| SRK01 | 0335 | 12/19/2000 | --- | <5 | --- | --- | --- | --- | --- | --- | <5 | --- | --- | --- |
| | | 03/01/2001 | 469 | <5 | --- | --- | --- | --- | 1 | 4660 | <5 | --- | --- | --- |
| | | 05/17/2001 | --- | <5 | --- | --- | --- | --- | --- | 4710 | <5 | --- | --- | --- |
| SRK01 | 0336 | 12/19/2000 | --- | <5 | --- | --- | --- | --- | --- | --- | <5 | --- | --- | --- |
| | | 03/01/2001 | 472 | <5 | --- | --- | --- | --- | 0 | 1279 | <5 | --- | --- | --- |
| | | 05/17/2001 | --- | <5 | --- | --- | --- | --- | --- | 1121 | <5 | --- | --- | --- |
| SRK01 | 0337 | 12/19/2000 | --- | 8 | --- | --- | --- | --- | --- | --- | 6 | --- | --- | --- |
| | | 03/01/2001 | 564 | <5 | --- | --- | --- | --- | 0 | 1686 | <5 | --- | --- | --- |
| | | 05/17/2001 | --- | <5 | --- | --- | --- | --- | --- | 1467 | <5 | --- | --- | --- |
| SRK01 | 0338 | 12/19/2000 | --- | 647 | --- | --- | --- | --- | --- | --- | 584 | --- | --- | --- |
| | | 03/01/2001 | --- | 594 | --- | --- | --- | --- | --- | 3770 | 224 | --- | --- | --- |
| | | 05/17/2001 | --- | 354 | --- | --- | --- | --- | --- | 4220 | 121 | --- | --- | --- |
| SRK01 | 0508 | 09/20/2000 | 291 | --- | 0.561 | 592 | 0.0097 | 109 | --- | 5060 | --- | 0.0536 | 36.78 | <31.75 |
| | | 12/14/2000 | 298 | --- | <0.332 | 573 | 0.0089 | 105 | --- | 5400 | --- | 0.038 | ~54.35 | <24.02 |
| | | 02/27/2001 | 315 | --- | 0.459 | 547 | 0.0083 | 105 | --- | 5320 | --- | <0.011 | ~34.65 | <30.21 |
| | | 05/17/2001 | 304 | --- | --- | 582 | 0.0076 | 119 | --- | 5140 | --- | ~0.0122 | <29.08 | <29.85 |
| SRK01 | 0509 | 09/28/2000 | 330 | --- | 0.214 | 153 | <0.0003 | 54.8 | --- | 1759 | --- | <0.0117 | <10.74 | 16.66 |
| | | 12/14/2000 | 314 | --- | 0.149 | 139 | <0.0003 | 51.9 | --- | 1780 | --- | <0.011 | ~22.86 | 17.34 |
| | | 02/27/2001 | 318 | --- | 0.198 | 138 | <0.0003 | 50.3 | --- | 1675 | --- | 0.0549 | ~18.27 | 19.27 |
| | | 05/17/2001 | 261 | --- | ~0.163 | 112 | 0.00023 | 50 | --- | 1757 | --- | <0.001 | ~18.45 | 19.55 |
| SRK01 | 0510 | 09/20/2000 | 293 | --- | 0.645 | 644 | 0.0013 | 101 | --- | 4750 | --- | <0.0117 | <34.49 | 37.11 |
| | | 12/14/2000 | 311 | --- | 0.522 | 603 | 0.0014 | 104 | --- | 4770 | --- | <0.011 | ~55.14 | 25.41 |
| | | 02/27/2001 | 340 | --- | 0.585 | 543 | 0.0014 | 107 | --- | 4980 | --- | 0.0135 | ~61.6 | 35.33 |
| | | 02/27/2001 | --- | --- | 0.586 | 564 | 0.0016 | 106 | --- | --- | --- | <0.011 | ~37.94 | 40.92 |
| | | 05/17/2001 | 303 | --- | ~0.624 | 581 | 0.0015 | 122 | --- | 4790 | --- | <0.001 | ~37.67 | <29.93 |
| | | 05/17/2001 | --- | --- | ~0.553 | 577 | 0.0017 | 122 | --- | --- | --- | <0.001 | ~39.38 | <29.84 |
| SRK01 | 0556 | 09/29/2000 | 223 | --- | 0.183 | 38.2 | <0.0003 | 22.2 | --- | 665 | --- | <0.0117 | <6.08 | 9.75 |

| Site Code | Location Code | Date Sampled | Alkalinity mg/L | Benzene µg/L | Bromide mg/L | Ca mg/L | Cd mg/L | Chloride mg/L | DO mg/L | EC µmhos/cm | Ethylbenzene µg/L | Fe mg/L | Gross Alpha pCi/L | Gross Beta pCi/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SRK01 | 0668 | 09/29/2000 | 246 | --- | 0.0687 | 26.9 | <0.0003 | 8.73 | --- | 396 | --- | <0.0177 | <5.46 | <6.18 |
| SRK01 | 0669 | 09/20/2000 | 246 | --- | <0.0665 | 46.8 | <0.0003 | 4.98 | --- | 544 | --- | 0.244 | <5.45 | 13.06 |
| SRK01 | 0670 | 09/20/2000 | 244 | --- | <0.0665 | 44 | <0.0003 | 8.74 | --- | 543 | --- | 0.0892 | <8.42 | <12.03 |
| SRK01 | 0672 | 09/28/2000 | --- | --- | <0.0665 | 22.4 | <0.00033 | 7.75 | --- | 528 | --- | <0.0225 | <5.63 | 7.88 |
| SRK01 | 0684 | 09/28/2000 | 166 | --- | <0.0665 | 75.7 | <0.0003 | 18.7 | --- | 698 | --- | <0.0117 | 7.04 | 9.21 |
| | | 12/13/2000 | 166 | --- | <0.0665 | 72.6 | <0.0003 | 18 | --- | 592 | --- | <0.011 | <4.16 | 12.23 |
| | | 12/13/2000 | --- | --- | <0.0665 | 71.9 | <0.0003 | 18 | --- | --- | --- | 0.0214 | <4.11 | 8.04 |
| | | 02/26/2001 | 184 | --- | <0.0665 | 66.5 | <0.0003 | 17.7 | --- | 671 | --- | 0.077 | <4.3 | 7.76 |
| | | 02/26/2001 | --- | --- | 0.0668 | 66.5 | <0.0003 | 17.7 | --- | --- | --- | 0.0837 | <4.21 | 6.48 |
| | | 05/16/2001 | 174 | --- | --- | 66.5 | <0.0002 | 21 | --- | 626 | --- | <0.001 | ~4.16 | 7.41 |
| SRK01 | 0685 | 09/19/2000 | 341 | --- | 0.231 | 133 | <0.0003 | 58.9 | --- | 1435 | --- | 0.0443 | <9.73 | 14.78 |
| | | 12/13/2000 | 308 | --- | 0.152 | 122 | <0.0003 | 54.2 | --- | 1032 | --- | 0.0473 | <8.1 | 14.48 |
| | | 02/27/2001 | 326 | --- | 0.229 | 121 | <0.0003 | 56.5 | --- | 1400 | --- | <0.011 | <8.27 | 12.01 |
| | | 05/16/2001 | 321 | --- | ~0.202 | 126 | <0.0002 | 60.2 | --- | 1332 | --- | <0.005 | <7.79 | 10.35 |
| SRK01 | 0687 | 09/29/2000 | 365 | --- | <0.0665 | 22.9 | <0.0003 | 9 | --- | 833 | --- | <0.0474 | 7.7 | 17.34 |
| SRK01 | 0688 | 09/21/2000 | 295 | --- | 0.133 | 56.8 | <0.0003 | 22.5 | --- | 552 | --- | <0.0117 | <5.83 | 8.66 |
| SRK01 | 0690 | 09/29/2000 | 239 | --- | <0.0665 | 20.7 | <0.0003 | 7.97 | --- | 492 | --- | <0.0117 | <5.41 | <6.17 |
| SRK01 | 0807 | 09/21/2000 | 131 | --- | 0.1 | 20.5 | <0.0003 | 10 | --- | 274 | --- | <0.0152 | 5.2 | <6.05 |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface Water | | | | | | | | | | | | | | | | | |
| SRK01 | 0346 | 02/26/2001 | 1.88 | 13.1 | 0.0046 | 0.0014 | 0.0076 | 0.461 | 30.2 | 226 | 8.13 | --- | --- | --- | <0.14 | <0.88 | 111 |
| | | 05/15/2001 | 2.01 | 19.9 | 0.0023 | 0.0039 | 0.009 | 0.0982 | 34.6 | 85 | 8.21 | --- | --- | --- | <0.13 | <0.96 | 156 |
| SRK01 | 0347 | 02/26/2001 | 1.86 | 13.5 | 0.0064 | 0.0016 | 0.0317 | 0.885 | 30.7 | 192 | 8.25 | --- | --- | --- | <0.13 | <0.84 | 115 |
| | | 05/15/2001 | 2.1 | 20.2 | 0.0048 | 0.0042 | 0.009 | 0.271 | 34.5 | 185 | 8.20 | --- | --- | --- | <0.13 | <0.94 | 156 |
| SRK01 | 0349 | 02/27/2001 | 1.92 | 14.8 | 0.0234 | 0.0028 | 0.0906 | 2.23 | 33.4 | 199 | 8.08 | --- | --- | --- | <0.14 | <0.91 | 147 |
| | | 05/15/2001 | 2.05 | 20.1 | 0.0043 | 0.0047 | 0.0179 | ~0.473 | 34.8 | 119 | 8.01 | --- | --- | --- | 0.16 | <0.96 | 155 |
| SRK01 | 0692 | 09/27/2000 | 1.67 | 7.49 | 0.0026 | 0.00093 | 0.0205 | 0.252 | 13.9 | 171 | 8.40 | <0.0291 | <1.22 | <0.07 | <0.15 | <0.76 | 28.8 |
| | | 09/27/2000 | 1.68 | 7.45 | <0.002 | 0.00083 | 0.0177 | 0.274 | 14 | --- | --- | <0.0291 | <1.38 | <0.07 | <0.17 | <0.86 | 28.8 |
| | | 12/19/2000 | 2.14 | 9.29 | 0.0073 | 0.00087 | <0.0047 | 0.0632 | 25.1 | 3 | 8.18 | 0.0342 | <1.32 | <0.07 | <0.13 | <0.7 | 32.4 |
| | | 02/26/2001 | 1.93 | 15.2 | 0.0055 | 0.0019 | 0.0076 | 0.594 | 34.6 | 157 | 8.42 | --- | --- | --- | <0.13 | <0.83 | 132 |
| | | 02/26/2001 | 1.91 | 15.1 | 0.0062 | 0.0016 | 0.013 | 0.825 | 34.7 | --- | --- | --- | --- | --- | 0.16 | <0.88 | 130 |
| | | 05/15/2001 | 2.1 | 20.8 | 0.00053 | 0.0037 | <0.0062 | 0.106 | 36.4 | 192 | 8.35 | --- | --- | --- | 0.19 | <0.94 | 161 |
| | | 05/15/2001 | 2.12 | 21 | 0.00055 | 0.0041 | <0.0062 | 0.13 | 36.1 | --- | --- | --- | --- | --- | <0.13 | <0.92 | 161 |
| SRK01 | 0693 | 09/21/2000 | 1.67 | 7.46 | <0.002 | 0.00085 | 0.0161 | 0.0594 | 13.7 | 195 | 8.65 | <0.0291 | <1.27 | <0.07 | 0.2 | <0.81 | 23 |
| | | 12/19/2000 | 2.04 | 9.27 | 0.0062 | <0.0008 | <0.0047 | 0.09 | 28.3 | -76 | 8.03 | <0.0291 | <1.28 | <0.06 | <0.13 | <0.69 | 35 |
| | | 02/26/2001 | 1.86 | 13.1 | 0.0053 | 0.0015 | 0.005 | 0.59 | 29.9 | 237 | 8.17 | --- | --- | --- | <0.14 | <0.91 | 111 |
| | | 05/15/2001 | 2.06 | 20.4 | 0.0085 | 0.004 | <0.0062 | 0.131 | 35.5 | 149 | 8.20 | --- | --- | --- | <0.13 | <0.91 | 159 |
| SRK01 | 0694 | 09/21/2000 | 1.74 | 7.56 | <0.002 | 0.0012 | 0.0273 | 0.197 | 13.8 | 212 | 8.68 | <0.0291 | <1.27 | <0.07 | <0.15 | <0.78 | 23 |
| | | 12/14/2000 | 1.69 | 8.19 | 0.0061 | 0.0011 | 0.0151 | 0.231 | ~19.4 | 155 | 8.00 | <0.0291 | <1.37 | <0.17 | <0.16 | <0.84 | 31.8 |
| | | 12/14/2000 | 1.69 | 8.17 | 0.0063 | 0.00094 | 0.0189 | 0.242 | ~19.5 | --- | --- | <0.0291 | <1.31 | <0.14 | <0.16 | <0.84 | 31.9 |
| | | 02/26/2001 | 1.9 | 13.4 | 0.0099 | 0.0017 | 0.0344 | 0.837 | 30.3 | 183 | 8.34 | --- | --- | --- | <0.13 | <0.84 | 113 |
| | | 05/15/2001 | 2.16 | 20.7 | 0.0039 | 0.0041 | 0.0179 | 0.223 | 35.5 | 180 | 8.18 | --- | --- | --- | 0.2 | <0.94 | 158 |
| SRK01 | 0696 | 09/27/2000 | 1.73 | 7.7 | <0.002 | 0.00089 | 0.0097 | 0.141 | 14.5 | 144 | 8.42 | <0.0291 | <1.21 | <0.07 | <0.15 | <0.78 | 23.4 |
| | | 12/19/2000 | 2.02 | 9.22 | 0.007 | 0.00095 | <0.0047 | <0.0314 | 24.4 | -30 | 8.11 | <0.0291 | <1.27 | <0.06 | <0.13 | <0.7 | 33 |
| | | 02/26/2001 | 1.91 | 14.3 | 0.0057 | 0.0014 | 0.0076 | 0.636 | 32.6 | 234 | 8.10 | --- | --- | --- | <0.13 | <0.81 | 120 |
| | | 05/15/2001 | 2.06 | 20.2 | 0.0011 | 0.004 | <0.0062 | 0.127 | 34.4 | 172 | 8.28 | --- | --- | --- | 0.15 | <0.88 | 155 |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ground Water | | | | | | | | | | | | | | | | | |
| SRK01 | 0300 | 09/27/2000 | 14.7 | 517 | 3.53 | 0.0046 | 1 | 0.225 | 1560 | -67 | 6.98 | <0.122 | <1.32 | <0.07 | <0.14 | <0.77 | 4590 |
| | | 12/19/2000 | 11.9 | 441 | 3.1 | 0.0037 | 0.455 | <0.0314 | 1340 | -60 | 6.91 | 0.0545 | <1.3 | <0.05 | <0.12 | <0.63 | 3850 |
| | | 02/28/2001 | 10.1 | 395 | 2.3 | 0.004 | 0.444 | 0.756 | 1130 | -80 | 6.98 | --- | --- | --- | <0.13 | <1.01 | 3700 |
| | | 05/14/2001 | 10.9 | 375 | 2.81 | <0.0048 | 0.38 | ~0.0722 | 1290 | 75 | 6.90 | --- | --- | --- | 0.15 | <0.86 | 2100 |
| | | 05/14/2001 | 10.7 | 367 | 2.77 | <0.0049 | 0.377 | 0.0664 | 1280 | --- | --- | --- | --- | --- | 0.16 | <0.87 | ~2080 |
| SRK01 | 0301 | 09/27/2000 | 5.02 | 72.8 | 1.12 | 0.0034 | 0.199 | 0.296 | 323 | -75 | 7.22 | <0.0291 | <1.24 | <0.09 | <0.15 | <0.77 | 770 |
| | | 09/27/2000 | 5.2 | 71 | 1.1 | 0.0033 | 0.257 | 0.133 | 336 | --- | --- | <0.0291 | <1.28 | <0.11 | <0.14 | <0.75 | 776 |
| | | 12/19/2000 | 4.39 | 60.7 | 0.99 | 0.0026 | 0.206 | 0.0553 | 288 | -62 | 7.10 | <0.0545 | <1.31 | <0.07 | <0.13 | <0.64 | 738 |
| | | 02/28/2001 | 3.37 | 73.6 | 0.215 | 0.0026 | 0.0907 | 0.603 | 253 | -82 | 7.37 | --- | --- | --- | 0.19 | <1.03 | 726 |
| | | 05/14/2001 | 4.06 | 103 | 0.0395 | <0.0026 | <0.0062 | 0.152 | 336 | 156 | 7.21 | --- | --- | --- | <0.11 | <0.88 | 798 |
| SRK01 | 0302 | 09/27/2000 | 10.9 | 54.2 | 0.505 | 0.005 | 0.0233 | 0.206 | 347 | -22 | 7.20 | <0.0291 | <1.3 | <0.08 | <0.15 | <0.82 | 644 |
| | | 12/15/2000 | 10.7 | 58.3 | 0.436 | 0.0047 | <0.0047 | 0.0393 | 377 | 7 | 6.99 | <0.0545 | <1.23 | <0.06 | <0.13 | <0.66 | 714 |
| | | 02/28/2001 | 8.48 | 55.7 | 0.307 | 0.0044 | <0.0047 | 0.463 | 319 | -25 | 7.05 | --- | --- | --- | 0.14 | <1.01 | 652 |
| | | 05/14/2001 | 7.28 | 49.7 | 0.395 | 0.0071 | <0.0062 | 0.104 | 276 | 46 | 7.05 | --- | --- | --- | <0.11 | <0.86 | 401 |
| SRK01 | 0303 | 09/26/2000 | 12.2 | 43.7 | 0.326 | 0.0112 | 0.235 | 0.228 | 474 | -104 | 7.20 | <0.0291 | <1.49 | <0.05 | <0.16 | <0.76 | 661 |
| | | 12/19/2000 | 12.7 | 41.9 | 0.349 | 0.01 | 0.199 | 0.593 | 592 | -88 | 7.19 | <0.0291 | <1.23 | <0.07 | <0.13 | <0.63 | 746 |
| | | 02/28/2001 | 9.17 | 33.9 | 0.226 | 0.0095 | 0.168 | 0.869 | 412 | -114 | 7.29 | --- | --- | --- | 0.14 | <0.94 | 633 |
| | | 05/15/2001 | 8.25 | 32.2 | 0.193 | 0.0096 | 0.133 | 0.528 | 339 | -82 | 7.36 | --- | --- | --- | 0.16 | <0.8 | 371 |
| SRK01 | 0304 | 09/26/2000 | 2.56 | 29.2 | 0.134 | 0.008 | 0.0233 | 0.172 | 91.6 | -57 | 7.24 | <0.0291 | <1.14 | <0.07 | <0.15 | <0.72 | 225 |
| | | 12/15/2000 | 2 | 28.7 | 0.0721 | 0.007 | 0.0082 | <0.0314 | 81.5 | -62 | 7.25 | <0.0291 | <1.24 | <0.06 | <0.12 | <0.62 | 239 |
| | | 02/28/2001 | 1.73 | 28.5 | 0.0428 | 0.0062 | <0.0047 | 0.509 | 81.5 | -21 | 7.48 | --- | --- | --- | <0.13 | <0.93 | 243 |
| | | 05/15/2001 | 1.6 | 29.1 | 0.021 | 0.0059 | <0.0062 | 0.132 | 75 | 67 | 7.32 | --- | --- | --- | <0.12 | <0.84 | 228 |
| SRK01 | 0305 | 09/26/2000 | 29.3 | 105 | 0.198 | 0.0138 | <0.0047 | 0.76 | 576 | 16 | 7.21 | <0.0291 | <1.29 | <0.09 | <0.16 | <0.72 | 1130 |
| | | 12/15/2000 | 27.1 | 99 | 0.153 | 0.0126 | <0.0047 | 0.639 | 548 | -40 | 7.14 | <0.0291 | <1.3 | <0.07 | <0.12 | <0.62 | 1090 |
| | | 02/28/2001 | 23.3 | 91.1 | 0.0787 | 0.0105 | <0.0047 | 1.09 | 494 | -46 | 7.36 | --- | --- | --- | <0.14 | <1.03 | 1070 |
| | | 05/14/2001 | 24.4 | 94.8 | 0.0352 | 0.011 | <0.0062 | 0.464 | 486 | 105 | 7.21 | --- | --- | --- | 0.14 | <0.85 | 849 |
| SRK01 | 0306 | 09/26/2000 | 28 | 161 | 0.505 | 0.0106 | 0.288 | 0.0701 | 1430 | -32 | 7.20 | <0.0291 | <1.37 | <0.06 | 0.16 | 0.77 | 2590 |
| | | 09/26/2000 | 28.9 | 165 | 0.524 | 0.01 | 0.282 | 0.0693 | 1410 | --- | --- | <0.0291 | <1.29 | <0.08 | <0.17 | 1.24 | 2610 |
| SRK01 | 0307 | 09/26/2000 | 30 | 134 | 0.406 | 0.0084 | 0.33 | 0.0671 | 1320 | -66 | 7.03 | <0.0291 | <1.26 | <0.07 | 0.19 | 1.11 | 2220 |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12/15/2000 | 30.2 | 145 | 0.392 | 0.0077 | 0.218 | <0.0314 | 1330 | -38 | 7.11 | <0.0545 | <1.29 | <0.07 | <0.15 | 1.27 | 2340 |
| | | 03/01/2001 | 27.3 | 142 | 0.36 | 0.0075 | 0.262 | 0.375 | 1200 | -136 | 7.12 | --- | --- | --- | 0.27 | <0.96 | 2400 |
| | | 05/14/2001 | 27.1 | 140 | 0.386 | 0.0078 | 0.233 | 0.0516 | 1190 | 104 | 7.24 | --- | --- | --- | 0.19 | <0.78 | 1800 |
| SRK01 | 0308 | 09/26/2000 | 8.49 | 102 | 0.739 | 0.0095 | 0.132 | 0.418 | 607 | -58 | 7.16 | <0.0291 | <1.25 | <0.06 | <0.15 | <0.72 | 1310 |
| SRK01 | 0309 | 09/26/2000 | 25.4 | 84.2 | 0.384 | 0.0546 | 0.126 | 0.144 | 1530 | -118 | 7.51 | <0.0291 | <1.44 | <0.06 | 0.16 | <0.72 | 1490 |
| | | 12/15/2000 | 32.9 | 85.4 | 0.314 | 0.0519 | 0.0799 | <0.0314 | 1290 | -113 | 7.48 | <0.0342 | <1.26 | <0.08 | <0.13 | <0.63 | 1490 |
| | | 03/01/2001 | 34.9 | 88.8 | 0.312 | 0.0433 | 0.0797 | 0.566 | 1040 | -180 | 7.57 | --- | --- | --- | <0.14 | <1.02 | 1210 |
| | | 05/14/2001 | 35.7 | 93 | 0.321 | 0.0316 | 0.0444 | 0.0495 | 1140 | 136 | 7.45 | --- | --- | --- | 0.18 | <0.82 | 1310 |
| SRK01 | 0310 | 09/27/2000 | 2.57 | 15.7 | 0.262 | 0.0173 | 0.0823 | 0.132 | 42.7 | -5 | 7.61 | <0.0291 | <1.16 | <0.09 | <0.15 | <0.75 | 130 |
| | | 12/14/2000 | 2.51 | 16.3 | 0.237 | 0.0151 | 0.0629 | 0.0356 | ~40.7 | -104 | 7.44 | <0.0291 | <1.22 | <0.26 | <0.14 | <0.75 | 139 |
| | | 02/28/2001 | 2.26 | 15.1 | 0.215 | 0.0155 | 0.0548 | 0.584 | 39.6 | -104 | 7.84 | --- | --- | --- | 0.15 | <1.08 | 127 |
| | | 05/16/2001 | 2.17 | 16.4 | 0.234 | 0.0143 | 0.0469 | 0.107 | 41.4 | -101 | 7.41 | --- | --- | --- | <0.12 | <0.88 | 137 |
| SRK01 | 0311 | 09/27/2000 | 3.7 | 28.5 | 0.0147 | 0.0145 | <0.0047 | 0.246 | 55.5 | 54 | 7.11 | <0.0291 | <1.18 | <0.06 | <0.15 | <0.78 | 188 |
| | | 12/14/2000 | 3.45 | 26.6 | 0.0606 | 0.0185 | <0.0047 | 0.099 | ~47.8 | -29 | 7.06 | <0.0291 | <1.22 | <0.29 | <0.14 | <0.76 | 191 |
| | | 02/28/2001 | 2.99 | 23.7 | 0.01 | 0.0118 | <0.0047 | 0.623 | 42 | 1 | 7.34 | --- | --- | --- | <0.15 | <1.07 | 187 |
| | | 05/16/2001 | 3.08 | 27 | 0.0177 | 0.0094 | <0.0062 | 0.165 | 48.2 | 106 | 7.11 | --- | --- | --- | <0.13 | <0.92 | 221 |
| SRK01 | 0312 | 09/27/2000 | 16 | 29.2 | 0.52 | 0.0325 | 0.0265 | 0.348 | 273 | -63 | 7.55 | <0.0291 | <1.21 | <0.09 | <0.15 | <0.75 | 458 |
| | | 12/15/2000 | 13.1 | 25.5 | 0.394 | 0.0255 | 0.0309 | 0.0914 | 192 | 3 | 7.36 | 0.0342 | <1.22 | <0.08 | <0.13 | <0.63 | 354 |
| | | 02/28/2001 | 10.8 | 22.6 | 0.32 | 0.022 | 0.0189 | 0.501 | 147 | -49 | 7.88 | --- | --- | --- | <0.13 | <0.93 | 314 |
| | | 05/16/2001 | 10.2 | 21.9 | 0.282 | 0.0196 | 0.0088 | 0.0771 | 141 | -41 | 7.59 | --- | --- | --- | <0.12 | <0.9 | 251 |
| SRK01 | 0313 | 09/19/2000 | 8.39 | 66.8 | 0.4 | 0.0602 | 6.58 | 0.0633 | 178 | -5 | 7.21 | <0.0291 | <1.21 | <0.07 | <0.15 | <0.72 | 503 |
| | | 12/19/2000 | 8.42 | 66.4 | 0.104 | 0.048 | 6.06 | 0.175 | 174 | -32 | 7.12 | 0.0342 | <1.28 | <0.08 | <0.12 | <0.63 | 495 |
| | | 02/27/2001 | 7.78 | 63.8 | 0.162 | 0.0482 | 5.71 | 2.38 | 168 | -88 | 7.28 | --- | --- | --- | 0.18 | <0.81 | 501 |
| | | 05/16/2001 | 7.24 | 61.9 | 0.131 | 0.0453 | 6.02 | 0.0769 | 178 | -44 | 7.05 | --- | --- | --- | 0.17 | <0.93 | 358 |
| SRK01 | 0314 | 09/19/2000 | 9.41 | 51.7 | 0.405 | 0.304 | 34.2 | 63.5 | 109 | 143 | 6.87 | <0.0291 | <1.27 | <0.29 | <0.14 | <0.69 | 524 |
| SRK01 | 0315 | 09/20/2000 | 8.87 | 56.6 | 0.257 | 0.216 | 12.5 | 82.1 | 111 | 188 | 6.84 | <0.0291 | <1.33 | <0.09 | <0.14 | <0.71 | 499 |
| | | 12/13/2000 | 7.43 | 53.6 | 0.18 | 0.196 | 11.9 | 86.5 | 102 | 173 | 6.72 | <0.0291 | <1.35 | <0.26 | <0.15 | <0.73 | 457 |
| SRK01 | 0316 | 09/20/2000 | 11.2 | 39.5 | 0.515 | 0.445 | 42.7 | 72.4 | 99.5 | 190 | 7.06 | <0.0291 | <1.32 | <0.08 | <0.13 | <0.68 | 481 |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SRK01 | 0317 | 09/28/2000 | 17.2 | 53.7 | 0.333 | 0.247 | 118 | 7.44 | 86.7 | -86 | 7.43 | <0.0291 | <1.26 | <0.18 | <0.17 | 1.42 | 705 |
| | | 12/14/2000 | 18.5 | 67.3 | 0.28 | 0.316 | 150 | 5.26 | 105 | 77 | 7.45 | <0.0291 | <1.34 | <0.24 | <0.19 | 2.1 | 837 |
| | | 03/01/2001 | 11.1 | 42.9 | 0.21 | 0.242 | 73.2 | 18.9 | 76.7 | 82 | 7.25 | --- | --- | --- | 0.31 | 1.22 | 500 |
| | | 05/17/2001 | 16.8 | 67.6 | 0.224 | 0.279 | 141 | 6.35 | 109 | 178 | 7.42 | --- | --- | --- | 0.27 | 2.14 | 757 |
| SRK01 | 0318 | 09/19/2000 | 9.6 | 260 | 12.8 | 1.83 | 48 | 3510 | 234 | 174 | 6.38 | 0.0319 | <1.34 | <0.09 | <0.14 | <0.72 | 924 |
| | | 12/13/2000 | 7.43 | 172 | 8.3 | 1.23 | 30.7 | 1080 | 219 | 210 | 6.60 | <0.0291 | <1.37 | <0.29 | <0.16 | <0.76 | 781 |
| | | 02/27/2001 | 5.37 | 195 | 9.19 | 1.29 | 22.4 | 2650 | 210 | 155 | 6.76 | --- | --- | --- | <0.14 | <0.9 | 860 |
| | | 05/17/2001 | 4.65 | 266 | 9.73 | 1.32 | 5.19 | 4090 | 242 | 247 | 6.38 | --- | --- | --- | <0.13 | <0.89 | 940 |
| SRK01 | 0319 | 09/28/2000 | 30.1 | 236 | 0.293 | 0.0448 | 87.6 | 0.0958 | 2010 | -166 | 6.92 | 0.499 | <1.21 | <0.08 | 1.91 | 2.61 | 73.4 |
| | | 12/19/2000 | 27.1 | 303 | 0.427 | 0.0277 | 118 | <0.0314 | 1510 | -112 | 6.89 | 0.36 | <1.39 | <0.1 | 3.22 | 3.99 | <0.589 |
| | | 03/02/2001 | 29.8 | 349 | 0.321 | 0.0388 | 102 | 0.438 | 2210 | -184 | 7.11 | --- | --- | --- | 2.91 | 4.04 | 3.1 |
| | | 05/18/2001 | 21.7 | 167 | 0.259 | 0.0276 | 162 | 0.0811 | 1290 | -156 | 7.01 | --- | --- | --- | 1.94 | 1.7 | 4.42 |
| SRK01 | 0320 | 09/20/2000 | 13.6 | 40.3 | 0.581 | 0.0062 | 23.7 | 0.0648 | 47.4 | -54 | 7.09 | <0.0291 | <1.25 | <0.08 | 0.15 | <0.7 | 139 |
| | | 09/29/2000 | --- | --- | --- | --- | --- | --- | --- | -54 | 7.09 | --- | --- | --- | --- | --- | --- |
| | | 12/14/2000 | 11.8 | 41.9 | 0.599 | 0.0073 | 20.7 | 0.458 | ~49.8 | 24 | 7.12 | <0.0752 | <1.28 | <0.24 | 0.24 | <0.74 | 143 |
| | | 12/14/2000 | 11.5 | 40.9 | 0.587 | 0.006 | 20.9 | 0.284 | ~47.4 | --- | --- | <0.0335 | <1.31 | <0.18 | <0.15 | <0.75 | 150 |
| | | 03/02/2001 | 10.1 | 38.4 | 0.519 | 0.0055 | 20.5 | 0.614 | 43 | -73 | 7.08 | --- | --- | --- | 0.2 | <1 | 133 |
| | | 05/17/2001 | 11.6 | 38.1 | 0.571 | 0.0117 | 22.9 | 0.108 | 50 | -35 | 7.01 | --- | --- | --- | <0.13 | <0.93 | 124 |
| SRK01 | 0321 | 09/19/2000 | 6.21 | 22.5 | 0.305 | 0.0207 | 0.901 | 0.0864 | 32.3 | 15 | 7.49 | <0.0291 | <1.36 | <0.08 | <0.14 | <0.71 | 138 |
| SRK01 | 0322 | 09/28/2000 | 5.96 | 21.9 | 0.438 | 0.0205 | 0.867 | <0.0314 | 32.1 | -59 | 7.38 | <0.0291 | <1.13 | <0.07 | <0.15 | <0.75 | 132 |
| SRK01 | 0323 | 09/28/2000 | 2.57 | 17 | 0.286 | 0.0211 | 0.269 | 0.601 | 30.3 | 161 | 7.23 | <0.0291 | <1.13 | <0.07 | <0.14 | <0.76 | 121 |
| | | 09/28/2000 | 2.64 | 9.9 | 0.153 | 0.021 | 0.261 | 0.504 | 17.8 | --- | --- | <0.0291 | <1.11 | <0.08 | <0.15 | <0.79 | 120 |
| SRK01 | 0324 | 09/19/2000 | 14.3 | 87.7 | 0.592 | 0.0312 | 17.8 | 137 | 37 | 186 | 7.41 | <0.0291 | <1.26 | <0.08 | 0.32 | <0.69 | 266 |
| | | 12/14/2000 | 11.8 | 75.4 | 0.316 | 0.0331 | 8.04 | 104 | ~30.6 | 96 | 7.45 | <0.0543 | <1.26 | <0.32 | 0.22 | <0.79 | 191 |
| | | 02/27/2001 | 10.3 | 65.7 | 0.226 | 0.0322 | 6.01 | 111 | 31.5 | 211 | 7.40 | --- | --- | --- | 0.29 | <0.91 | 202 |
| SRK01 | 0325 | 09/20/2000 | 3.34 | 27.7 | 0.0803 | 0.0042 | 0.01 | 0.982 | 2.82 | 183 | 8.18 | <0.0291 | <1.42 | <0.09 | 0.3 | <0.71 | 7.95 |
| | | 12/18/2000 | 7.05 | 25.3 | 0.0377 | 0.0184 | 0.01 | 1.34 | 6.56 | 57 | 7.77 | <0.0291 | <1.27 | <0.1 | 0.3 | <0.65 | 7.77 |
| | | 03/05/2001 | 2.98 | 25.4 | 0.0215 | 0.0031 | 0.0118 | 3.11 | 2.59 | 26 | 8.16 | --- | --- | --- | 0.37 | <0.93 | 8.15 |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 05/15/2001 | 4.83 | 26.7 | 0.0381 | 0.0078 | <0.0062 | 1.11 | 3.9 | 91 | 7.92 | --- | --- | --- | 0.31 | <0.91 | 8.85 |
| SRK01 | 0326 | 09/29/2000 | 17.7 | 45.4 | 0.221 | 0.0242 | 0.0293 | 0.0639 | 56.4 | -415 | 7.81 | <0.0291 | <1.07 | <0.05 | 0.23 | <0.79 | 65.4 |
| | | 12/19/2000 | 12.2 | 45.1 | 0.167 | 0.023 | 0.0252 | 0.488 | 48.4 | 117 | 6.48 | <0.0291 | <1.43 | <0.07 | 0.26 | <0.66 | 38.4 |
| | | 03/05/2001 | 10.6 | 44.5 | 0.0995 | 0.0092 | <0.0047 | 1.32 | 25.8 | -52 | 7.47 | --- | --- | --- | 0.39 | <0.97 | 23 |
| | | 05/16/2001 | 10.8 | 48.8 | 0.116 | 0.01 | <0.0062 | 0.427 | 27.1 | 76 | 7.70 | --- | --- | --- | 0.35 | <0.87 | 23.1 |
| SRK01 | 0327 | 09/26/2000 | 31 | 229 | 0.644 | 0.0132 | 0.163 | 0.123 | 1760 | -37 | 7.17 | <0.0291 | <1.22 | <0.08 | <0.15 | <0.72 | 3270 |
| SRK01 | 0328 | 09/27/2000 | 3.61 | 68.9 | 0.19 | 0.0128 | 0.0125 | 0.489 | 119 | 67 | 7.21 | <0.0291 | <1.14 | <0.05 | <0.15 | <0.76 | 286 |
| | | 12/14/2000 | 3.21 | 66.7 | 0.126 | 0.0093 | <0.0047 | 0.463 | ~122 | -26 | 7.17 | <0.0291 | <1.22 | <0.06 | <0.13 | <0.72 | 308 |
| | | 02/28/2001 | 2.79 | 64.3 | 0.0313 | 0.01 | <0.0047 | 1.4 | 111 | 62 | 7.44 | --- | --- | --- | 0.18 | <1.04 | 322 |
| SRK01 | 0329 | 09/27/2000 | 8.97 | 56.7 | 1.44 | 0.0249 | 0.0265 | 0.448 | 141 | 76 | 7.67 | 0.059 | <1.26 | <0.1 | <0.17 | <0.84 | 418 |
| | | 12/14/2000 | 7.51 | 53.8 | 1.29 | 0.0439 | 0.0208 | 0.0821 | ~143 | 4 | 7.55 | <0.0291 | <1.24 | <0.23 | <0.15 | <0.81 | 400 |
| | | 02/28/2001 | 6.57 | 55.3 | 0.843 | 0.0198 | <0.0047 | 0.806 | 140 | 136 | 7.77 | --- | --- | --- | <0.13 | <0.83 | 421 |
| | | 05/16/2001 | 6.79 | 56.1 | 0.781 | 0.026 | <0.0062 | 0.174 | 152 | 101 | 7.50 | --- | --- | --- | <0.12 | <0.89 | 344 |
| SRK01 | 0330 | 09/27/2000 | 4.75 | 50.8 | 0.27 | 0.0081 | 0.0293 | 0.0945 | 123 | 151 | 7.33 | <0.0291 | <1.2 | <0.1 | <0.16 | <0.79 | 351 |
| | | 12/14/2000 | 4.26 | 50.8 | 0.225 | 0.0087 | 0.0095 | 0.0787 | ~123 | 63 | 7.29 | <0.0291 | <1.22 | <0.15 | 0.18 | <0.74 | 934 |
| | | 02/27/2001 | 3.76 | 46.3 | 0.0886 | 0.0078 | 0.0189 | 0.626 | 112 | 70 | 7.40 | --- | --- | --- | 0.18 | <0.93 | 336 |
| | | 05/16/2001 | 3.68 | 48.7 | 0.0394 | 0.0095 | <0.0062 | 0.0986 | 123 | 155 | 7.33 | --- | --- | --- | 0.19 | <0.87 | 201 |
| SRK01 | 0331 | 09/28/2000 | 9.34 | 73.1 | 0.0645 | 0.0076 | <0.0047 | 1.81 | 207 | 68 | 7.34 | <0.0291 | <1.16 | <0.09 | <0.15 | <0.79 | 554 |
| | | 12/14/2000 | 9.15 | 71.5 | 0.0037 | 0.0071 | <0.0047 | 1.69 | ~205 | -8 | 7.20 | <0.0291 | <1.3 | <0.09 | <0.15 | <0.84 | 519 |
| | | 02/27/2001 | 7.73 | 60.4 | <0.003 | 0.0075 | 0.01 | 2.45 | 175 | -31 | 7.19 | --- | --- | --- | <0.14 | <0.89 | 500 |
| | | 05/15/2001 | 7.49 | 64.7 | 0.0016 | 0.0075 | <0.0062 | 1.38 | 188 | 115 | 7.33 | --- | --- | --- | <0.12 | <0.88 | ~242 |
| SRK01 | 0332 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 03/02/2001 | --- | --- | --- | --- | --- | --- | --- | -127 | 6.58 | --- | --- | --- | --- | --- | --- |
| | | 05/18/2001 | --- | --- | --- | --- | --- | --- | --- | -98 | 6.53 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0333 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 03/02/2001 | --- | --- | --- | --- | --- | --- | --- | -114 | 6.63 | --- | --- | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | --- | --- | --- | --- | -129 | 6.68 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0334 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 03/01/2001 | --- | --- | --- | --- | --- | --- | --- | -130 | 6.97 | --- | --- | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | --- | --- | --- | --- | -98 | 6.92 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0335 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | --- | --- | --- | --- | 104 | 6.99 | --- | --- | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | --- | --- | --- | --- | 178 | 6.76 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0336 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | --- | --- | --- | --- | -89 | 6.87 | --- | --- | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | --- | --- | --- | --- | -48 | 6.90 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0337 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | --- | --- | --- | --- | -157 | 6.95 | --- | --- | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | --- | --- | --- | --- | -124 | 7.01 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0338 | 12/19/2000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | --- | --- | --- | --- | -163 | 7.09 | --- | --- | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | --- | --- | --- | --- | -125 | 7.02 | --- | --- | --- | --- | --- | --- |
| SRK01 | 0508 | 09/20/2000 | 12.9 | 212 | 6.57 | 1.38 | 94.9 | 1790 | 204 | 108 | 6.70 | <0.0291 | <1.38 | <0.08 | 0.51 | <0.7 | 1110 |
| | | 12/14/2000 | 12.3 | 213 | 6.63 | 1.23 | 104 | 1780 | ~208 | 137 | 6.63 | <0.0291 | <1.38 | <0.43 | 0.36 | <0.78 | 1120 |
| | | 02/27/2001 | 10.9 | 207 | 6.27 | 1.26 | 98.3 | 1790 | 197 | 229 | 6.58 | --- | --- | --- | 0.51 | <0.9 | 1130 |
| | | 05/17/2001 | 11.9 | 201 | 6.29 | 1.27 | 98.2 | 1640 | 224 | 225 | 6.65 | --- | --- | --- | 0.75 | <0.9 | 1140 |
| SRK01 | 0509 | 09/28/2000 | 10.7 | 55.8 | 0.186 | 0.214 | 48.2 | 32.8 | 107 | 243 | 6.89 | <0.0291 | <1.16 | <0.1 | <0.17 | 1.07 | 520 |
| | | 12/14/2000 | 10.2 | 52.6 | 0.202 | 0.24 | 50.9 | 40 | 106 | 178 | 6.98 | <0.0291 | <1.35 | <0.34 | <0.17 | 1.19 | 492 |
| | | 02/27/2001 | 8.67 | 49.7 | 0.147 | 0.187 | 45.7 | 43.7 | 94.4 | 137 | 7.08 | --- | --- | --- | 0.17 | <0.86 | 500 |
| | | 05/17/2001 | 11.5 | 45.1 | 0.232 | 0.309 | 84.9 | 23.6 | 89.7 | 201 | 7.30 | --- | --- | --- | <0.17 | 1.79 | 375 |
| SRK01 | 0510 | 09/20/2000 | 12.2 | 219 | 6.86 | 0.984 | 52.5 | 1690 | 174 | 227 | 6.52 | <0.0291 | <1.38 | <0.1 | 1.15 | <0.9 | 1120 |
| | | 12/14/2000 | 10.6 | 206 | 6.59 | 0.964 | 46.7 | 1960 | ~173 | 184 | 6.50 | <0.0752 | <1.37 | <0.16 | 1.48 | <0.86 | 1120 |
| | | 02/27/2001 | 9.4 | 200 | 6.21 | 0.948 | 47.8 | 1570 | 168 | 135 | 6.68 | --- | --- | --- | 0.56 | <0.83 | 1160 |
| | | 02/27/2001 | 9.47 | 201 | 6.22 | 0.934 | 47.5 | 1580 | 169 | --- | --- | --- | --- | --- | 0.59 | <0.94 | 1140 |
| | | 05/17/2001 | 10.6 | 202 | 6.73 | 0.991 | 50.3 | 1440 | 192 | 203 | 6.50 | --- | --- | --- | 0.58 | <0.92 | 896 |
| | | 05/17/2001 | 10.5 | 199 | 6.69 | 1.05 | 51.4 | 1450 | 190 | --- | --- | --- | --- | --- | 0.73 | <0.94 | 884 |
| SRK01 | 0556 | 09/29/2000 | 11.2 | 52.6 | 0.0036 | 0.0052 | 0.113 | 1.72 | 22.9 | 63 | 7.84 | <0.0291 | <1.09 | <0.05 | <0.16 | <0.78 | 101 |

| Site Code | Location Code | Date Sampled | K mg/L | Mg mg/L | Mn mg/L | Mo mg/L | $NH_4$ mg/L | $NO_3$ mg/L | Na mg/L | ORP mV | pH s.u. | $PO_4$ mg/L | Pb-210 pCi/L | Po-210 pCi/L | Ra-226 pCi/L | Ra-228 pCi/L | $SO_4$ mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SRK01 | 0668 | 09/29/2000 | 8.26 | 41.6 | 0.0136 | 0.0024 | 0.0206 | 0.296 | 9.17 | 95 | 7.79 | <0.0291 | <1.14 | <0.05 | 0.37 | <0.75 | 13.4 |
| SRK01 | 0669 | 09/20/2000 | 12.3 | 32 | 0.045 | 0.0027 | 0.1 | 0.0672 | 13.8 | 121 | 7.48 | 0.0319 | <1.2 | <0.08 | 0.46 | <0.95 | 21 |
| SRK01 | 0670 | 09/20/2000 | 12.3 | 35.2 | 0.0464 | 0.0033 | 0.117 | <0.0314 | 12.3 | 182 | 7.58 | <0.0291 | <1.25 | <0.05 | 0.47 | <0.72 | 15.3 |
| SRK01 | 0672 | 09/28/2000 | 9.16 | 43.1 | <0.0022 | 0.00078 | <0.0047 | 2.43 | 19.7 | 177 | 8.01 | 0.0321 | <1.08 | <0.08 | 0.81 | 0.86 | 9.59 |
| SRK01 | 0684 | 09/28/2000 | 9.66 | 25.2 | 0.163 | 0.0048 | 1.01 | 0.347 | 32.3 | 66 | 7.49 | <0.0291 | <1.09 | <0.06 | <0.15 | <0.78 | 161 |
| | | 12/13/2000 | 8.99 | 24.1 | 0.123 | 0.0057 | 0.794 | 0.264 | 31 | 135 | 7.25 | <0.159 | <1.27 | <0.32 | <0.14 | <0.72 | 147 |
| | | 12/13/2000 | 8.89 | 23.9 | 0.12 | 0.006 | 0.737 | 0.287 | 31.9 | --- | --- | --- | <1.32 | <0.25 | <0.15 | <0.74 | 147 |
| | | 02/26/2001 | 7.14 | 21.7 | 0.0996 | 0.0082 | 0.42 | 5.7 | 28.2 | -85 | 7.64 | --- | --- | --- | <0.12 | <0.8 | 132 |
| | | 02/26/2001 | 7.17 | 21.8 | 0.0999 | 0.0076 | 0.395 | 1.48 | 28.2 | --- | --- | --- | --- | --- | <0.13 | <0.85 | 131 |
| | | 05/16/2001 | 7.48 | 20.3 | 0.136 | 0.0044 | 0.92 | 0.714 | 31.3 | 159 | 7.34 | --- | --- | --- | <0.12 | <0.89 | 118 |
| SRK01 | 0685 | 09/19/2000 | 10.1 | 60.5 | 0.547 | 0.0054 | 2.01 | 0.457 | 104 | 111 | 6.97 | 0.0924 | <1.25 | <0.06 | <0.16 | <0.99 | 389 |
| | | 12/13/2000 | 9.66 | 56.6 | 0.487 | 0.0051 | 1.87 | 0.063 | 90.4 | 99 | 6.94 | <0.0291 | <1.22 | <0.22 | <0.15 | <0.75 | 354 |
| | | 02/27/2001 | 9.15 | 55.8 | 0.513 | 0.0095 | 2.04 | 0.783 | 88.5 | 82 | 6.89 | --- | --- | --- | 0.14 | <0.85 | 370 |
| | | 05/16/2001 | 8.75 | 54 | 0.537 | 0.0051 | 1.87 | 0.0423 | 92.3 | 169 | 6.98 | --- | --- | --- | 0.18 | <0.88 | 297 |
| SRK01 | 0687 | 09/29/2000 | 23.3 | 18.5 | 0.0233 | 0.0035 | 0.306 | 0.252 | 119 | -69 | 7.56 | <0.0291 | <1.03 | <0.06 | 0.34 | 0.95 | 54.3 |
| SRK01 | 0688 | 09/21/2000 | 5.7 | 39.4 | <0.002 | 0.0016 | 0.0077 | 1.51 | 29.6 | 226 | 7.38 | <0.0291 | <1.28 | <0.06 | <0.14 | <0.74 | 35.5 |
| SRK01 | 0690 | 09/29/2000 | 8.05 | 40.3 | <0.002 | 0.0008 | <0.0047 | 2.55 | 15.9 | 154 | 7.85 | <0.0291 | <1.07 | <0.06 | 0.59 | 0.89 | 8.8 |
| SRK01 | 0807 | 09/21/2000 | 3.49 | 19.4 | <0.002 | 0.00094 | 0.0498 | 0.994 | 7.08 | 212 | 8.97 | <0.0291 | <1.24 | <0.07 | 0.71 | <0.82 | 5.56 |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Surface Water | | | | | | | | | | | | | | |
| SRK01 | 0346 | 02/26/2001 | 0.00048 | 0.571 | 320 | 3.4 | 59.6 | --- | --- | --- | 0.0012 | <0.4 | ~0.52 | <0.0015 |
| | | 05/15/2001 | 0.0015 | 0.61 | 405 | 18.2 | --- | --- | --- | --- | 0.0014 | --- | --- | 0.00067 |
| SRK01 | 0347 | 02/26/2001 | 0.0008 | 0.594 | 343 | 3.5 | 60 | --- | --- | --- | 0.0014 | 0.49 | 0.57 | <0.0015 |
| | | 05/15/2001 | 0.0016 | 0.611 | 395 | 19.1 | 1000 | --- | --- | --- | 0.0016 | --- | --- | 0.0015 |
| SRK01 | 0349 | 02/27/2001 | 0.001 | 0.637 | 360 | 3.5 | 109 | --- | --- | --- | 0.0017 | 0.69 | 0.71 | <0.0015 |
| | | 05/15/2001 | 0.0017 | 0.611 | 420 | 18.7 | 1000 | --- | --- | --- | 0.0016 | --- | --- | 0.00075 |
| SRK01 | 0692 | 09/27/2000 | 0.00016 | 0.482 | 208 | 13 | 10.7 | <1.7 | --- | --- | 0.00043 | --- | --- | <0.0013 |
| | | 09/27/2000 | 0.00015 | 0.484 | 197 | --- | --- | <1.7 | --- | --- | 0.00045 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00033 | 0.593 | 250 | 0.2 | --- | <0.56 | --- | --- | 0.00075 | --- | --- | <0.0015 |
| | | 02/26/2001 | 0.00053 | 0.635 | 350 | 3 | 61.9 | --- | --- | --- | 0.0015 | 0.77 | 0.65 | <0.0015 |
| | | 02/26/2001 | 0.00052 | 0.635 | 357 | --- | --- | --- | --- | --- | 0.0015 | 0.6 | ~0.65 | <0.0015 |
| | | 05/15/2001 | 0.0015 | 0.628 | 437 | 15.5 | 1000 | --- | --- | --- | 0.0016 | --- | --- | 0.0006 |
| | | 05/15/2001 | 0.0016 | 0.626 | 432 | --- | --- | --- | --- | --- | 0.0016 | --- | --- | 0.00074 |
| SRK01 | 0693 | 09/21/2000 | 0.00012 | 0.459 | 175 | 19 | 20.1 | <1.7 | --- | --- | 0.00037 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00031 | 0.599 | 263 | 0.8 | --- | <0.56 | --- | --- | 0.00081 | --- | --- | <0.0015 |
| | | 02/26/2001 | 0.00042 | 0.596 | 330 | 3.6 | 255 | --- | --- | --- | 0.0013 | 0.52 | ~0.57 | <0.0015 |
| | | 05/15/2001 | 0.0015 | 0.618 | 425 | 18.1 | 1000 | --- | --- | --- | 0.0015 | --- | --- | 0.00082 |
| SRK01 | 0694 | 09/21/2000 | 0.00022 | 0.464 | 178 | 17.7 | 17.5 | <1.7 | --- | --- | 0.00038 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.00029 | 0.503 | 225 | 2.3 | --- | <0.56 | --- | --- | 0.00062 | --- | --- | <0.0015 |
| | | 12/14/2000 | 0.0003 | 0.504 | 222 | --- | --- | <0.56 | --- | --- | 0.00063 | --- | --- | <0.0015 |
| | | 02/26/2001 | 0.00058 | 0.599 | 335 | 3.4 | 64.6 | --- | --- | --- | 0.0013 | 0.58 | ~0.58 | <0.0015 |
| | | 05/15/2001 | 0.0014 | 0.621 | 422 | 18.6 | 1000 | --- | --- | --- | 0.0015 | --- | --- | 0.0013 |
| SRK01 | 0696 | 09/27/2000 | 0.00018 | 0.479 | 175 | 16 | 8.37 | <1.7 | --- | --- | 0.00037 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00029 | 0.589 | 277 | 0.8 | --- | <0.56 | --- | --- | 0.00075 | --- | --- | <0.0015 |
| | | 02/26/2001 | 0.0005 | 0.632 | 362 | 2.7 | 82.8 | --- | --- | --- | 0.0013 | 0.99 | 0.54 | <0.0015 |
| | | 05/15/2001 | 0.0015 | 0.61 | 405 | 17.2 | 1000 | --- | --- | --- | 0.0016 | --- | --- | 0.00071 |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ground Water | | | | | | | | | | | | | | |
| SRK01 | 0300 | 09/27/2000 | 0.00013 | 8.84 | 9790 | 14 | 9.62 | <1.7 | --- | --- | 0.0099 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00015 | 7.03 | 7610 | 12.9 | 57.6 | <0.56 | --- | --- | 0.0105 | --- | --- | <0.0015 |
| | | 02/28/2001 | <0.0001 | 7.5 | 7700 | 10.7 | 1.77 | --- | --- | --- | 0.0139 | 7.5 | ~5.6 | <0.0015 |
| | | 05/14/2001 | <0.0003 | 7.59 | 7500 | 13.4 | 2.44 | --- | --- | --- | 0.0179 | --- | --- | <0.0004 |
| | | 05/14/2001 | <0.0003 | 7.47 | 7620 | --- | --- | --- | --- | --- | 0.0182 | --- | --- | <0.0004 |
| SRK01 | 0301 | 09/27/2000 | 0.00023 | 1.53 | 1850 | 15.2 | 212 | <1.7 | --- | --- | 0.0023 | --- | --- | <0.0013 |
| | | 09/27/2000 | 0.00025 | 1.55 | 1840 | --- | --- | <1.7 | --- | --- | 0.0021 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00029 | 1.27 | 1670 | 11.7 | 6.51 | <0.56 | --- | --- | 0.0019 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.0012 | 1.28 | 1700 | 8.9 | 6.72 | --- | --- | --- | 0.0032 | 0.88 | ~1.3 | <0.0015 |
| | | 05/14/2001 | 0.0033 | 1.88 | 2110 | 13 | 2.32 | --- | --- | --- | 0.0042 | --- | --- | <0.0004 |
| SRK01 | 0302 | 09/27/2000 | 0.0065 | 1.92 | 1700 | 18.3 | 7.99 | <1.7 | --- | --- | 0.226 | --- | --- | <0.0013 |
| | | 12/15/2000 | 0.0073 | 1.85 | 1740 | 12.9 | 29 | <0.56 | --- | --- | 0.256 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.0035 | 1.82 | 1580 | 9.4 | 3.63 | --- | --- | --- | 0.248 | 91 | ~88.2 | <0.0015 |
| | | 05/14/2001 | <0.0003 | 1.81 | 1630 | 13.3 | 6.26 | --- | --- | --- | 0.245 | --- | --- | <0.0004 |
| SRK01 | 0303 | 09/26/2000 | 0.00033 | 1.81 | 1920 | 19.1 | 5.92 | <1.7 | --- | --- | 1.02 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00049 | 1.63 | 1940 | 12.2 | 7.3 | <0.56 | --- | --- | 1.27 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.00071 | 1.4 | 1750 | 8.6 | 7.21 | --- | --- | --- | 1.13 | 385 | ~393 | <0.0015 |
| | | 05/15/2001 | 0.00075 | 1.39 | 1460 | 13.5 | 5.01 | --- | --- | --- | 0.944 | --- | --- | <0.0004 |
| SRK01 | 0304 | 09/26/2000 | 0.0061 | 1.12 | 700 | 16.7 | 18.8 | <1.7 | --- | --- | 0.183 | --- | --- | <0.0013 |
| | | 12/15/2000 | 0.0047 | 0.988 | 712 | 12.8 | 165 | <0.56 | --- | --- | 0.209 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.0048 | 1.06 | 695 | 10 | 128 | --- | --- | --- | 0.218 | 78.4 | ~77.8 | <0.0015 |
| | | 05/15/2001 | 0.009 | 1.12 | 670 | 12.9 | 8.67 | --- | --- | --- | 0.238 | --- | --- | <0.0004 |
| SRK01 | 0305 | 09/26/2000 | 0.0302 | 2.97 | 2720 | 17.1 | 4.53 | <1.7 | --- | --- | 1.12 | --- | --- | <0.0013 |
| | | 12/15/2000 | 0.0283 | 2.59 | 2520 | 13.3 | 8.32 | <0.56 | --- | --- | 1.13 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.0367 | 2.52 | 2450 | 10.3 | 8.59 | --- | --- | --- | 1.31 | 445 | ~459 | <0.0015 |
| | | 05/14/2001 | 0.0363 | 2.77 | 2490 | 13.9 | 8.3 | --- | --- | --- | 1.31 | --- | --- | <0.0004 |
| SRK01 | 0306 | 09/26/2000 | 0.00017 | 5.5 | 5660 | 18.3 | 4.08 | <1.7 | --- | --- | 0.374 | --- | --- | <0.0013 |
| | | 09/26/2000 | 0.00011 | 5.53 | 5660 | --- | --- | <1.7 | --- | --- | 0.372 | --- | --- | <0.0013 |
| SRK01 | 0307 | 09/26/2000 | 0.00025 | 5.46 | 5150 | 15.9 | 85.7 | <1.7 | --- | --- | 0.417 | --- | --- | <0.0013 |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12/15/2000 | <0.0001 | 4.77 | 5160 | 13.2 | 9.9 | <0.56 | --- | --- | 0.501 | --- | --- | <0.0015 |
| | | 03/01/2001 | <0.0001 | 4.65 | 5160 | 10.6 | 8.19 | --- | --- | --- | 0.527 | 234 | ~192 | <0.0015 |
| | | 05/14/2001 | <0.0003 | 4.85 | 5060 | 13.8 | 4.26 | --- | --- | --- | 0.544 | --- | --- | <0.0004 |
| SRK01 | 0308 | 09/26/2000 | 0.00012 | 2.92 | 2990 | 17.3 | 9.19 | <1.7 | --- | --- | 0.491 | --- | --- | <0.0013 |
| SRK01 | 0309 | 09/26/2000 | 0.00066 | 2.78 | 4800 | 13.5 | 5.86 | <1.7 | --- | --- | 0.169 | --- | --- | <0.0013 |
| | | 12/15/2000 | 0.0011 | 4.09 | 4480 | 12.1 | 33.9 | <0.56 | --- | --- | 0.135 | --- | --- | <0.0015 |
| | | 03/01/2001 | 0.00085 | 5.5 | 3840 | 10.5 | 6.46 | --- | --- | --- | 0.131 | 71.4 | ~51.7 | <0.0015 |
| | | 05/14/2001 | 0.0017 | 5.72 | 4210 | 12 | 7.85 | --- | --- | --- | 0.17 | --- | --- | <0.0004 |
| SRK01 | 0310 | 09/27/2000 | <0.0001 | 0.729 | 405 | 13.4 | 7.82 | <1.7 | --- | --- | 0.0139 | --- | --- | <0.0013 |
| | | 12/14/2000 | <0.0001 | 0.703 | 403 | 12.5 | 201 | <0.56 | --- | --- | 0.0168 | --- | --- | <0.0015 |
| | | 02/28/2001 | <0.0001 | 0.68 | 382 | 10.5 | 8.8 | --- | --- | --- | 0.0151 | 4.9 | ~5.7 | <0.0015 |
| | | 05/16/2001 | <0.0003 | 0.766 | 440 | 12.5 | 7.32 | --- | --- | --- | 0.0143 | --- | --- | <0.0004 |
| SRK01 | 0311 | 09/27/2000 | 0.00087 | 1.31 | 625 | 16 | 9.58 | <1.7 | --- | --- | 0.0377 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.00078 | 1.17 | 577 | 13.8 | 1000 | <0.56 | --- | --- | 0.0382 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.00071 | 1.14 | 555 | 11.2 | 2.78 | --- | --- | --- | 0.0406 | 14.8 | ~15.8 | <0.0015 |
| | | 05/16/2001 | 0.0007 | 1.35 | 650 | 12.9 | 4.97 | --- | --- | --- | 0.0498 | --- | --- | <0.0004 |
| SRK01 | 0312 | 09/27/2000 | 0.0072 | 1.38 | 1140 | 17.7 | 8.43 | <1.7 | --- | --- | 0.033 | --- | --- | <0.0013 |
| | | 12/15/2000 | 0.0039 | 1.17 | 840 | 15 | 267 | <0.56 | --- | --- | 0.0308 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.0014 | 1.18 | 745 | 12.3 | 4.65 | --- | --- | --- | 0.0211 | 10.6 | ~8.2 | <0.0015 |
| | | 05/16/2001 | 0.00084 | 1.13 | 685 | 14.5 | 4.09 | --- | --- | --- | 0.0188 | --- | --- | 0.00046 |
| SRK01 | 0313 | 09/19/2000 | 0.0013 | 1.47 | 1160 | 14.4 | 27.1 | <1.7 | --- | --- | 0.028 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.0037 | 1.32 | 1160 | 13.4 | 7.39 | <0.56 | --- | --- | 0.0283 | --- | --- | <0.0015 |
| | | 02/27/2001 | 0.001 | 1.37 | 1160 | 11.3 | 7.97 | --- | --- | --- | 0.031 | 15.7 | 11.6 | <0.0015 |
| | | 05/16/2001 | 0.00067 | 1.42 | 1140 | 13.6 | 7.7 | --- | --- | --- | 0.0297 | --- | --- | <0.0004 |
| SRK01 | 0314 | 09/19/2000 | 0.0235 | 1.63 | 1220 | 17.5 | 11.1 | <1.8 | --- | --- | 0.0334 | --- | --- | <0.0013 |
| SRK01 | 0315 | 09/20/2000 | 0.017 | 1.84 | 1280 | 17 | 9.02 | <1.7 | --- | --- | 0.0301 | --- | --- | <0.0013 |
| | | 12/13/2000 | 0.0141 | 1.73 | 1260 | 12.7 | --- | <0.56 | --- | --- | 0.0336 | --- | --- | <0.0015 |
| SRK01 | 0316 | 09/20/2000 | 0.025 | 1.4 | 1060 | 16.7 | 1000 | <1.7 | --- | --- | 0.0246 | --- | --- | <0.0013 |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SRK01 | 0317 | 09/28/2000 | 0.0038 | 1.48 | 1140 | 16.4 | 8.24 | <1.7 | --- | --- | 0.0119 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.003 | 1.49 | 1220 | 13.5 | 3.57 | <0.56 | --- | --- | 0.0197 | --- | --- | <0.0015 |
| | | 03/01/2001 | 0.0066 | 1.13 | 873 | 11.7 | 43.8 | --- | --- | --- | 0.0169 | 10 | ~6.2 | <0.0015 |
| | | 05/17/2001 | 0.0028 | 1.59 | 1320 | 12.6 | 9.7 | --- | --- | --- | 0.0222 | --- | --- | <0.0004 |
| SRK01 | 0318 | 09/19/2000 | 2.52 | 8.28 | 6260 | 19.1 | 18.2 | <1.7 | --- | --- | 0.0493 | --- | --- | 0.528 |
| | | 12/13/2000 | 1.54 | 5.25 | 2810 | 12.9 | --- | <0.56 | --- | --- | 0.0482 | --- | --- | 0.382 |
| | | 02/27/2001 | 1.99 | 6.18 | 5000 | 9.4 | 9.1 | --- | --- | --- | 0.0459 | 18.7 | 18.3 | 0.382 |
| | | 05/17/2001 | 2.57 | 9.75 | 7280 | 12.9 | 9.56 | --- | --- | --- | 0.0554 | --- | --- | 0.526 |
| SRK01 | 0319 | 09/28/2000 | 0.001 | 9.88 | 6150 | 18.7 | 22.9 | <1.7 | 11300 | 5230 | 0.00033 | --- | --- | 0.0035 |
| | | 12/19/2000 | 0.00076 | 8.66 | 9040 | 12 | 9.8 | <0.56 | 5060 | 4430 | 0.00089 | --- | --- | 0.0025 |
| | | 03/02/2001 | 0.00079 | 11.8 | 8800 | 8.7 | 7.99 | --- | 11000 | 5010 | 0.0016 | 0.53 | ~0.61 | 0.0027 |
| | | 05/18/2001 | 0.00036 | 6.13 | 6570 | 12.6 | 8.51 | --- | 13700 | 7110 | 0.0025 | --- | --- | 0.0044 |
| SRK01 | 0320 | 09/20/2000 | 0.0003 | 1.02 | 577 | 19.4 | 8.91 | <1.7 | --- | --- | 0.0191 | --- | --- | <0.0013 |
| | | 09/29/2000 | --- | --- | --- | 19.4 | 8.91 | --- | <5 | <15 | --- | --- | --- | --- |
| | | 12/14/2000 | 0.00013 | 0.955 | 662 | 9.8 | 4.07 | <0.56 | --- | --- | 0.0219 | --- | --- | <0.0015 |
| | | 12/14/2000 | 0.0001 | 0.931 | 605 | --- | --- | <0.56 | --- | --- | 0.0219 | --- | --- | <0.0015 |
| | | 03/02/2001 | <0.0001 | 0.894 | 570 | 7.1 | 1.5 | --- | <5 | <15 | 0.0222 | 13.4 | ~8.9 | <0.0015 |
| | | 05/17/2001 | <0.0003 | 0.967 | 602 | 13.9 | 3.19 | --- | <5 | <15 | 0.0217 | --- | --- | <0.0004 |
| SRK01 | 0321 | 09/19/2000 | <0.0001 | 0.781 | 438 | 14 | 0.91 | <1.7 | --- | --- | 0.0055 | --- | --- | <0.0013 |
| SRK01 | 0322 | 09/28/2000 | 0.00011 | 0.758 | 450 | 13.6 | 1.5 | <1.7 | --- | --- | 0.0051 | --- | --- | <0.0013 |
| SRK01 | 0323 | 09/28/2000 | <0.0001 | 0.805 | 430 | 14 | 2.89 | <1.7 | --- | --- | 0.0035 | --- | --- | <0.0013 |
| | | 09/28/2000 | <0.0001 | 0.809 | 427 | --- | --- | <1.7 | --- | --- | 0.0036 | --- | --- | <0.0013 |
| SRK01 | 0324 | 09/19/2000 | 0.0384 | 1.29 | 793 | 15 | 181 | 2.1 | --- | --- | 0.0211 | --- | --- | 0.0015 |
| | | 12/14/2000 | 0.0191 | 1 | 627 | 13.9 | 90.4 | <0.56 | --- | --- | 0.0173 | --- | --- | 0.002 |
| | | 02/27/2001 | 0.0236 | 0.943 | 677 | 12.6 | 599 | --- | --- | --- | 0.0158 | 13 | 6.3 | 0.0015 |
| SRK01 | 0325 | 09/20/2000 | 0.0038 | 0.284 | 170 | 15.4 | 474 | <1.7 | --- | --- | 0.00025 | --- | --- | <0.0013 |
| | | 12/18/2000 | 0.0027 | 0.368 | 215 | 14 | 1000 | <0.56 | --- | --- | 0.00037 | --- | --- | <0.0015 |
| | | 03/05/2001 | 0.0038 | 0.251 | 215 | 13.8 | 1000 | --- | --- | --- | <0.00058 | <0.4 | 0.23 | <0.0015 |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 05/15/2001 | 0.0039 | 0.427 | 190 | --- | 47.3 | --- | --- | --- | 0.00045 | --- | --- | <0.0004 |
| SRK01 | 0326 | 09/29/2000 | 0.0013 | 0.836 | 507 | 14.9 | 1000 | <1.7 | 19.3 | 18.2 | 0.006 | --- | --- | <0.0013 |
| | | 12/19/2000 | 0.00079 | 0.739 | 380 | 10.7 | 1000 | <0.56 | <5 | <15 | 0.01 | --- | --- | <0.0015 |
| | | 03/05/2001 | 0.00016 | 0.761 | 345 | 12.2 | 689 | --- | <5 | <15 | 0.0065 | 4.2 | 2.5 | <0.0015 |
| | | 05/16/2001 | 0.00035 | 0.937 | 370 | 15.6 | 1000 | --- | <5 | <15 | 0.0054 | --- | --- | <0.0004 |
| SRK01 | 0327 | 09/26/2000 | 0.00053 | 4.98 | 6990 | 16.3 | 603 | <1.7 | --- | --- | 0.694 | --- | --- | <0.0013 |
| SRK01 | 0328 | 09/27/2000 | 0.0037 | 1.57 | 900 | 14.7 | 7.03 | <1.7 | --- | --- | 0.0119 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.0045 | 1.44 | 900 | 13 | 9.76 | <0.56 | --- | --- | 0.0116 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.0046 | 1.47 | 895 | 10.8 | 1.19 | --- | --- | --- | 0.0121 | 6.6 | ~4.6 | <0.0015 |
| SRK01 | 0329 | 09/27/2000 | 0.0015 | 1.24 | 1040 | 15.6 | 1000 | <1.7 | --- | --- | 0.0178 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.0003 | 1.07 | 920 | 12.6 | 32.8 | <0.56 | --- | --- | 0.0189 | --- | --- | <0.0015 |
| | | 02/28/2001 | 0.00019 | 1.18 | 943 | 10.1 | 45.2 | --- | --- | --- | 0.0169 | 7.4 | ~6.8 | <0.0015 |
| | | 05/16/2001 | 0.00035 | 1.19 | 1010 | 12.7 | 51.5 | --- | --- | --- | 0.0114 | --- | --- | <0.0004 |
| SRK01 | 0330 | 09/27/2000 | 0.0027 | 1.22 | 935 | 14.1 | 13.7 | <1.7 | --- | --- | 0.0201 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.00077 | 1.08 | 832 | 12.4 | 79.5 | <0.56 | --- | --- | 0.017 | --- | --- | <0.0015 |
| | | 02/27/2001 | 0.0013 | 1.05 | 812 | 10.6 | 3.32 | --- | --- | --- | 0.0192 | 8.6 | 7.3 | <0.0015 |
| | | 05/16/2001 | 0.0025 | 1.13 | 860 | 13.3 | 9.91 | --- | --- | --- | 0.0229 | --- | --- | <0.0004 |
| SRK01 | 0331 | 09/28/2000 | 0.008 | 1.54 | 1330 | 13.8 | 199 | <1.7 | --- | --- | 0.0316 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.0068 | 1.36 | 1220 | 13 | 8.47 | <0.56 | --- | --- | 0.0304 | --- | --- | <0.0015 |
| | | 02/27/2001 | 0.0077 | 1.29 | 1140 | 11.9 | 2.26 | --- | --- | --- | 0.0288 | 13.9 | 11.2 | <0.0015 |
| | | 05/15/2001 | 0.0084 | 1.4 | 1190 | 13.4 | 1.85 | --- | --- | --- | 0.029 | --- | --- | 0.00047 |
| SRK01 | 0332 | 12/19/2000 | --- | --- | --- | --- | --- | --- | 10400 | 4520 | --- | --- | --- | --- |
| | | 03/02/2001 | --- | --- | --- | 7.8 | 333 | --- | 13600 | 4210 | --- | --- | --- | --- |
| | | 05/18/2001 | --- | --- | --- | 11.6 | 185 | --- | 15200 | 7480 | --- | --- | --- | --- |
| SRK01 | 0333 | 12/19/2000 | --- | --- | --- | --- | --- | --- | 4920 | 4520 | --- | --- | --- | --- |
| | | 03/02/2001 | --- | --- | --- | 9.3 | 542 | --- | 4600 | 3240 | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | 12 | 101 | --- | 5670 | 5040 | --- | --- | --- | --- |
| SRK01 | 0334 | 12/19/2000 | --- | --- | --- | --- | --- | --- | <5 | <15 | --- | --- | --- | --- |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 03/01/2001 | --- | --- | --- | 8.8 | 204 | --- | <5 | <15 | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | 12.7 | 58.7 | --- | <5 | <15 | --- | --- | --- | --- |
| SRK01 | 0335 | 12/19/2000 | --- | --- | --- | --- | --- | --- | <5 | <15 | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | 7.3 | 167 | --- | <5 | <15 | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | 12.4 | 71.2 | --- | <5 | <15 | --- | --- | --- | --- |
| SRK01 | 0336 | 12/19/2000 | --- | --- | --- | --- | --- | --- | <5 | <15 | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | 8.3 | 45.2 | --- | <5 | <15 | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | 11.5 | 24.2 | --- | <5 | <15 | --- | --- | --- | --- |
| SRK01 | 0337 | 12/19/2000 | --- | --- | --- | --- | --- | --- | <5 | 79.8 | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | 10.2 | 67.6 | --- | <5 | <15 | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | 12 | 123 | --- | <5 | <15 | --- | --- | --- | --- |
| SRK01 | 0338 | 12/19/2000 | --- | --- | --- | --- | --- | --- | <1000 | 6540 | --- | --- | --- | --- |
| | | 03/01/2001 | --- | --- | --- | 6.7 | 1000 | --- | <500 | 3390 | --- | --- | --- | --- |
| | | 05/17/2001 | --- | --- | --- | 14.7 | 1000 | --- | 41.7 | 3630 | --- | --- | --- | --- |
| SRK01 | 0508 | 09/20/2000 | 1.73 | 4.78 | 4230 | 19 | 9.28 | <1.7 | --- | --- | 0.0698 | --- | --- | 0.556 |
| | | 12/14/2000 | 1.46 | 4.44 | 3980 | 12.4 | 2.62 | <0.56 | --- | --- | 0.0771 | --- | --- | 0.468 |
| | | 02/27/2001 | 1.61 | 4.41 | 4090 | 9 | 7.68 | --- | --- | --- | 0.0827 | 28.5 | 34.3 | 0.395 |
| | | 05/17/2001 | 1.5 | 4.46 | ~4290 | 13.8 | 0.87 | --- | --- | --- | 0.0807 | --- | --- | 0.446 |
| SRK01 | 0509 | 09/28/2000 | 0.0118 | 1.61 | 1180 | 16 | 11.5 | <1.7 | --- | --- | 0.0234 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.0106 | 1.43 | 1090 | 13.6 | 1.82 | <0.56 | --- | --- | 0.0235 | --- | --- | <0.0015 |
| | | 02/27/2001 | 0.0121 | 1.44 | 1080 | 10.8 | 11.7 | --- | --- | --- | 0.0239 | 11.5 | 9.2 | <0.0015 |
| | | 05/17/2001 | 0.0079 | 1.24 | 970 | 12.2 | 0.92 | --- | --- | --- | 0.0198 | --- | --- | 0.00056 |
| SRK01 | 0510 | 09/20/2000 | 0.386 | 4.8 | 4070 | 20.1 | 7.03 | <1.7 | --- | --- | 0.0937 | --- | --- | <0.0013 |
| | | 12/14/2000 | 0.442 | 4.33 | 3840 | 10 | 137 | <0.56 | --- | --- | 0.0988 | --- | --- | <0.0015 |
| | | 02/27/2001 | 0.558 | 4.24 | 3970 | 7 | 3.83 | --- | --- | --- | 0.1 | 35.4 | 40 | <0.0015 |
| | | 02/27/2001 | 0.534 | 4.24 | 3950 | --- | --- | --- | --- | --- | 0.0997 | 36.2 | 41.1 | <0.0015 |
| | | 05/17/2001 | 0.451 | 4.49 | 4100 | 14.8 | 1.49 | --- | --- | --- | 0.0974 | --- | --- | 0.0032 |
| | | 05/17/2001 | 0.461 | 4.45 | 4140 | --- | --- | --- | --- | --- | 0.0952 | --- | --- | 0.0023 |
| SRK01 | 0556 | 09/29/2000 | 0.016 | 1.22 | 418 | 16 | 16.9 | <1.7 | --- | --- | 0.0041 | --- | --- | <0.0013 |

| Site Code | Location Code | Date Sampled | Se mg/L | Sr mg/L | TDS mg/L | TMP C | TURBIDITY NTU | Th-230 pCi/L | Toluene µg/L | Total Xylenes µg/L | U mg/L | U-234 pCi/L | U-238 pCi/L | V mg/L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SRK01 | 0668 | 09/29/2000 | 0.0022 | 0.868 | 303 | 19.8 | 9.11 | <1.7 | --- | --- | 0.0023 | --- | --- | <0.0013 |
| SRK01 | 0669 | 09/20/2000 | <0.0001 | 1.53 | 307 | 18.9 | 27 | <1.7 | --- | --- | 0.00026 | --- | --- | <0.0013 |
| SRK01 | 0670 | 09/20/2000 | <0.0001 | 1.58 | --- | 18.3 | 6.61 | <1.7 | --- | --- | 0.00055 | --- | --- | <0.0013 |
| SRK01 | 0672 | 09/28/2000 | 0.0017 | 0.699 | 333 | 16.3 | 0.7 | <1.9 | --- | --- | 0.0029 | --- | --- | 0.0021 |
| SRK01 | 0684 | 09/28/2000 | 0.00015 | 0.75 | 477 | 14 | 1.05 | <1.7 | --- | --- | 0.0077 | --- | --- | <0.0013 |
| | | 12/13/2000 | 0.00035 | 0.715 | 440 | 13.1 | --- | <0.56 | --- | --- | 0.008 | --- | --- | <0.0015 |
| | | 12/13/2000 | 0.00026 | 0.696 | 458 | --- | --- | <0.56 | --- | --- | 0.008 | --- | --- | <0.0015 |
| | | 02/26/2001 | 0.00015 | 0.65 | 440 | 11.9 | 2.53 | --- | --- | --- | 0.0073 | 4.1 | 2.9 | <0.0015 |
| | | 02/26/2001 | 0.00013 | 0.651 | 408 | --- | --- | --- | --- | --- | 0.0076 | 4.1 | 3 | <0.0015 |
| | | 05/16/2001 | 0.0009 | 0.641 | 402 | 14.3 | 2.57 | --- | --- | --- | 0.0079 | --- | --- | <0.0004 |
| SRK01 | 0685 | 09/19/2000 | <0.0001 | 1.59 | 1020 | 12.6 | 1.25 | <1.7 | --- | --- | 0.0175 | --- | --- | <0.0013 |
| | | 12/13/2000 | 0.00014 | 1.44 | 977 | 11.3 | --- | <0.56 | --- | --- | 0.0165 | --- | --- | <0.0015 |
| | | 02/27/2001 | <0.0001 | 1.44 | 975 | 10.1 | 1.13 | --- | --- | --- | 0.0166 | 10.8 | 6.3 | <0.0015 |
| | | 05/16/2001 | <0.0003 | 1.46 | 943 | 13.6 | 1.09 | --- | --- | --- | 0.0151 | --- | --- | <0.0004 |
| SRK01 | 0687 | 09/29/2000 | <0.0001 | 1.06 | 538 | 15.6 | 0.8 | <1.7 | --- | --- | 0.0014 | --- | --- | <0.0013 |
| SRK01 | 0688 | 09/21/2000 | 0.0026 | 0.713 | 390 | 13.7 | 1.48 | <1.7 | --- | --- | 0.0081 | --- | --- | <0.0013 |
| SRK01 | 0690 | 09/29/2000 | 0.0014 | 0.605 | 275 | 16.6 | 0.63 | <1.7 | --- | --- | 0.0032 | --- | --- | <0.0013 |
| SRK01 | 0807 | 09/21/2000 | 0.00045 | 0.227 | 152 | 19.9 | 5.59 | <1.7 | --- | --- | 0.0035 | --- | --- | 0.0023 |

# Appendix E

# Ground Water Analytical Results

**provided on CD-ROM**

# Appendix F

# Surface Water Analytical Results

**provided on CD-ROM**

# Appendix G

# Slick Rock Aquifer Test Data Analysis

# Technical Task Cover Sheet

**Discipline:** Hydrogeology

**Project:**

UMTRA Ground Water

**Site:**

Slick Rock, Colorado

**Subject:**

Slick Rock Aquifer Test Data Analyses

**Sources of Data:**

Driscol, F.G., 1986. Ground Water and Wells, 2nd Edition, Johnson Division, St. Paul, Minnesota.

Environmental Simulations, Inc., 1999. Guide to Using Aquifer Win32, Version 2.17.

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Neuman, S.P., 1972. Theory of flow in unconfined aquifers considering delayed response of the watertable, Water Resources Research, Vol. 8, pp. 1031-1045.

Theis, C.V., 1935. The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using ground water storage, Am. Geophys. Union Trans., Vol. 16, pp. 519-524.

Waterloo Hydrogeologic, Inc., and Röhrich, T. no date. Users Manual for AquiferTest.

**Task Order No.** MAC01-05 **File Index No.** GWSKR 13.2

**Proj. No.** UGW-511-0021-09-000 **Calc. No.** U0139100 **Supersedes Calc. No.** NA

| Calculated by | Date | Checked by | Date | Approved by | Date | DOE Concurrence (if required) | Date |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

# Contents



# Figures



# Tables



# Attachment

# 1.0 Introduction

Aquifer tests were completed at the Slick Rock Uranium Mill Tailings Remedial Action (UMTRA) Project site to collect the hydrogeologic data necessary to characterize the alluvial and Entrada Sandstone aquifers. These data were collected to further define the hydraulic parameters of the alluvial aquifer, which will be used in ground water flow and transport modeling. Analyses of these data provide a range of the transmissivity, hydraulic conductivity, and specific yield for the aquifers.

The alluvial aquifer consists of unconsolidated clayey sands, sandy gravels, and cobbles, and ranges in thickness from 10 to 21 feet (ft). Saturated thickness at the North Continent (NC) site ranges from 4 to 10 ft, while in the vicinity of the Union Carbide (UC) site the saturated thickness ranges from 6 to 12 ft. The Entrada Sandstone aquifer underlies the UC Site with a thickness that ranges from 40 to 60 ft.

Initial aquifer tests were conducted during September 2000 using newly installed well clusters 0306 (NC site) and 0321 (just north of the UC site). Figures 1 and 2 show the locations of these well clusters for the NC site and UC site, respectively. Additional tests were completed in February and March 2001 after analyses of the initial tests indicated further testing was necessary to characterize the aquifer. These subsequent tests used previously installed wells 0509 (within the 0314 cluster) and 0684 (within the 0321 cluster) as pumping wells.

# 2.0 Test Procedures

Aquifer tests were conducted to determine the transmissivity, hydraulic conductivity, and specific yield of the alluvial and Entrada Sandstone aquifers. These tests were completed at two of the new pumping wells using the sustainable pumping rate previously determined by the step test data. Water levels were monitored in the pumping wells and nearby observation wells prior to and during the aquifer test period, using both transducers connected to dataloggers and manually (using an electrical sounder). All water generated from each aquifer test was discharged a minimum of 100 ft from the pumping well or observation wells.

Table 1 lists each test location and the well construction details associated with the pumping wells and nearby observation wells.

*Table 1. Slick Rock Well Construction Information*

| Cluster | Well No. | Dia. (in.) | Aquifer | Installation Date | Screen Interval (ft BGS) | Static Elevation of Ground Water (ft MSL)[a] | Pumping or Observation Well |
|---|---|---|---|---|---|---|---|
| 0306 | 0306 | 6 | Alluv | August 2000 | 4.8–14.8 | 5,436.12 | Pumping |
| | 0307 | 2 | Alluv | August 2000 | 4.4–14.4 | 5,436.16 | Observation |
| | 0308 | 2 | Alluv | August 2000 | 4.5–14.5 | 5,436.09 | Observation |
| | 0327 | 2 | Alluv | August 2000 | 6.6–16.6 | 5,436.03 | Observation |
| | | | | | | | |
| 0314 | 0314 | 6 | Alluv | August 2000 | 6.1–16.1 | 5,424.4 | Observation |
| | 0315 | 2 | Alluv | September 2000 | 6.0–16.0 | 5,424.26 | Observation |
| | 0316 | 2 | Alluv | August 2000 | 4.7–14.7 | 5,424.3 | Observation |
| | 0317 | 2 | Entr | August 2000 | 19.5–39.5 | 5,424.34 | Both |
| | 0509 | 4 | Alluv | August 1982 | 9.7–19.7 | 5,424.17 | Both |
| | | | | | | | |
| 0321 | 0321 | 6 | Alluv | August 2000 | 14.4–19.4 | 5,416.51 | Both |
| | 0322 | 2 | Alluv | August 2000 | 9.1–19.1 | 5,416.35 | Observation |
| | 0323 | 2 | Alluv | August 2000 | 9.1–19.1 | 5,416.41 | Observation |
| | 0684 | 2 | Alluv | June 1986 | 11.0–21.0 | 5,416.43 | Both |

[a]water levels measured October 2000
Dia. = well diameter
Aquifer = aquifer well completed in
Alluv = alluvial aquifer
Entr = Entrada Sandstone aquifer
MSL = mean sea level
BGS = below ground surface
in. = inches
ft = feet

Drawdown and residual drawdown data collected during the aquifer tests were analyzed using the software package Aquifer Win32 (Environmental Simulations, Inc., Version 2.17). This software package allows the user to analyze the data with a number of different analytical methods. Because the alluvial aquifer is unconfined, the drawdown data collected from observation wells during the pumping phase of the tests were analyzed using the Theis Method modified for an unconfined aquifer and the Neuman Method for Unconfined Aquifers. Specific yield estimates were calculated using the Neuman Method. The data collected from the observation wells and pumping wells during the recovery phase of the aquifer tests were analyzed using the Theis Recovery Method.

In addition to analyzing the aquifer test data using these analytical solutions to determine the aquifer parameters, inverse ground water modeling was also used to estimate the hydraulic conductivity. This modeling effort used the pumping rate, saturated thickness, drawdown measured in the pumping well and observations wells, and the test length (pumping phase) to find the hydraulic conductivity which best fit these model inputs.

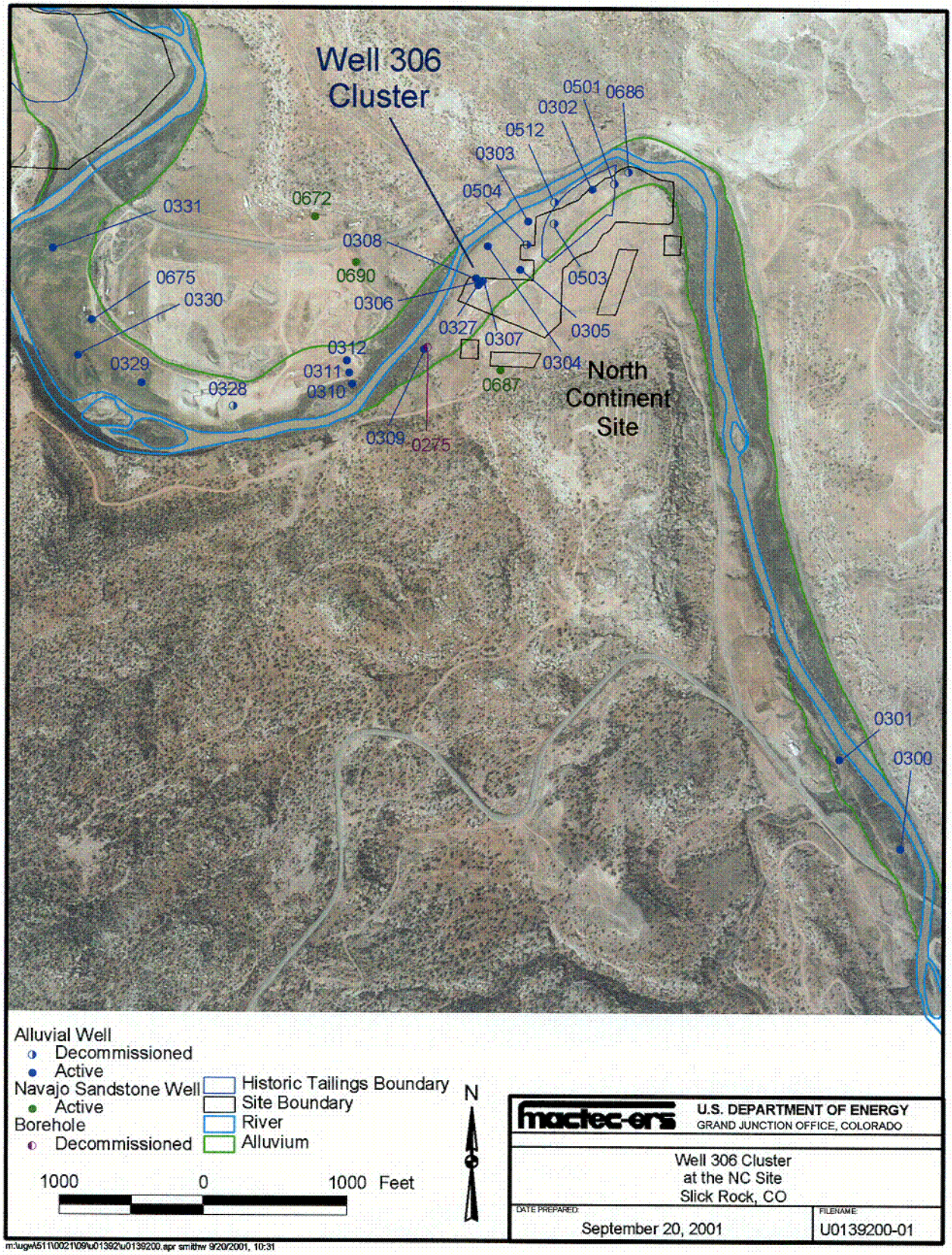



*Figure 1. Well Cluster Locations at the North Continent Site*



C01

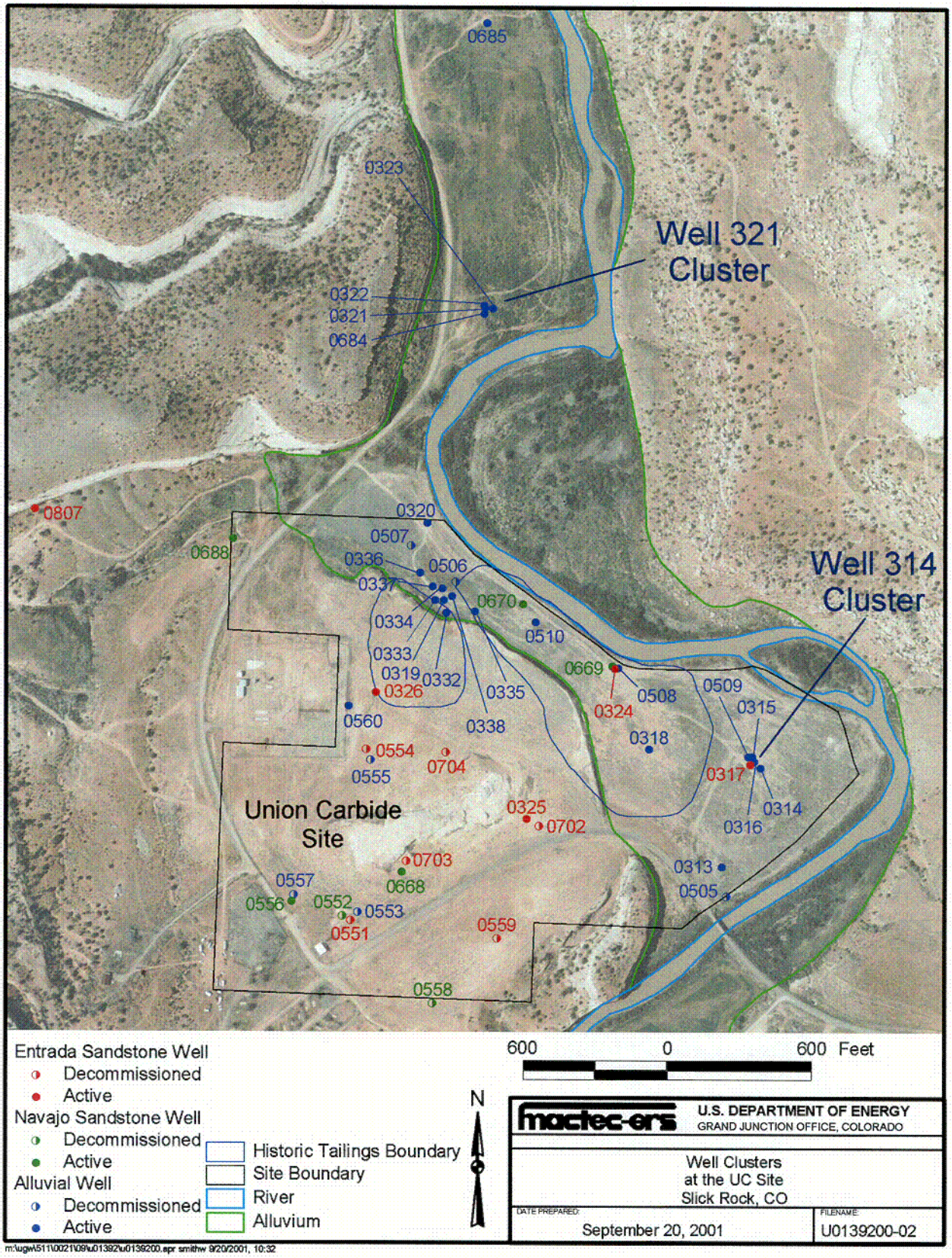



*Figure 2. Well Cluster Locations at the Union Carbide Site*



C02

# 3.0 Results

This section presents the results obtained from the analysis of data collected during the aquifer tests.

## 3.1 Aquifer Tests

During September 2000 aquifer tests, it was noted that the newly installed pumping wells (0306, 0314, and 0321) had notably lower sustainable pumping rates compared to the previously installed wells located within the same cluster. For example, Well 0314 could sustain only ~2 gallons per minute (gpm) while well 0509 was able to sustain over 10 gpm. The same trend was noted at the 0321 cluster, where well 0321 could sustain only ~ 4 gpm and nearby well 0684 was able to sustain over 7 gpm. At the NC site, there was no previously installed well present to compare the sustainable pumping rate of only 1 gpm in well 0306.

After analyses of the data collected from the tests completed from the newly installed pumping wells, it was determined that there was a need for additional testing. These additional tests were completed using wells 0509 and 0684 as pumping wells during February and March 2001.

As a result, of all the tests completed during the investigation, six tests provided data which were used to calculate the hydraulic parameters. The 0306 test was included with this group because it was the only test completed at the NC site. Other tests that were included for determination of the hydraulic parameters include tests using well 0321 as the pumping well (two tests), well 0509, and well 0684. An aquifer test pumping from well 0317 was included which provided information regarding the Entrada Sandstone. The results from each test will be discussed separately.

### 3.1.1 Well 0306 Aquifer Test

An aquifer test was started on September 26, 2000, pumping 1 gpm from well 0306. Drawdown data were collected from the pumping well and observation wells 0307, 0308, and 0327. A recovery test was started on September 26, 2000, after only 3 hours and 20 minutes of a pumping phase was completed. Continued pumping at this rate would have lowered the water level in the well below the pump intake. Figure 3 is a cross-section showing well completions at this location. All observation wells are screened within the same interval as the pumping well.

*Table 2. Total Drawdown for the Well 0306 Aquifer Test*

| Well | r (ft) | Screen Interval (ft bgs) | Drawdown (ft) |
|---|---|---|---|
| Pmp 0306 | NA | 4.8–14.8 | 6.3 |
| Obs 0307 | 14.5 | 4.4–14.4 | 0.35 |
| Obs 0308 | 42.9 | 4.5–14.5 | 0.02 |
| Obs 0327 | 25.8 | 6.6–16.6 | 0.08 |

r = Distance to Pumping Well
ft bgs = ft below ground surface
Pmp = Pumping Well
Obs = Observation Well

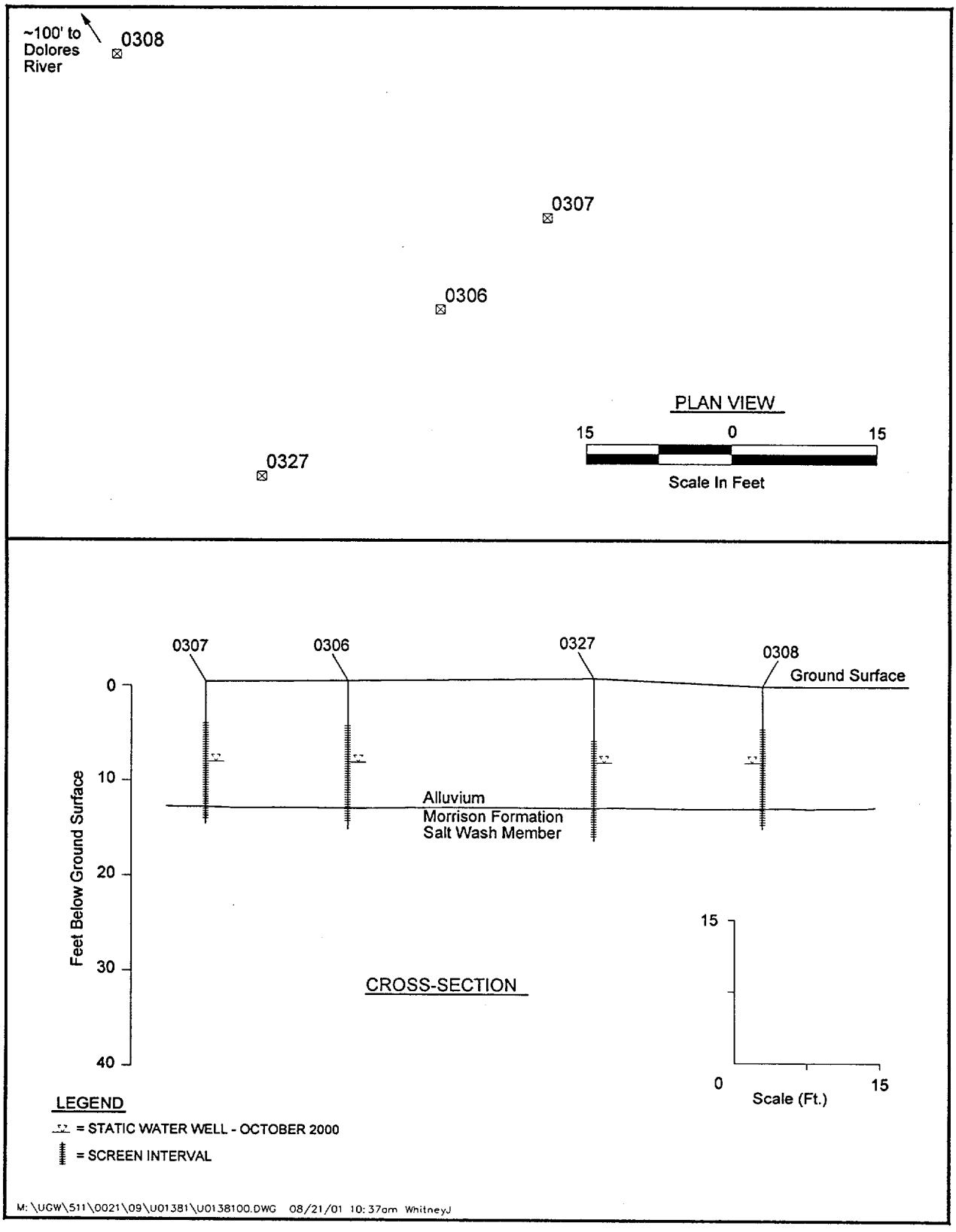



*Figure 3. Well 0306 Cross Section*

As shown in Table 2, the drawdown measured during the test from observation wells 0308 and 0327 was too small to determine if the difference was the result of pumping from well 0306, or a fluctuation in the background water levels. The data collected from the pumping well during the recovery test did not provide a good fit for the type curves. As a result, only the data collected from observation well 0307 was analyzed along with the recovery data to calculate the transmissivity of the alluvial aquifer at this location (Table 3).

*Table 3. Well 0306 Aquifer Test Transmissivity Results ($ft^2$/day)*

| Test No | Data Source | Test Phase | Analytical Method | | | |
|---|---|---|---|---|---|---|
| | | | Theis $T(ft^2/d)$ | Neuman $T(ft^2/d)$ | Theis Rec $T(ft^2/d)$ | Neuman Sy |
| 306AQT2 | Obs 307 | P | 170 | 80 | NA | 0.3 |
| | Obs 307 | R | NA | NA | 89 | NA |

OBS = Observation Well
P = Pumping Phase
R = Recovery Phase
NA = Not applicable
Theis = Theis Method for Unconfined Aquifers
Neuman = Neuman Method for an Unconfined Aquifer
Theis Rec = Theis Recovery Method
T = Transmissivity ($ft^2$/day)
Sy = Specific yield

Applying a saturated thickness of 6.1 ft, the hydraulic conductivity ranges from 13 to 28 ft/day based on these transmissivity estimates. Plots used for the analyses are contained within Attachment 1. As the plots in Attachment 1 show for the Theis Unconfined Analysis, the drawdown data collected from observation well 0307 falls slightly below the Theis curve shortly after the beginning of the test. Such a response from the drawdown data suggests that the aquifer is either: (a) being influenced by a nearby recharge source; or (b) the pumping rate/well design is not sufficient to appropriately stress the aquifer, resulting in a steady-state condition.

### 3.1.2 Well 0321 Aquifer Tests

An aquifer test was started on September 13, 2000, pumping 2 gpm from well 0321. Drawdown data were collected from the pumping well and observation wells 0322, 0323, and 0684. Figure 4 is a cross-section of this well cluster. After 25 hours and 35 minutes of pumping at this rate, it was obvious that the aquifer was not effectively being stressed (only 0.9 ft of drawdown was measured in the pumping well). The pump was shut off, and recovery data were collected.

A subsequent test was conducted starting on September 14, 2000. This test lasted 17 hours with a pumping rate of 3.9 gpm. Table 4 lists the drawdown measured in the pumping well and each observation well for the two tests completed at this location.

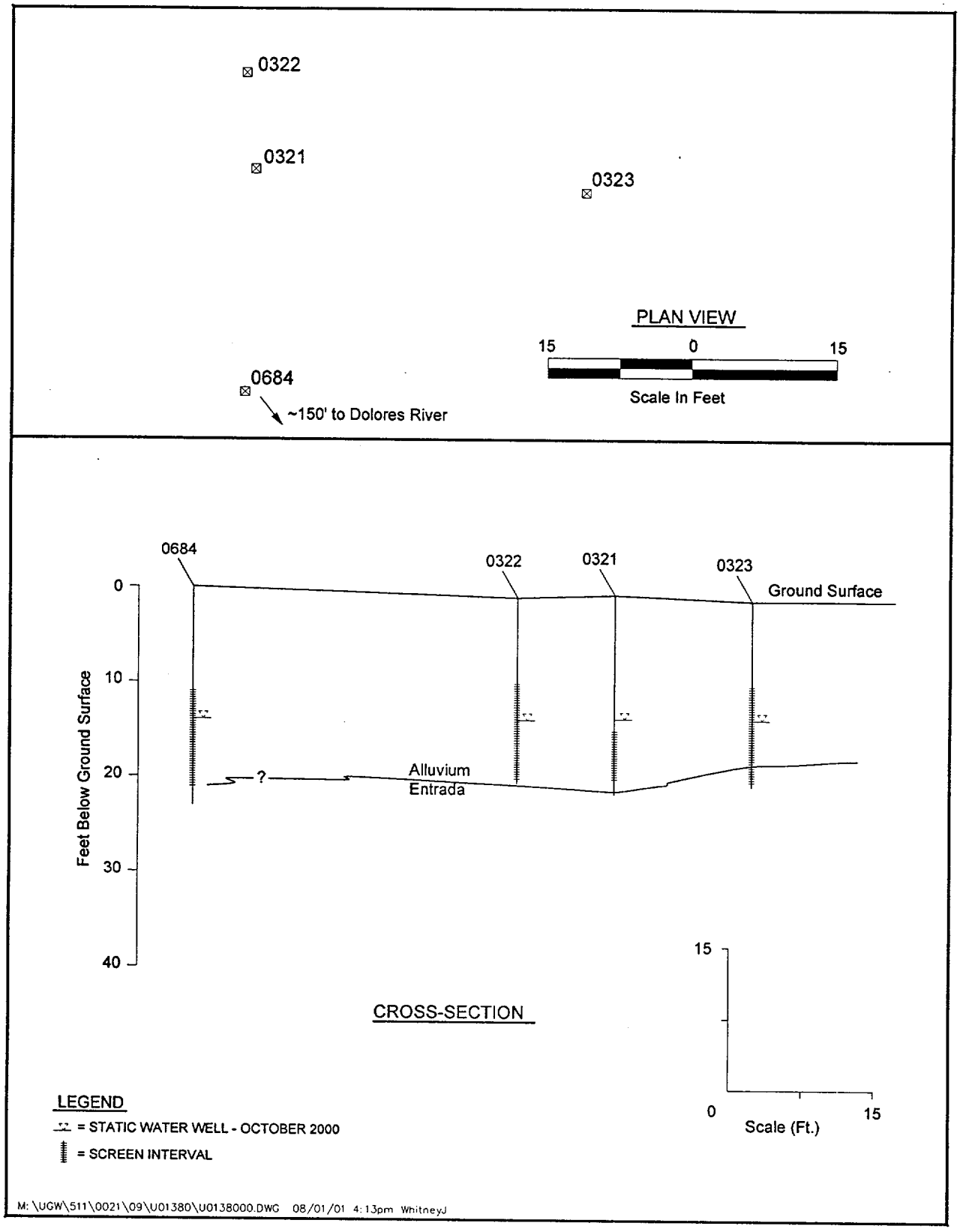



*Figure 4. Well 0321 Cross Section*

*Table 4. Total Drawdown for the Well 0321 Aquifer Tests*

| Well | r (ft) | Test No. | 321AQT1 | 321AQT2 |
|---|---|---|---|---|
| | | Q (gpm) | 2 | 3.9 |
| | | | | |
| | | Screen Interval (ft bgs) | Drawdown (ft) | Drawdown (ft) |
| PMP 0321 | NA | 14.4–19.4 | 0.9 | 2.5 |
| OBS 0322 | 10.4 | 9.1–19.1 | 0.35 | 0.3 |
| OBS 0323 | 34.6 | 9.–19.1 | 0.06 | 0.07 |
| OBS 0684 | 23.3 | 11.0–21.0 | 0.2 | 0.23 |

Q = Pumping Rate
r = Distance to Pumping Well
ft bgs = ft below ground surface
Pmp = Pumping Well
Obs = Observation Well

Essentially zero drawdown was measured in well 0323. In addition, analyses of the data collected from observation well 0322 in the first test did not fit the type curves in such a manner that representative values were calculated. The same was true of recovery data collected from the pumping well from both tests. As a result, the data from observation well 0684 (both tests) and well 0322 (the second test) were used to determine the transmissivity (Table 5).

*Table 5. Well 0321 Aquifer Test Transmissivity Results ($ft^2$/day)*

| Test No | Data Source | Test Phase | Analytical Method | | | |
|---|---|---|---|---|---|---|
| | | | Theis $T(ft^2/d)$ | Neuman $T(ft^2/d)$ | Theis Rec $T(ft^2/d)$ | Neuman Sy |
| 321AQT1 | Obs 684 | P | 1,365 | 415 | NA | 0.2 |
| | Obs 684 | R | NA | NA | 874 | NA |
| | | | | | | |
| 321AQT2 | Obs 322 | P | 717.1 | 718.2 | NA | 0.4 |
| | Obs 322 | R | NA | NA | 1,527 | NA |
| | Obs 684 | P | 1,804 | 1,057 | NA | 0.06 |
| | Obs 684 | R | NA | NA | 1,254 | NA |

OBS = Observation Well
P = Pumping Phase
R = Recovery Phase
NA = Not applicable
Theis = Theis Method for Unconfined Aquifers
Neuman = Neuman Method for an Unconfined Aquifer
Theis Rec = Theis Recovery Method
T = Transmissivity ($ft^2$/day)
Sy = Specific yield

The saturated thickness at the time these tests were completed was 6.4 ft, which results in a hydraulic conductivity that ranges from 65 to 282 ft/day based on the transmissivity values presented in Table 5. The plots used for the analyses are contained within Attachment 1.

### 3.1.3 Well 0684 Aquifer Test

An 18.5 hour aquifer test was completed using well 0684 as the pumping well starting on February 26, 2001. As opposed to well 0321 (which could sustain 3.9 gpm), well 0684 was able to sustain a pumping rate of 7.7 gpm and provide greater stress on the aquifer during the pumping phase. Drawdown data were collected from observation wells 0321, 0322, and 0323 (Table 6).

*Table 6. Total Drawdown for the Well 0684 Aquifer Test*

| Well | r (ft) | Screen Interval (ft bgs) | Drawdown (ft) |
|---|---|---|---|
| PMP 0684 | NA | 11.0–21.0 | 3.0 |
| OBS 0321 | 23.5 | 14.4–19.4 | 0.68 |
| OBS 0322 | 34.0 | 9.1–19.1 | 0.65 |
| OBS 0323 | 41.0 | 9.1–19.1 | 0.23 |

Q = Pumping Rate
r = Distance to Pumping Well
ft bgs = ft below ground surface
Pmp = Pumping Well
Obs = Observation Well

Despite the fact that measurable drawdown resulted from the pumping of well 0684 in the three observation wells, analyses of the data revealed only observation well 0321 produced data during the pumping phase which provided a good fit for the type curves. Recovery data collected from the observation wells and the pumping well also provided a good fit (Table 7).

*Table 7. Well 0684 Aquifer Test Transmissivity Results ($ft^2$/day)*

| Test No | Data Source | Test Phase | Analytical Method | | | |
|---|---|---|---|---|---|---|
| | | | Theis $T(ft^2/d)$ | Neuman $T(ft^2/d)$ | Theis Rec $T(ft^2/d)$ | Neuman Sy |
| 684AQT2 | Obs 321 | P | 1,358 | 738 | NA | 0.03 |
| | Obs 321 | R | NA | NA | 975 | NA |
| | Obs 322 | R | NA | NA | 1,260 | NA |
| | Obs 323 | R | NA | NA | 1,136 | NA |
| | Pmp 684 | R | NA | NA | 567 | NA |

OBS = Observation Well
PMP = Pumping Well
P = Pumping Phase
R = Recovery Phase
NA = Not applicable
Theis = Theis Method for Unconfined Aquifers
Neuman = Neuman Method for an Unconfined Aquifer
Theis Rec = Theis Recovery Method
T = Transmissivity ($ft^2$/day)
Sy = Specific yield

The saturated thickness at the time these tests were completed was 7 ft, which results in a hydraulic conductivity range of 81.1 to 194.1 ft/day based on the transmissivity values presented in Table 7. The plots used for the analyses are contained within Attachment 1.

### 3.1.4 Well 0509 Aquifer Tests

After a review of the data collected from the well 0314 cluster, it was decided to conduct a test using well 0509 as the pumping well instead of well 0314. An 18 hr aquifer test pumping 10.3 gpm from well 0509 was started on February 27, 2001. During the test drawdown data were collected from observation wells 0314, 0315, 0316, 0317, and the pumping well 0509 (Table 8). Figure 5 is a cross-section of the well cluster at this location.

*Table 8. Total Drawdown for the Well 0509 Aquifer Test*

| Well | r (ft) | Screen Interval (ft bgs) | Drawdown (ft) |
|---|---|---|---|
| PMP 0509 | NA | 9.7 – 19.7 | 4.86 |
| OBS 0314 | 30.9 | 6.1 – 16.1 | 0.37 |
| OBS 0315 | 16.8 | 6.0 – 16.0 | 0.59 |
| OBS 0316 | 68 | 4.7 – 14.7 | 0.26 |
| OBS 0317 | 32.9 | 19.5 – 39.5 | 1.89 |

Q = Pumping Rate
r = Distance to Pumping Well
ft bgs = ft below ground surface
Pmp = Pumping Well
Obs = Observation Well

Drawdown data collected during the pumping phase from observation well 0315 provided representative estimates of the aquifer transmissivity (Table 9). The remaining observation well drawdown data did not provide a good fit for the type curves.

*Table 9. Well 0509 Aquifer Test Transmissivity Results ($ft^2$/day)*

| Test No | Data Source | Test Phase | Analytical Method | | | |
|---|---|---|---|---|---|---|
| | | | Theis $T(ft^2/d)$ | Neuman $T(ft^2/d)$ | Theis Rec $T(ft^2/d)$ | Neuman Sy |
| 509AQT4 | Obs 0315 | P | 1,410 | 1,388 | NA | 0.05 |
| | Obs 0315 | R | NA | NA | 2,316 | NA |
| | Obs 0314 | R | NA | NA | 2,098 | NA |

OBS = Observation Well
P = Pumping Phase
R = Recovery Phase
NA = Not applicable
Theis = Theis Method for Unconfined Aquifers
Neuman = Neuman Method for an Unconfined Aquifer
Theis Rec = Theis Recovery Method
T = Transmissivity ($ft^2$/day)
Sy = Specific yield

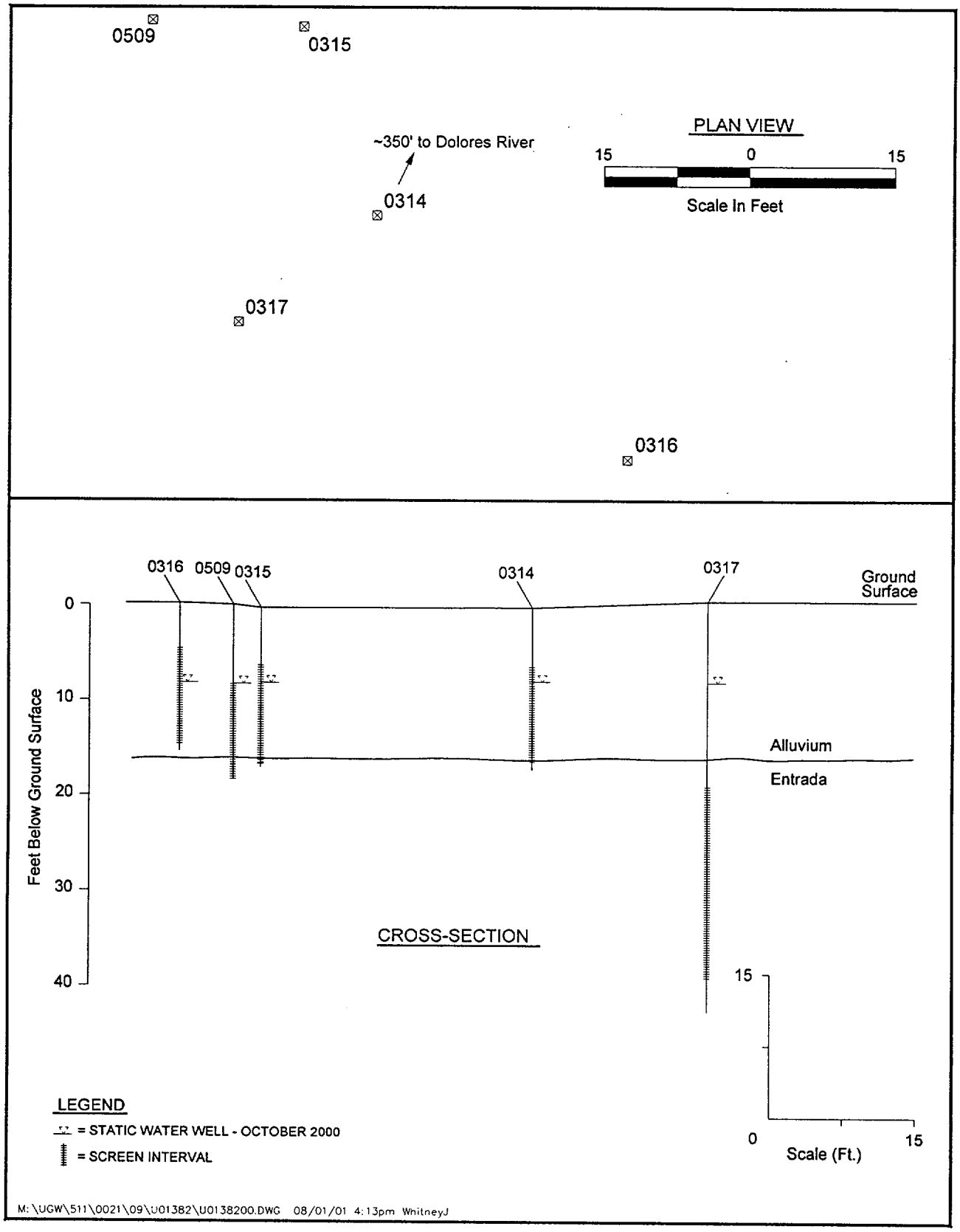



*Figure 5. Well 0509 Cross Section*

Based on a saturated thickness of 7.2 ft, the hydraulic conductivity ranges from 193 to 321 ft/day based on the transmissivity estimates presented in Table 9. These plots are also contained in Attachment 1.

### 3.1.5 Well 0317 Aquifer Test

As shown in Table 8, nearly 2 ft of drawdown was measured in well 0317, which is screened in the upper zone of the underlying Entrada Sandstone. This response to pumping suggests a hydraulic connection between the alluvium and the top of the Entrada Sandstone.

In order to further define the connection between the two units, well 0317 was pumped for 19.5 hours at a rate of 1.2 gpm. Despite a drawdown of 9.7 ft in the pumping well 0317, there was no drawdown measured in any of the observation wells, most notably well 0509. As Figure 5 shows, the bottom of well 0509 is set within the top of the Entrada Sandstone, and the top of the screen of well 0317 is within 2 ft of the bottom of the screen in well 0509. Such close proximity between the screen intervals may explain the drawdown response observed between the two wells.

As a result of pumping from well 0317, it was possible to estimate the transmissivity of the Entrada Sandstone based on the recovery data.

Table 10 provides the results from the aquifer test using Entrada Sandstone well 0317 as the pumping well. This transmissivity estimate converts to a hydraulic conductivity of 1.5 ft/day based on a saturated thickness of 50 ft.

*Table 10. Well 0317 Aquifer Test Transmissivity Results ($ft^2$/day)*

| Test No | Data Source | Test | Analytical Method | | | |
|---|---|---|---|---|---|---|
| | | | Theis $T(ft^2/d)$ | Neuman $T(ft^2/d)$ | Theis Rec $T(ft^2/d)$ | Neuman Sy |
| 317AQT3 | Pmp 0317 | R | NA | NA | 73 | NA |

PMP = Pumping Well
R = Recovery Phase
NA = Not applicable
Theis = Theis Method for Unconfined Aquifers
Neuman = Neuman Method for an Unconfined Aquifer
Theis Rec = Theis Recovery Method
T = Transmissivity ($ft^2$/day)
Sy = Specific yield

The semi-log plots of the residual drawdown data collected from the pumping well during the recovery test exhibit an S-shaped curve (Attachment 1). This shaped recovery curve is also indicative of the aquifer not being adequately stressed, and reaching steady-state conditions.

## 3.2 Inverse Modeling

Inverse modeling was used as another source for estimating the hydraulic parameters of the alluvial aquifer at three different locations. GWVistas (Environmental Simulations, Inc.

Version 2.0), a Windows-driven graphical, pre- and post-processor for MODFLOW and MT3DMS was used to complete this inverse modeling effort.

Field data collected from aquifer tests completed on wells 0508, 0509, and 0684 as the pumping wells were used as inputs for this modeling effort. This data include drawdown measurements from the pumping wells and nearby observation wells, pumping rates, length of pumping, and the saturated thickness. Two-dimensional models were generated for each of the three locations using GWVistas, and a hydraulic conductivity that best fit the field conditions was estimated. Determination of the hydraulic conductivity using this alternative method provides additional information regarding the hydraulic parameters of the alluvial aquifer. Table 11 provides the location, associated saturated thickness, pumping rate, pumping duration, and estimated hydraulic conductivity.

*Table 11. Inverse Modeling Input Values and Results*

| Location | Test Number | Saturated Thickness (ft) | Pumping Rate (gpm) | Pumping Duration (hrs) | K (ft/day) |
|---|---|---|---|---|---|
| 0508 | 508AQT2 | 6.2 | 1.2 | 17 | 140 |
| 0509 | 509AQT4 | 7.2 | 10 | 18 | 57 |
| 0684 | 684AQT2 | 7.0 | 7.7 | 18 | 120 |

The resulting hydraulic conductivity estimates based on the inverse modeling fall within the range estimated by the aquifer test data.

## 3.3 Background Monitoring

Data loggers were installed in various locations to monitor the alluvial aquifer water table surface fluctuations over the time period when the aquifer tests were conducted. At the 0306 cluster it was not necessary to monitor background water levels because one of the wells within the cluster (well 0308) was located outside of the zone of influence during the pumping of well 0306, and no drawdown was measured.

One transducer was installed in well 0685 (Figure 2) in order to monitor the background water levels during the tests conducted at the 0321 cluster. A transducer installed in well 0313 served a similar function for the tests conducted at the 0314 cluster (Figure 2). These locations were chosen because of the proximity to the test locations (close enough to provide representative background data without being influenced by the aquifer test activities) and because these wells are screened over approximately the same interval as the observation and pumping wells.

During the time period when the tests were conducted there was minimal fluctuation in the alluvial aquifer water table surface (Table 12) compared to the drawdown observed in the observation wells. As a result, it was not necessary to adjust drawdown or residual drawdown data collected from any of the tests.

*Table 12. Background Ground Water Fluctuations Measured During the Aquifer Testing*

| Test Number | Water Table Fluctuation (ft) |
|---|---|
| 306AQT2 | 0.01 |
| 321AQT1 | 0.06 |
| 321AQT2 | 0.07 |
| 684AQT2 | 0.06 |
| 509AQT4 | 0.03 |
| 317AQT3 | 0.03 |
| 508AQT2 | 0.01 |

# 4.0 Conclusions

The following conclusions can be made based on the data collected from the hydrologic investigation at the Slick Rock site:

- The drilling technique used to install pumping wells (0306, 0314, and 0321) during the September 2000 field investigation appears to have adversely impacted the wells ability to transmit ground water. Pumping rates of these wells had lower sustainable pumping rates compared to the sustainable pumping rates of the previously installed wells (0509 and 0684).

- Drawdown data collected from wells completed in the alluvial aquifer during the pumping phase of the aquifer tests indicate the transmissivity ranges from 80 to 1,804 $ft^2$/day. Applying associated saturated thicknesses, this transmissivity range converts to a hydraulic conductivity range of 13 to 282 ft/day.

- Residual drawdown data collected from wells completed in the alluvial aquifer during the recovery phase of the aquifer tests indicate the transmissivity of the alluvial aquifer ranges from 89 to 2,316 $ft^2$/day. Applying associated saturated thicknesses, this transmissivity range converts to a hydraulic conductivity range of 15 to 322 ft/day.

- Inverse modeling estimates from three locations suggest the hydraulic conductivity ranges from 57 to 140 ft/day.

- Taking all the aquifer test results into account, the hydraulic conductivity of the alluvial aquifer in the vicinity of the NC and UC sites ranges from 13.1 to 321.6 ft/day, with a geometric mean of 121 ft/day. Table 13 presents the hydraulic conductivity results of all tests included in this document.

- Analyzing the data using the Neuman Method for Unconfined Aquifers, the specific yield ranges from 0.03 to 0.39.

- Based on the results from the test completed using well 0317 as the pumping well, the hydraulic conductivity of the Entrada Sandstone aquifer beneath the UC site is 1.5 ft/day.

*Table 13. Slick Rock Aquifer Test Results*
*(all hydraulic conductivity values in ft/day)*

## September 2000 Test

### 0306 Cluster

| | | | | | | | | | K (ft/day) Analytical Method | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start | | Test | Data | Total | | | Pumping Phase | | REC Phase |
| Test No | AQ | Date | Q (gpm) | Duration | Source | S (ft) | R (ft) | b | Theis | Neuman | Theis REC |
| 306 AQT2 | ALLUV | 9/26/00 | 1 | 3 hr 20 min | OBS 0307 | 0.35 | 14.5 | 6.1 | 27.9 | 13.1 | 14.7 |

### 0321 Cluster

| | | | | | | | | | Analytical Method | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start | | Test | Data | Total | | | Pumping Phase | | REC Phase |
| Test No | AQ | Date | Q (gpm) | Duration | Source | S (ft) | R (ft) | | Theis | Neuman | Theis REC |
| 321 AQT1 | ALLUV | 9/13/00 | 2 | 25 hr 35 min | OBS 0684 | 0.2 | 23.3 | 6.4 | 213.3 | 64.8 | 136.6 |
| 321 AQT2 | ALLUV | 9/14/00 | 3.9 | 17 hr | OBS 0322 | 0.3 | 10.4 | | 112.1 | 112.2 | 238.5 |
| | ALLUV | | | | OBS 0684 | 0.23 | 23.3 | | 281.9 | 165.2 | 195.9 |

## February\March 2001 Tests

### 0314 Cluster

| | | | | | | | | | Analytical Method | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start | | Test | Data | Total | | | Pumping Phase | | REC Phase |
| Test No | AQ | Date | Q (gpm) | Duration | Source | S (ft) | R (ft) | | Theis | Neuman | Theis REC |
| 509 AQT4 | ALLUV | 2/27/01 | 10.3 | 18 hr | OBS 0315 | 0.59 | 16.8 | 7.2 | 195 | 192.8 | 321.6 |
| | ALLUV | | | | OBS 0314 | 0.37 | 30.9 | | NA | NA | 291.4 |
| 317 AQT3 | ENT | 2/28/01 | 1.2 | 19.5 hr | PMP 0317 | 9.67 | NA | 5 | NA | NA | 1.48 |

### 0321 Cluster

| | | | | | | | | | Analytical Method | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start | | Test | Data | Total | | | Pumping Phase | | REC Phase |
| Test No | AQ | Date | Q (gpm) | Duration | Source | S (ft) | R (ft) | | Theis | Neuman | Theis REC |
| 684 AQT2 | ALLUV | 2/26/01 | 7.7 | 18.5 hr | OBS 0321 | 0.68 | 23.5 | 7 | 194.1 | 105.4 | 139.3 |
| | ALLUV | | | | OBS 0322 | 0.65 | 34 | | NA | NA | 180.1 |
| | ALLUV | | | | OBS 0323 | 0.23 | 41 | | NA | NA | 162.3 |
| | ALLUV | | | | PMP 0684 | 3.00 | NA | | NA | NA | 81.1 |

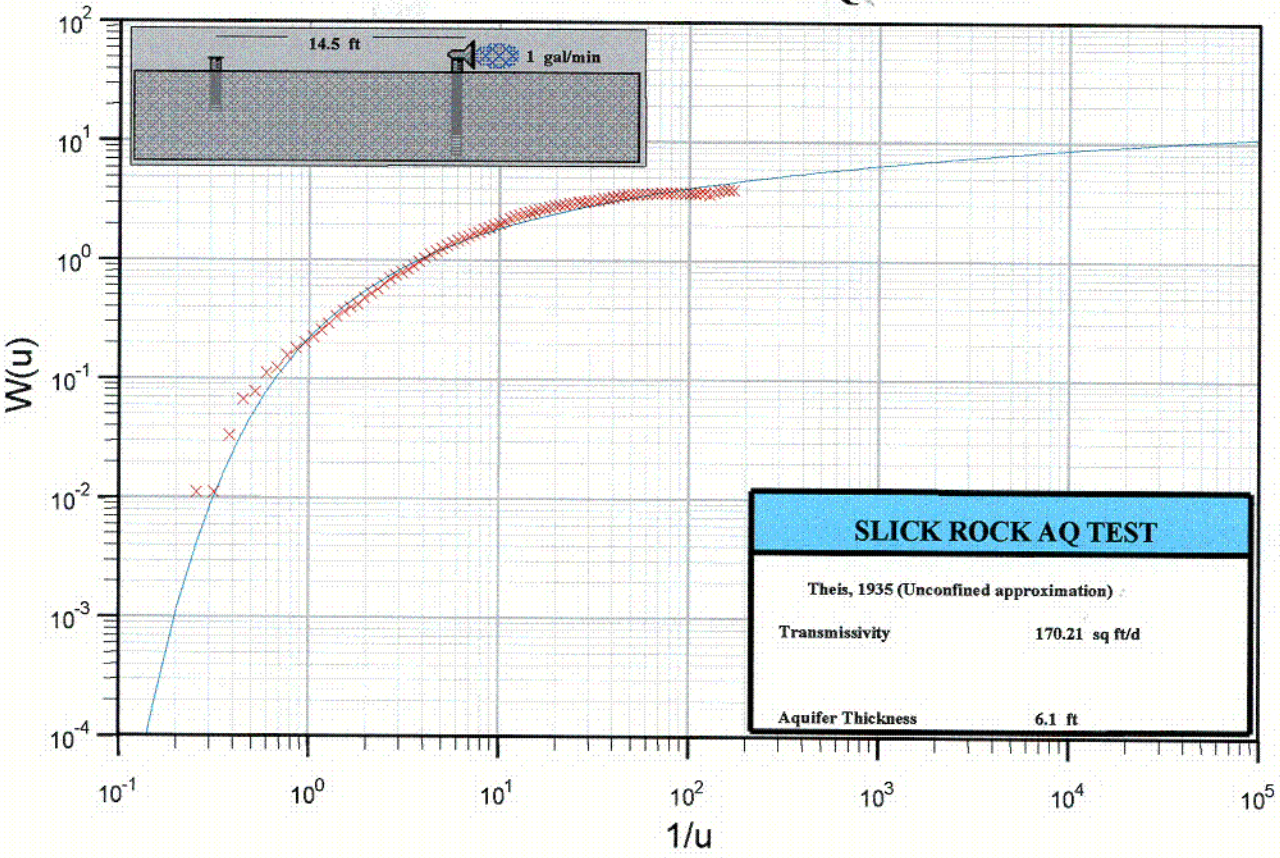
## Inverse Modeling Results

| Test No | K (ft/day) |
|---|---|
| 509 AQT4 | 57 |
| 508 AQT2 | 140 |
| 684 AQT2 | 120 |

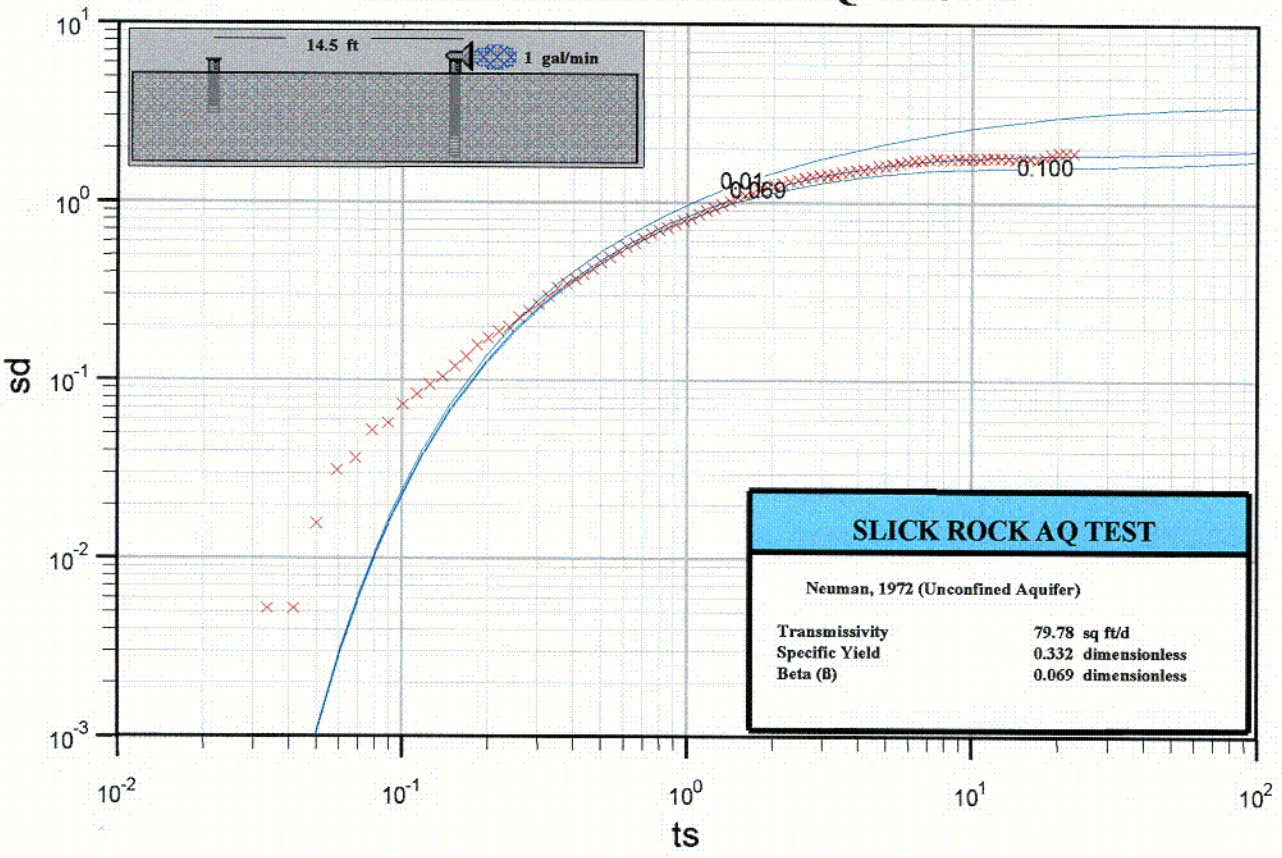
# Attachment 1

# Aquifer Test Data and Plots

# WELL OBS 307 / 306 AQ TEST 2

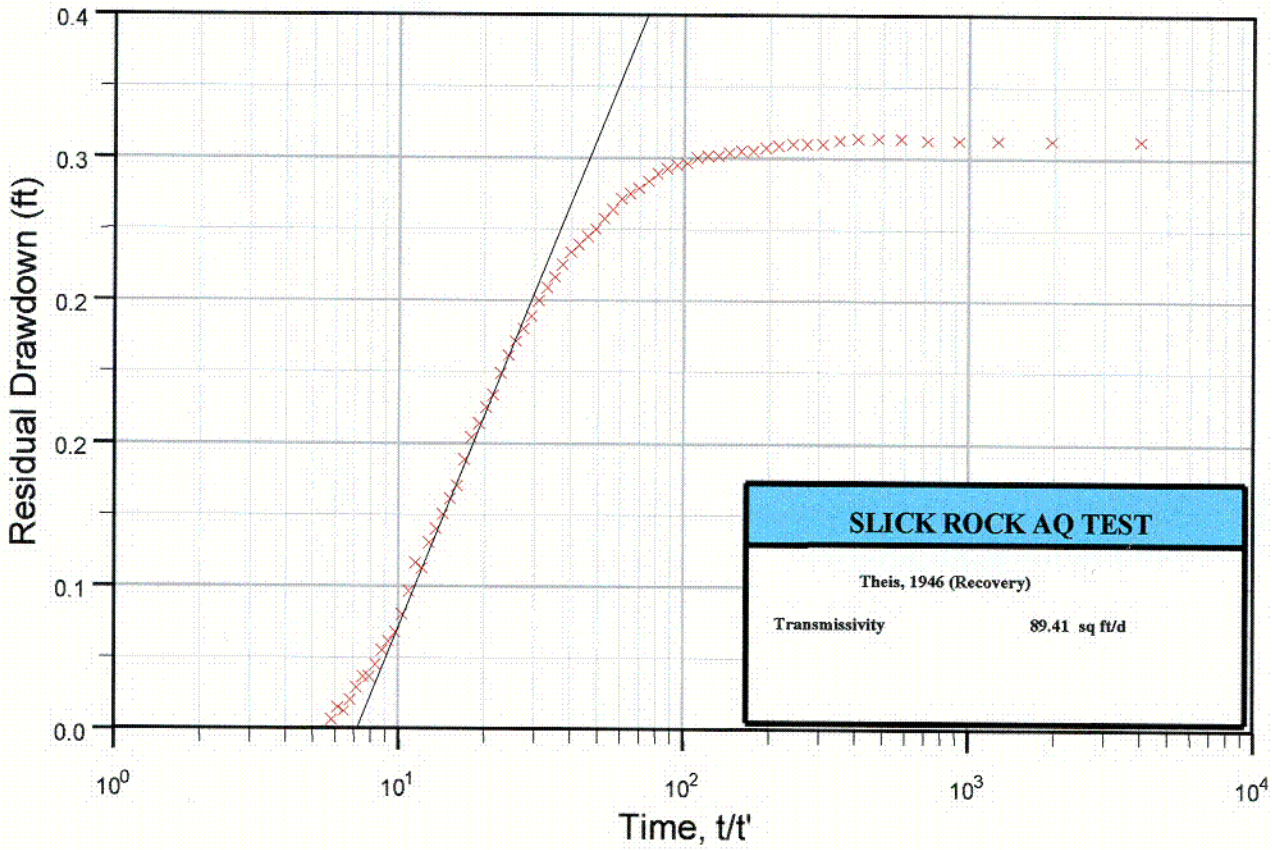



# WELL OBS 307 / 306 AQ TEST 2



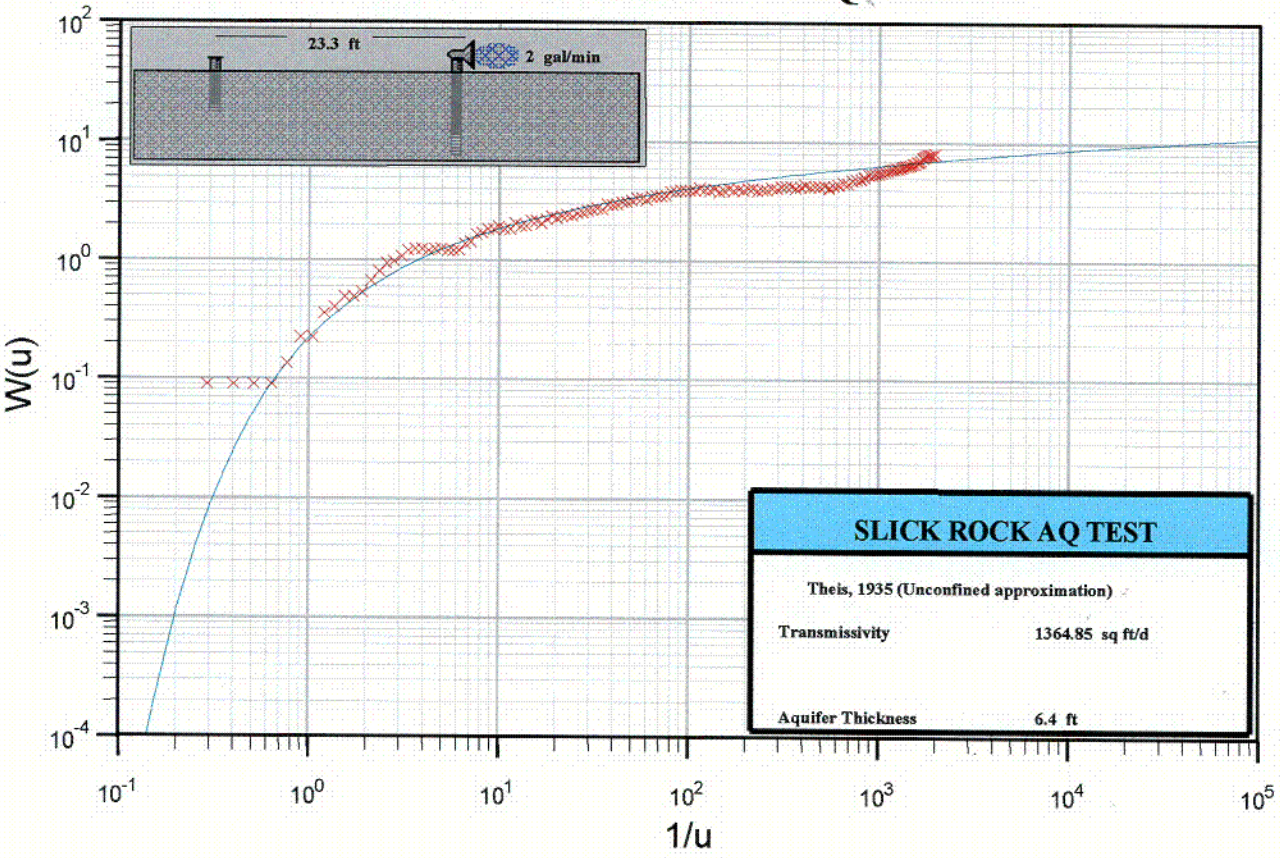

C03

# WELL OBS 307 / 306 AQ TEST 2 REC

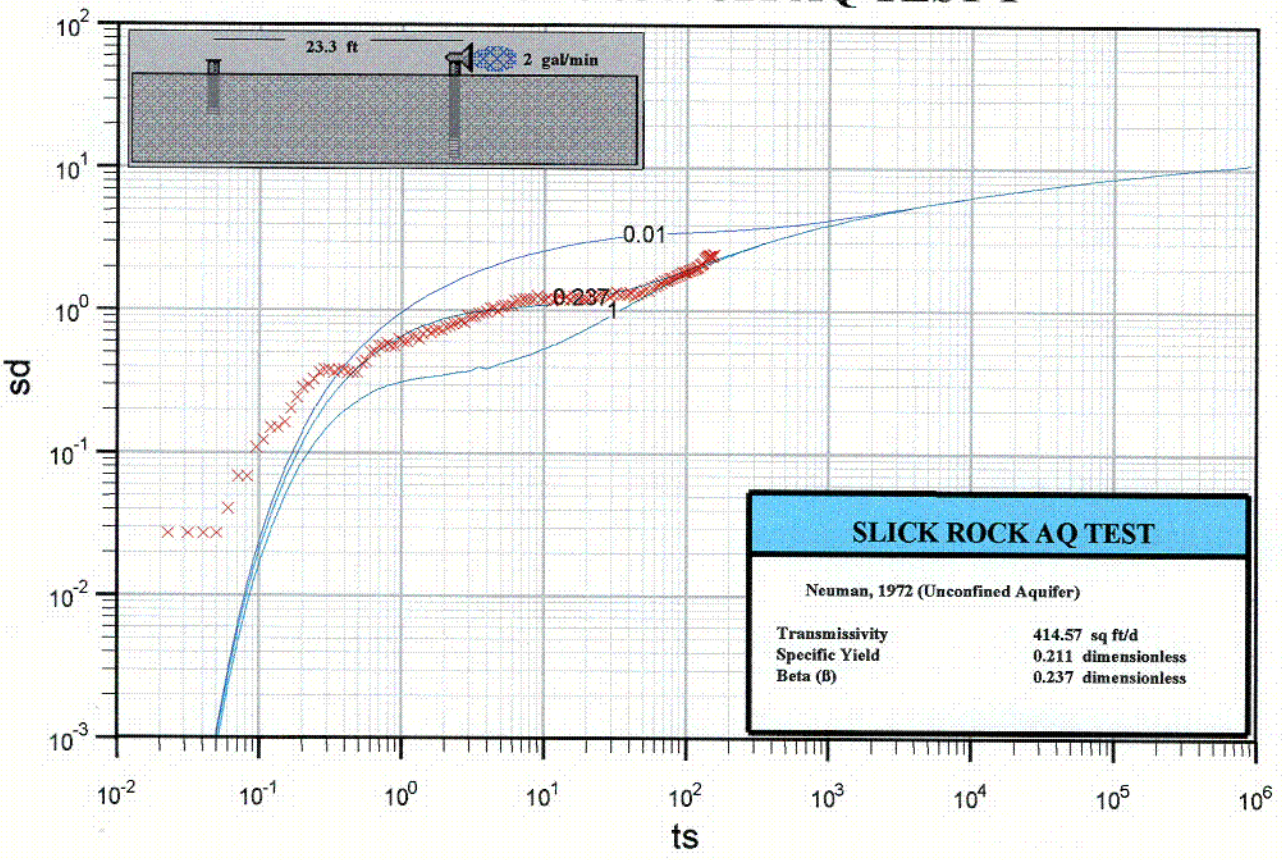



C04

# WELL OBS 684 / 321 AQ TEST 1

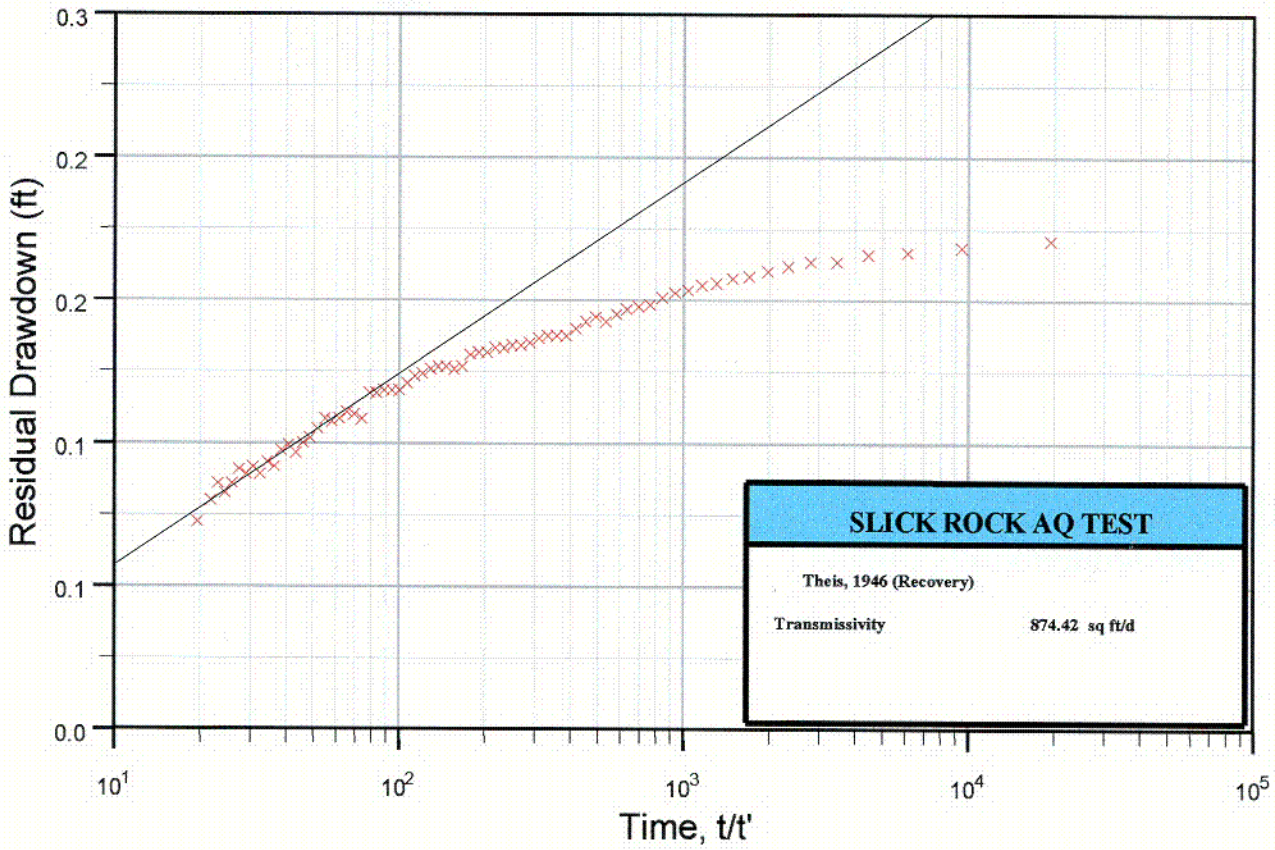



# WELL OBS 684 / 321 AQ TEST 1



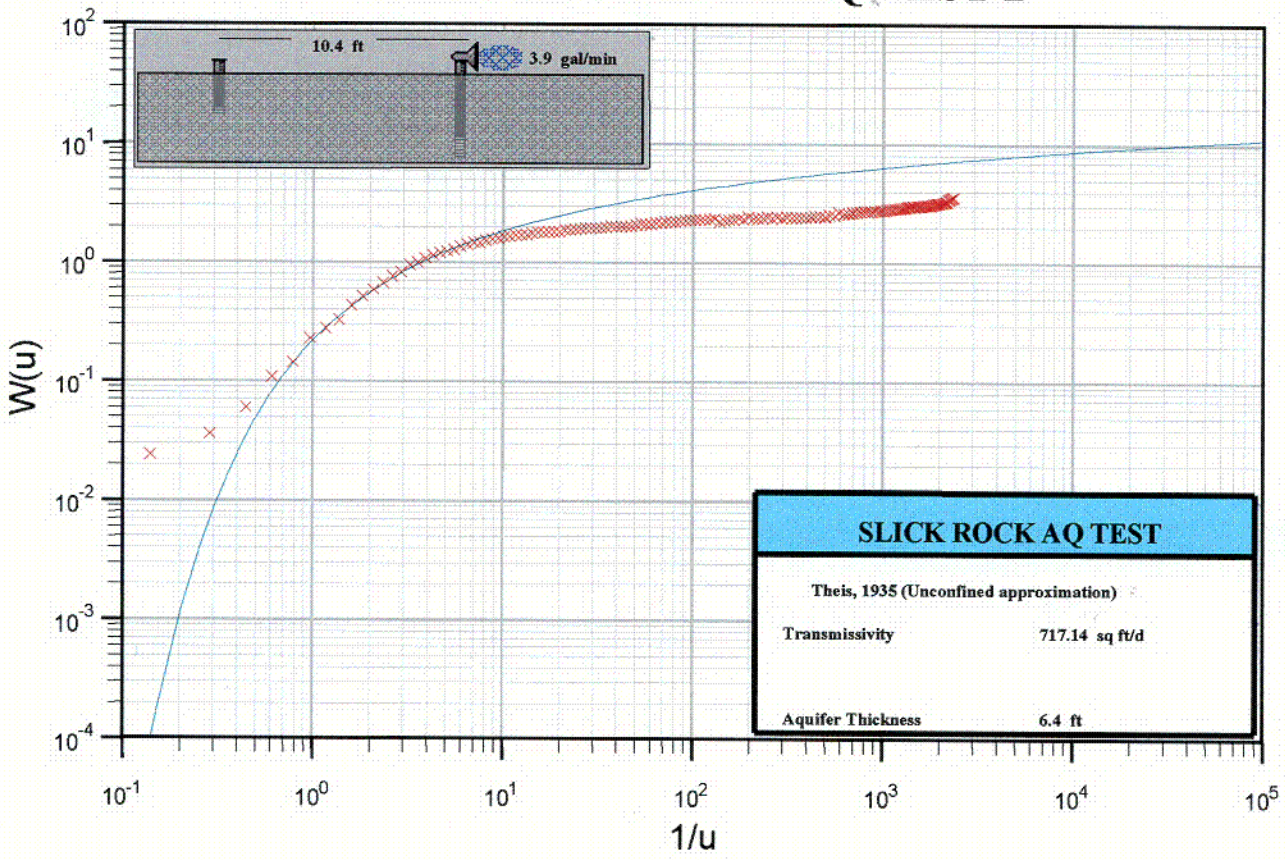

C05

# WELL OBS 684 / 321 AQ TEST 1 REC

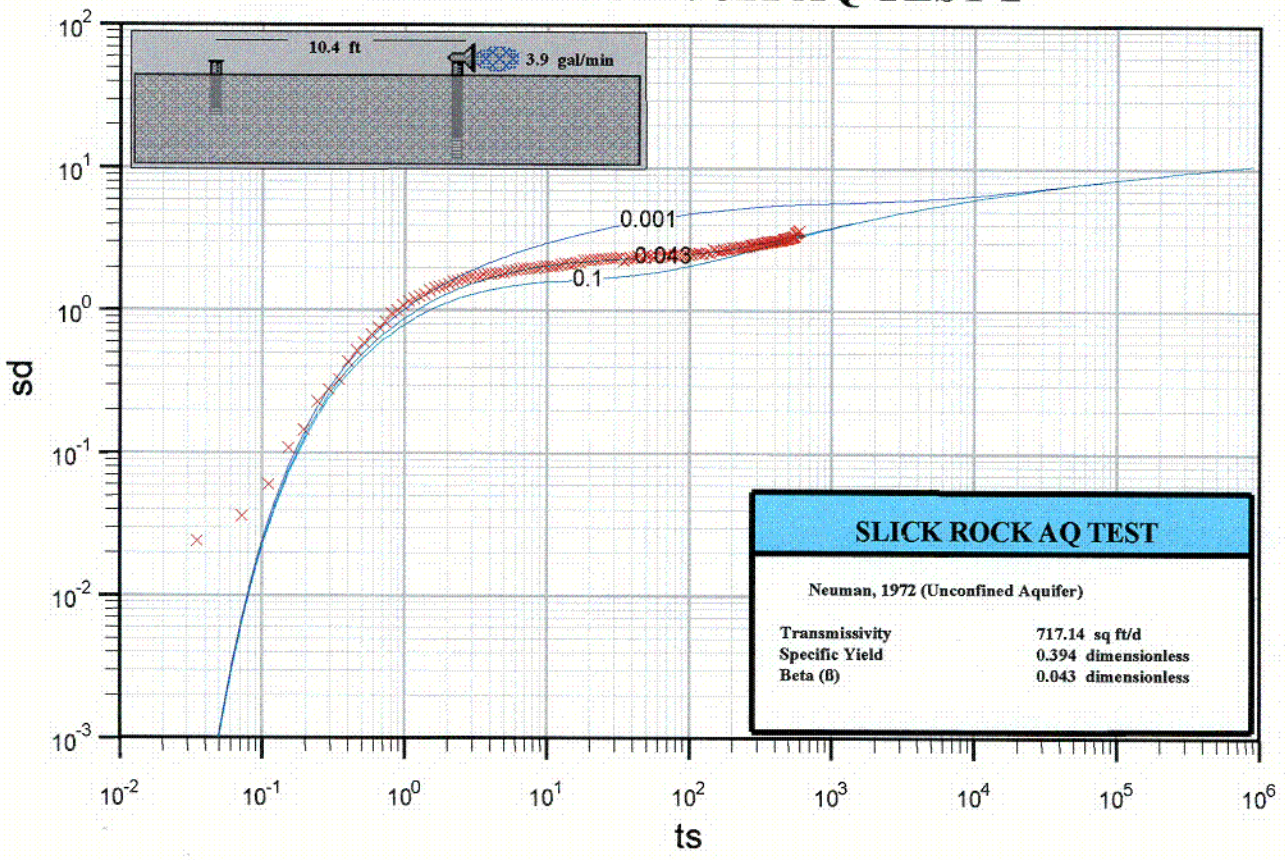



C06

# WELL OBS 322 / 321 AQ TEST 2

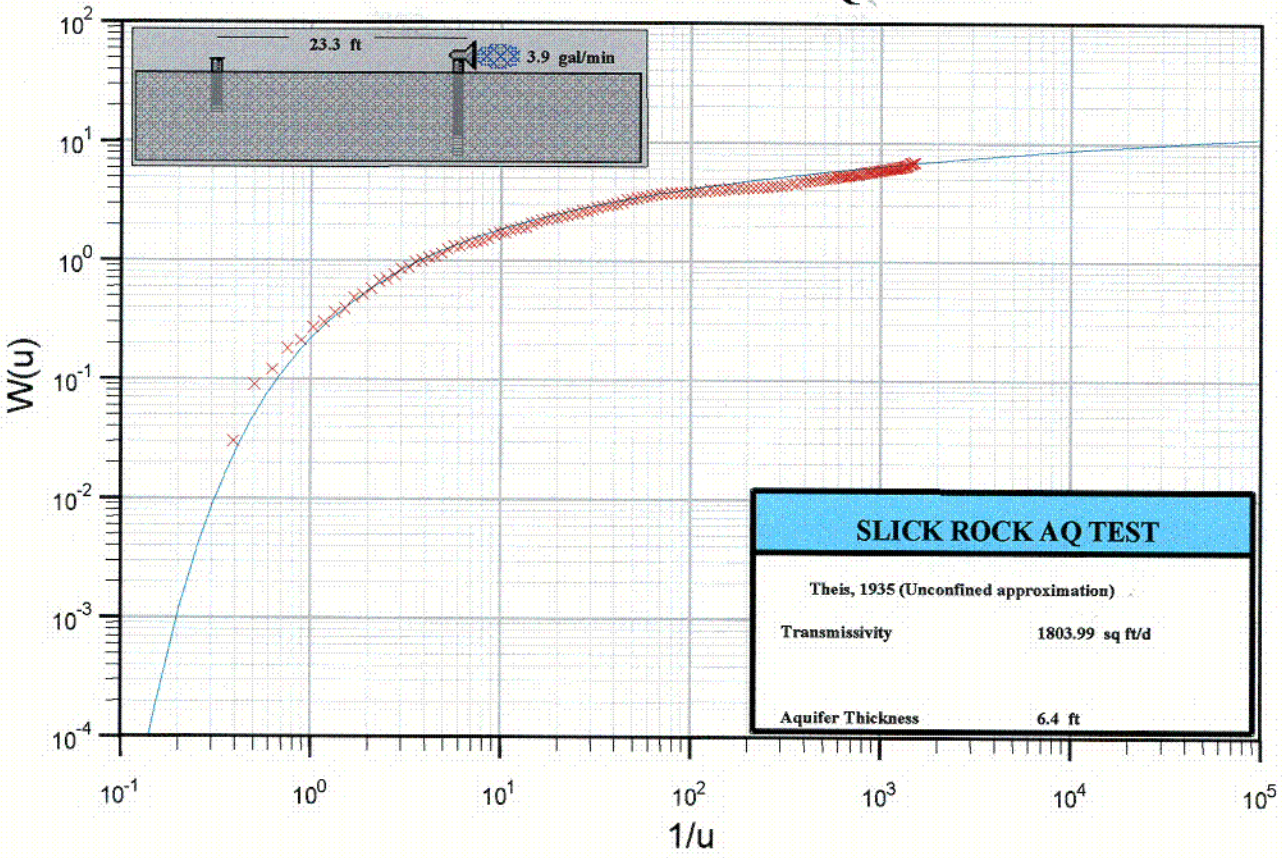



# WELL OBS 322 / 321 AQ TEST 2

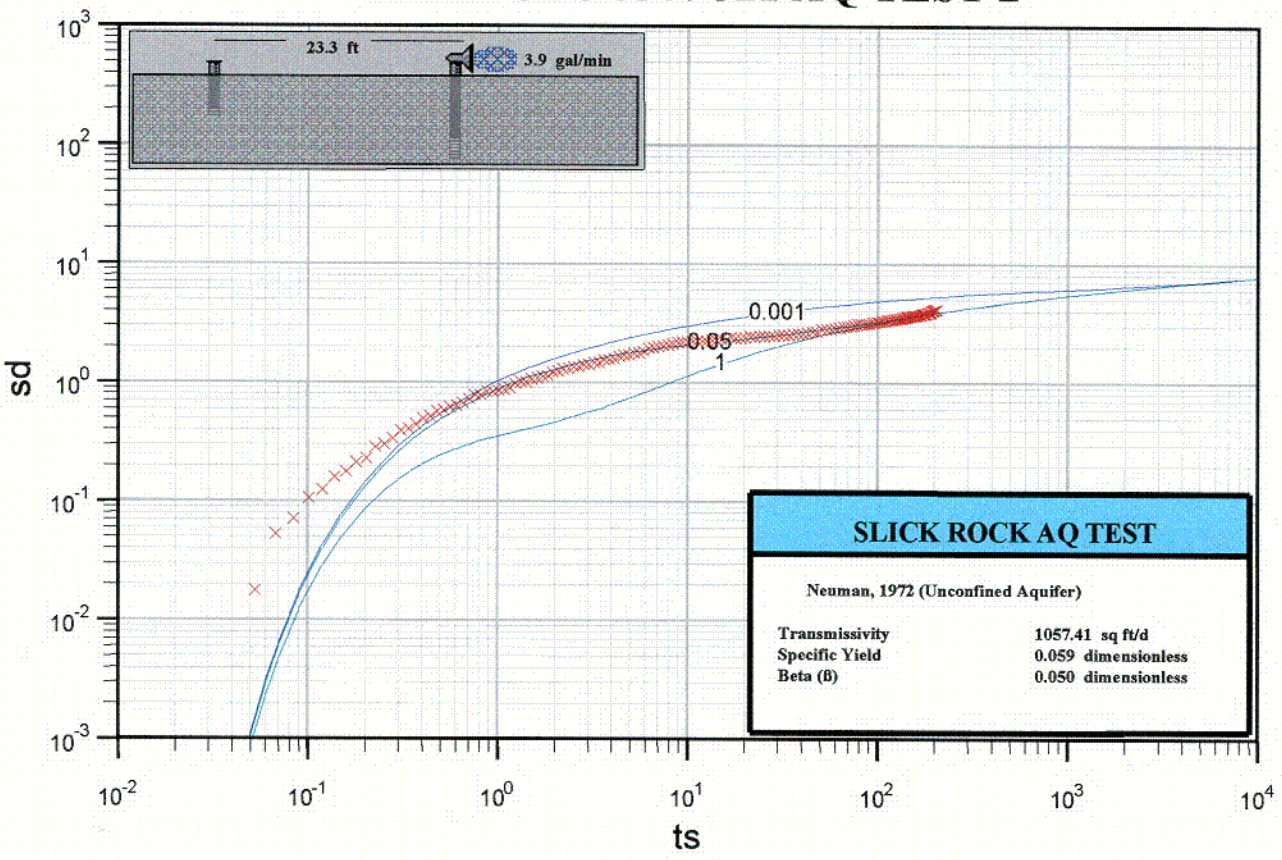



C07

# WELL OBS 684 / 321 AQ TEST 2

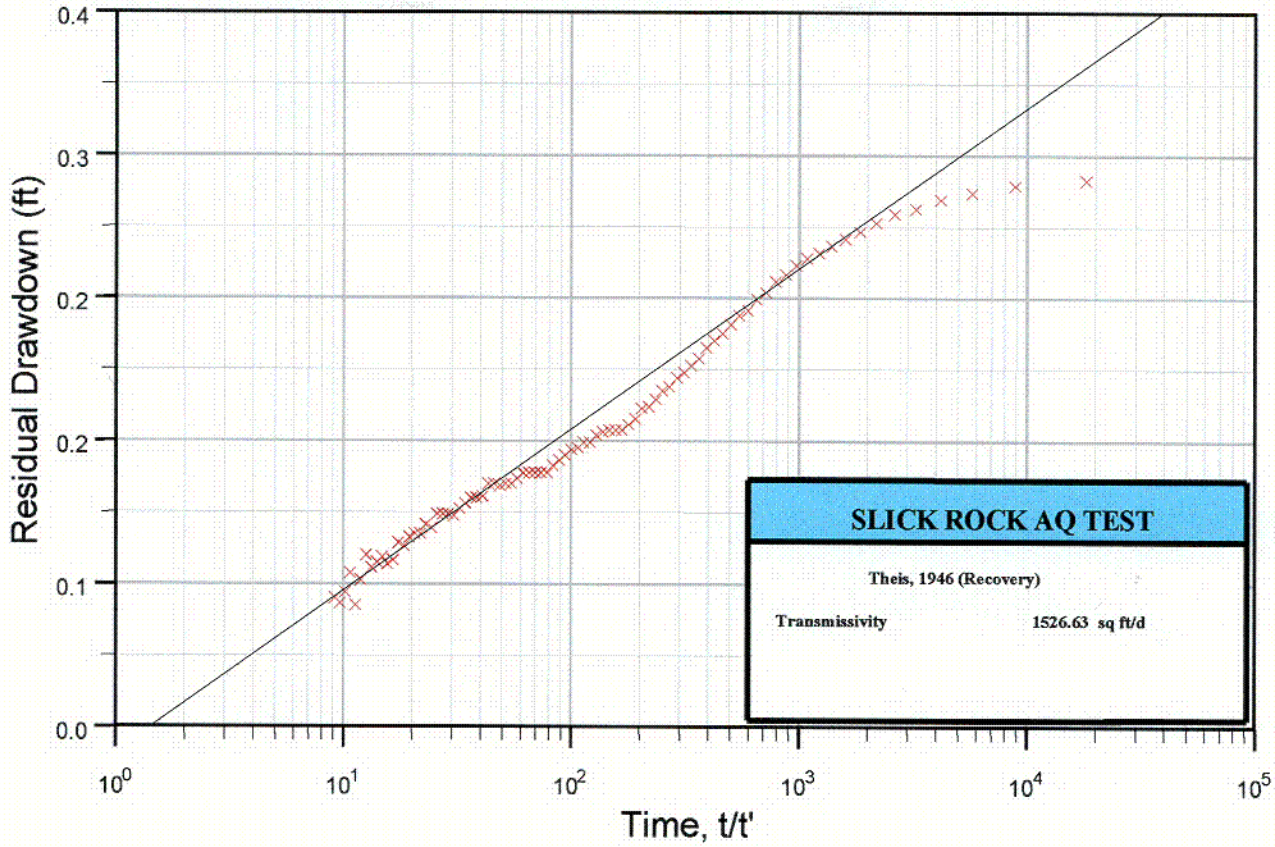



# WELL OBS 684 / 321 AQ TEST 2

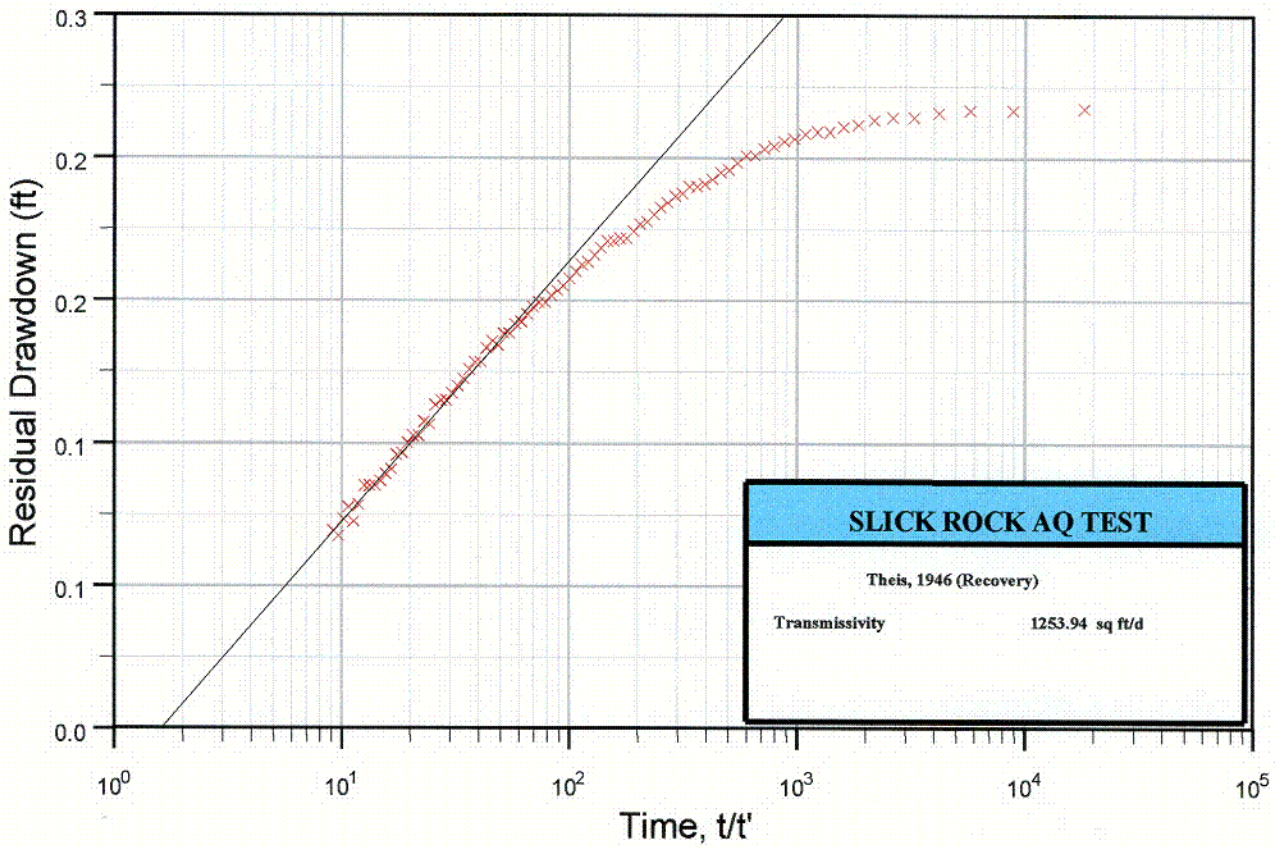



C08

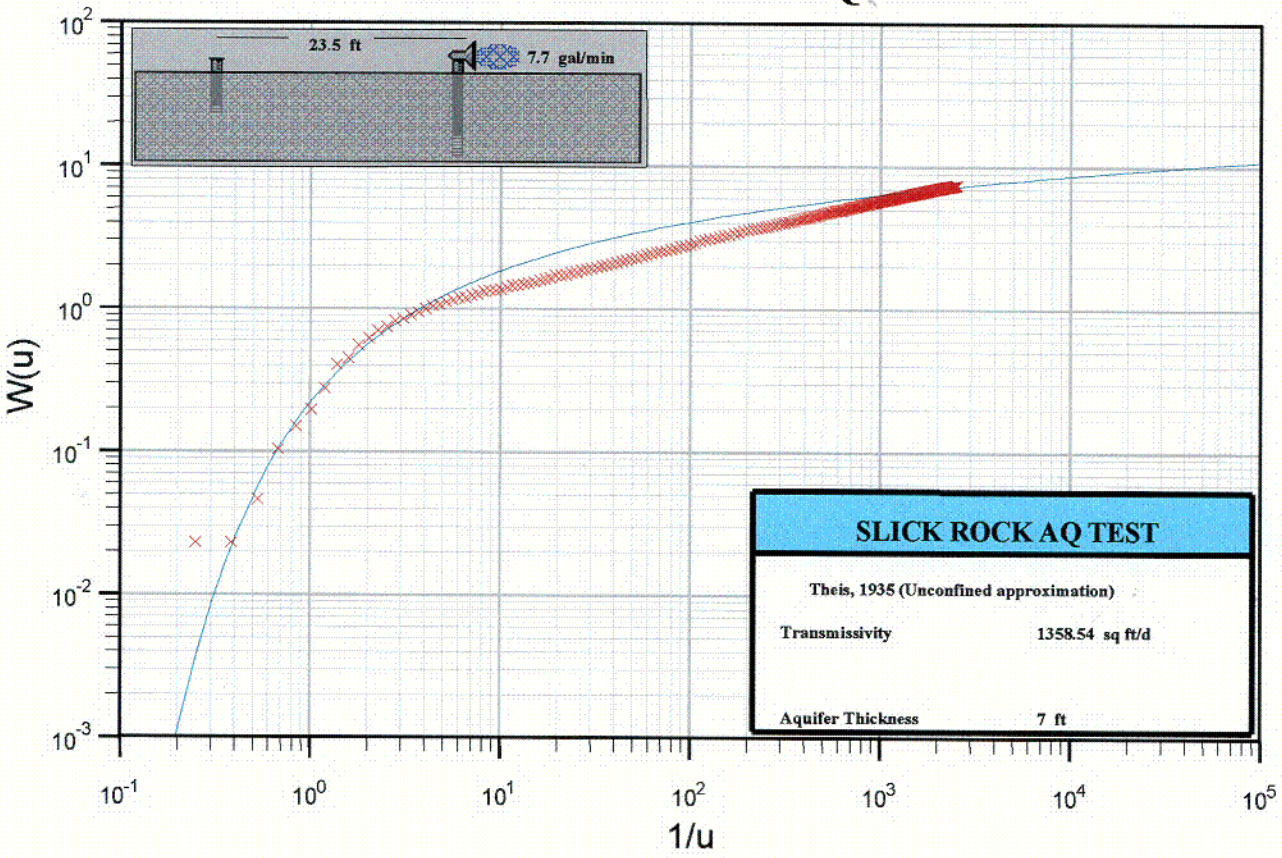
# WELL OBS 322 / 321 AQ TEST 2 REC



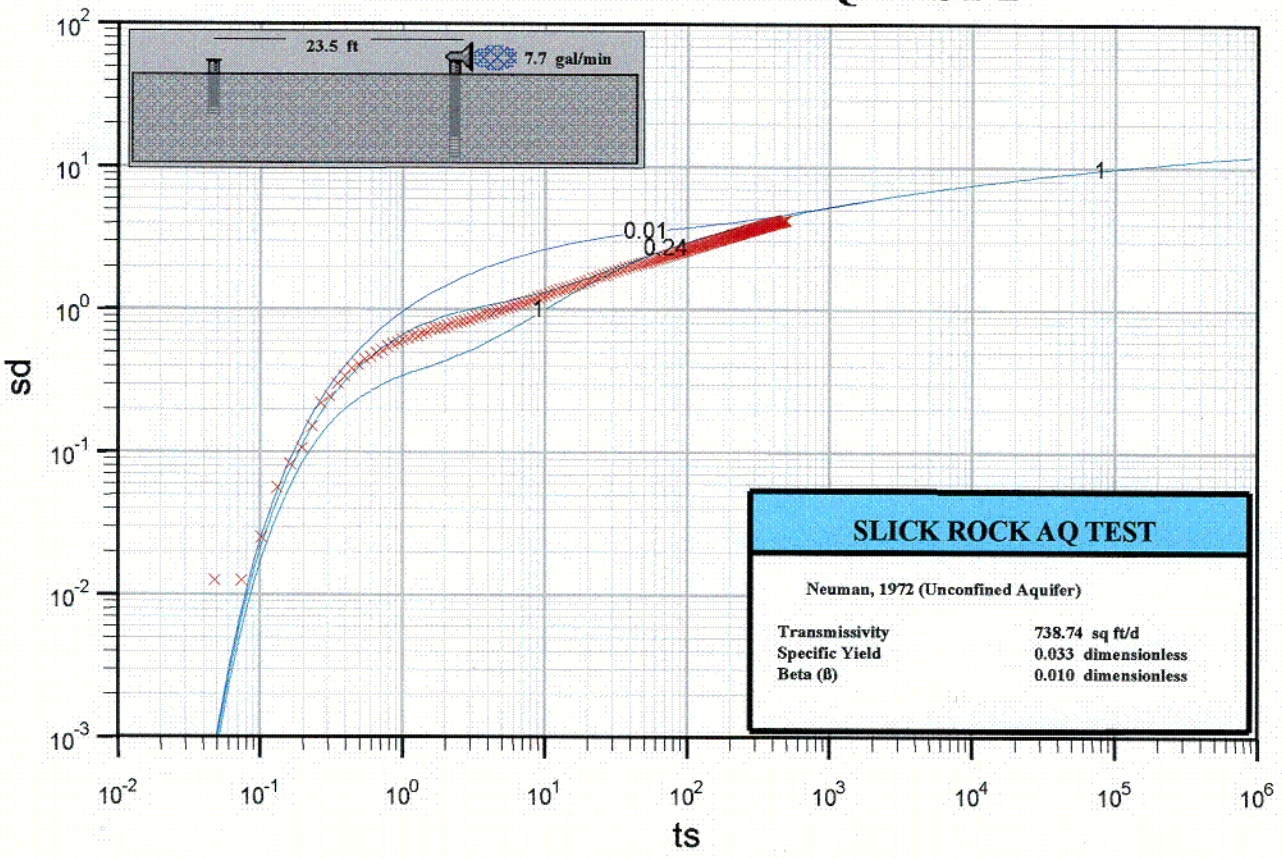

# WELL OBS 684 / 321 AQ TEST 2 REC



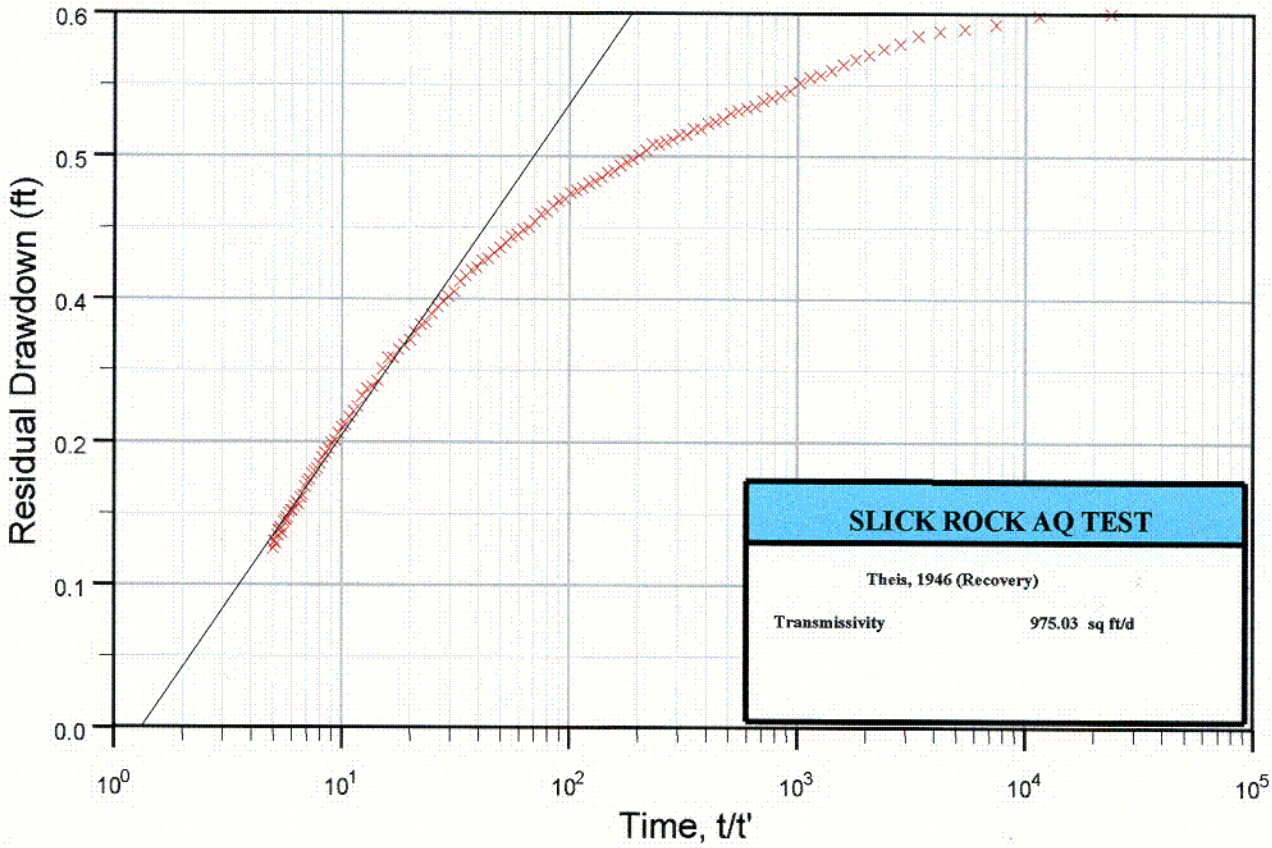
# WELL OBS 321 / 684 AQ TEST 2



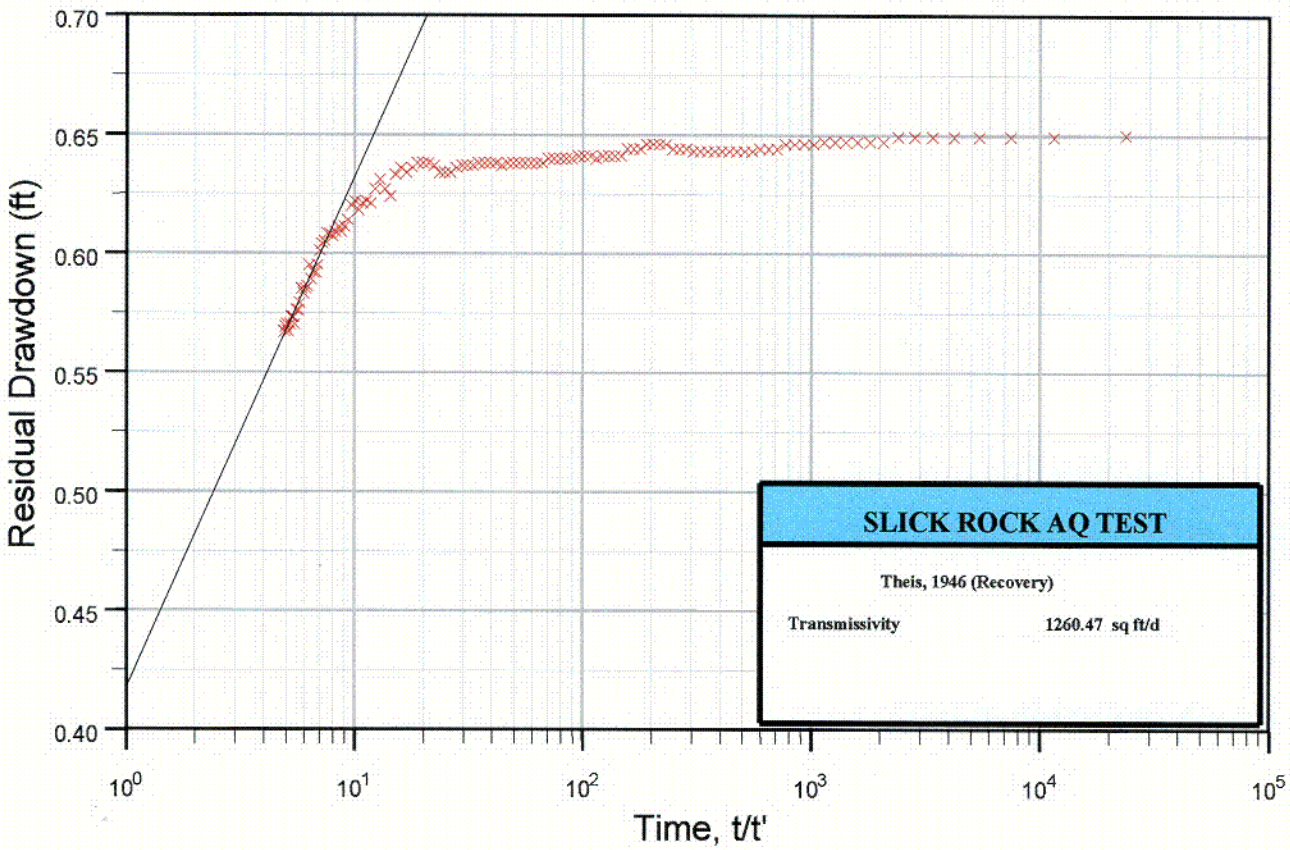

# WELL OBS 321 / 684 AQ TEST 2



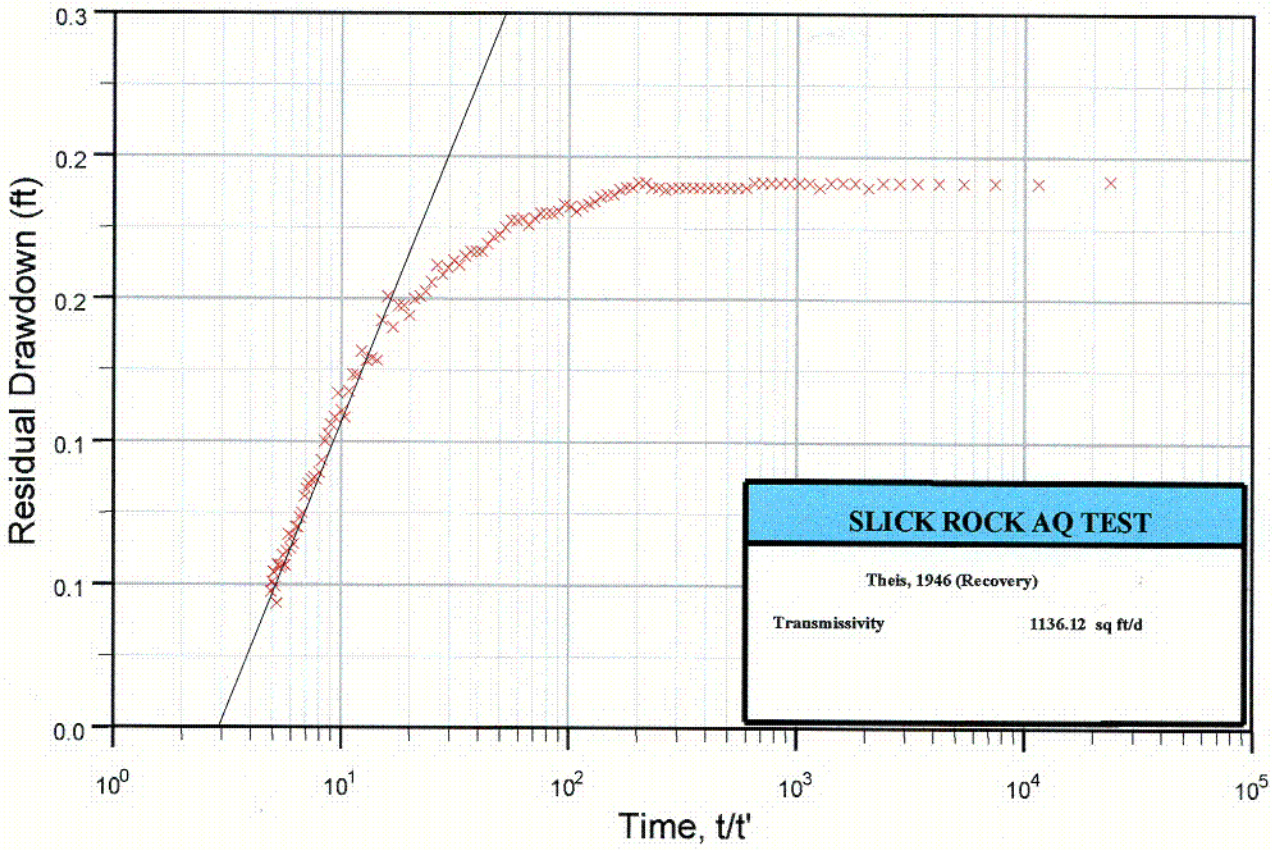
# WELL OBS 321 / 684 AQ TEST 2 REC



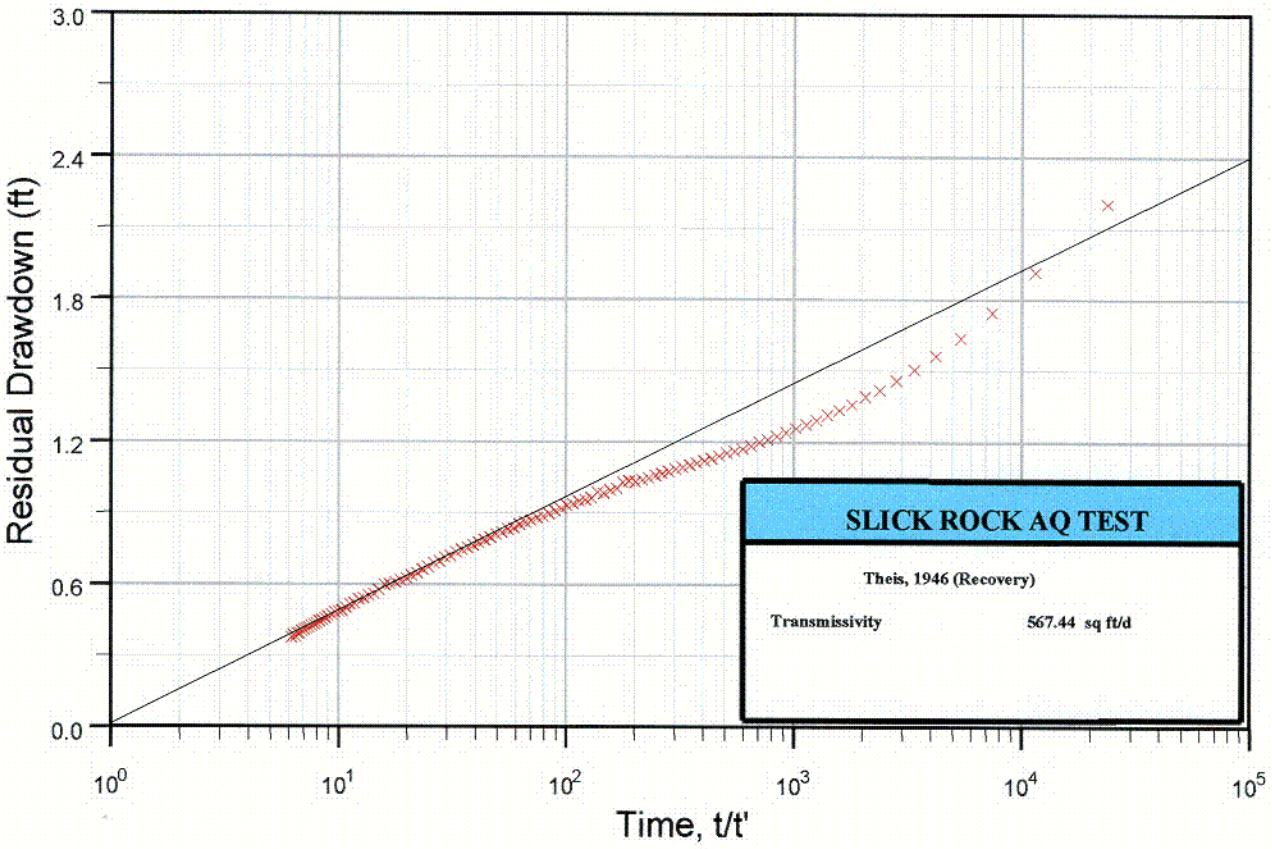

# WELL OBS 322 / 684 AQ TEST 2 REC



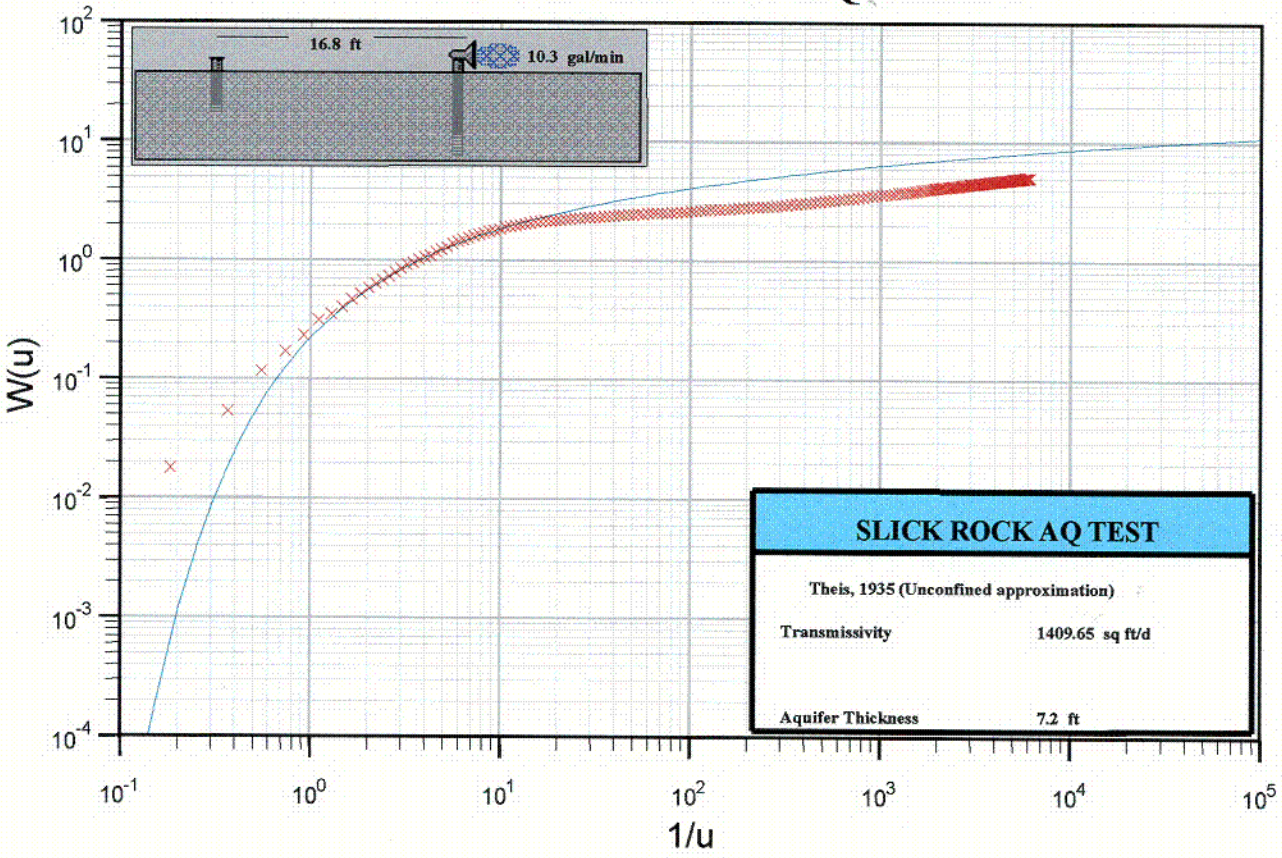
# WELL OBS 323 / 684 AQ TEST 2 REC



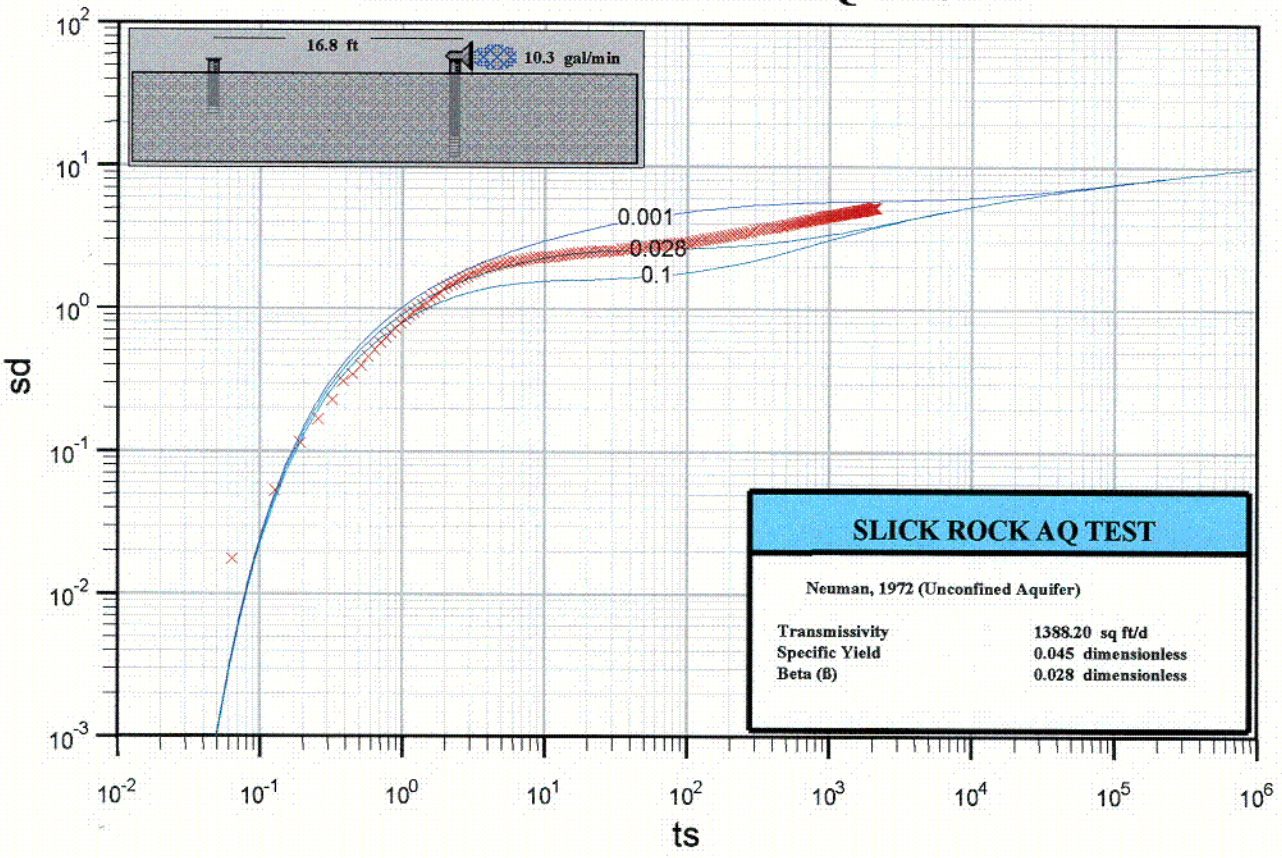

# WELL PMP 684 / 684 AQ TEST 2 REC



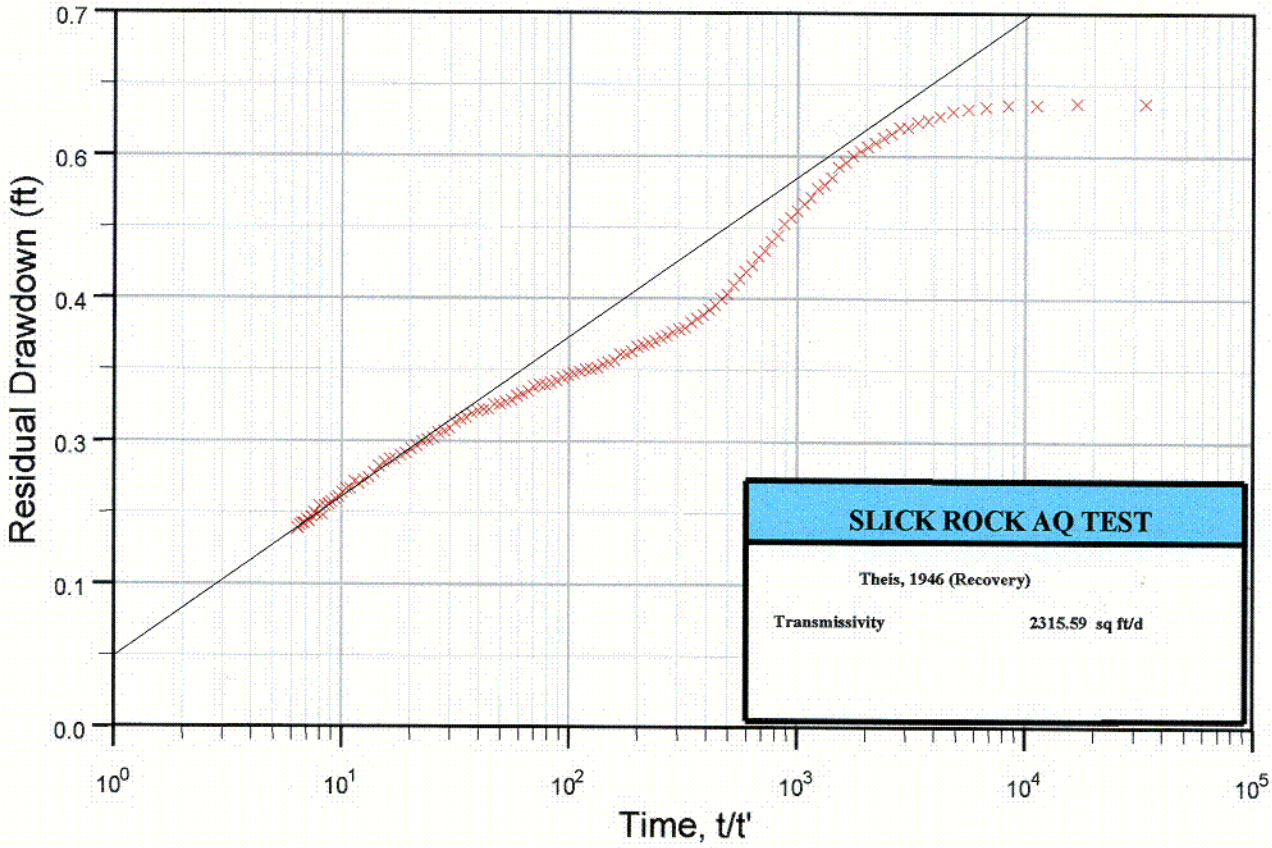
# WELL OBS 315 / 509 AQ TEST 4



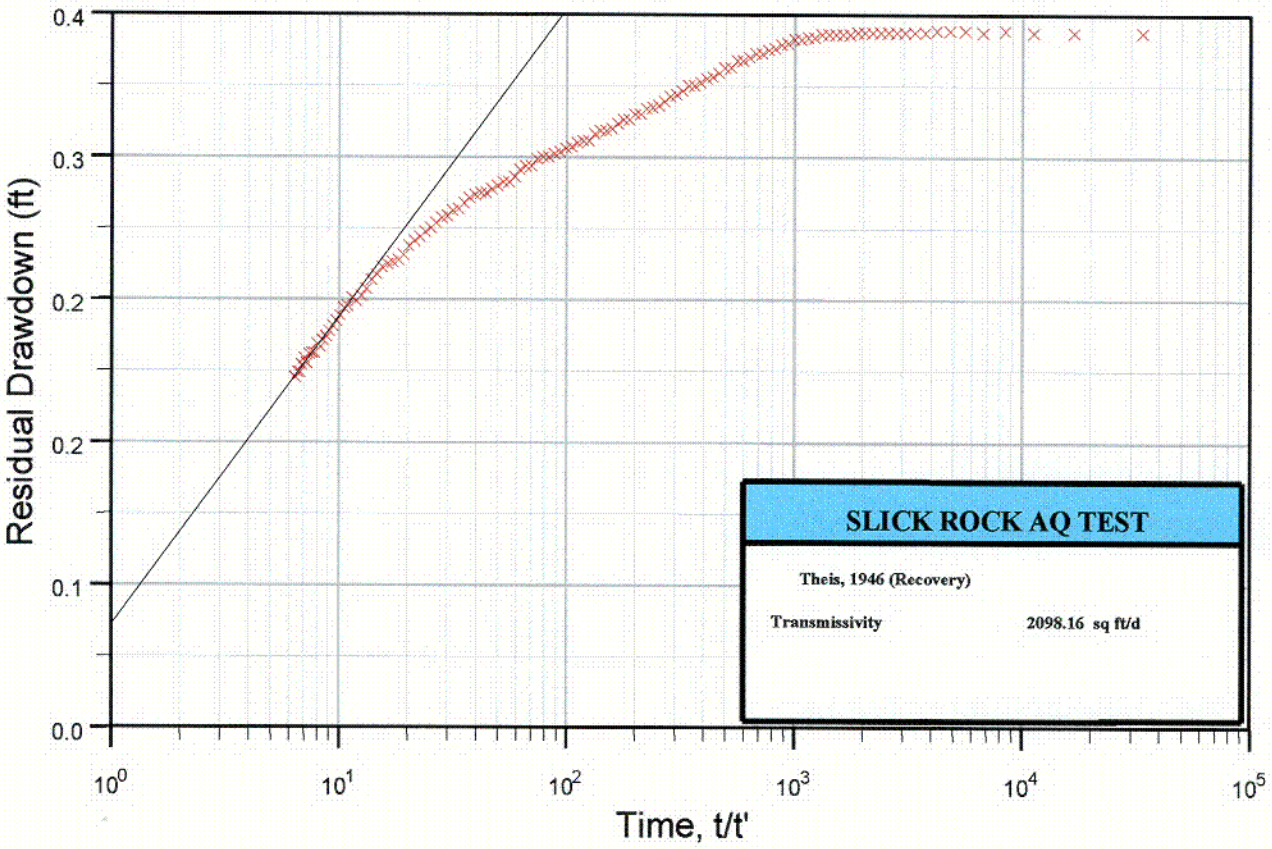

# WELL OBS 315 / 509 AQ TEST 4



# WELL OBS 315 / 509 AQ TEST 4 REC




# WELL OBS 314 / 509 AQ TEST 4 REC



# WELL PMP 317 / 317 AQ TEST 1 REC