DRAFT FINAL REPORT

SOUTHAMPTON AQUIFER PROTECTION STUDY

SUBMITTED TO THE TOWN OF SOUTHAMPTON

NOVEMBER, 1987

WEHRAN ENGINEERING
Consulting Engineers

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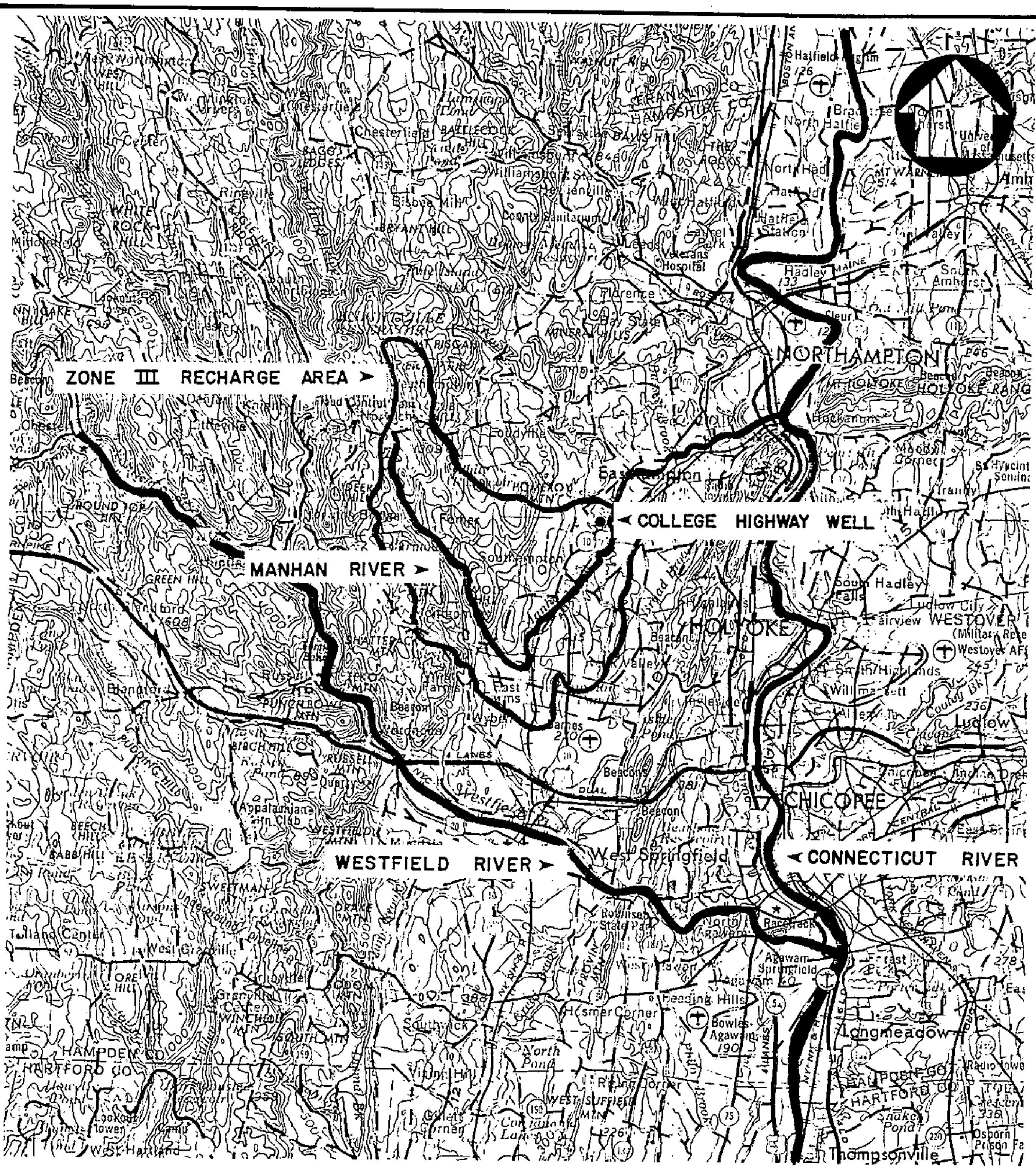
1.0 INTRODUCTION

This report presents the results of an aquifer protection study by Wehran Engineering Corporation (Wehran) for the Town of Southampton, Massachusetts. The purpose of the study was to delineate the primary recharge areas for the Town's municipal well located off College Highway (State Route 10) just south of the Manhan River Bridge (Figure 1). Knowing the location of the recharge areas, the Town can then take steps to protect them from man-induced contamination.

The designation of recharge areas used in this report follows the Massachusetts Department of Environmental Quality Engineering (DEQE) format. The DEQE's regulations divide the recharge area to a groundwater supply into three separate zones. Zone I is defined as a circle with a radius of 400 feet about the well. Zone II is defined as "that area of an aquifer which contributes water to a well under the most severe recharge and pumping conditions that can realistically be anticipated". Finally, Zone III is defined as "that land area beyond the area of Zone II from which surface water and groundwater drain into Zone II" (DEQE, Hydrogeologic Study Requirements for the Delineation of Zone II and Zone III for New Source Approvals).

To delineate the recharge areas a conceptual model of the aquifer has been developed. From the conceptual model and a series of data points within the aquifer, a numerical flow model has been prepared and calibrated to non-pumping conditions. The model was then used to simulate the pumping conditions necessary to establish the Zone II recharge area.

The conceptual model of the aquifer was developed from a thorough literature review, a field reconnaissance program, an analysis of pump test data collected on the College Highway well and available well log data. The results of the literature review and the pump test analysis were presented in a progress report submitted in March, 1987, and will be summarized in this report.



SCALE 1: 250,000

FIGURE 1

LOCATION MAP

FROM: USGS EASTERN UNITED STATES SERIES; ALBANY SHEET

2.0 AQUIFER HYDROGEOLOGY

2.1 LITERATURE REVIEW (FROM PROGRESS REPORT)

2.1.1 Geology

The study area is underlain by crystalline bedrock in the west and sedimentary bedrock in the east. The crystalline metamorphic bedrock which forms the foothills of the Berkshires extends eastward beneath the sedimentary rock.

In the study area the crystalline bedrock can be divided into two Lower Devonian formations: Waits River Formation in the northwest and the Goshen Formation in the southwest. Both these formations were originally deposited as shallow ocean sediments and have subsequently been metamorphosed and intruded with feldspar-quartz-muscovite pegmatite. The Waits River Formation is described by Zen, et al (1983) as interbedded medium to dark gray, moderately rusty-weathering, highly contorted, unbedded schist and punky weathering calcareous granofels. Zen, et al (1983) describes the Goshen Formation as well bedded micaceous quartzite or quartz schist grading upward into light gray to dark gray carbonaceous aluminous schist.

The sedimentary bedrock found in the eastern portion of the study area is of Upper Triassic and Lower Jurassic age and part of the Sugarloaf Formation which is currently called the New Haven Formation (Walsh, 1987). The New Haven Formation is described by Zen, et al (1983) as a red, pink and gray coarse-grained, locally conglomerate arkose, interbedded with brick-red shaley siltstone and fine grained arkosic sandstone. This formation was deposited in an alluvial environment and exhibits high compaction and little fracturing.

Previous studies (Larsen, 1972; Motts, 1985; and Walsh, 1987), utilizing both geophysical techniques and boring logs, have identified a north-south trending bedrock trough beneath the study area. The trough has been found to be approximately one and one half miles wide and varying from 150 to 200 feet in depth. This trough has been found to extend north into Northampton and south into Southampton (Larsen, 1972 and Walsh, 1987). It has been postulated by Larsen that this trough was carved out by the retreat of the most recent glacier. Because the crystalline bedrock to the west was more resistant and of high relief it is thought that the erosion of the sedimentary rock along the crystalline-sedimentary contact was enhanced creating this bedrock feature.

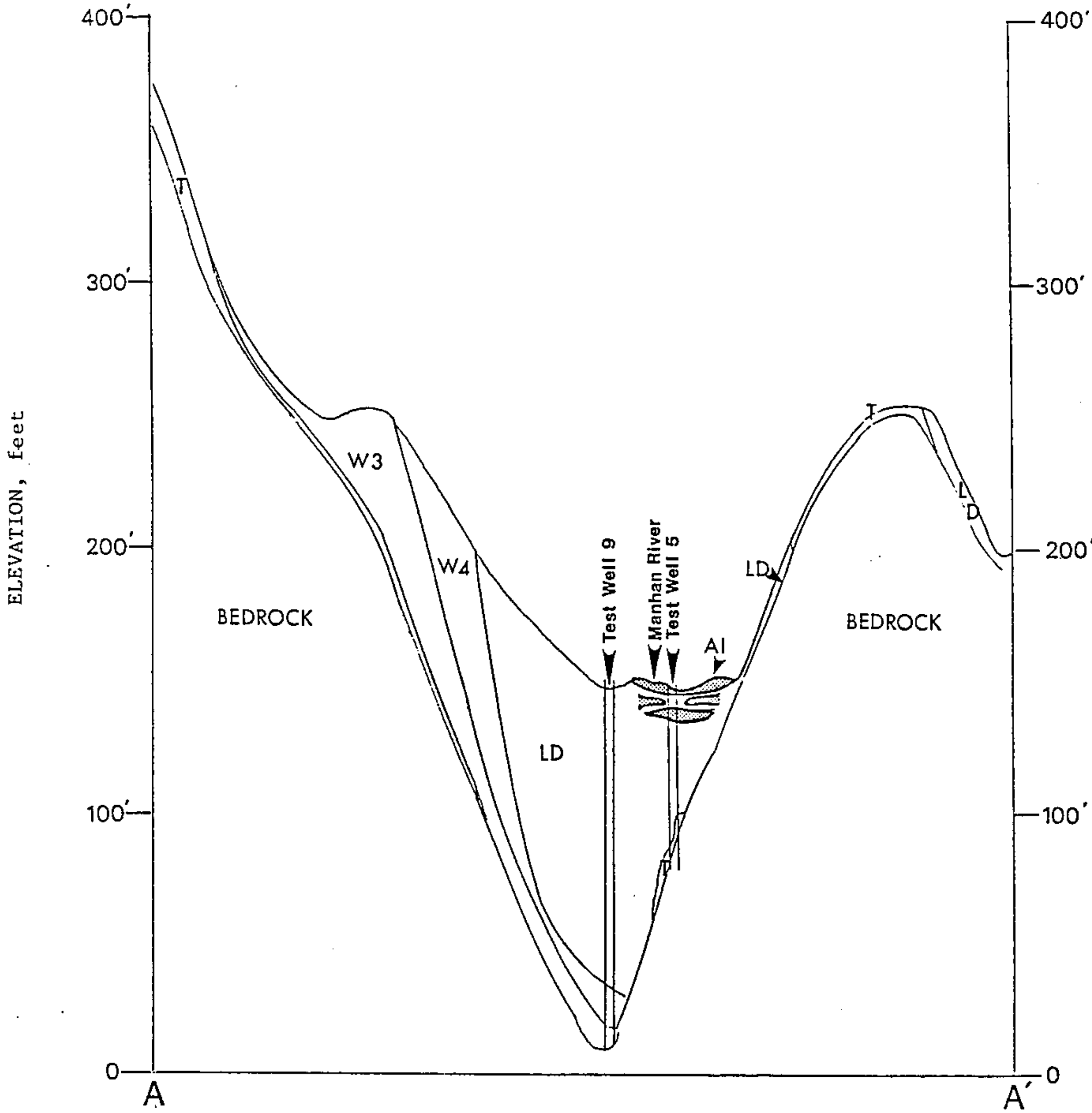
The surficial geology of the study area has been described in detail by Larsen (1972), Berndt, et al (1981), Motts (1985) and Walsh (1987). In general, the unconsolidated deposits include Late Wisconsin glacial deposits and post-glacial deposits. As the glacier retreated to the east of the study area meltwater streams transported a large volume of coarse-grained material (stratified drift) into the bedrock trough. This stratified drift varies from fine sand to boulders and was deposited in the bedrock trough up to 170 feet thick in some places. This stratified drift is the water producing aquifer of the area. Above the glaciofluvial deposits are lacustrine sediments composed of fine sand, silt and clay. These were deposited in a glacial lake environment and have been described in the study area as thinly bedded, very fine sand and coarse, medium and fine silt, with a color range from dark gray to light brown. A second lacustrine sediment found in the area is described as coarse, medium and fine varved gray clay with interbeds of coarse, medium and fine light brown silt.

Larsen (1972) found evidence of reglaciation in the study area which caused the deposition of a reddish-brown lodgment till above the glaciofluvial and lacustrine deposits in some areas. This till has been found to have a high ratio of sand. Two other tills, a brown till and a grayish-brown till have been found in the study area. Above the glacial deposits two postglacial deposits are found. Eolian or wind deposits are the uppermost unit, if present, and are composed of orange-brown, medium to fine sand. Alluvium or stream deposits are found along the current margins of streams in the study area. They are typically composed of fine-grained sand and silt.

For this report the surficial geology has been identified on the basis of these previous reports, boring logs and the site reconnaissance. Plate 1 shows the surficial geology of the Southampton area as previously mapped. In general, this mapping details a glacial till in the upland areas, the lacustrine clay deposits in the Moose Brook and Manhan River Valleys, with more recent alluvium along the flood plains of the Manhan River. Also shown, are the exposed more coarse grained glaciofluvial sand and gravel deposits. Figures 2 and 3 show the two cross-sections depicted on Plate 2 and illustrate the stratigraphy of the study area. Figure 2 is a cross-section through the buried bedrock trough and Figure 3 is a cross-section along the axis of the buried valley extending into the Moose Brook Valley.

2.1.2 Hydrogeology

The aquifer of concern in this study, the Southampton aquifer, is composed of the stratified drift or glaciofluvial deposits in the buried bedrock trough. These deposits have been found to run north-south extensively and vary widely in width and depth (Walsh, 1987). Figures 2 and 3 show cross-sections through the aquifer. Both cross-sections show the lower sand and gravel aquifer to be overlain by the lacustrine clay deposit which results in confined aquifer conditions throughout most of the site. Due to the strong upward gradient of the confined aquifer in the vicinity of the College Highway well, it is unlikely, that under natural conditions, there would be any flow downward through this confining clay layer into the lower aquifer from the surface water. Walsh in his study confirmed this and found that the surficial groundwater in the alluvial and stream terrace deposits was not significant in terms of water supply. The upward gradient would have a significant retarding effect to downward flow in most areas, however, in areas of high, prolonged pumping the piezometric surface may be drawn down below the



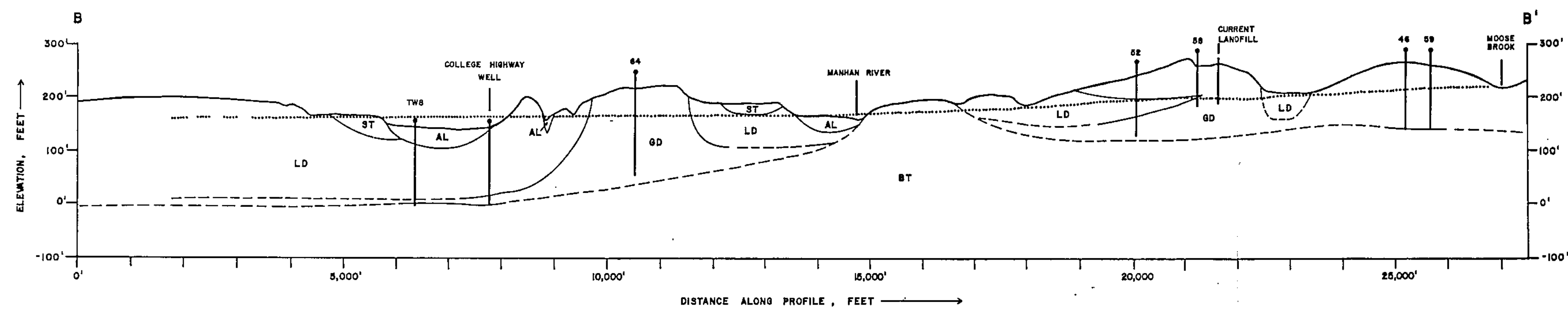
SCALE: HORIZONTAL 1"≅2105'
VERTICAL 1"≅60'

T	TILL (sand-clay)
W4	GLACIOFLUVIAL DEPOSITS (gravel and sand)
W3	GLACIOFLUVIAL DEPOSITS (sand)
LD	LACUSTRINE DEPOSITS (clay)
A1	ALLUVIAL DEPOSITS

FIGURE 2
PROFILE A–A'

SOURCE: SURFICIAL GEOLOGY FROM FRED LARSEN
WELL LOGS FROM TIGHE & BOND ENGINEERING

SEE FOLLOWING PAGE FOR TIGHE & BOND WELL LOGS



LEGEND:

- LAND SURFACE TOPOGRAPHY
- PIEZOMETRIC SURFACE (DASHED WHERE INFERRED)
- GEOLOGIC CONTACT (DASHED WHERE INFERRED)
- AL — ALLUVIAL SANDS, SILTS AND GRAVELS
- LD — LACUSTRINE CLAYS AND SILTS
- ST — STREAM TERRACE DEPOSITS
- GD — GLACIOFLUVIAL DEPOSITS
- BT — BEDROCK AND GLACIAL TILL
- WELL LOCATION

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Drawn by: G.B.
Checked by:
Date:

Scales

SOUTHAMPTON AQUIFER PROTECTION STUDY

SOUTHAMPTON MA.

FIGURE 3
GEOLOGIC CROSS SECTION B-B'

Sheet of

Project No. 06308 HF

confining layer creating localized areas of downward hydraulic gradient. This has the potential for inducing infiltration through the confining layer and increasing the potential for contaminant movement toward the lower aquifer. If this should occur any contaminants would move at an extremely low velocity and many contaminants would be highly retarded by the clay.

Recharge to the aquifer likely occurs through the exposed glaciofluvial sand and gravel deposits shown on Plate 1. As depicted on the map, there is an areally extensive sand deposit located west of the College Highway well and numerous smaller deposits located to the southwest, south and southeast. These would all represent potential recharge areas of the aquifer. Cross-section A-A' (Figure 2), trends east-west across the study area and illustrates that the potential recharge to the well is from the coarse grained glaciofluvial deposits to the west. Cross-section B-B' (Figure 3) suggests that recharge to the lower aquifer is also from the south. Actual recharge areas would depend on the continuity and nature of the aquifer deposits in these areas.

2.1.3 Summary

The figures and cross-sections provide a pictorial hypothesis of the nature of the Southampton aquifer. They suggest that the majority of recharge is from the west in the area shown on Plate 1 to be overlain by glacial fluvial sands, and possibly to a lesser extent other coarse grained glacial fluvial deposits located south and southeast of the well. This preliminary evaluation also suggests that there is no hydraulic connection under natural (non-stress) conditions between surface waters in the river valley and the deeper confined aquifer of the town well. This hypothesis is generally based on the fact that the piezometric surface at the town well is higher than the adjacent surface waters, indicating a relatively strong upward hydraulic gradient.

2.2 CONCEPTUAL MODEL

The conceptual model of the aquifer system is based on the literature review, field reconnaissance to confirm published geologic contacts, and drillers' logs for domestic water wells. The field reconnaissance of primarily the bedrock/till and outwash deposit contacts confirmed the accuracy of the surficial mapping by Larsen (1972). Drillers' logs were collected from the DEQE Division of Water Resources well completion reports, the U.S. Geologic Survey (USGS), the Tighe and Bond test well report and from personal communication with Mr. Joe Slattery. Mr. Slattery is a cable tool driller who has installed most of the wells screened in sand and gravel in the Southampton area. Fifty-nine logs were collected from the DEQE and USGS files and the Tighe and Bond report. An additional 20 were collected from Mr. Slattery's records. All well logs are presented in Appendix 1. The logs were used to define subsurface stratigraphic conditions and to provide information on hydraulic head both in the glaciofluvial materials and the bedrock. Plate 3, a site map of the study area, shows the locations of the above wells.

The basic conceptual model for the Southampton aquifer, as previously described, consists of glaciofluvial sands and gravels deposited in a bedrock trough. The aquifer material is overlain in many areas by a confining lacustrine clay layer. Recharge to the aquifer occurs primarily from infiltration into exposed glaciofluvial or outwash deposits and from groundwater flow into the aquifer from the upgradient Moose Brook and Manhan River Valleys. The information collected since the progress report has been used to refine the conceptual model and to better quantify its limits.

The areal dimensions of the aquifer are controlled by geological contacts to the east and west and groundwater divides to the north and south. The bedrock and till units to the east and west are not considered aquifer material because of their low hydraulic conductivity relative to the sand and gravel. The bedrock and till have been combined as one unit in the context of the aquifer study because available information has shown that their hydraulic conductivities are one to two orders of magnitude less than that of the aquifer; therefore they are considered a reasonable boundary to groundwater flow. From the north, the aquifer extends from its discharge into the Easthampton aquifer, located approximately beneath the confluence of the North Branch with the Manhan River, southward to groundwater divides both located in the Town of Westfield. As can be seen on Plate 3 the southern portion of the aquifer is divided by the uplands in the vicinity of Round Hill such that it is restricted to the Moose Brook and Manhan River Valleys. This delineation of the areal extent of the aquifer is based on previously mapped contacts (Larsen, 1972), and the estimated locations for the southern groundwater divides.

The next dimension of the conceptual model is the definition of the bottom of the aquifer. The information used to delineate the bedrock/till surface comes from test well and domestic well logs. The bedrock surface begins as a well defined trough at the northern end of the aquifer then becomes shallower and broader toward the south. Plate 2 shows the configuration of the bedrock surface and the data points used for contouring the bedrock elevation. At each point the depth to the bedrock surface below ground is presented along with the corresponding elevation relative to mean sea level. As can be seen, the trough splits and extends up the Moose Brook and Manhan Valleys to the south. The bedrock valley generally deepens to the north; however, in the upper Moose Brook Valley a bedrock divide is noted indicating that the bedrock surface there deepens to the south near the brook's headwaters. The accuracy of the contour map is limited by the density of data points and the accuracy of the logs. Dashed contours indicate where the data are limited.

The bedrock elevation provides a clear picture of the bedrock surface; however, a consideration for the depth to bedrock below the ground surface is important in order to understand the continuity of the aquifer. In the vicinity of the closed 150 foot elevation contour on Plate 2 the bedrock is noted to be only 12 to 20 feet deep. The two wells immediately to the northeast and southwest of that area also show extremely shallow depths to bedrock. Furthermore, Larsen (1972) mapped till at the ground surface in that area (Plate 1). Therefore, this is an important area in that the existence of shallow bedrock indicates thin to nonexistent aquifer materials in this area. Limited aquifer material would tend to restrict the movement of groundwater from the Moose Brook Valley into the main portion of the Southampton aquifer. The data are not dense enough to determine whether the shallow bedrock eliminates groundwater movement from the Moose Brook Valley to the aquifer; however, it can be said that groundwater flow is restricted. The current Southampton landfill is located in the Moose Brook Valley aquifer materials upgradient of the shallow bedrock (Plate 3). For the purposes of the conceptual model it has been assumed that the Moose Brook aquifer materials and therefore, the existing landfill, are hydraulically connected to the Southampton aquifer.

To further refine the conceptual model the location, thickness and continuity of the aquifer materials is necessary. In plan view, as shown on Plate 4, the outwash sands and gravels are exposed to the west, southeast and south of the well. In the subsurface these sands and gravels are deposited on the bedrock/till surface and extend beneath the clays and silts to the center of the bedrock trough (Figures 2 and 3). The thickness of the sand and gravel underlying the clay varies from a few feet to forty feet. Only one test well, conducted by Tighe and Bond (1963), did not encounter this outwash deposit (TW 4); however, this well was located on the eastern flank of the buried valley at the approximate margin of the aquifer. Nine of the collected drilling logs encountered clay and sand/gravel over bedrock. The average thickness of the outwash material is 26.2 feet. The interpretation based on the well logs and the literature is that the sands and gravels are continuous beneath the clay. The one exception to this interpretation is in the vicinity of the shallow bedrock discussed above. The continuity of the sand and gravel of that area is not clearly defined from the collected data. Therefore, a conservative interpretation has been taken that the sand and gravel is continuous, but thin.

The hydraulic conductivity of the aquifer material is dependent on its grain size and sorting. The more detailed well logs indicate the material coarsens with depth. Generally, sands predominate near the top of the deposit while fine gravels predominate near the bottom. This observation is consistent with the depositional processes of a glaciofluvial environment. Coarser materials are deposited during the initial high energy stages of a glacial river or outwash system. With time the energy lessens and finer materials are laid down. Consequently, the hydraulic conductivity is believed to increase with depth. Few measurements exist to quantify the hydraulic conductivity of the aquifer. Values calculated from the pump test results indicate hydraulic conductivity values ranging from 358 to 462 feet per day (ft/day) or 0.13 to 0.16 centimeters per second (cm/s.) in the vicinity of the pumping well. Sand samples collected on Pomeroy Meadow Road from construction excavations indicated a hydraulic conductivity of approximately 50-100 ft/day (2-4 x 10^{-2} cm/s) based on visual inspection.

To complete the conceptual model groundwater flow through the aquifer system is presented. The predominant direction of groundwater flow is from south to north as shown on Plate 4, a contour map of the piezometric surface. Data points presented on the map are from the collected well logs. Numbers next to each point are for the elevation in feet above mean sea level (AMSL) of the static water level in the well and the date (in parentheses) when the measurement was made. It should be noted that water levels from both bedrock and sand/gravel wells were used since it appears that the bedrock is in hydraulic connection with the aquifer. As stated the predominant flow direction is from south to north; however, more locally flow is from the recharge areas toward the center of the valley. The relatively steep gradient from the edge of the aquifer to the center of the valley relative to the gradient along the valley axis indicates increasing hydraulic conductivity with depth. The more highly conductive material at the center of the valley is likely acting as a drain inducing a larger gradient in the shallower, less conductive aquifer materials. In the area of shallow bedrock, groundwater hydraulic connection has been inferred based on a conservative interpretation.

Recharge to the aquifer occurs through the exposed outwash sands and gravels (Plate 4) and from groundwater flowing into the aquifer materials from upper Moose Brook and Manhan River Valley deposits. Infiltration to the exposed aquifer materials is estimated at approximately 15-20 inches per year (in./yr.) (personal communication B. Hanson; USGS) which is about half of the annual precipitation for the area (Walsh, 1987).

In summary, the Southampton aquifer is areally extensive to the north and south and is restricted in the east and west by the buried bedrock trough. The major portion of the aquifer is under confined conditions due to the lacustrine clay deposits (Plate 4). In the areas where the outwash deposits show surface expression (Plate 4) the aquifer is unconfined.

3.0 COLLEGE HIGHWAY WELL

The College Highway well is Southampton's municipal well located in the Southampton aquifer. Identified as the pumping well on the plates and figures, the College Highway well is located 4100 feet southwest of the Easthampton town line, just to the west of College Highway (State Route 10). The pumphouse is situated in a fenced portion of a hayfield.

The well was located in 1963 as the result of a water study performed by Tighe and Bond Consulting Engineers. The total depth of the well is 140 feet and screened in coarse sand, fine gravel aquifer material below 116 feet of lacustrine clay and silt. The well is constructed of an 8-inch diameter casing with an 8-inch diameter screen consisting of 5 feet of 20 slot screen over 5 feet of 60 slot screen. Tighe and Bond conducted a seven-day constant discharge pump test on the well; pumping at 550 gallons per minute (GPM). The well is currently equipped with a submersible pump capable of pumping 210-220 GPM installed in 1985. The pump is cycled automatically to maintain water pressure in a municipal storage tank. The pump operates a total of approximately 12 hours per day (personal communication with J. Slattery).

In relationship to the Southampton aquifer, the College Highway well is located in the well-defined trough portion of the buried bedrock valley (Plate 2). Under non-pumping conditions the water level in the well (as well as in the surrounding observation wells monitored during the 1963 study) is approximately 17 feet above ground surface indicating artesian or confined aquifer conditions. During the 1963 pump test the water level was drawn down to 86.5 feet below the ground surface. However, heads in observation wells located greater than 190 feet from the well remained above ground surface indicating an upward hydraulic gradient in the vicinity of the well. Currently the well is drawn down to approximately 14 feet below ground surface during each pumping cycle.

A recent analysis of the 1963 pump test data by Wehran provided quantitative results for aquifer coefficients (Appendix 2). Transmissivity values ranged from 7171.2 ft^2/day (77.11 cm^2/s) to 9244.8 ft^2/day (99.41 cm^2/s), with a geometric mean of 7,991.6 ft^2/day (85.93 cm^2/s). Storage coefficient values ranged from 9.1×10^{-6} to 1.5×10^{-4} with a geometric mean of 2.2×10^{-5}. These coefficients are indicative of good to excellent aquifer characteristics.

The water quality of the well is good as determined from the State Purgeable Organics Testing Program (S.P.O.T.) and from several inorganic analyses (Appendix 3). The analytical results indicate no contamination from indicator organic contaminants or from inorganic parameters. It should be noted that only a few water samples have been analyzed in the 24 year history of the well. It is very difficult to assess the long term water quality.

4.0 ZONE I DELINEATION

By definition the Zone I recharge area is a circle with a 400 foot radius about the production well. For the College Highway well this recharge area is extremely limited hydraulically. The Zone I area is underlain by at least 100 vertical feet of lacustrine clay and silt which effectively separates the aquifer material from the ground surface. The delineation of a Zone I recharge area is intended to provide aquifer protection in close proximity to the production well. The lacustrine deposit provides additional protection to the aquifer from activities at the ground surface.

5.0 ZONE II RECHARGE AREA DELINEATION

The Zone II recharge area is defined by the DEQE as that area from which groundwater flows to the well under the most extreme pumping conditions. these conditions are defined as 180 days of pumping with no recharge to the aquifer. For the purposes of this study a pumping rate of 550 gpm was chosen. This rate was chosen because from the analysis of the Tighe and Bond pump test data it appears to be the maximum sustainable rate that the well can be pumped. At that rate the water level in the well was essentially stabilized at 18 feet above the pump. Currently the Town of Southampton is pumping the well at 210 gpm in approximately 12 hour cycles. The higher pumping rate of 550 gpm also takes into consideration future demands on the well. Therefore, while stressing the aquifer system under these severe simulated drought conditions the recharge area is defined.

To delineate the Zone II recharge area the DEQE recommends utilizing numerical modelling techniques. In many aquifer protection studies the use of a numerical model is critical to defining the Zone II area because under unconfined conditions the recharge area extends radially from the pumping well and the physical boundaries of this often extensive area can only be determined through predictive methods. In the case of the Southampton aquifer physical recharge areas are limited due to the confining lacustrine deposits. During the course of this investigation these recharge areas were delineated based on the observed and previously studied geology of the area, as shown on Plate 3. The recharge area in the vicinity of Pomeroy Meadow Road (named the Pomeroy Recharge Area) is likely the primary source of recharge to the College Highway well and therefore is of utmost importance for protection. Because of the confined nature of the Southampton aquifer the Zone II boundaries calculated by numerical analysis may not extend to the limits of the Pomeroy Recharge Area; however, the protection of this area and the other natural recharge areas is critical to the maintenance of a pristine aquifer regardless of where the calculated Zone II boundaries lie.

5.1 NUMERICAL MODEL

The McDonald and Harbaugh three-dimensional model (MODFLOW) was used to simulate groundwater flow in the Southampton aquifer (McDonald and Harbaugh, 1984). The model is a modular, three-dimensional finite difference groundwater flow model published in 1984 as an open-file report by the USGS. The model is comprised of a central package or module which is designed to solve the groundwater flow equation for each node or block within a grid with respect to each block surrounding it. Additional modules can be added to the basic package to simulate discrete hydrogeologic conditions that effect groundwater flow. Examples of packages pertinent to the Southampton aquifer are the river, recharge, and pumping well modules. The model is well-documented, providing a clear discussion of the logic and limits associated with each module. The code is written in FORTRAN and designed to run on various types of mainframe and personal computers. The computers used in this study were an IBM-AT personal computer with a FORTRAN compiler and a math coprocessor chip, as well as a micro-VAX 2000 mainframe computer.

In order to predict the Zone II boundaries using MODFLOW, the numerical model was set up based on the conceptual model and calibrated utilizing steady state or non-pumping conditions. Once the numerical model was calibrated to steady state transient or pumping conditions were simulated. The model was then calibrated to the seven day pump test data. Following this transient calibration the model was used to simulate a 180 day pumping period without recharge to obtain the Zone II boundaries.

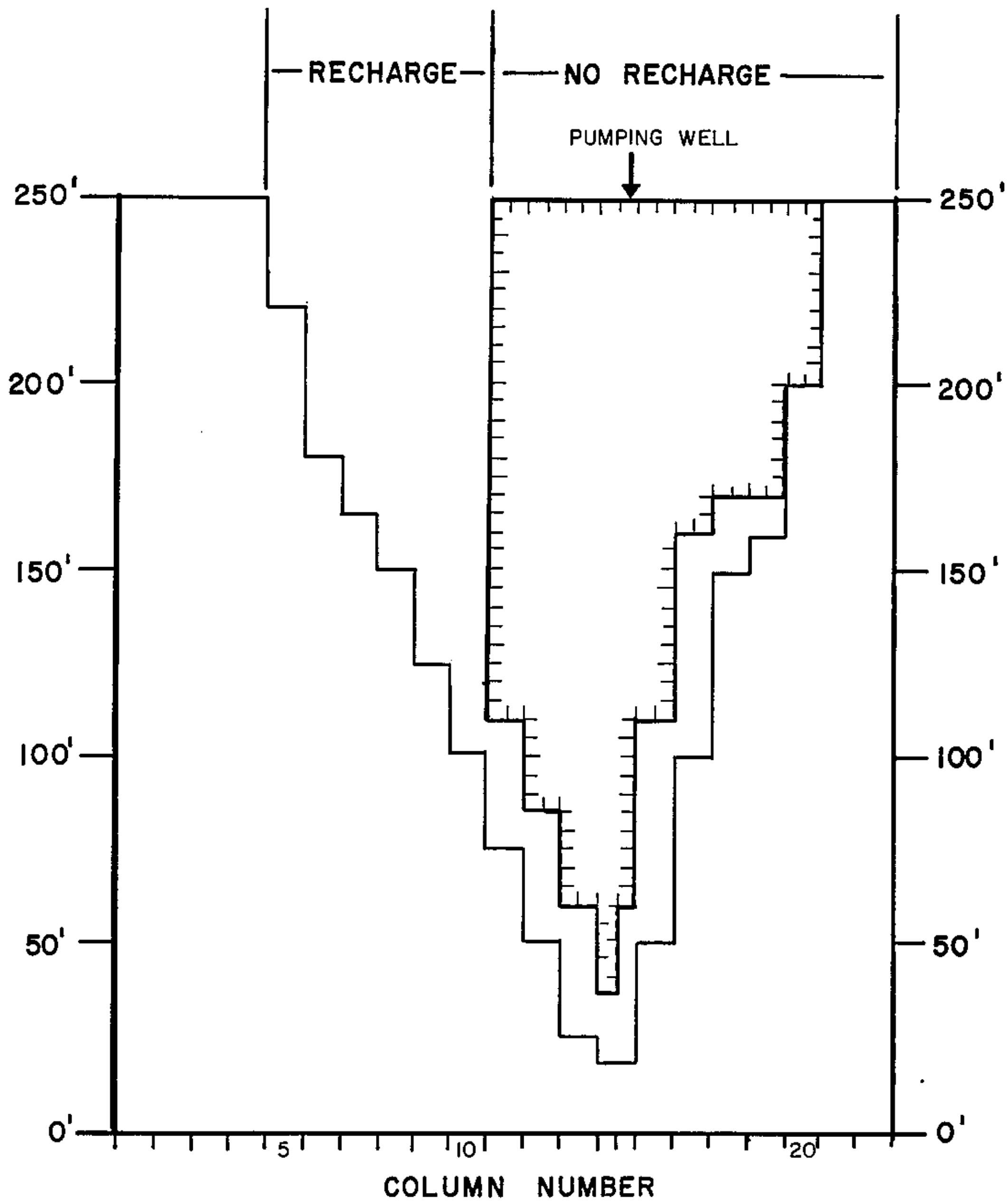
5.1.1 Grid

The grid in plan view is an elongated rectangle as shown on Plates 2 and 3. It is 10,500 feet (2.0 miles) wide and 27,000 feet (5.4 miles) long. The grid is discretized into blocks or nodes 500 feet on a side. In the vicinity where the pumping well and observation wells are in close proximity, the grid is more finely discretized. Columns 14 and 15, out of a total of 20, and rows 15, 16, 17 and 18, out of a total of 56, are 250 feet long to provide greater detail at the pumping well site.

The third dimension of the grid is described by one layer representing the aquifer material bounded laterally and vertically by the lacustrine deposits and bedrock. Active nodes are shown on Plate 2. Where the aquifer material is exposed at the ground surface it receives recharge and is unconfined (Plate 4). The thickness of the aquifer in the recharge areas is defined by the distance from the water table to the bedrock surface. Where the aquifer is overlain by lacustrine deposits it behaves as a confined system. The thickness of the aquifer beneath the lacustrine deposits is 20 feet, which is the thickness of the sand and gravel unit between the lacustrine clay and the bedrock/till at the College Highway well. Although the actual thickness varies, 20 feet was used due to the lack of control to accurately vary it. Figure 4 is a cross section depicting the model configuration in the third dimension showing the aquifer and confining materials.

5.1.2 Boundary Conditions

Boundary conditions define how water moves into and out of the grid horizontally and vertically. The assignment of boundary conditions is based on field conditions and simplifying assumptions. For each boundary condition described, the field conditions and assumptions are presented. In overview, groundwater flow is predominantly horizontal through the sand and gravel filling the bedrock valley. The bedrock/till and the lacustrine clay are assumed to be impermeable and have been designated as inactive or no-flow nodes. Recharge to the system is from precipitation to the sand and gravel recharge areas and groundwater flow into the grid from the south and southwest



LEGEND:

BOTTOM OF ACTIVE NODES
IMPEDING LAYER

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FIGURE 4: REPRESENTATIVE MODEL CROSS SECTION (ROW 17)

through the sand and gravel. Groundwater exits the system through the confined sand and gravel to the northeast.

Along the edge of the grid the nodes representing bedrock/till and lacustrine clay and silt are inactive. Both the bedrock/till and lacustrine deposits are considered impermeable because of the large difference in hydraulic conductivity between them and the glaciofluvial sands and gravels. The bedrock is permeable because it does yield water, but the yields are typically one to two orders of magnitude less than the sand and gravel wells. The lacustrine deposits, although not measured, are assumed to have a hydraulic conductivity several orders of magnitude lower than the sand and gravel.

Both active and inactive boundary conditions have been used where the outwash deposits are expected at the grid's edge. Inactive boundary conditions were used where groundwater flow is parallel to the grid edge. A constant head boundary covering four nodes was used at the location of Lyman Pond (Plate 2). At the grid boundary the dammed pond is located in a relatively steep valley. A constant head elevation of 195 feet above mean sea level was used to represent the average groundwater elevation in the vicinity of the pond. General head boundaries were used for the remaining exposed outwash. Theoretically, this boundary condition allows flow in or out of the grid, depending on the elevation of the water table within the grid relative to a constant head at some distance outside the grid. Since no constant head sources were available, a constant head was approximated at 2000 feet beyond the grid edge.

In addition to the boundary conditions, input parameters for recharge, initial heads and hydraulic conductivity are required for steady state simulations with MODFLOW. For the Southampton area a recharge rate of 5 to 22 inches per year (1.32×10^{-8} to 5.81×10^{-8} feet per second) was utilized. The input for initial heads was derived from the piezometric surface contour map (Plate 4). The information used to construct this map came from the collected well log data. The hydraulic conductivity values used in the numerical simulations were derived from the pump test analysis and observed variations in grain size. These hydraulic conductivity values range from 40 to 462 feet per day (4.63 x 10^{-4} to 5.4 x 10^{-3} feet per second). From reviewing the available information it was observed that the hydraulic conductivity of the aquifer varied with depth; therefore, to take into consideration the more transmissive material at the base of the buried valley, the hydraulic conductivity of a strip of nodes along the axis of the valley was increased by a factor of five. A factor of five was chosen based on the observed range in grain size and the typical range in hydraulic conductivity of these materials.

5.1.3 Calibration of the Steady State Simulation

The final results of the steady state simulations are presented in Appendix 4 and illustrated on Plate 6. These results were achieved by varying both the rate of recharge and the hydraulic conductivity values within their ranges in order to best approximate the available field data. The input parameters used for the final calibration run are a recharge rate of 8.8 inches per year a hydraulic conductivity value of 462 feet per day (1 x 10^{-2} feet per second)at the base of the buried valley and a hydraulic conductivity value of 83 ft per day (1 x 10^{-3} feet per second) for the remainder of the aquifer. The hydraulic head data are presented on Plate 4. It should be noted that for ten foot contour intervals with the degree of control available for the Southampton aquifer that an acceptable error is $\pm$15 feet. As can be seen from these two plates the majority of the control points are within this range of error.

A comparison of the equipotential lines on Plates 4 and 6 reveals some differences. The simulated results (Plate 6) indicate more predominant flow parallel to the valley sides and a flatter piezometric surface. This difference is due to the lack of extensive areal variation in the hydraulic conductivity input data. Because of this and the fact that the confined portion of the aquifer has been assumed to be of constant thickness MODFLOW calculates a constant transmissivity forcing the piezometric surface to flatten. This flattening of the piezometric surface caused an artificial lowering of the piezometric surface at the bedrock/till and outwash deposits contact. Consequently, several nodes at the contact went dry. In order to more accurately represent the information presented on Plate 4 both the hydraulic conductivity and thickness of the aquifer would have to be varied beyond the control limits of the input data. To acquire sufficient data to simulate the conceptual piezometric surface is beyond the scope of this study since a significant number of soil borings would be required throughout the aquifer to obtain the necessary information. However, the preliminary numerical model will conservatively define the Zone II boundaries and in that light is adequate to meet the objectives of the study. Additionally, as previously discussed, the physical recharge areas have been accurately delineated for the Southampton aquifer based on the geology and therefore, those areas which need protection can be defined.

In the future, if more precise numerical simulation is necessary any newly acquired information can readily be incorporated into the preliminary model. When sufficient field information has been collected the preliminary numerical model can be upgraded.

5.1.4 Simulated Pumping Conditions

To further calibrate the preliminary numerical model a transient calibration run simulating the seven day pump test was conducted. The results of this simulation are presented in Appendix 5. To initiate the transient runs the final head values from the steady state simulations were used as initial conditions. Nodes that went dry during the steady state simulation were given their same initial values to commence the transient simulation. The parameters that were varied during the transient calibration were the storage coefficient and the hydraulic conductivity. The range of these parameters were determined from the pump test analysis. The drawdowns calculated during the transient simulations were compared to the drawdown of the observation wells monitored during the pump test (TW-7, TW-12 and TW-13). The final values from the transient calibration are a storage coefficient of 2.2×10^{-4}, a hydraulic conductivity of 220 feet per day (2.55×10^{-3} feet per second) at the base of the buried valley and a hydraulic conductivity value of 43 ft per day (5×10^{-4} feet per second) for the remainder of the aquifer. The need to reduce the hydraulic conductivity between the steady state and transient calibration runs further confirms the variability and complexity of the aquifer. The results of the final calibration run show drawdowns in the observation wells well within 10 feet of the measured values. It should be noted that these drawdowns represent the average drawdown of a 250 foot square node and therefore, depending upon the actual location of the observation, well within that node the calculated drawdown will be greater or less than the observed value.

The results of the 180 day simulation are also presented in Appendix 5. The extent of the cone of depression from this simulation is illustrated on Plate 7. As can be seen the cone of depression is asymmetrical and extends several thousand feet north and south of the pumping well under these extreme conditions. The asymmetry is the result of the drawdown cone intersecting the bedrock/till surface to the east and west. The cone of depression encompasses the recharge area in the vicinity of Pomeroy Meadow Road. Although the cone of depression approaches the edge of the grid to the south, the symmetry between the north and southern extent of the cone indicates that the grid edge does not greatly effect the cone.

5.2 ZONE II BOUNDARY

The extent of the cone of depression calculated during the 180 day pumping simulation was used to approximate the Zone II boundary presented on Plate 3. As can be seen the Zone II boundary encompasses the Pomeroy Recharge Area. Although this preliminary model provides only an approximate solution, it is conservative and therefore provides the Town of Southampton with a safe aquifer protection boundary.

6.0 ZONE III RECHARGE AREA DELINEATION

The Zone III recharge area, presented on Plate 5, encompasses the area from which water could flow into Zone II. It consists primarily of the watershed for the Manhan River with groundwater from the Moose Brook Valley. The Zone III extends to the headwaters of the Manhan to the northwest of Southampton and encompasses the Wight and the Tighe and Carmody reservoirs. The majority of the Zone III is bedrock/till uplands where surface water divides mark the boundary with adjacent watersheds. In the south the boundary extends onto the valley floor then wraps around to the bedrock/till hills on the east side of the aquifer. The depicted outline of Zone III on Plate 5 has been dashed where the location of the groundwater divide and the southern boundary has been approximated. Although the surface water divide is well-defined by numerous headwaters and ponds in the vicinity of East Pond, Round Hill and the Pequot Ponds (the Westfield town line), the actual groundwater divide is not easily established due to the relatively level topography. The groundwater divide probably fluctuates northward and southward seasonally depending on recharge rates. The northern boundary of the Zone III is drawn across the Manhan Valley conservatively 4000 feet north of the College Highway well. It should be noted that not all water flowing in Zone III flows into Zone II. Most recharged water discharges to the Manhan River. However, a component of the total recharge moves as groundwater in the Manhan River Valley recharging the Southampton aquifer and eventually flowing into Zone II.

7.0 CURRENT LAND USE AND POTENTIAL SOURCES OF CONTAMINATION

7.1 ZONE I

The Zone I recharge area is a circle with a radius of 400 feet about the current well location. This area is presently Zoned Residential - Neighborhood as shown on Plate 8, the zoning map for the Town of Southampton. The town owns several acres around the well, but not the entire area encompassed by Zone I. The land owned by the town is not being used for any purpose other than to protect the well. The remaining land within the 400 foot radius is cultivated for hay or is wooded.

Two potential sources of contamination are evident in this zone. First, approximately 200 feet north of the College Highway well, a small stream flows northeastward. This stream flows through a farmyard to the southwest and therefore could be subject to a variety of agriculturally related contaminants. College Highway (State Route 10) passes along the boundary of Zone I south and southeast of the well. As with any other major transport route, College Highway is a potential source of contamination from road salt or accidental spills. In a different geological setting these potential sources would be of concern; however, due to the presence of approximately 100 feet of lacustrine clay and silt overlying the aquifer within this zone (Figure 2) these sources do not threaten the Southampton aquifer.

7.2 ZONE II

The Zone II recharge area encompasses the area from which groundwater flows to the College Highway well after 180 days of pumping with no recharge. This area is shown on Plate 3 and covers five different municipal zoning boundaries. The majority of the area, to the west and south of the well, is zoned Residential - Village (minimum lot area 30,000 square feet) with a small area zoned Commercial-Village (minimum lot area 25,000 square feet). North of the well and to the west of the Manhan River the area is zoned Residential - Neighborhood (minimum lot area 40,000 square feet). Northeast of the well and east of the Manhan River the area is zoned Commercial - Highway (minimum lot area 40,000 square feet). And finally, southeast of the well and east of the Manhan River is an area zoned Residential - Rural (minimum lot area 60,000 square feet).

Approximately half of the Zone II recharge area is underlain by the lacustrine clay and silt unit. It is important to note that this unit thins to the west as illustrated in Figure 2 and provides the aquifer with less protection in these areas. The western edge of the Zone II area overlies the glacial outwash sands and gravels that recharge the Southampton Aquifer in the vicinity of Pomeroy Meadow Road (Pomeroy Recharge Area).

Current land use in the Zone II area is primarily dairy farming, followed by low density residential housing and a village area with two service stations. The area zoned commercial highway is currently at the initial stages of development and consists of a small roadside shopping mall (less than 10 stores).

Four primary, potential sources of contamination have been identified in the Zone II area. These include the old dump (Plate 3), potential agricultural contamination, underground storage tanks (Plate 3) and septic systems. The old dump is of primary concern because it is located in the Pomeroy Recharge Area and because little is known of its construction history, waste types received and closure. Since dairy farming is the primary land use in this zone there is a potential for contamination from agriculturally related chemicals. These would include fertilizers, herbicides and pesticides. Throughout the area a second potential source of contamination is from underground storage tanks. Existing gasoline service stations, with their underground petroleum product storage tanks, are another potential source of contamination to the Southampton aquifer. Septic systems potentially pose a real threat to the aquifer since they are utilized as the exclusive means of sewage disposal throughout the study area. They are considered a

? manure

potential source because of the volume of sewage waste and because of the potential for improperly disposed hazardous waste.

As previously discussed the hydrogeology of the Southampton aquifer with its confining lacustrine deposit and predominantly upward hydraulic gradient prevents these potential contaminants in many areas from affecting aquifer water quality. However, as the lacustrine deposit thins to the west and pinches out exposing the sands and gravels that recharge the aquifer the potential for contamination is of greater concern. Consequently, the western and southwestern portions of the Zone II area are sensitive to potential contamination and therefore, land use in this area needs to be carefully planned.

7.3 ZONE III

Zone III, as previously defined, is the area from which groundwater flows into Zone II. This area is depicted on the watershed map (Plate 5) and encompasses all six of the Town designated zoning boundaries. The zoning boundary not previously discussed is Industrial - Park (minimum lot area 80,000 square feet). In order to simplify the discussion of the large Zone III area, only those land areas and land use practices that could impact the aquifer will be presented.

Obviously the major land areas of concern are the outwash sands and gravels which directly recharge the aquifer. These consist of three areas as shown on Plate 3. The recharge area directly south of the well in the vicinity of Moose Brook Valley is considered the least sensitive of the three areas for two reasons. First, because of the shallow bedrock in the vicinity of the confluence of the Manhan River and Moose Brook there is some question of the degree of connection between the Moose Brook recharge area and the Southampton aquifer. Second, it is the recharge area located furthest from the College Highway well. The two remaining recharge areas shown on the site map (Plate 3) are considered of equal sensitivity.

Current zoning in these three recharge areas is residential (Plate 8). It should be noted that the two areas in town designated Industrial - Park are not located on the outwash sand and gravel recharge areas but on lacustrine clays and silts and bedrock/till.

There are four current land use practices in the Zone III area which could potentially impact the Southampton aquifer. The current landfill, as shown on Plate 3, is located on the outwash sands and gravels in the Moose Brook recharge area and as previously discussed is conservatively assumed to recharge the Southampton aquifer. As previously mentioned there are two areas zoned Industrial - Park. Neither of these areas is extensively developed; however, due to the potential hazards of some industries these areas should be developed with careful planning. Again, septic systems potentially pose a real threat to the aquifer since they are utilized as the exclusive means of sewage disposal throughout the study area. They are considered a potential source because of the volume of sewage waste and because of the potential for improperly disposed hazardous waste. Finally, underground storage tanks pose an easily overlooked threat to the groundwater. These underground tanks would typically include buried heating oil or fuel tanks and gasoline tanks which can be found in both rural and village settings.

8.0 RECOMMENDATIONS

The Southampton aquifer protection study has consisted of an extensive literature review, an evaluation and mapping of the site hydrogeology, a numerical analysis of the flow regime and an assessment of current land use practices in order to delineate the Southampton aquifer recharge zones and identify those areas which need protection. As a result of this work the DEQE defined recharge areas, Zone I, II and III, have been delineated. Typically, in an unconfined aquifer environment Zone I and Zone II are the most critical areas to protect. The Southampton aquifer differs from this situation in that the aquifer is confined at the municipal well location. Throughout Zone I the aquifer is protected from ground surface by approximately 100 feet of lacustrine clay and silt. In Zone II this clay and silt unit thins to the west until the aquifer materials are exposed at the ground surface. Zone II encompasses the exposed sands and gravels of the Pomeroy Recharge Area, the recharge area in closest proximity to the College Highway well. The remaining sands and gravels which directly recharge the aquifer are located in the DEQE designated Zone III. It is in these areas of exposed outwash sands and gravels, especially the Pomeroy Recharge Area, that protection is most important.

The Southampton aquifer is a productive and high quality source of water and therefore, is an invaluable resource which must be protected. The following are some general guidelines and specific recommendations to aid the Town of Southampton in protecting this resource.

It is recommended that the zoning of the areas delineated as recharge areas on the site map (Plate 3) be modified to identify these areas as Watershed Protection Zones. These Watershed Protection Zones should also include a buffer zone of 1000 feet beyond the contact of the outwash deposits with the lacustrine clay and silt. This buffer provides protection for the area where the lacustrine deposit thins and the aquifer is no longer confined. Current practices and future development within these Watershed Protection Zones should be under the jurisdiction of the Town of Southampton such that any activities that are detrimental to the aquifer can be prohibited.

The Town of Southampton should also require permits for the development of any large water supply well (greater than a single family dwelling) within the Southampton aquifer as shown on Plate 2. These permits should require that the developer show, following DEQE water supply approval guidelines, that the proposed well will not interfere with the College Highway well nor adversely affect the aquifer.

As previously discussed septic systems provide the sole means of sewage disposal within the Town and therefore, are potential sources of contamination to the aquifer both from the volume of sewage processed and from the possibility of improper disposal of hazardous substances. The impact of septic systems is of particular concern within the Watershed Protection Zones. It is highly recommended that septic systems within these zones be minimized and that any new or existing systems be properly designed and maintained. It would be prudent to consider the development of a municipal sewage treatment system for the buildings located in the Pomeroy Recharge Area as there is a high density of existing development and strong potential for future development in this the most sensitive Watershed Protection Zone. It was beyond the scope of this study to assess the current impact of the development in the Pomeroy Watershed Protection Zone on the Southampton aquifer; however, intuitively because of the hydraulics of the aquifer and the distance from the well this should not be considered a critical situation. But rather the Town should be aware that this is a potential threat and for safe development in the Pomeroy Watershed Protection Zone a sewage treatment facility should be evaluated.

Septic systems are one of the most difficult potential sources of contamination to assess, particularly because of the possibility of improper hazardous substance disposal. To address this problem and to heighten the awareness of the community to their valuable water resource a public education campaign is recommended. This campaign should be aimed at all levels of the community from school children and households to businesses and industry. This campaign should make the community aware of what a valuable aquifer Southampton has as well as what actions could be detrimental to it. To facilitate this effort, the New England Water Pollution Control Association (NEWPCA) has several educational brochures which are relatively inexpensive, easily understood and could be distributed widely. Enclosed (back pocket) is the NEWPCA brochure on "Hazardous Waste What You Should and Shouldn't Do" which is helpful in outlining what are household hazardous wastes and how to properly dispose of them. The educational campaign should be coordinated with the community hazardous waste clean-up day. The results of this effort should heighten pubic awareness and reduce the potential for hazardous substances to enter the aquifer from septic systems.

In addition to these guidelines the following specific recommendations are suggested:

1. Annual analysis of the College Highway well water for: volatile organic compounds, pH, specific conductance, calcium, magnesium, potassium, sodium, iron, manganese, chloride, sulphate, fluoride, nitrate, phosphate, RCRA metals and total phenols;

2. Quarterly sampling of the College Highway well water for indicator parameters including pH, specific conductance, chloride, nitrate and iron;

3. The underground petroleum products storage tanks of the two service stations on College Highway as well as any other underground storage tanks in the Watershed Protection Zones should be integrity tested. Sites which are found to have leaking tanks should be remediated immediately;

4. Although the two areas zoned Industrial-Park are not in the Watershed Protection Zones it is recommended that any future development be carefully assessed in terms of potential impact to the Southampton aquifer as both Industrial - Parks are located upgradient of the well;

5. As determined from this study shallow bedrock exists limiting groundwater flow between the Moose Book recharge

area where the current landfill is located and the Southampton aquifer. Because of the landfill's location in a recharge area it is recommended that the landfill not be expanded and that careful monitoring of the groundwater in the vicinity of the landfill be conducted in order to provide an early warning of any contamination problem;

6. The old dump, south of Karen Lane and adjacent to Helen Drive, is located in the Pomeroy Watershed Protection Area and poses a significant threat to the aquifer. Because little is known about this dump it is recommended that groundwater quality monitoring wells be installed downgradient of this site to assess its current and future impact. Based on the results from these wells the necessity for further work or remediation can be addressed.

In conclusion, it is recommended that a meeting be held between the authors of this report and the Town representatives to discuss and clarify the conclusions and recommendations of this report.

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APPENDIX 1

DOMESTIC AND TEST WELL LOGS

Data Point #1

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Bussler Prop

City/Town: Southampton

G.S. Quadrangle Map: MT Tom

Grid Location:

Owner: US Fish + Wildlife

Address: Newton Ctr MA

WELL USE

Domestic ☐ Public ☐ Industrial ☑

Other:

Method Drilled: Cable

Date Drilled: 3·13·81

CASING

Length: 107' Diameter: 2 1/2"

Type: Steel

STATIC WATER LEVEL

Feet ~~below~~ above land surface: 7.50' (?)

Date measured: 3. 13. 81

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☑ coarse ☑

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # 50 length 5 from 61 to 66

Split Screen *(or 2nd screen)*

Slot # ~~50~~ length ____ from ____ to ____

Depth To Bedrock: 107

PUMP TEST

Drawdown 15' feet after pumping ____ days 1 hours at 45 GPM.

How measured: tape Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Br. md sand	0	10
red clay	10	12
red f. sand	12	35
red sand +	35	
gr. clay		45
red cs. sand	45	60
br. fine	60	
sand		105
hardpan	105	107
		ref.

COMMENTS: *(On well or water)*

#28-80 - 2 1/2"

test well

DRILLER

Firm: F.G. Sullivan

Address:

City:

Registration No.:

Operator's Signature

office use only

Please print firmly

CUSTOMER COPY

Data Point #2

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Anita Dr.

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Ed. Garnnes

Address:

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other:

Method Drilled: rotary

Date Drilled: 8.14.86

CASING

Length: 41 Diameter: 6"

Type: Stl. cas.

STATIC WATER LEVEL

Feet below land surface: 20'

Date measured: 8.14.86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From 185 To 205
2) From ___ To ___
3) From ___ To ___
4) From ___ To ___

Depth to Bedrock: 24'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ___ length ___ from ___ to ___

Split Screen *(or 2nd screen)*

Slot # ___ length ___ from ___ to ___

Depth To Bedrock:

PUMP TEST

Drawdown ___ feet after pumping ___ days ___ hours at 5 GPM.

How measured: air test Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R. Scales

Address:

City:

Registration No.:

Operator's Signature

office use only

Please print firmly

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Data Point #3:

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Camp Jarvin Road

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: T. Collins

Address: Camp Jarvin Rd

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other: /

Method Drilled: Auger

Date Drilled:

CASING

Length: 33' Diameter: 2"

Type: PVC

STATIC WATER LEVEL

Feet below land surface: 18'

Date measured: 2/87

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☒ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # 12 length 3 from 30 to 33

Split Screen (or 2nd screen)

Slot # ______ length ______ from ______ to ______

Depth To Bedrock:

PUMP TEST

Drawdown 0 feet after pumping ____ days, 1 hours at 6 GPM.

How measured ______ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
M/F SAND	0	16
M/Sand	16	33

COMMENTS: (On well or water)

DRILLER

Firm: CE Pratt + Sons

Address: 237 Sheep Pasture Rd

City: Southwick MA 01077

Registration No.: 965

Operator's Signature

Office use only

Please print firmly

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258-18-65-387181

Data Point #4

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address Lot #3 Camp Fahr Rd.

City/Town South Hampton

G.S. Quadrangle Map

Grid Location

Owner Phil Halahan

Address Spgfld

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other

Method Drilled 6/13/85

Date Drilled rotary

CASING

Length 155 Diameter 6"

Type 6/15/85

STATIC WATER LEVEL

Feet below land surface

Date measured

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From 210 To 215

2) From 260 To 265

3) From To

4) From To

Depth to Bedrock 145

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown feet after pumping days hours at 6 GPM.

How measured Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
Sand	—	145
Redstone	145	275

COMMENTS: *(On well or water)*

DRILLER

Firm B+G Well Drillers

Address

City

Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point # 5

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ~~[illegible]~~ Rd Cold Spring Rd

City/Town Southampton

G.S. Quadrangle Map ____

Grid Location ____

Owner ~~Mr. [illegible]~~ William Osley

Address ____

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ____

Method Drilled ~~[illegible]~~ Cable

Date Drilled ~~[illegible]~~ 10/15/85

CASING

Length ~~[illegible]~~ 20' Diameter ~~[illegible]~~ 6"

Type Blk St pipe

STATIC WATER LEVEL

Feet below land surface 18

Date measured 10/15/85

GRAVEL PACK WELL

Yes [ ] No [X]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock Sandstone

Water-bearing Zones

1) From ~~205~~ To ~~215~~

2) From 50 To 52

3) From ____ To ____

4) From 120 To 124

Depth to Bedrock ~~[illegible]~~ 6

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Coarse	0	
Gravel		6
Sandst.	7	130

COMMENTS: *(On well or water)*

DRILLER

Firm Joseph Slattery

Address 17 Gilbert Rd

City Southampton

Registration No. ____

Operator's Signature

office use only

Please print firmly

CUSTOMER COPY

25M-10-85-[illegible]

Data Point #6

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Millers ~~Heights~~ 24 Cold Spg. Rd.
City/Town: South Hampton
G.S. Quadrangle Map:
Grid Location:
Owner: Michael Parenteau
Address:

WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other:

Method Drilled: Cable
Date Drilled: 4/16/85

CASING

Length: 20 Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 34 ft.
Date measured: 4/20/85

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☑ Biological ☑

CONSOLIDATED WELL

Type of Water-bearing Rock: Sandstone
Water-bearing Zones
1) From 65 To 82
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 4

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown 90 feet after pumping 4 days ____ hours at 10 GPM.
How measured: Well Recovery 40 feet after 1 hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	4
Sandst.	5	100

COMMENTS: (On well or water)

DRILLER

Firm: J.L. Slattery Inc
Address:
City:
Registration No.:

Operator's Signature

office use only

Please print firmly

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Data Point #7

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot 1 County Rd.
City/Town: South Hampton
G.S. Quadrangle Map:
Grid Location:
Owner: Phil Halahan
Address: Spgfld.

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other:

Method Drilled: Rotary
Date Drilled: 6·11·85

CASING

Length: 140' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 2
Date measured: 6·13·85

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: red stone
Water-bearing Zones
1) From 185 To 200
2) From To
3) From To
4) From To
Depth to Bedrock: 130

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # length from to
Split Screen *(or 2nd screen)*
Slot # length from to
Depth To Bedrock

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 8 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	—	130
redstone	130	200

COMMENTS: *(On well or water)*

DRILLER

Firm: B&G Well Drillers Inc.
Address:
City:
Registration No.

Operator's Signature

office use only

Please print firmly

CUSTOMER COPY

Data Point # 8

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #2 County Rd
City/Town: S Hampton
G.S. Quadrangle Map:
Grid Location:
Owner: Phil Hallahan
Address:

WELL USE

Domestic ☐ Public ☐ Industrial ☐
Other:

Method Drilled: Rotary
Date Drilled: 8.29.85

CASING

Length: 123 Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 12'
Date measured: 8/30/85

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: redstone
Water-bearing Zones
1) From 115 To 125
2) From 235 To 245
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 118

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 10 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
gravel	–	28'
sand	28'	118'
redStone	118	245

COMMENTS: *(On well or water)*

DRILLER

Firm: B+G Well Drillers Inc.
Address:
City:
Registration No.:

Operator's Signature

office use only

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Data Point #9

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Couther Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Leo. Demelbauer
Address: C/o Adv. Tours. westfield

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other:

Method Drilled: Rotary
Date Drilled: 4.29.86

CASING

Length: 81' Diameter: 6"
Type: BlK Steel

STATIC WATER LEVEL

Feet below land surface: 25'
Date measured: 4.29.86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☑
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # 30 length 4 from 80 to 84
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

air ~~PUMP TEST~~

Drawdown ____ feet after pumping ____ days ____ hours at 70 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
m. Sand	0	40
f. Sand	40	60
m. Sand	60	90

COMMENTS: *(On well or water)*

DRILLER

Firm: E+R Seales
Address:
City:
Registration No.

Operator's Signature

office use only

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Data Point #10

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address: Crooked Ledge Rd.

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Bert Clinton

Address:

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other:

Method Drilled: Cable

Date Drilled: 11.9.84

CASING

Length: 21' Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 18'

Date measured: 11.9.84

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____

Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 12 GPM.

How measured ____ Recovery ____ feet after ____ hours.

office use only

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

depth of well 159'

DRILLER

Firm: Aqua Well Drill

Address:

City:

Registration No.:

Operator's Signature

Please print firmly

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Data Point #11

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address East St.
City/Town Southampton
G.S. Quadrangle Map
Grid Location
Owner Glenn Bldg. Assoc.
Address W Hampton

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other

Method Drilled Air
Date Drilled 10·16·86

CASING

Length 126' Diameter 6"
Type 19 lb.

STATIC WATER LEVEL

Feet below land surface 40'
Date measured 10·17·86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock Red
Water-bearing Zones
1) From 280 To 340
2) From To
3) From To
4) From To
Depth to Bedrock 102

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # length from to
Split Screen *(or 2nd screen)*
Slot # length from to
Depth To Bedrock

PUMP TEST

blown test w/ rig 4 GPm
Drawdown feet after pumping days hours at GPM.
How measured Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	102
Redrock	102	440

COMMENTS: *(On well or water)*

DRILLER

Firm Kirko Henshaw
Address
City
Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point #12

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: East St.

City/Town: Southampton

G.S. Quadrangle Map: ____

Grid Location: ____

Owner: Daniel Fabrie

Address: ____

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other: ____

Method Drilled: Cable

Date Drilled: 10.29.84

CASING

Length: 21' Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 20

Date measured: 10.29.84

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: ____

Water-bearing Zones

1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____

Depth to Bedrock: ____

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock: ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 2 GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

depth of well 403

DRILLER

Firm: Aqua Well Drill

Address: ____

City: ____

Registration No. ____

____
Operator's Signature

office use only

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Data Point #13:

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: East St

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Michael Meehan

Address: 19 Oliver St Easthampton

WELL USE

Domestic [✓] Public [ ] Industrial [ ]

Other:

Method Drilled: Rotary

Date Drilled: 5.1.87

CASING

Length: 81' Diameter: 6"

Type: Blk St. pipe

STATIC WATER LEVEL

Feet below land surface:

Date measured:

GRAVEL PACK WELL

Yes [ ] No [✓]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From 465' To 485'

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock: 100'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 10 GPM.

How measured: Air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: E+R Scales Inc

Address: Box 18

City: Oakdale

Registration No.: 463

Operator's Signature

office use only

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25M-10-85-387181

Data Point #14

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: East St.
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Heinz Schedle
Address:

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other:

Method Drilled: Air
Date Drilled: 3-19-87

CASING

Length: 147 Diameter: 6"
Type: 17 lb.

STATIC WATER LEVEL

Feet below land surface: 70
Date measured: 4-21-87

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Red
Water-bearing Zones
1) From 130 To 840
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 130

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Blown test w/nig 1 G.P.M.
Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	90
Gr.	90	130
Red rock	130	840

COMMENTS: (On well or water)

hydro fractured well to increase flow to 1 G.P.M.

DRILLER

Firm: Mike Henshaw
Address:
City:
Registration No.

Operator's Signature

office use only

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25M-10-85-867181

Data Point #15

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: East St
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Austin Weidhaas
Address:

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other:

Method Drilled: air
Date Drilled: 5.4.86

CASING

Length: 113' Diameter: 6"
Type: 17 lb

STATIC WATER LEVEL

Feet below land surface: 60-80
Date measured: 5.8.86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Redrock
Water-bearing Zones
1) From 108 To 585
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 108

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

blown test w/ 18 1 GPM
Drawdown ____ feet after pumping 8 days ____ hours at ____ GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	108
redrock	108	585

COMMENTS: (On well or water)

DRILLER

Firm: Kirke Henshaw
Address:
City:
Registration No.:

Operator's Signature

office use only

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Data Point #16

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address Edward Ave.
City/Town Southampton
G.S. Quadrangle Map
Grid Location
Owner Ed. Guinner
Address

WELL USE

Domestic [✓] Public [ ] Industrial [ ]
Other

Method Drilled Rotary
Date Drilled

CASING

Length 81 Diameter 6"
Type Stl. pipe

STATIC WATER LEVEL

Feet below land surface
Date measured

GRAVEL PACK WELL

Yes [ ] No [✓]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock
Water-bearing Zones
1) From 445 To 465
2) From To
3) From To
4) From To
Depth to Bedrock 60

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # length from to
Split Screen *(or 2nd screen)*
Slot # length from to
Depth To Bedrock

PUMP TEST

Drawdown feet after pumping days hours at 2.5 GPM.
How measured air test Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm F + R Seales.
Address
City
Registration No.

Operator's Signature

office use only

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Data Point #17

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Fomer Rd.

City/Town: Southampton

G.S. Quadrangle Map: ______

Grid Location: ______

Owner: Richard Pio

Address: ______

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other: ______

Method Drilled: Air Rotary

Date Drilled: 10/11/86

CASING

Length: 62 Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 35' 6"

Date measured: 10/13/86

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Sandst. + granite

Water-bearing Zones

1) From 280 To 305
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock: ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock: ______

PUMP TEST

Drawdown ______ feet after pumping ______ days 4 hours at 4 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
topsoil	0	4
C. Sand	5	30
Clay w/ silt	31	40
ledge	41	305

COMMENTS: *(On well or water)*

______

DRILLER

Firm: F+R Scales

Address: ______

City: ______

Registration No. ______

______

Operator's Signature

office use only

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Data Point #18

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address Fomer Rd

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner Glass Houses c/o Richard Pike

Address Southampton

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other

Method Drilled 10/13/86

Date Drilled Rotary

CASING

Length 62' Diameter 6"

Type

STATIC WATER LEVEL

Feet below land surface 16

Date measured 10/13/86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From 285 To 305

2) From To

3) From To

4) From To

Depth to Bedrock 45

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 4 GPM.

How measured air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm F+R Scales

Address

City

Registration No.

Operator's Signature

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Data Point # 19

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Gilbert Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Omar Dumas
Address: Moose BK Rd. Southampton

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other:

Method Drilled: Rotary
Date Drilled: 4.21.87

CASING

Length: 58' Diameter: 6"
Type: Blk. Steel

STATIC WATER LEVEL

Feet below land surface: 12'
Date measured: 4.21.87

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [x] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # 30 length 5' from 58 to 63
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 35 GPM.
How measured: Air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sur Soil	0	2
C. grav.	2	30
+ Boulders		
fine sand	30	42
med. sand	42	64
fine sand	64	70
Silt		

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales Inc.
Address: Laurel St
City: Oakdale MA
Registration No.: 463

Operator's Signature

office use only

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25M-11-85-307131

Data Point # 20

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Gilbert Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Paul Lussier
Address: 146 Pomeroy Rd

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other:

Method Drilled: Rotary
Date Drilled: 2.12.86

CASING

Length: 60' Diameter: 6"
Type: bv. steel

STATIC WATER LEVEL

Feet below land surface: 30'
Date measured: 2.12.87

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☑ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # 30 length 4' from 60' to 64'
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 10 GPM.
How measured: air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
sub soil	0	5
boulders		
grav.	5	25
f. sand	25	50
m. sand	50	65

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Seales
Address:
City:
Registration No.:

Operator's Signature

office use only

Please print firmly

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258-58-85-807181

Data Point # 21

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address 23 Gilbert Rd

City/Town Southampton MA

G.S. Quadrangle Map

Grid Location

Owner MARC Shute

Address

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other

Method Drilled Rotary

Date Drilled 8.27.85

CASING

Length 118 Diameter 6"

Type Steel

STATIC WATER LEVEL

Feet below land surface 20

Date measured 8.28.85

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock Bedrock

Water-bearing Zones

1) From 140 To 160

2) From 240 To 260

3) From To

4) From To

Depth to Bedrock 100'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown feet after pumping days hours at 7 GPM.

How measured air Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
hardpan	0	15
sand & gravel	15	100
bedrock	100	260

COMMENTS: *(On well or water)*

DRILLER

Firm Tri-State Well

Address

City

Registration No.

Operator's Signature

office use only

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Data Point #22

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #5 Glendale Rd.

City/Town: Southham

G.S. Quadrangle Map: ______

Grid Location: ______

Owner: ______

Address: ______

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other: ______

Method Drilled: Rotary

Date Drilled: 5.14.86

CASING

Length: 42 Diameter: 6

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 40

Date measured: 5/14/86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: ______

Water-bearing Zones

1) From 145 To 165
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock: 23

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 30 GPM.

How measured: air test Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales

Address: ______

City: ______

Registration No. ______

Operator's Signature

office use only

Please print firmly

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Data Point #23

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #44 Glendale Rd/Glendale Rd.
City/Town: SouthHampton
G.S. Quadrangle Map: ________
Grid Location: ________
Owner: Hampshire Homesteads
Address: Easthampton

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other ________

Method Drilled: Rotary
Date Drilled: 5·15·86/5·13·86

CASING

Length: 62'/42' Diameter: 6"/6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: N.M./60'
Date measured: N.M./5·13·86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ________
Water-bearing Zones
1) From 460/205 To 480/225
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 44/23

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock ________

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 2/12 GPM.
How measured: air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+ R Scales
Address ________
City ________
Registration No. ________

____
Operator's Signature

office use only

Please print firmly

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Data Point #24

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Glendale Road
City/Town: Southampton
G.S. Quadrangle Map: ____
Grid Location: ____
Owner: Richard Truehart
Address: ____

WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other ____

Method Drilled: Rotary
Date Drilled: 4.30.87

CASING

Length: 42' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 10'
Date measured: 4.30.87

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ____
Water-bearing Zones
1) From 365 To 385
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 20'

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 4 GPM.
How measured: Air Test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: (On well or water)

DRILLER

Firm: F + R Scales, Inc.
Address: ____
City: ____
Registration No. ____

Operator's Signature

office use only

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Data Point #25

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Glendale Woods
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Roland White
Address:

WELL USE

Domestic [X] Public [ ] Industrial [ ]
Other:

Method Drilled: Rotary
Date Drilled: 5·5·87

CASING

Length: 31' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface:
Date measured:

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock:
Water-bearing Zones
1) From 225 To 245
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 8'

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 8 GPM.
How measured: Air Test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F + R Scales, Inc.
Address:
City:
Registration No.:

Operator's Signature

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Data Point #26:

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Hawthorne Dr.
City/Town: Southhampton
G.S. Quadrangle Map:
Grid Location:
Owner: Brooks Carswell
Address: Southampton MA

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other:

Method Drilled: Rotary
Date Drilled: 3/10/87

CASING

Length: 210' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 58'
Date measured: 3/10/87

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [x] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # 20 length 5 from 210 to 215
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown 200' feet after pumping ____ days 4 hours at 30 GPM.
How measured: ____ Recovery 65' feet after 35 ~~hours~~ min

LOG of FORMATIONS

Materials	From	To
Sand + gravel	6	201
C. Sand	202	215

COMMENTS: (On well or water)

DRILLER

Firm: F+R Scales
Address:
City:
Registration No.: 251

Operator's Signature

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25M-14-86-867131

Data Point #27

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Hawthorne ~~Rd~~ Drive
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Lloyd Carswell
Address: Manhan Rd, Southampton

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other:

Method Drilled: Rotary
Date Drilled: 2.18.87

CASING

Length: 210' Diameter: 6"
Type: blk Steel

STATIC WATER LEVEL

Feet below land surface: 40'
Date measured: 2.18.87

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [x] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # 30 length 5 from 210 to 215
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock: 216

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 40 GPM.
How measured: air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
f sand	0	30
silt + clay	35	180
f to med sand	180	216
red rk.		216

COMMENTS: (On well or water)

DRILLER

Firm: F+R. Scales
Address:
City:
Registration No. 463

Operator's Signature

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25M-10-86-867181

Data Point # 28:

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Hathorne Dr.
City/Town: Southampton
G.S. Quadrangle Map: ____
Grid Location: ____
Owner: James Freeborne
Address: Pomeroy Meadow S.Hampton

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other: ____

Method Drilled: MUD
Date Drilled: ____

CASING

Length: 212 Diameter: 6
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 40'
Date measured: ____

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: ____
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: ____

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☑ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # 30 length 3 from 212 to 215
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock: ____

PUMP TEST

Drawdown 165' feet after pumping ____ days 2 hours at 30 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	18
Silt +	19	195
Clay		
Med. Sand	196	215

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Searles
Address: ____
City: ____
Registration No. ____

Operator's Signature

office use only

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25M-10-86-867181

Data Point # 29

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Hawthorne Drive,

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Robert Graham (Gelfun)

Address: Easthampton

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other:

Method Drilled: Rotary

Date Drilled: 9/30/86

CASING

Length: 220 Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 38'

Date measured: 10/14/86

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: --

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # 20 length 4 from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days 2 hours at 25 GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	20
silt+Clay	21	
Clay		215
Med	216	
Sand		22

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales, Inc.

Address:

City:

Registration No.

Operator's Signature

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258-10-85-M7131

Data Point #3C

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Hawthorne Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Ross Bldg. Corp. E+D
Address: Westhampton Robert Strock

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other:

Method Drilled: A Rotary
Date Drilled: 2.20.87

CASING

Length: 202' Diameter: 6"
Type: Blk. Steel

STATIC WATER LEVEL

Feet below land surface: 40'
Date measured: 2.20.87

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ___ To ___
2) From ___ To ___
3) From ___ To ___
4) From ___ To ___
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [x] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ___ length ___ from ___ to ___
Split Screen *(or 2nd screen)*
Slot # 20 length 5 from 202 to 207
Depth To Bedrock: 208

PUMP TEST

Drawdown ___ feet after pumping ___ days ___ hours at 30 GPM.
How measured: air test Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To
f sand	0	29
silt+clay	29	190
m sand	190	208
bedrck		208

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R. Sca. Co.
Address:
City:
Registration No.:

Operator's Signature

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25E-10-65-907181

Data Point # 31

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

No Such Street

WELL LOCATION

Address ~~Lot #4 Spring Rd~~ June Dr.

City/Town ~~Southampton~~ Southampton

G.S. Quadrangle Map

Grid Location

Owner Edward Gwinner Jr.

Address

WELL USE

Domestic [x] Public [ ] Industrial [ ]

Other

Method Drilled Rotary

Date Drilled 5.21.86

CASING

Length 49' Diameter 6"

Type Blk Steel

STATIC WATER LEVEL

Feet below land surface 40'

Date measured 5.21.86

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From 325 To 345

2) From To

3) From To

4) From To

Depth to Bedrock 30

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown -- feet after pumping days hours at 5 GPM.

How measured Air test Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm F+R Scales.

Address

City

Registration No.

Operator's Signature

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Data Point #32

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address: Leadmine Rd.
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Dave Truehart
Address:

WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other:

Method Drilled: Air rotary
Date Drilled: 8.1.84

CASING

Length: Diameter: 6"
Type: 17 lb

STATIC WATER LEVEL

Feet below land surface: 10
Date measured: 8.1.84

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: grey
Water-bearing Zones
1) From 20 To 180
2) From To
3) From To
4) From To
Depth to Bedrock: 1

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # length from to
Split Screen *(or 2nd screen)*
Slot # length from to
Depth To Bedrock

blown test ~~PUMP~~ TEST 10 GPM

Drawdown ___ feet after pumping ___ days ___ hours at ___ GPM.
How measured ___ Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To
topsoil	0	1
grey	1	180

COMMENTS: *(On well or water)*

DRILLER

Firm: Kiko Henshaw
Address:
City:
Registration No.:

Operator's Signature

office use only

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Data Point #33

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Middle Rd

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Mike Bashta

Address:

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other:

Method Drilled: air

Date Drilled: 3-23-87

CASING

Length: 28 Diameter: 6"

Type: 17 Lb

STATIC WATER LEVEL

Feet below land surface:

Date measured:

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: red

Water-bearing Zones

1) From 90 To 100
2) From 130 To 140
3) From ___ To ___
4) From ___ To ___

Depth to Bedrock: 10

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ___ length ___ from ___ to ___

Split Screen *(or 2nd screen)*

Slot # ___ length ___ from ___ to ___

Depth To Bedrock:

PUMP TEST

blown w/rig 36 Pm

Drawdown ___ feet after pumping ___ days ___ hours at ___ GPM.

How measured ___ Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To
	0	10
Red rock	10	260

COMMENTS: *(On well or water)*

DRILLER

Firm: Kirke Henshaw

Address:

City:

Registration No.:

Operator's Signature

office use only

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Data Point #34

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Millers Woods

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Edward Giwinner Jr.

Address:

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other:

Method Drilled: hammer

Date Drilled:

CASING

Length: 130 Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface:

Date measured: 9-11-85

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From 365 To 385

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock: 113

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 3 GPM.

How measured: air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales.

Address:

City:

Registration No.:

Operator's Signature

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Also
Lot #5
Turgeon
37

Data Point #35

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address: Lot 3, Montgomery Rd
City/Town:
G.S. Quadrangle Map:
Grid Location:
Owner: Alfred Ferriere
Address:

WELL USE

Domestic ☐ Public ☐ Industrial ☐
Other:

Method Drilled: Rotary
Date Drilled: 11/29/85

CASING

Length: 21' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 10
Date measured: 11/29/85

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Granite
Water-bearing Zones
1) From 80 To 100
2) From ___ To ___
3) From ___ To ___
4) From ___ To ___
Depth to Bedrock: 10

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ___ length ___ from ___ to ___
Split Screen *(or 2nd screen)*
Slot # ___ length ___ from ___ to ___
Depth To Bedrock:

PUMP TEST

Drawdown ___ feet after pumping ___ days ___ hours at 15 GPM.
How measured: air Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To
hardpan	0	10
granite	10	100

COMMENTS: *(On well or water)*

DRILLER

Firm: Tri-State Well
Address:
City: Holyoke
Registration No. 308

Operator's Signature

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Data Point #36

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address: Montgomery Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Tom Lavellee
Address:

WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other:

Method Drilled:

Date Drilled:

CASING

Length: 67' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 50'
Date measured: 5.27.85

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Granite

Water-bearing Zones
1) From 280 To 295
2) From 320 To 340
3) From ____ To ____
4) From ____ To ____

Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐

Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
hardpan	0	50
Granite	50	340

COMMENTS: *(On well or water)*

DRILLER

Firm: Tri State
Address:
City:
Registration No.:

Operator's Signature

office use only

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Data Point #38

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Pomeroy Meadow Rd

City/Town: Southampton

G.S. Quadrangle Map: ______

Grid Location: ______

Owner: Edward Gwinner Jr.

Address: ______

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other: ______

Method Drilled: hammer

Date Drilled: ______

CASING

Length: 80' Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: ______

Date measured: ______

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: ______

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock: ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock: ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 9 GPM.

How measured: air test Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales.

Address: ______

City: ______

Registration No.: ______

Operator's Signature

office use only

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Data Point #39

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address: Russelville Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: John Ovnay
Address:

WELL USE

Domestic [X] Public [ ] Industrial [ ]
Other:

Method Drilled: Cable
Date Drilled: 5.26.83

CASING

Length: 32'6" Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 15'
Date measured: 5.26.83

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock:
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 12 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*
depth of well 154'

DRILLER

Firm: Aqua Well Drill
Address:
City:
Registration No.:

Operator's Signature

office use only

Please print firmly

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Data Point #40

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT OFF MAP

WELL LOCATION

Address Russellville Rd

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner George Gebhardt

Address Holyoke

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other

Method Drilled Rotary

Date Drilled 12.20.86

CASING

Length 61' Diameter 6"

Type blk steel

STATIC WATER LEVEL

Feet below land surface

Date measured

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From 205 To 225

2) From To

3) From To

4) From To

Depth to Bedrock 43'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown feet after pumping days hours at 6 GPM.

How measured air test Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm F+R Scales

Address

City

Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point # 41

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

OFF MAP

WELL LOCATION

Address: Russellville Road
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Mr. Peloquin
Address:

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other:

Method Drilled: Rotary
Date Drilled: 12-22-86

CASING

Length: 41' Diameter: 6"
Type: blk steel

STATIC WATER LEVEL

Feet below land surface:
Date measured:

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock:
Water-bearing Zones
1) From 305 To 325
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 21

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 5 GPM.
How measured: air test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales
Address:
City:
Registration No.:

Operator's Signature

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44

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Strong Road

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Kurt Boisjolie

Address:

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other:

Method Drilled: Rotary

Date Drilled: 4.23.87

CASING

Length: 42' Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface:

Date measured:

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From 385 To 405
2) From To
3) From To
4) From To

Depth to Bedrock: 18'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 4 GPM.

How measured: Air Test Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F + R Scales, Inc.

Address:

City:

Registration No.

Operator's Signature

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Data Point # 44

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Strong Rd.
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Kurt Boisvolin.
Address: E. Hampton

WELL USE

Domestic ☑ Public ☐ Industrial ☐
Other:

Method Drilled: Rotary
Date Drilled: 8-20-86

CASING

Length: 40' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 20
Date measured: 8/20/86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: red S.S
Water-bearing Zones
1) From 300 To 405
2) From ___ To ___
3) From ___ To ___
4) From ___ To ___
Depth to Bedrock: 20'

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ___ length ___ from ___ to ___
Split Screen (or 2nd screen)
Slot # ___ length ___ from ___ to ___
Depth To Bedrock:

PUMP TEST

Drawdown ___ feet after pumping ___ days ___ hours at 1.5 GPM.
How measured: air Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	20
red sandst.	20	465

COMMENTS: *(On well or water)*

DRILLER

Firm:
Address:
City:
Registration No.:

Operator's Signature

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2 more wells on lots #5 ~~#~~ / 42 / 43

Data Point # 45

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #2 Strong Rd / Strong Rd

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: Edward Guilhner Jr.

Address:

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other:

Method Drilled: Rotary

Date Drilled: 5·10·86 / 5·9·86

CASING

Length: 71/73' Diameter: 6"/6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 60'

Date measured: 5·21·86

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From 285/225 To 305/245

2) From ___ To ___

3) From ___ To ___

4) From ___ To ___

Depth to Bedrock: 55/55

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ___ length ___ from ___ to ___

Split Screen *(or 2nd screen)*

Slot # ___ length ___ from ___ to ___

Depth To Bedrock:

PUMP TEST

Drawdown ___ feet after pumping ___ days ___ hours at 4/4 GPM.

How measured: air test Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm: F+R Scales

Address:

City:

Registration No.:

Operator's Signature

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Data Point # 46

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Strong Rd.
City/Town: Southampton
G.S. Quadrangle Map: ___
Grid Location: ___
Owner: Robert Labrie
Address: ___

WELL USE

Domestic [x] Public [ ] Industrial [ ]
Other: ___

Method Drilled: Rotary
Date Drilled: 5.21.86

CASING

Length: 153 Diameter: 6"
Type: stl pipe

STATIC WATER LEVEL

Feet below land surface: ___
Date measured: ___

GRAVEL PACK WELL

Yes [ ] No [x]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: ___
Water-bearing Zones
1) From 385 To 405
2) From ___ To ___
3) From ___ To ___
4) From ___ To ___
Depth to Bedrock: 130

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ___ length ___ from ___ to ___
Split Screen *(or 2nd screen)*
Slot # ___ length ___ from ___ to ___
Depth To Bedrock ___

PUMP TEST

Drawdown ___ feet after pumping ___ days ___ hours at 8 GPM.
How measured: air test Recovery ___ feet after ___ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

___

DRILLER

Firm: F+R Scales
Address: ___
City: ___
Registration No.: ___

Operator's Signature

office use only

Please print firmly

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Data Point #47

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #3 Strong Rd.

City/Town: Southampton

G.S. Quadrangle Map:

Grid Location:

Owner: T+D Builders

Address:

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other:

Method Drilled: Rotary

Date Drilled: 5/11/87

CASING

Length: 97 Diameter: 6"

Type: Steel

STATIC WATER LEVEL

Feet below land surface: 11'

Date measured: 5.12.87

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Red rock

Water-bearing Zones

1) From 280 To 281
2) From To
3) From To
4) From To

Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 1 GPM.

How measured: air Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
sand	0	12
red rk	12	400

COMMENTS: *(On well or water)*

DRILLER

Firm: Tri State Well.

Address: 51 Norwood Terr

City: Holyoke

Registration No.: 308

Operator's Signature

office use only

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Data Point #48

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Valley Rd Lot #2
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Brooks Causewell
Address:

WELL USE

Domestic ☐ Public ☐ Industrial ☐
Other:

Method Drilled: Rotary
Date Drilled: 6-11-86

CASING

Length: 63' Diameter: 6"
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 12'
Date measured: 6-11-86

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: Red rock
Water-bearing Zones
1) From 250 To 255
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock: 50'

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 12 GPM.
How measured: air Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
hardpan	0	50
red rk	50	260

COMMENTS: *(On well or water)*

DRILLER

Firm: Tri State Well Drill
Address:
City:
Registration No.:

Operator's Signature

office use only

Please print firmly

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Data Point #49

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address Valley Rd

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner Robert Kerson

Address Box 3518 Springfield

WELL USE

Domestic ☑ Public ☐ Industrial ☐

Other

Method Drilled Hammer

Date Drilled

CASING

Length 40' Diameter 6"

Type SH

STATIC WATER LEVEL

Feet below land surface

Date measured 9/13/85

GRAVEL PACK WELL

Yes ☐ No ☑

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From 205 To 225

2) From To

3) From To

4) From To

Depth to Bedrock 201

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown feet after pumping days hours at 20 GPM.

How measured Air test Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

DRILLER

Firm F+R Scales

Address

City

Registration No.

Operator's Signature

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Data Point # 5C

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot 9 White Loaf Rd.
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: John D. Florek
Address: 26 Miller St. Westfield

WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other:

Method Drilled: Air / Rotary
Date Drilled: 2.20.87

CASING

Length: 111 Diameter: 6"
Type: 17 lb

STATIC WATER LEVEL

Feet below land surface: 35'
Date measured: 2.23.87

GRAVEL ~~PACK~~ WELL

Yes ☒ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☒ coarse ☐
Screen: none
Slot # ____ length ____ from ____ to ____
Split Screen (or 2nd screen)
Slot # ____ length ____ from ____ to ____
Depth To Bedrock: 126 K

PUMP TEST

blown test w/ air 50 GPM
Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	98
gravel	98	120

COMMENTS: *(On well or water)*

DRILLER

Firm: Kuke Henshaw
Address:
City:
Registration No.:

Operator's Signature

office use only

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25E-10-85-[illegible]

Data Point #51

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: White Loaf Rd
City/Town: Southampton
G.S. Quadrangle Map:
Grid Location:
Owner: Joe Sampson
Address: Westfield

WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other:

Method Drilled: Auger
Date Drilled: 9/86

CASING

Length: 67' Diameter: 2"
Type: PVC

STATIC WATER LEVEL

Feet below land surface: 37'
Date measured: 9/86

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: --
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock:

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☒ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # 12 length 3 from 64 to 67
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock:

PUMP TEST

Drawdown ____ feet after pumping ____ days 2 hours at 6 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
F sand	40	60
m sand	60	67

COMMENTS: *(On well or water)*

DRILLER

Firm: C.E. Pratt + Sons
Address:
City:
Registration No. 965

Operator's Signature

office use only

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Data Point #52

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner Robert Labrie

Address ______

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface ______

Date measured ______

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # 30 length 4' from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 30 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0'	40'
Clay	40'	70'
Sand + Gravel	70'	110'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address ______

City ______

Registration No. ______

Operator's Signature

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Data Point #53

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner Zitnee

Address ______

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ______

Method Drilled ______

Date Drilled 10.16.78

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface 70'

Date measured ______

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # 30 length 4' from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 20 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Clay		
Sand + Gravel	-	100'

COMMENTS: *(On well or water)*

______

DRILLER

Firm J. Slattery

Address ______

City ______

Registration No. ______

______
Operator's Signature

office use only

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Data Point # 54

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ____

City/Town Southampton

G.S. Quadrangle Map ____

Grid Location ____

Owner ____

Address ____

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ____

Method Drilled ____

Date Drilled ____

CASING

Length ____ Diameter ____

Type ____

STATIC WATER LEVEL

Feet below land surface ____

Date measured ____

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ____

Water-bearing Zones

1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____

Depth to Bedrock ____

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # 10 length 4' from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 10 GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Clay		
Sand		100'

COMMENTS: *(On well or water)*

____

DRILLER

Firm J. Slattery

Address ____

City ____

Registration No. ____

Operator's Signature ____

office use only

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Data Point #55

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #2 Strong Rd.
City/Town: Southampton
G.S. Quadrangle Map: ______
Grid Location: ______
Owner: ______
Address: ______

WELL USE

Domestic [X] Public [ ] Industrial [ ]
Other: ______

Method Drilled: ______
Date Drilled: ______

CASING

Length: ______ Diameter: ______
Type: ______

STATIC WATER LEVEL

Feet below land surface: 15'
Date measured: ______

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: ______
Water-bearing Zones
1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______
Depth to Bedrock: ______

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ______ length 10' from ______ to ______
Split Screen *(or 2nd screen)*
Slot # ______ length ______ from ______ to ______
Depth To Bedrock: ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at ______ GPM.
How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Clay		
Sand		100'

COMMENTS: *(On well or water)*

______

DRILLER

Firm: J. Slattery
Address: ______
City: ______
Registration No. ______

______
Operator's Signature

office use only

Please print firmly

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Data Point #56

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ________

City/Town Southampton

G.S. Quadrangle Map ________

Grid Location ________

Owner ________

Address ________

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other ________

Method Drilled ________

Date Drilled ________

CASING

Length ____ Diameter ____

Type ________

STATIC WATER LEVEL

Feet below land surface 48'

Date measured 9-4-79

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ________

Water-bearing Zones

1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____

Depth to Bedrock ________

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock ________

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.

How measured ________ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Fine Sand	0	18'
Gravel	18'	24'
Clay	24'	35'
Sandstone	35'	148'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address ________

City ________

Registration No. ________

Operator's Signature

office use only

Please print firmly

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Data Point #57

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ____
City/Town Southampton
G.S. Quadrangle Map ____
Grid Location ____
Owner ____
Address ____

WELL USE

Domestic [X] Public [ ] Industrial [ ]
Other ____

Method Drilled ____
Date Drilled ____

CASING

Length ____ Diameter ____
Type ____

STATIC WATER LEVEL

Feet below land surface ____
Date measured ____

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ____
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock 60'6"

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # ____ length ____ from ____ to ____
Split Screen *(or 2nd screen)*
Slot # ____ length ____ from ____ to ____
Depth To Bedrock ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 5 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand		
Clay		
Sand (no water)		
Ledge	60'6"	200'

COMMENTS: *(On well or water)*

DRILLER

Firm T. Slattery
Address ____
City ____
Registration No. ____

Operator's Signature

office use only

Please print firmly

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Data Point # 58

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ____

City/Town Southampton

G.S. Quadrangle Map ____

Grid Location ____

Owner ____

Address ____

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ____

Method Drilled ____

Date Drilled ____

CASING

Length ____ Diameter ____

Type ____

STATIC WATER LEVEL

Feet below land surface 60'

Date measured ____

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ____

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock ____

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 5 GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand		
Clay		
Sand		74'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address ____

City ____

Registration No. ____

Operator's Signature ____

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Data Point #59

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner ______

Address ______

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface 40'

Date measured ______

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # 20 length 4' from ______ to ______

Split Screen (or 2nd screen)

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 20 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Sand		
Clay		
Gravel pocket		124'

COMMENTS: *(On well or water)*

______

DRILLER

Firm ______

Address ______

City ______

Registration No. ______

Operator's Signature

office use only

Please print firmly

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Data Point #60

Department of Environmental Management/Division of Water Resources.

WATER WELL COMPLETION REPORT

WELL LOCATION

Address Lot #10

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner

Address

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other

Method Drilled

Date Drilled

CASING

Length 22' Diameter

Type

STATIC WATER LEVEL

Feet below land surface 35'

Date measured

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock 12'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 10 GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0'	12'
Bedrock	12'	175'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address

City

Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point #61

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner ______

Address ______

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length 55' Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface 80'

Date measured ______

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock 45'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 15 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Sand		
Silt		
Clay - thin layer		
Bedrock	45'	280'

COMMENTS: *(On well or water)*

______

DRILLER

Firm J. Slattery

Address ______

City ______

Registration No. ______

______ Operator's Signature

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Data Point #62

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner ______

Address ______

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface ______

Date measured ______

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at ______ GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
		500'

COMMENTS: *(On well or water)*

______

DRILLER

Firm J. Slattery

Address ______

City ______

Registration No. ______

______
Operator's Signature

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Data Point #63

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner Gorral

Address ______

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface 10'

Date measured ______

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown 80' feet after pumping ______ days 2 hours at 15 GPM.

How measured ______ Recovery 21' feet after 0.5 hours.

COMPLETE RECOVERY OVERNIGHT

LOG of FORMATIONS

Materials	From	To
	0	2'
Ledge	2'	120'

COMMENTS: *(On well or water)*

______

DRILLER

Firm J. Slattery

Address ______

City ______

Registration No. ______

Operator's Signature

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Data Point # 64

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ____
City/Town Southampton
G.S. Quadrangle Map ____
Grid Location ____
Owner ____
Address ____

WELL USE

Domestic [X] Public [ ] Industrial [ ]
Other ____

Method Drilled ____
Date Drilled ____

CASING

Length ____ Diameter ____
Type ____

STATIC WATER LEVEL

Feet below land surface 60'
Date measured ____

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ____
Water-bearing Zones
1) From ____ To ____
2) From ____ To ____
3) From ____ To ____
4) From ____ To ____
Depth to Bedrock ____

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot # 10 length 3' from ____ to ____
Split Screen (or 2nd screen) 5" dia
Slot # ____ length ____ from ____ to ____
Depth To Bedrock ____

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 20 GPM.
How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Gravel	0	165'
Did hit a thin layer of clay when drilling		

COMMENTS: (On well or water)

____

DRILLER

Firm J. Slattery
Address ____
City ____
Registration No. ____

Operator's Signature ____

office use only

Please print firmly

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Data Point #65

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ____________

City/Town Southampton

G.S. Quadrangle Map ____________

Grid Location ____________

Owner Mitchell

Address ____________

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ____________

Method Drilled ____________

Date Drilled ____________

CASING

Length ______ Diameter ______

Type ____________

STATIC WATER LEVEL

Feet below land surface 12'

Date measured ____________

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ____________

Water-bearing Zones

1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock ____________

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ____________

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 14 GPM.

How measured ____________ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Clay + Hardpan		
Gravel		55'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address ____________

City ____________

Registration No. ____________

Operator's Signature

office use only

Please print firmly

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Data Point #66

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner

Address

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other

Method Drilled

Date Drilled

CASING

Length ______ Diameter ______

Type

STATIC WATER LEVEL

Feet below land surface 12'

Date measured

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 14 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Clay + Hardpan		
Gravel		55'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address

City

Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point # 67

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ____

City/Town Southampton

G.S. Quadrangle Map ____

Grid Location ____

Owner Taralinkoff

Address ____

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other ____

Method Drilled ____

Date Drilled ____

CASING

Length ____ Diameter ____

Type ____

STATIC WATER LEVEL

Feet below land surface 43'

Date measured 6-6-79

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ____

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock ____

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock ____

PUMP TEST

Drawdown 4' feet after pumping ____ days 6 hours at 10 GPM.

How measured ____ Recovery Static feet after 1 hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	30'
Sand, Clay, Silt	30'	65'
Med. Gravel	65'	71'
Coarse Gravel	71'	78'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address ____

City ____

Registration No. ____

Operator's Signature

office use only

Please print firmly

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Data Point #68

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner Fornier

Address

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other

Method Drilled

Date Drilled

CASING

Length ____ Diameter ____

Type

STATIC WATER LEVEL

Feet below land surface 43'

Date measured

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0	30'
Sand, Clay, Silt	30'	65'
Med. Gravel	65'	71'
Course Gravel	71'	78'

COMMENTS: *(On well or water)*

DRILLER

Firm J. Slattery

Address

City

Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point #69

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner Fornier

Address ______

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length 127' Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface 65'

Date measured ______

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______

2) From ______ To ______

3) From ______ To ______

4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 15 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Clean Sand	0	117'
Ledge	117'	155'

COMMENTS: *(On well or water)*

sand wet but no appreciable flow

DRILLER

Firm J. Slattery

Address ______

City ______

Registration No. ______

______
Operator's Signature

office use only

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Data Point # 70

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address

City/Town Southampton

G.S. Quadrangle Map

Grid Location

Owner

Address

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other

Method Drilled

Date Drilled

CASING

Length 80' Diameter

Type

STATIC WATER LEVEL

Feet below land surface

Date measured

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock 78'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at ____ GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
Sand	0'	78'
Ledge	78'	200'

COMMENTS: *(On well or water)*

sand wet but no appreciable flow

DRILLER

Firm J. Slattery

Address

City

Registration No.

Operator's Signature

office use only

Please print firmly

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Data Point #71

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner Ernestine Deslisle

Address ______

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface ______

Date measured ______

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at 6-7 GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To
Ledge	-	~90'

COMMENTS: *(On well or water)*

______

DRILLER

Firm A.E. Chapman

Address ______

City ______

Registration No. ______

Operator's Signature ______

office use only

Please print firmly

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Data Point #72

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address ______

City/Town Southampton

G.S. Quadrangle Map ______

Grid Location ______

Owner Courtney

Address ______

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other ______

Method Drilled ______

Date Drilled ______

CASING

Length ______ Diameter ______

Type ______

STATIC WATER LEVEL

Feet below land surface ______

Date measured ______

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock ______

Water-bearing Zones

1) From ______ To ______
2) From ______ To ______
3) From ______ To ______
4) From ______ To ______

Depth to Bedrock ______

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # ______ length ______ from ______ to ______

Split Screen *(or 2nd screen)*

Slot # ______ length ______ from ______ to ______

Depth To Bedrock ______

PUMP TEST

Drawdown ______ feet after pumping ______ days ______ hours at ______ GPM.

How measured ______ Recovery ______ feet after ______ hours.

LOG of FORMATIONS

Materials	From	To

COMMENTS: *(On well or water)*

______

DRILLER

Firm ______

Address ______

City ______

Registration No. ______

______
Operator's Signature

office use only

Please print firmly

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TIGHE & BOND
CONSULTING ENGINEERS
HOLYOKE, MASS.

Hole #5 - North of Manhan River crossing of Rte 10 above of Glendale Rd., east side of Rte. 10.

depth from	to	
0	6	clay
6	10	coarse sand, fine gravel
10	60	silt and clay
60	67	clay and gravel

Refusal

Remarks: no circulation

Hole #6 - Szczypta property north of Glendale Rd. and west of Route 10.

depth from	to	
0	6	silt and clay
6	11	fine-medium gravel
11	110	silt and clay
110	118	coarse sand - fine gravel
118	123	clay and gravel

Refusal

Remarks: Exposed 7' of screen at bottom of well; pumped 10 gpm but water did not clear up; apparently silt and clay got into the water-producing strata during driving.

Hole #7 - Szczypta property north of Glendale Rd. and west of Route 10.

depth from	to	
0	10	silt and clay
10	25	coarse sand, fine gravel
25	115	fine silt and clay
115	123	medium coarse gravel

Refusal

Remarks: Exposed 6' of screen at bottom of well. Well pumped 50 gpm and flows 25 gpm. Static water level in test well was 18'-6" above ground level.

Hole #8 - Szczypta property north of Glendale Rd. and west of Route 10.

depth from	- to	
0	10	silt and clay
10	25	coarse sand
25	138	silt and clay
138	140	coarse sand

Refusal

Remarks: Well not productive. This well, as shown on the location plan, is to the north of the wells that were found to be productive.

Hole #9 - Szczypta property north of Glendale Rd. and west of Route 10.

depth from	- to	
0	62	clay
62	116	silt and clay
116	123	medium-coarse sand, fine gravel
123	130	medium-coarse sand, fine gravel
130	137	medium-coarse sand, fine gravel
137	140	coarse sand, fine gravel

Refusal

Remarks: Exposed 10' of screen at the bottom of the well. 5' of screen was #30 slot and 5' of screen was #20 slot. The well pumped 65 gpm and flows continuously at the rate of 40 gpm. Static water level was determined to be 20 ft. above ground level. In test pumping this well, the flow never ceased even momentarily when the pump was shut down. It would appear as if in pumping the well at the rate of 65 gpm the hydraulic grade would not be drawn down to ground level.

Hole #10 - On west side of Riverdale Rd. on property Szczypta adjacent to small brook draining valley to Manhan River.

from	- to	
0	10	silt and clay
10	20	sand and gravel
20	38	silt
38	48	clay
48	56	fine-medium sand
56	63	medium-coarse sand
63	68	coarse sand, fine gravel
58	72	coarse sand, fine gravel

Refusal

Remarks: Exposed 12' of screen at bottom of well and pumped 60 gpm. Well flows 20 gpm. Static water level was determined to be 5' 6" above ground level.

Hole #11 - on Garstka property in valley of brook draining easterly slope of Pomeroy Mt. in easterly end of old meadow east of Glendale Road.

depth from -	to	
0	7	coarse gravel
7	20	medium coarse sand
20	38	fine gray sand
38	40	red clay and gravel
Refusal		

Remarks: Exposed 12 ft. of screen at bottom of well and pumped only 10 gpm. Static water level was 2 ft. below ground surface; circulation was poor; well not productive.

Hole #12 - Szczypta property north of Glendale Rd. and west of Route 10.

depth from -	to	
0	104	clay
104	109	fine-medium sand
109	139	very fine silty sand
139	146	fine-medium sand
146	153	medium-coarse sand
153	161	medium-coarse sand
Refusal		

Exposed 9 ft. of #20 slot screen at bottom of well and Pumped 75 gpm. Well flows 50 gpm. Static water level is 17 ft. above ground.

APPENDIX 2

PUMP TEST ANALYSIS

PUMP TEST EVALUATION

The data was analyzed utilizing both the Theis curve matching method and the Cooper-Jacob straight line method for transient behavior in a confined aquifer.

1. Theis Method

   Using the Theis equation:

$$s = \frac{Q}{4\pi T}\int_u^{\infty} \frac{e^{-u}\,du}{u} = \frac{Q}{4\pi T} W(u)$$

where $u = \frac{r^2 S}{4Tt}$

s = drawdown (units of length)

Q = discharge rate (units of $length^3/time$)

T = transmissivity ($length^2/time$)

S = storativity

t = time (units of time)

$W(u)$ = well function (listed in Table 4.1 in Bouwer)

From this we get the following two equations:

$$s = \frac{Q}{4\pi T} W(u)$$

and

$$\frac{r^2}{t} = \frac{4T}{S} u$$

Where the left hand side is dependent on actual field data, and the right hand is made up of aquifer constants and functions of u.

Rearranging these we get:

$$T = \frac{Q}{4\pi s} W(u) \quad \text{and} \quad S = \frac{4T}{r^2/t} u$$

First, the relationship of W(u) and u is plotted on log-log paper (this is our type curve), and the relationship of the field data as s vs. r^2/t is plotted on log-log paper.

Then, overlaying the two plots to find a curve match. This establishes the scale transformation between s and W(u), and between r^2/t and u.

Our match point gives us a set of coordinates for s, W(u), r^2/t and u which can be plugged back in our equation to solve for T and S.

2. Cooper-Jacob Method:

In the Theis Equation, the well function can be expanded in series form:

$$\int_u^\infty \frac{e^{-u}}{u}\, du \cong \left[-0.5772 - \ln u + u - \frac{u^2}{2.2!} + \frac{u^3}{3.3!} + \ldots + (-1)^{n-1}\frac{u^n}{n\text{-}n!}\right]$$

(Egn. 4.24 Bouwer)

where $u = \frac{r^2 S}{4Tt}$

If r^2 is small or t is large, then u is small and the series can be adequately approximated by the first two terms.

$$\text{Then } s = \frac{Q}{4\pi T}\left[-0.5772 - \ln\left(\frac{r^2 S}{4Tt}\right)\right]$$

or rewritten in terms of $\log_{10}$

$$s = \frac{2.3Q}{4\pi T}\log_{10}\frac{2.25\,Tt}{r^2 S} \qquad \text{(Eng. 4.26 Bouwer)}$$

This equation indicates a linear relationship between s and log t.

By plotting s vs. t on semi-log paper, and extending the straight line portion of the curve through the x-axis we can use the s=0 intercept as

$$s = 0 = \frac{2.3Q}{4\pi T}\log_{10}\frac{2.25Tt_0}{r^2 S} \qquad \text{(Egn. 5.9 Bouwer)}$$

where to is t at s = o

and raising 10 to the power of each side of the equality gives

$$1 = \frac{2.25Tt_0}{r^2}$$

$$\text{from which} \quad S = \frac{2.25Tt_0}{r^2} \qquad \text{(Egn 5.11)}$$

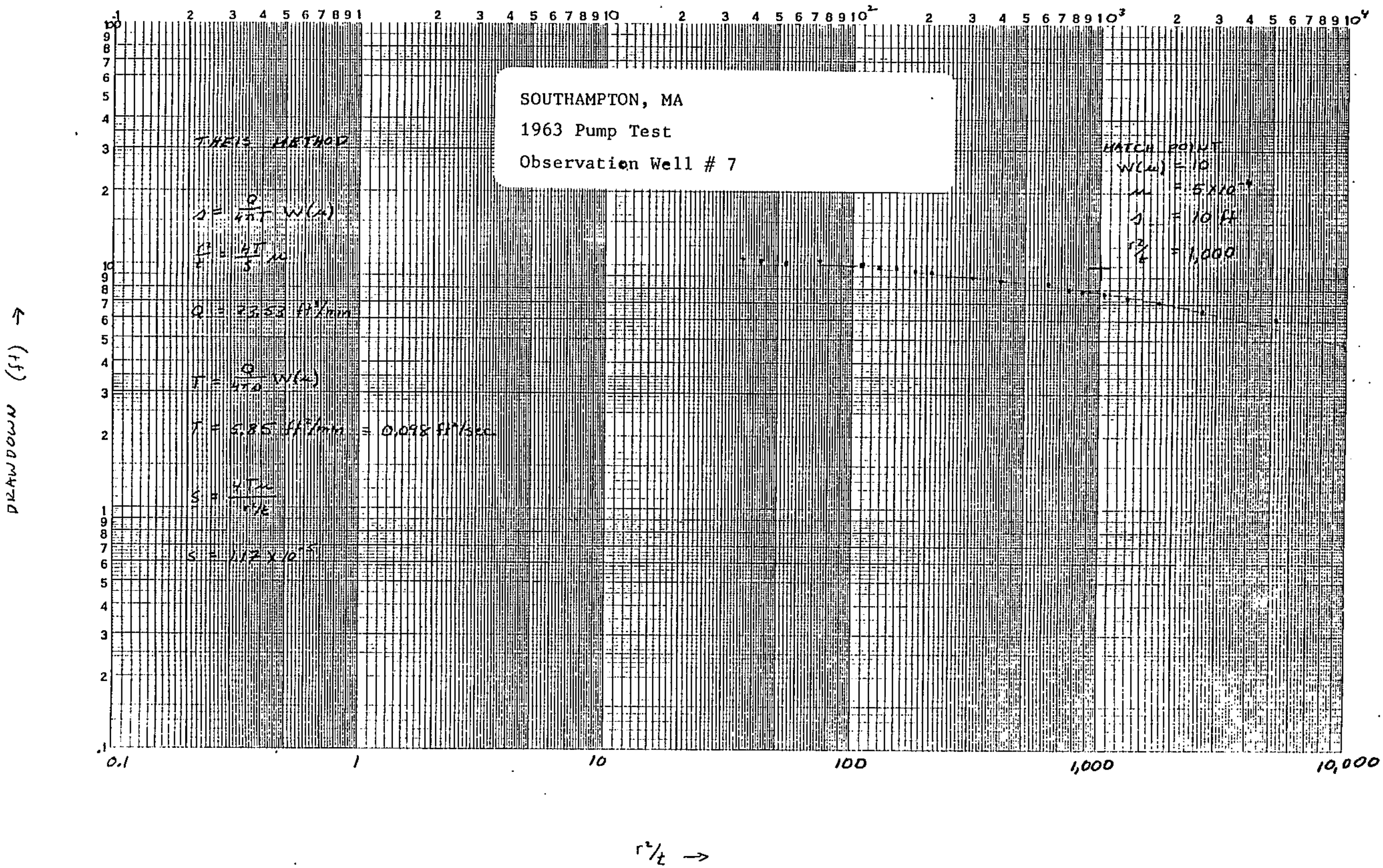
Also, considering the difference in drawdown over 1 cycle of the time scale allows us to say:

$$s_1 - s_2 = \frac{2.3Q}{4\pi T}\left[\log_{10}\frac{2.25Tt_1}{r^2 S} - \log_{10}\frac{2.25Tt_2}{r^2 S}\right] = \frac{2.3Q}{4\pi T}(1)$$

so,

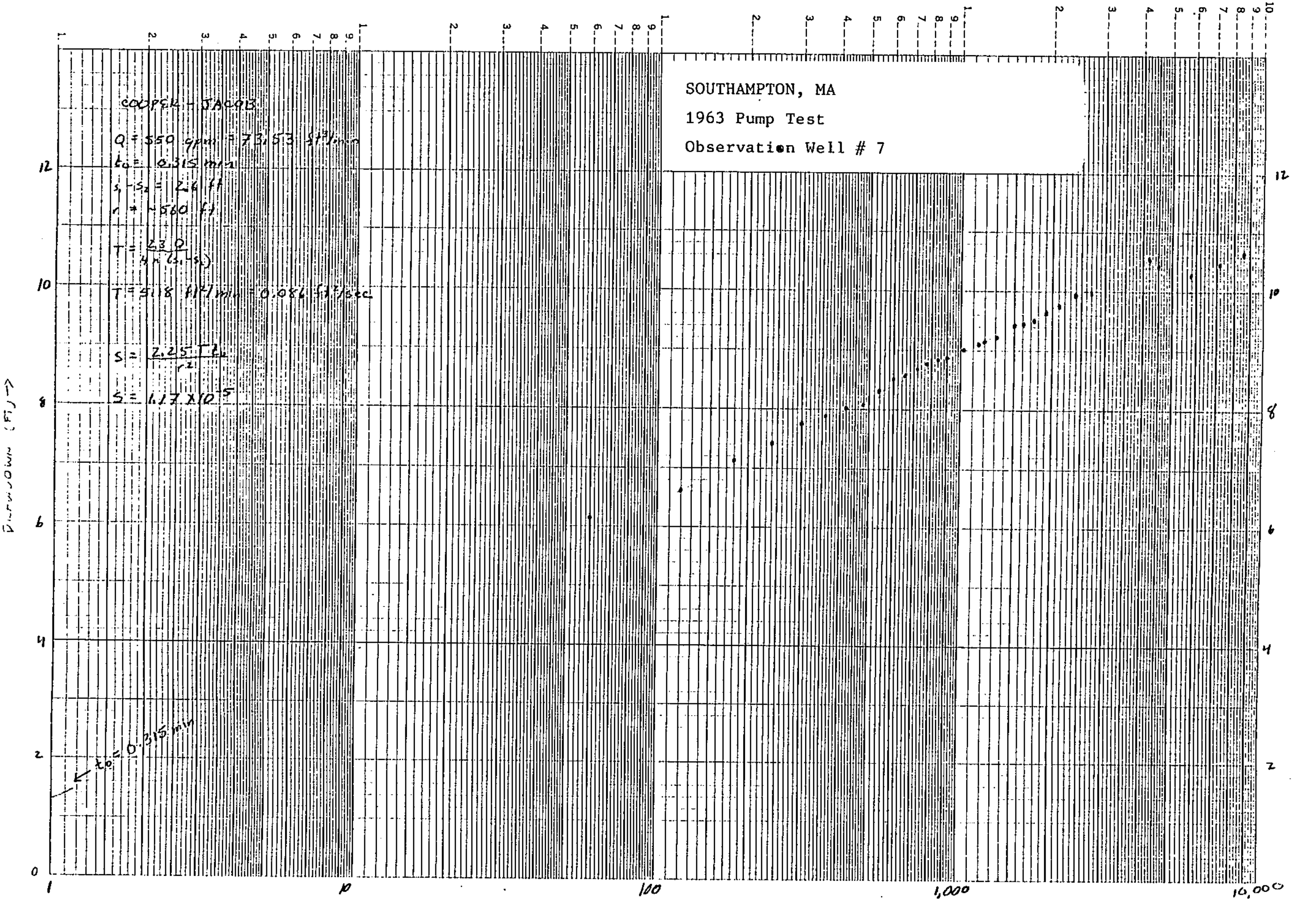
$$T = \frac{2.3Q}{4\pi(s_1 - s_2)} \qquad \text{(Egn. 5.13 Bouwer)}$$

By first solving for T, we can then go back to $S = \frac{2.25Tt_0}{r^2}$ and solve for S.


SOUTHAMPTON, MA
1963 Pump Test
Observation Well # 7
THEIS METHOD
s = Q/4πT W(u)
r²/t = 4T/S u
Q = 73.53 ft³/min
T = Q/4πs W(u)
T = 5.85 ft²/min = 0.098 ft²/sec.
S = 4Tu/(r²/t)
S = 1.12 X 10⁻⁵
MATCH POINT
W(u) = 10
u = 5 X 10⁻⁴
s = 10 ft
r²/t = 1,000
0.1
1
10
100
1,000
10,000
DRAWDOWN (ft) →
r²/t →

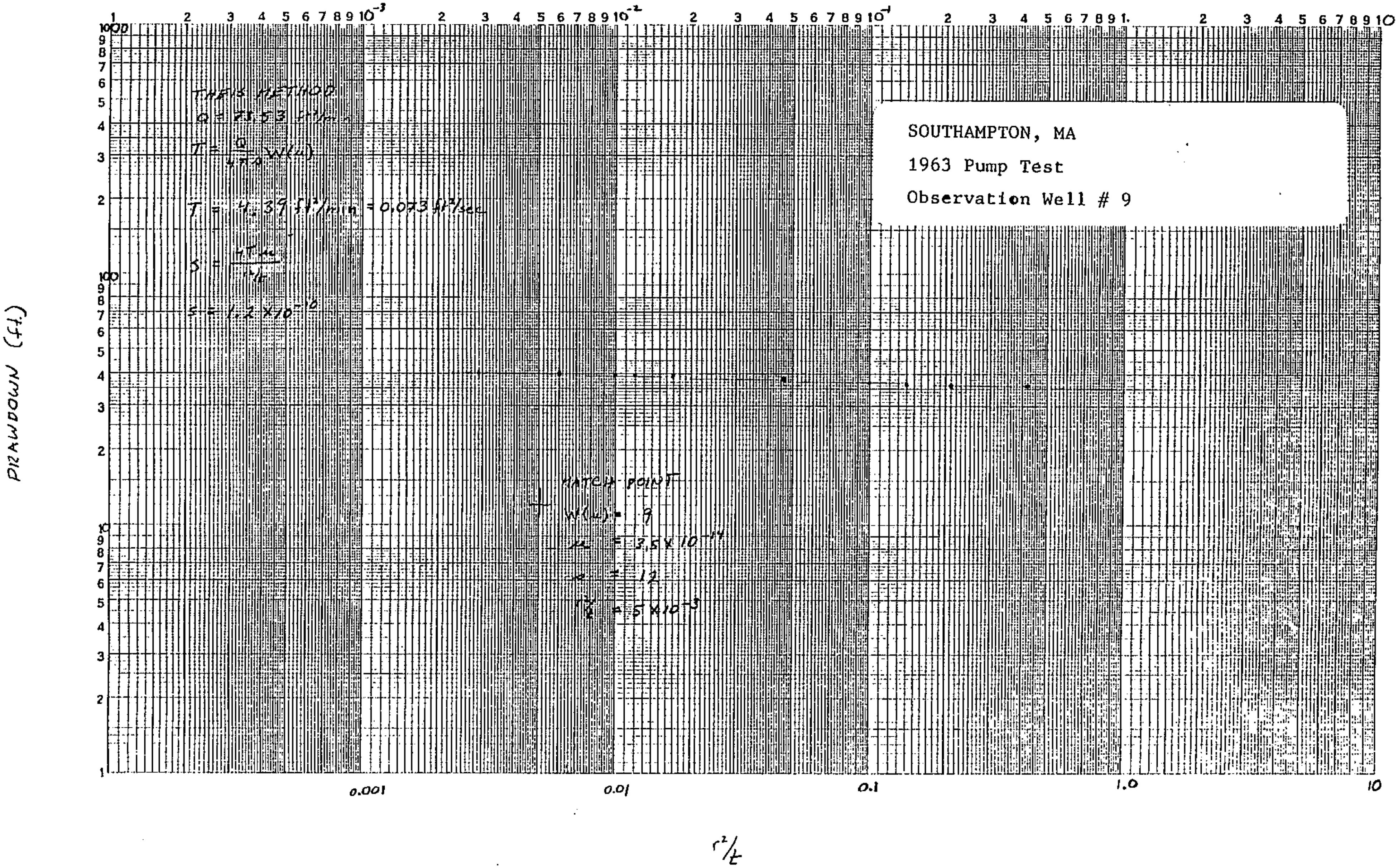
K+E SEMI-LOGARITHMIC 4 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 6010



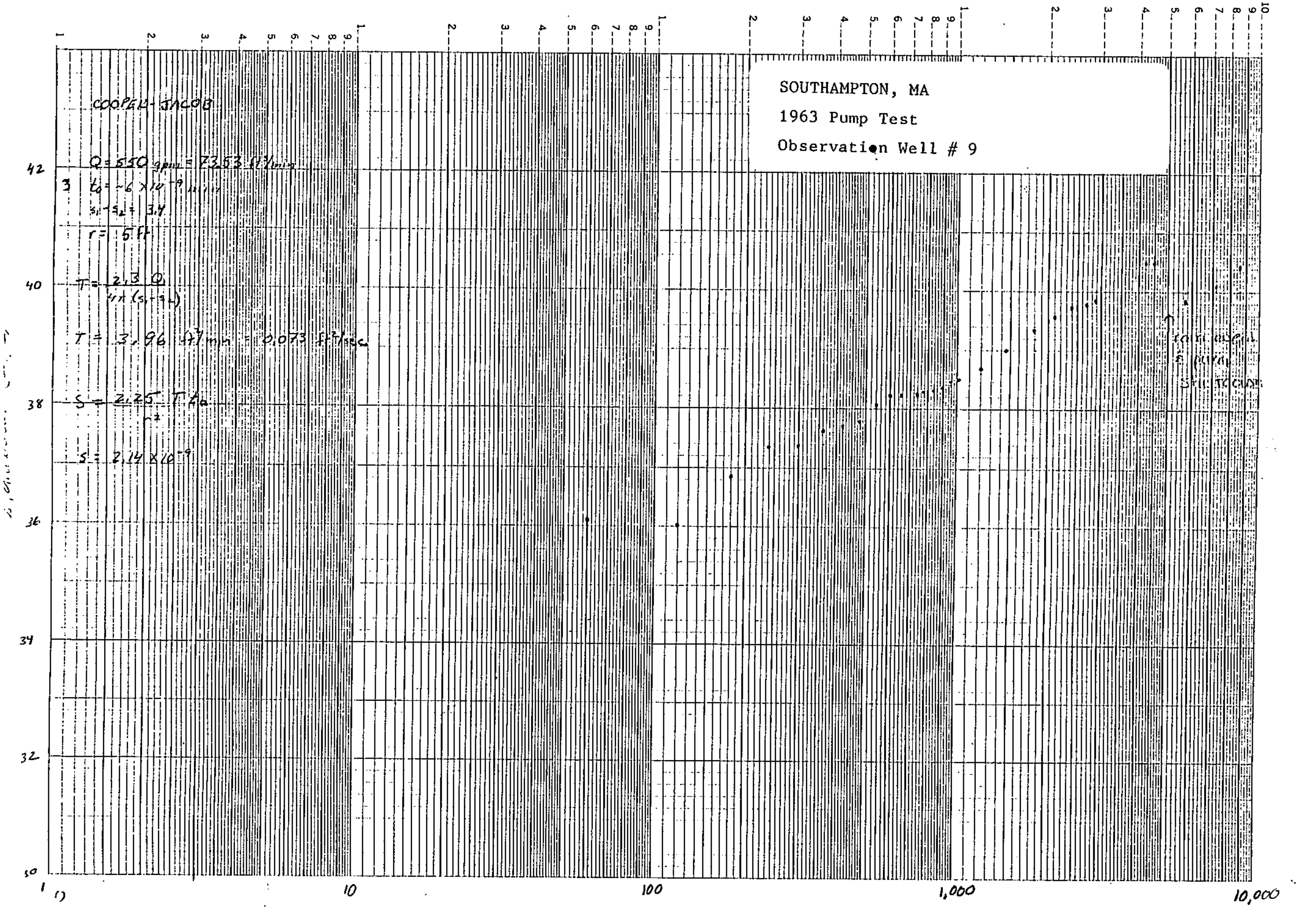
NO. 340-L35 DIETZGEN GRAPH PAPER
LOGARITHMIC
3 CYCLES X 5 CYCLES

DIETZGEN CORPORATION
MADE IN U.S.A.



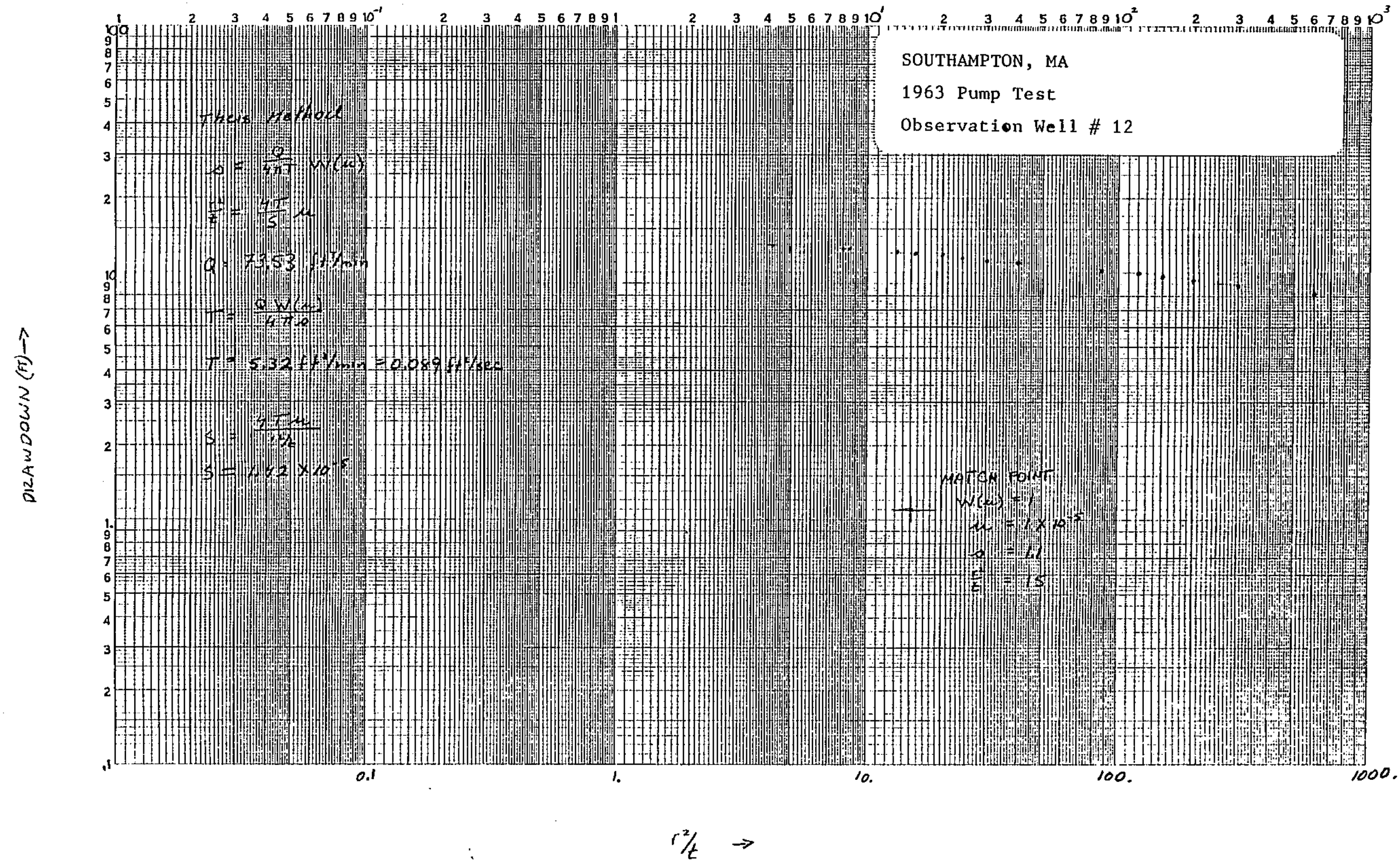
K+E SEMI-LOGARITHMIC 4 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 6010



NO. 340-L35 DIETZGEN GRAPH PAPER
LOGARITHMIC
3 CYCLES X 5 CYCLES

DIETZGEN CORPORATION
MADE IN U.S.A.



K+E SEMI-LOGARITHMIC 4 CYCLES X 70 DIVISIONS
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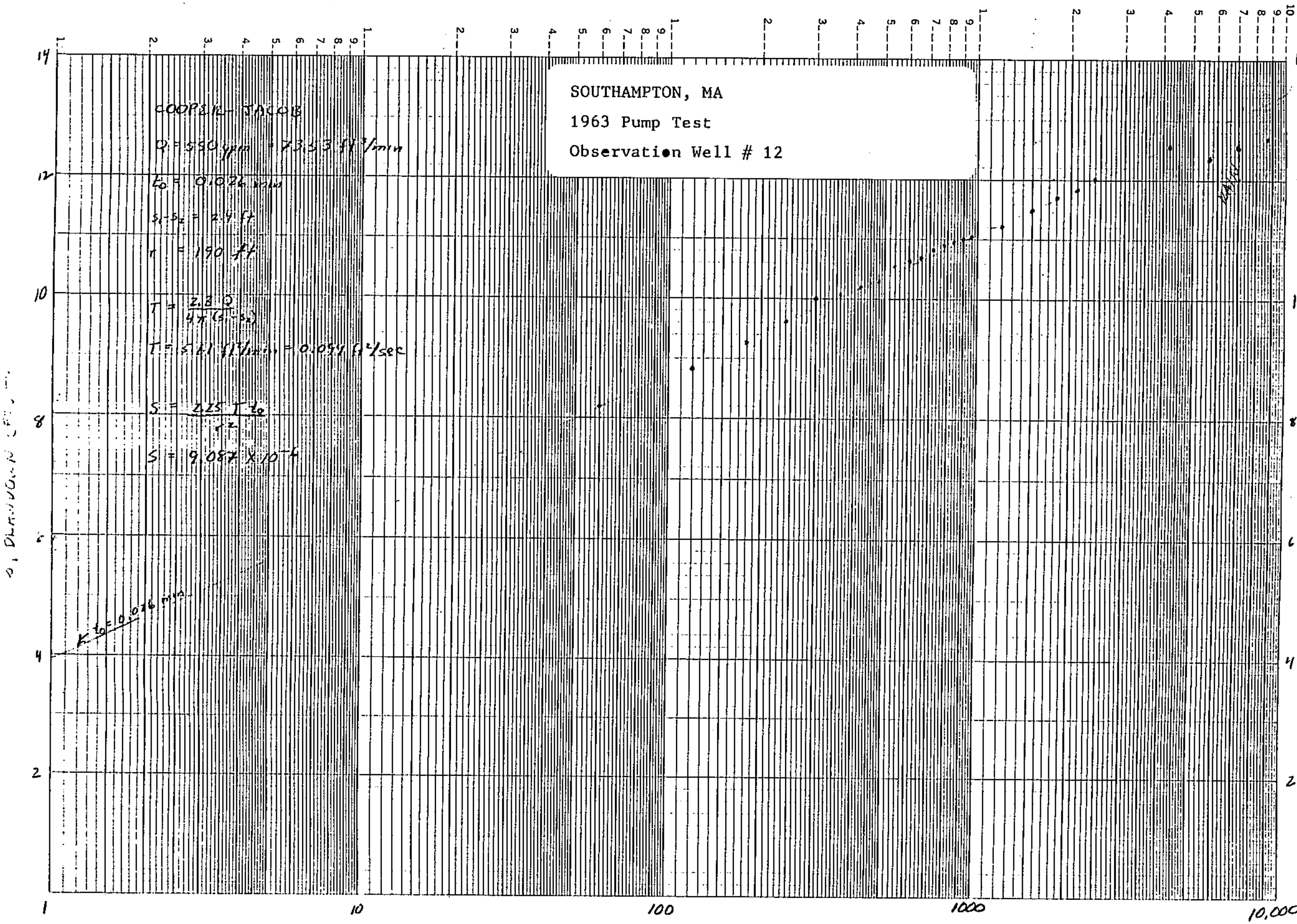
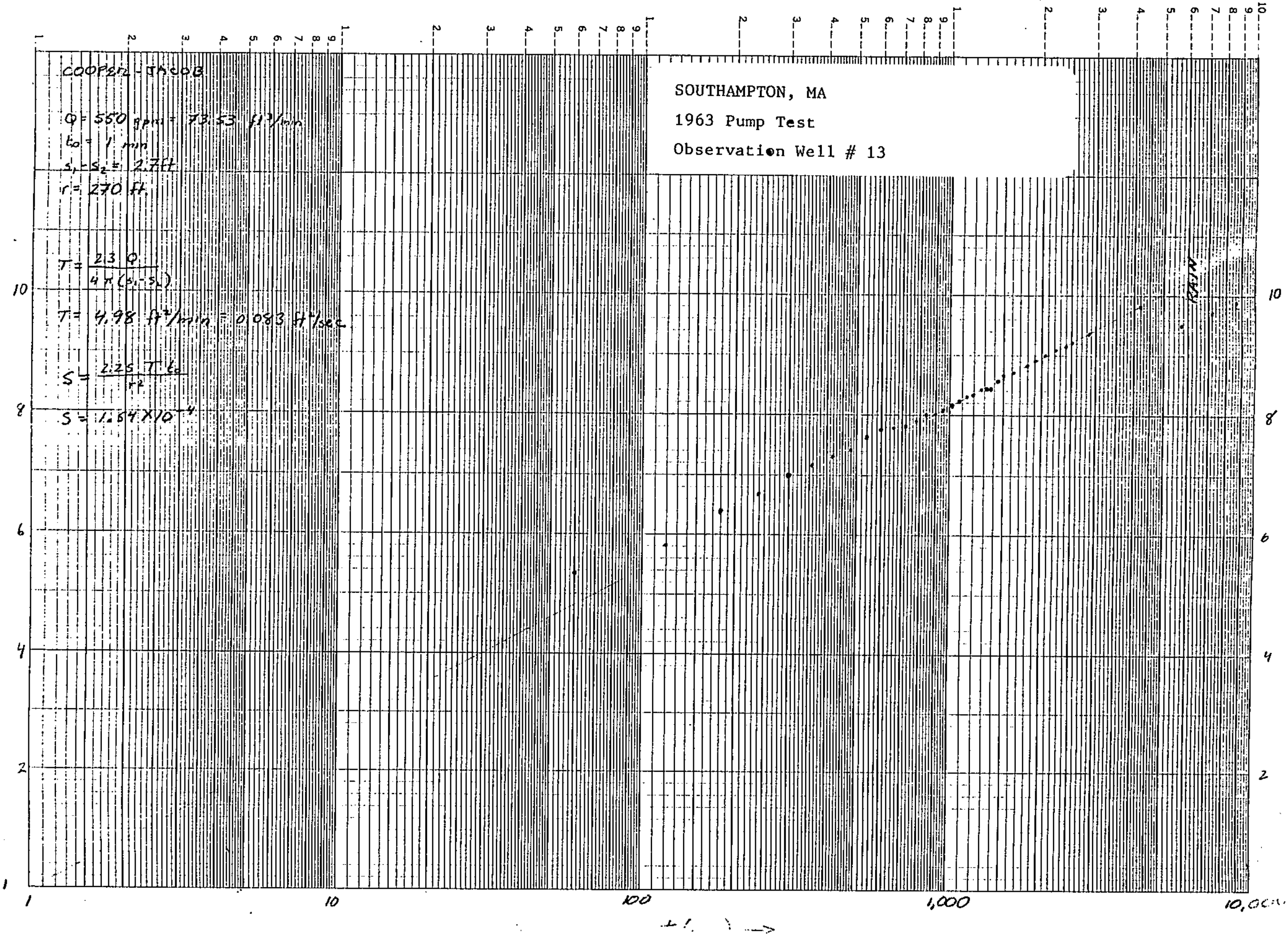
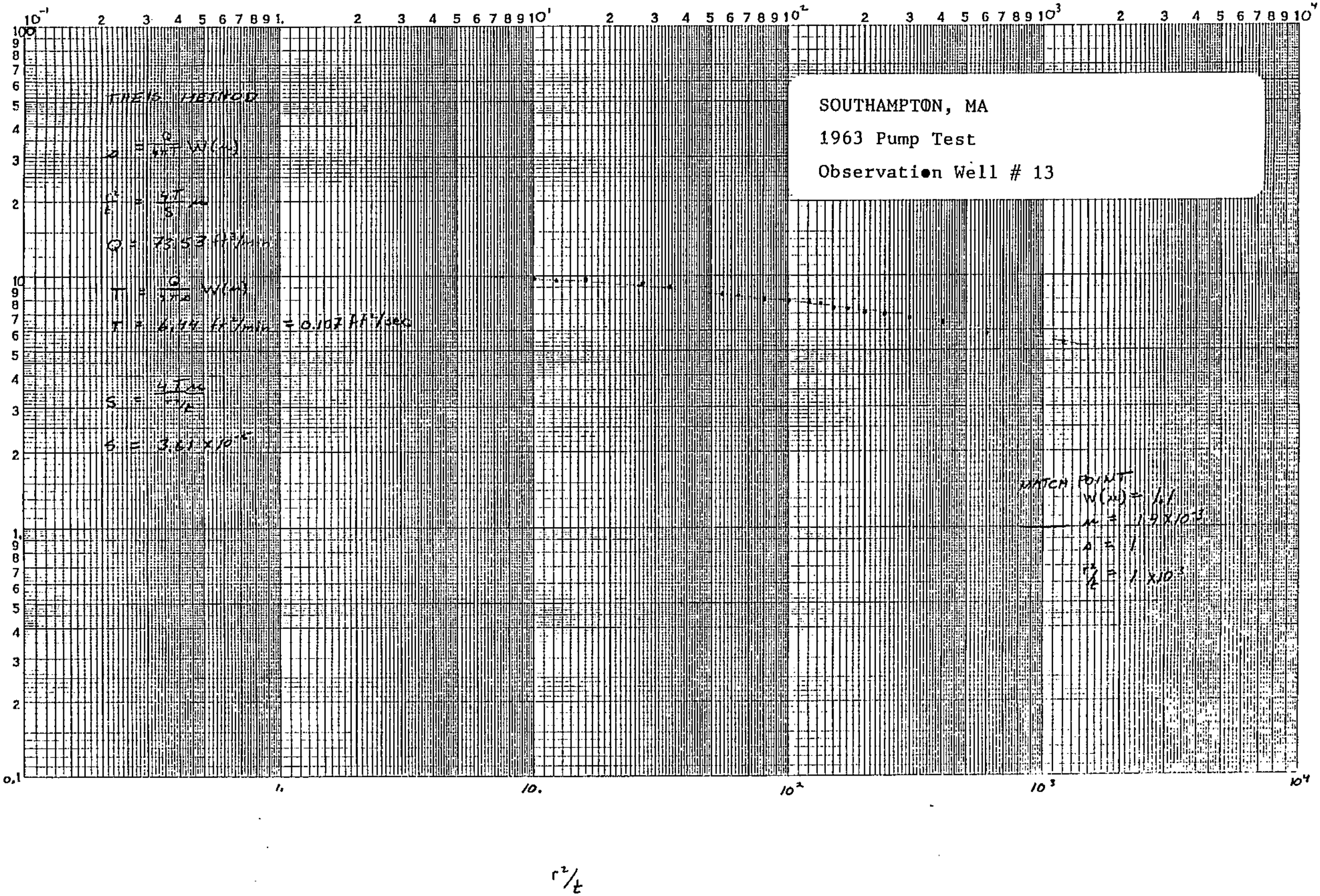
46 6010



K+E SEMI-LOGARITHMIC 4 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 6010




SOUTHAMPTON, MA
1963 Pump Test
Observation Well # 13
THEIS METHOD
Q = 73.53 ft³/min
T = 6.44 ft²/min = 0.107 ft²/sec
MATCH POINT
W(u) = 1.1
r²/t

APPENDIX 3

WATER QUALITY

Lab AMHERST MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH SOUTHAMPTON

WATER ANALYSIS (Parts Per Million) (city or town)

Source A TEST WELL (R.E. CHAPMAN FOR TOWN) TEST WELL NO. 7

Source B #2 2 1/2" TEST WELL NO. 9

Source C FROM #10 - 2 1/2 TEST WELL AT RIVERDALE RD. WELL FLOWS

Source D

Source E

Source F

	A	B	C	D	E	F
Sample No. Date of Collection	16109 1/14/63	16111 1/16/63	16114 1/16/63			
Date of Receipt	"	"	1/17/63			
Turbidity	0	0	0			
Sediment	-	-	-			
Color	2	3	3			
Odor - Cold	[illegible]	[illegible]	[illegible]			
Suspended total Solids loss						
Free Ammonia	.018	.036	.020			
Tot.Alb.Ammonia	.014	.034	.014			
Kjeldahl Nitrogen						
Nitrogen-Nitrates Nitrites	0.9 .000	.60 .000	.90 .000			
Chlorides	2.2	1.8	2.8			
Hardness	26	18	24			
Alkalinity-M.O. phth	26	18	20			
pH	7.8	6.6	6.6			
Iron	.06	.12	.14			
Manganese						
~~Fluorides~~ CO_2	3	6	8			
Oxygen Consumed						
Diss.Oxygen -ppm or - % Sat.						
B.O.D.						
Date of Receipt	1/14	1/16	1/17			
Coliform - MPN	0	0	0			
Tubes - pos./neg.						
Plate Count °C.						
Microscopical Std. Units per cc						
Collector	Swett	Swett	McDonnell			

Lab **AMHERST** MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH **SOUTHAMPTON**

WATER ANALYSIS (Parts Per Million) (city or town)

Source A 2 1/2" TEST HOLE (MAX SZCZYPTA PROPERTY)

Source B WELL PUMP TEST

Source C 8" TEST WELL OFF ROUTE #10

Source D 8" TEST WELL

Source E END OF PUMPING TEST DIRECT FROM DISCHARGE OF TEST WELL

(Iron Bacteria) Sphaerotilus natans var. fusca 2/40 ml

Source F

	A	B	C	D	E	F
Sample No.	16169	16189	16196	16198	16199	
Date of Collection	2/21/63	3/13/63	3/15/63	3/18/63	3/20/63	
Date of Receipt	"	"	"	"	"	
Turbidity	0	0	0	0	0	
Sediment	-	-	-	-	-	
Color	3	3	2	5	3	
Odor - Cold	1E	1E	1E	1E	1E	
Suspended Solids - total / loss						
Free Ammonia	.012	.010	.020	.010	.010	
Tot.Alb.Ammonia	.008	.030	.020	.014	.012	
Kjeldahl Nitrogen						
Nitrogen-Nitrates	.70	.75	.65	1.0	1.0	
Nitrites	.000	.000	.000	.000	.000	
Chlorides	1.8	2.2	1.8	2.2	2.0	
Hardness	26	20	20	24	22	
Alkalinity-M.O.	28	20	22	20	20	
phth						
pH	7.4	6.8	6.8	6.8	6.8	
Iron	.06	.02	.07	.10	.05	
Manganese						
CO_2	2.0	5.0	5.0	5.0	4.0	
Oxygen Consumed						
Diss.Oxygen -ppm / OF - % Sat.						
B.O.D.						
Date of Receipt				3/18	3/20	
Coliform - MPN				0	0	
Tubes - pos./neg.						
Plate Count cc.						
Microscopical Std. Units per cc						
Collector				McDonnell	A.I.	

Regular THE COMMONWEALTH OF MASS...

...ARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING

WATER SUPPLY ANALYSIS (mg/l per liter)

9 W 22

Southampton

COLLECTOR ---------

SOURCE A G.P. Well. Tap at Well nr. Glendale Rd. 276-01G
SOURCE B
SOURCE C
SOURCE D
SOURCE E
SOURCE F

	A	B	C	D	E	F
SAMPLE NO.	564584					
DATE OF COLLECTION	5/7/83					
DATE OF RECEIPT	5/16/83					
TURBIDITY	0.8					
SEDIMENT	0					
COLOR	15					
ODOR	0					
pH	6.6					
ALKALINITY-TOTAL(CaCO3)	7					
HARDNESS(CaCO3)	10					
CALCIUM(Ca)	3.1					
MAGNESIUM(Mg)	0.5					
SODIUM(Na)	2.5					
POTASSIUM (K)	0.3					
IRON(Fe)	.13					
MANGANESE(Mn)	.00					
SULFATE(SO4)	5					
CHLORIDE(Cl)	3.0					
SPEC. COND. (micromhos cm)	35					
NITROGEN(AMMONIA)	.01					
NITROGEN(NITRATE)	0.0					
NITROGEN(NITRITE)	.000					
COPPER(Cu)	.12					

RECEIVED
FEB 1 2 1980
Environmental Quality
Engineering
University of Mass.

The Commonwealth of Massachusetts

Department Of Environmental Quality Engineering

Lawrence Experiment Station

37 Shattuck Street, Lawrence, Massachusetts 01843

SOURCE A – G. P. Well near Glendale Road – 276-01G
SOURCE B –
SOURCE C –
SOURCE D –
SOURCE E –

SOUTHAMPTON

COLLECTOR: J. Moynihan
DATE COLLECTED: February 5, 1980
DATE RECEIVED: February 7, 1980

SPOT PROGRAM

	A	B	C	D	E
SAMPLE NO.	000147				
DATE ANALYZED	2/12/80				
Methylene Chloride	nd				
1,1 Dichloroethylene	nd				
1,2 Transdichloroethylene	nd				
Chloroform	nd				
1,2 Dichloroethane	nd				
1,1,1 Trichloroethane	nd				
Carbon tetrachloride	nd				
Bromodichloromethane	nd				
Trichloroethylene	nd				
Dibromochloromethane	nd				
Bromoform	nd				
Tetrachloroethylene	nd				

Concentrations reported as micrograms per liter – nd none detected

SPOT PROGRAM

The Commonwealth of Massachusetts

Department Of Environmental Quality Engineering

Lawrence Experiment Station

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS OF PURGEABLE ORGANICS

NOV 23 1984

SAMPLE NUMBER	013664	CITY/TOWN	SOUTHAMPTON
COLLECTOR	A. I.	COLLECTED	October 4, 1984
RECEIVED	October 10, 1984	ANALYZED	October 16, 1984

SOURCE SPOT G. D. Well

APPROVED BY JMP

☐ No purgeable organic compounds detected.

	ug/l		ug/l
Trichloroethylene	3.5		

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap". Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

L1 = less than 1.0 ug/l L5 = less than 5.0 ug/l L10 = less than 10 ug/l

*No standard available for quantitation. The mass spectrum obtained was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

SPOT PROGRAM

FILE COPY

The Commonwealth of Massachusetts

Department Of Environmental Quality Engineering

Lawrence Experiment Station

37 Shattuck Street, Lawrence, Massachusetts 01843

FEB 18 1987
Dept. of Environmental Quality Engineering

GAS CHROMATOGRAPHY-MASS SPECTROMETRY ANALYSIS OF PURGEABLE ORGANICS

SAMPLE NUMBER 025378 CITY/TOWN SOUTHAMPTON

COLLECTOR Prendergast COLLECTED 1/21/87

RECEIVED 1/27/87 ANALYZED 1/28/87

SOURCE Southampton Water Dept. - College Highway Well (Rt. 10) tap in well house

APPROVED BY: R. J. 2-12-87

[X] No purgeable organic compounds detected, <1.0 ug/L

	ug/L		ug/L

The sample was analyzed according to the EPA procedure, "Method 624-Organics by Purge and Trap". Only those organic compounds which have a significant vapor pressure in aqueous solution at room temperature and thus are amenable to partition by purging are detected by this procedure.

L1 = less than 1.0 ug/L L5 = less than 5.0 ug/L L10 = less than 10 ug/L

*No standard available for quantitation. The mass spectrum was compared to a mass spectral index and a mass spectral data base for identification.

REMARKS:

APPENDIX 4

CALIBRATION RUN

```
                 U.S. GEOLOGICAL SURVEY MODULAR FINITE-DIFFERENCE GROUND-WATER MODEL

SOUTHAMPTON AQUIFER SIMULATION                                                  3-D Model
  1 LAYERS        56 ROWS        22 COLUMNS
 1 STRESS PERIOD(S) IN SIMULATION
MODEL TIME UNIT IS SECONDS

I/O UNITS:
ELEMENT OF IUNIT:  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
        I/O UNIT: 11 12  0 14  0  0 17 18 19  0  0 22  0  0  0  0  0  0  0  0  0  0  0  0

BAS1 -- BASIC MODEL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  1
ARRAYS RHS AND BUFF WILL SHARE MEMORY.
START HEAD WILL BE SAVED
 11170 ELEMENTS IN X ARRAY ARE USED BY BAS
 11170 ELEMENTS OF X ARRAY USED OUT OF  56000

BCF1 -- BLOCK-CENTERED FLOW PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 11
STEADY-STATE SIMULATION
     LAYER  AQUIFER TYPE
     ------------------
       1         3
  3697 ELEMENTS IN X ARRAY ARE USED BY BCF
 14867 ELEMENTS OF X ARRAY USED OUT OF  56000

WEL1 -- WELL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM 12
MAXIMUM OF    3 WELLS
    12 ELEMENTS IN X ARRAY ARE USED FOR WELLS
 14879 ELEMENTS OF X ARRAY USED OUT OF  56000

RCH1 -- RECHARGE PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 18
OPTION 1 -- RECHARGE TO TOP LAYER
  1232 ELEMENTS OF X ARRAY USED FOR RECHARGE
 16111 ELEMENTS OF X ARRAY USED OUT OF  56000

RIV1 -- RIVER PACKAGE, VERSION 1,  12/08/83 INPUT READ FROM UNIT 14
MAXIMUM OF    9 RIVER NODES
    54 ELEMENTS IN X ARRAY ARE USED FOR RIVERS
 16165 ELEMENTS OF X ARRAY USED OUT OF  56000

GHB1 -- GHB PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 17
MAXIMUM OF   13 HEAD-DEPENDENT BOUNDARY NODES
CELL-BY-CELL FLOW WILL BE PRINTED WHEN ICBCFL NOT 0
    65 ELEMENTS IN X ARRAY ARE USED FOR HEAD-DEPENDENT BOUNDARIES
 16230 ELEMENTS OF X ARRAY USED OUT OF  56000

SIP1 -- STRONGLY IMPLICIT PROCEDURE SOLUTION PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 19
MAXIMUM OF 750 ITERATIONS ALLOWED FOR CLOSURE
 5 ITERATION PARAMETERS
  7933 ELEMENTS IN X ARRAY ARE USED BY SIP
 24163 ELEMENTS OF X ARRAY USED OUT OF  56000
```

BOUNDARY ARRAY FOR LAYER 1 WILL BE READ ON UNIT 1 USING FORMAT: (20I4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
10	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
11	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
12	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0

(3)

13	0	0	0	0	0	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
14	0	0	0	0	0	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
15	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
16	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
17	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
18	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
19	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
20	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
21	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
22	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
23	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
24	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
25	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	1								
26	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
27	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								

28	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
29	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
30	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
31	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
32	0	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
33	0	1	1	1	1	1	1	1	1	1
	1	0	1	1	1	1	1	1	0	0
	0	0								
34	0	1	1	1	1	1	1	1	1	1
	1	0	1	1	1	1	1	1	0	0
	0	0								
35	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
36	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
37	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
38	-1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
39	-1	1	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
40	-1	1	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
41	-1	1	0	0	1	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
42	-1	0	0	0	0	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								

43	0	0	0	0	0	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
44	0	0	0	0	0	0	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
45	0	0	0	0	0	0	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
46	0	0	0	0	0	0	0	1	1	1
	1	0	0	0	0	0	0	0	0	0
	0	0								
47	0	0	0	0	0	0	0	1	1	1
	1	0	0	0	0	0	0	0	0	0
	0	0								
48	0	0	0	0	0	0	0	0	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
49	0	0	0	0	0	0	0	0	1	1
	1	1	1	0	0	0	0	0	0	0
	0	0								
50	0	0	0	0	0	0	0	0	1	1
	1	1	1	1	1	0	0	0	0	0
	0	0								
51	0	0	0	0	0	0	0	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
52	0	0	0	0	0	0	0	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
53	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
54	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
55	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
56	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								

AQUIFER HEAD WILL BE SET TO 999.99 AT ALL NO-FLOW NODES (IBOUND=0).

INITIAL HEAD FOR LAYER 1 WILL BE READ ON UNIT 1 USING FORMAT: (10F8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	200.0	173.0	173.0
	173.0	173.0	173.0	173.0	174.0	172.0	169.0	166.0	160.0	158.0
	157.0	158.0								
2	1000.	1000.	1000.	1000.	1000.	1000.	210.0	200.0	173.0	173.0
	173.0	172.0	172.0	172.0	171.0	171.0	169.0	166.0	163.0	161.0
	160.0	159.0								
3	1000.	1000.	1000.	1000.	1000.	1000.	210.0	200.0	173.0	173.0
	173.0	172.0	172.0	172.0	171.0	170.0	169.0	167.0	165.0	163.0
	162.0	159.0								
4	1000.	1000.	1000.	1000.	1000.	1000.	210.0	200.0	173.0	173.0
	173.0	172.0	172.0	172.0	171.0	170.0	169.0	168.0	166.0	165.0
	164.0	164.0								
5	1000.	1000.	1000.	1000.	1000.	1000.	210.0	200.0	195.0	174.0
	173.0	173.0	172.0	172.0	172.0	171.0	170.0	169.0	168.0	167.0
	166.0	166.0								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	200.0	175.0	174.0
	174.0	173.0	173.0	172.0	172.0	172.0	171.0	170.0	169.0	168.0
	167.0	168.0								
7	1000.	1000.	1000.	1000.	1000.	250.0	235.0	200.0	176.0	175.0
	174.0	174.0	173.0	173.0	173.0	172.0	172.0	171.0	170.0	169.0
	169.0	169.0								
8	1000.	1000.	1000.	1000.	256.0	250.0	225.0	200.0	176.0	175.0
	175.0	174.0	174.0	174.0	174.0	173.0	173.0	172.0	171.0	171.0
	170.0	169.0								
9	1000.	1000.	1000.	1000.	250.0	240.0	225.0	200.0	177.0	176.0
	176.0	175.0	175.0	175.0	174.0	174.0	174.0	173.0	172.0	172.0
	171.0	1000.								
10	1000.	1000.	1000.	1000.	255.0	240.0	220.0	178.0	177.0	177.0
	177.0	176.0	176.0	175.0	175.0	175.0	175.0	174.0	174.0	173.0
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	240.0	215.0	179.0	178.0	178.0
	178.0	177.0	177.0	176.0	176.0	176.0	176.0	175.0	175.0	174.0
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	230.0	181.0	180.0	179.0	178.0
	178.0	178.0	178.0	177.0	177.0	177.0	176.0	176.0	176.0	175.0
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	230.0	181.0	180.0	180.0	179.0
	179.0	178.0	178.0	178.0	178.0	178.0	177.0	177.0	177.0	176.0

	190.0	1000.								
14	1000.	1000.	1000.	1000.	1000.	220.0	181.0	181.0	180.0	180.0
	179.0	179.0	179.0	179.0	179.0	179.0	178.0	178.0	177.0	185.0
	190.0	1000.								
15	1000.	1000.	1000.	1000.	240.0	220.0	182.0	181.0	181.0	181.0
	180.0	180.0	179.0	179.0	179.0	179.0	179.0	178.0	178.0	178.0
	1000.	1000.								
16	1000.	1000.	1000.	1000.	240.0	215.0	182.0	182.0	182.0	181.0
	181.0	180.0	180.0	180.0	180.0	180.0	179.0	179.0	179.0	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	240.0	184.0	183.0	182.0	182.0	182.0
	181.0	181.0	180.0	180.0	180.0	180.0	180.0	179.0	179.0	1000.
	1000.	1000.								
18	1000.	1000.	1000.	240.0	230.0	184.0	183.0	183.0	182.0	182.0
	182.0	181.0	181.0	180.0	180.0	180.0	180.0	180.0	180.0	1000.
	1000.	1000.								
19	1000.	1000.	1000.	240.0	230.0	184.0	184.0	183.0	183.0	182.0
	182.0	182.0	181.0	181.0	181.0	181.0	181.0	180.0	180.0	1000.
	1000.	1000.								
20	1000.	1000.	1000.	240.0	210.0	185.0	184.0	184.0	183.0	183.0
	183.0	182.0	182.0	182.0	182.0	182.0	181.0	181.0	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	187.0	186.0	186.0	185.0	184.0	184.0	184.0
	183.0	183.0	183.0	182.0	182.0	182.0	182.0	182.0	1000.	1000.
	1000.	1000.								
22	1000.	1000.	230.0	200.0	187.0	186.0	186.0	185.0	185.0	184.0
	184.0	184.0	183.0	183.0	183.0	183.0	183.0	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	230.0	200.0	187.0	187.0	186.0	186.0	185.0	185.0
	185.0	184.0	184.0	184.0	184.0	184.0	184.0	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	230.0	200.0	188.0	187.0	187.0	186.0	186.0	185.0
	185.0	185.0	185.0	185.0	184.0	184.0	185.0	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	189.0	188.0	188.0	187.0	187.0	186.0	186.0
	186.0	185.0	185.0	185.0	185.0	185.0	185.0	186.0	186.0	187.0
	230.0	250.0								
26	1000.	1000.	1000.	189.0	189.0	188.0	188.0	187.0	187.0	186.0
	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	186.0	220.0
	240.0	1000.								
27	1000.	1000.	1000.	189.0	189.0	189.0	188.0	188.0	187.0	187.0
	187.0	187.0	187.0	186.0	186.0	186.0	186.0	186.0	187.0	187.0
	250.0	1000.								
28	1000.	1000.	1000.	189.0	189.0	189.0	189.0	188.0	188.0	188.0
	188.0	187.0	187.0	187.0	187.0	187.0	187.0	187.0	187.0	230.0

	1000.	1000.								
29	1000.	1000.	1000.	1000.	190.0	190.0	189.0	189.0	189.0	189.0
	188.0	188.0	188.0	188.0	188.0	188.0	187.0	187.0	230.0	240.0
	1000.	1000.								
30	1000.	1000.	1000.	192.0	191.0	191.0	190.0	190.0	189.0	189.0
	189.0	189.0	189.0	188.0	188.0	188.0	188.0	188.0	225.0	1000.
	1000.	1000.								
31	1000.	1000.	193.0	192.0	192.0	191.0	191.0	190.0	190.0	190.0
	190.0	189.0	189.0	189.0	189.0	189.0	200.0	225.0	1000.	1000.
	1000.	1000.								
32	1000.	194.0	194.0	193.0	193.0	192.0	192.0	191.0	191.0	190.0
	190.0	190.0	190.0	190.0	190.0	190.0	200.0	225.0	1000.	1000.
	1000.	1000.								
33	1000.	195.0	195.0	194.0	193.0	193.0	192.0	192.0	191.0	191.0
	191.0	1000.	190.0	190.0	190.0	190.0	200.0	230.0	1000.	1000.
	1000.	1000.								
34	1000.	196.0	195.0	195.0	194.0	194.0	193.0	192.0	192.0	192.0
	192.0	1000.	191.0	191.0	191.0	191.0	220.0	230.0	1000.	1000.
	1000.	1000.								
35	200.0	198.0	196.0	196.0	195.0	195.0	194.0	1000.	1000.	192.0
	192.0	192.0	192.0	192.0	192.0	192.0	192.0	1000.	1000.	1000.
	1000.	1000.								
36	200.0	198.0	197.0	196.0	196.0	195.0	195.0	1000.	1000.	193.0
	193.0	193.0	192.0	192.0	192.0	192.0	192.0	1000.	1000.	1000.
	1000.	1000.								
37	198.0	197.0	197.0	196.0	196.0	196.0	196.0	1000.	1000.	194.0
	193.0	193.0	193.0	193.0	193.0	193.0	230.0	1000.	1000.	1000.
	1000.	1000.								
38	197.0	197.0	197.0	196.0	196.0	196.0	196.0	196.0	196.0	195.0
	195.0	194.0	193.0	193.0	193.0	193.0	240.0	250.0	1000.	1000.
	1000.	1000.								
39	195.0	196.0	1000.	1000.	197.0	197.0	197.0	196.0	196.0	196.0
	195.0	195.0	194.0	194.0	194.0	194.0	240.0	250.0	1000.	1000.
	1000.	1000.								
40	196.0	196.0	1000.	1000.	197.0	197.0	197.0	197.0	197.0	196.0
	196.0	196.0	195.0	194.0	194.0	230.0	1000.	1000.	1000.	1000.
	1000.	1000.								
41	198.0	197.0	1000.	1000.	197.0	197.0	197.0	197.0	197.0	197.0
	197.0	197.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	200.0	1000.	1000.	1000.	1000.	197.0	198.0	198.0	198.0	198.0
	198.0	197.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	198.0	198.0	198.0	198.0	198.0
	198.0	220.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.

	1000.	1000.								
44	1000.	1000.	1000.	1000.	1000.	1000.	199.0	199.0	199.0	199.0
	199.0	250.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	199.0	199.0	199.0	200.0
	200.0	200.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	200.0	200.0	200.0
	200.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	200.0	201.0	201.0
	201.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	201.0	202.0
	202.0	203.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.0	203.0
	203.0	204.0	205.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	204.0	204.0
	205.0	205.0	206.0	206.0	206.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.0	205.0	205.0
	206.0	206.0	206.0	206.0	206.0	206.0	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.0	206.0	206.0
	206.0	206.0	206.0	206.0	206.0	206.0	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.0	207.0	207.0
	207.0	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.0	207.0	207.0
	207.0	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.0	208.0	208.0
	207.0	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	208.0	208.0	208.0
	208.0	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

HEAD PRINT FORMAT IS FORMAT NUMBER 0 DRAWDOWN PRINT FORMAT IS FORMAT NUMBER 0

HEADS WILL BE SAVED ON UNIT 23 DRAWDOWNS WILL BE SAVED ON UNIT 0

OUTPUT CONTROL IS SPECIFIED EVERY TIME STEP

COLUMN TO ROW ANISOTROPY = 1.000000

DELR WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	250.00	250.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00								

DELC WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	250.00	250.00	250.00	250.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00				

HYD. COND. ALONG ROWS FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	2.8688E-03	2.8688E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03
	5.3518E-03	5.3518E-03								
2	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03
	5.3518E-03	5.3518E-03								
3	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03
	5.3518E-03	5.3518E-03								
4	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03
	5.3518E-03	5.3518E-03								
5	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03
	5.3518E-03	5.3518E-03								
6	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03
	5.3518E-03	5.3518E-03								

7	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	9.5500E-04
	9.5500E-04	9.5500E-04								
8	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04	9.5500E-04
	9.5500E-04	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	9.5500E-04	9.5500E-04
	1.5280E-03	1.5280E-03								
9	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03
	1.5280E-03	3.8200E-08								
10	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.3370E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03
	3.8200E-08	3.8200E-08								
11	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03
	3.8200E-08	3.8200E-08								
12	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03
	3.8200E-08	3.8200E-08								
13	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	3.8200E-08								
14	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	3.8200E-08								
15	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	3.8200E-08	3.8200E-08								
16	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08
	3.8200E-08	3.8200E-08								
17	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08
	3.8200E-08	3.8200E-08								
18	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08
	3.8200E-08	3.8200E-08								
19	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08
	3.8200E-08	3.8200E-08								
20	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
21	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								

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22	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
23	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
24	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
25	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
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26	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	3.8200E-08								
27	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.9138E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	3.8200E-08								
28	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.9138E-03
	1.9138E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
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29	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.9138E-03
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	3.8200E-08	3.8200E-08								
30	3.8200E-08	3.8200E-08	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.9138E-03	1.9138E-03
	1.9138E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08
	3.8200E-08	3.8200E-08								
31	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.9138E-03	1.9138E-03
	1.9138E-03	1.9138E-03	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
32	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.9138E-03	1.9138E-03
	1.9138E-03	1.5280E-03	5.3480E-03	3.825	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
33	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.9138E-03	1.9138E-03
	1.5280E-03	3.8200E-08	5.3518E-03	5.3518E-03	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
34	3.8200E-08	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03
	1.5280E-03	3.8200E-08	5.3480E-03	3.825	5.3518E-03	5.3518E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
35	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08	1.5280E-03
	1.5280E-03	1.5280E-03	3.8200E-03	3.8200E-03	3.8200E-03	3.8200E-03	1.5280E-03	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
36	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	1.5280E-03	3.8200E-08	3.8200E-08	1.5280E-03
	1.5280E-03	1.5280E-03	3.8200E-03	3.8200E-03	3.8200E-03	3.8200E-03	1.5280E-03	3.8200E-08	3.8200E-08	3.8200E-08
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37 1.5280E-03 1.5280E-03 1.5280E-03 1.5280E-03 1.5280E-03 1.5280E-03 1.5280E-03 3.8200E-08 3.8200E-08 1.5280E-03
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3.8200E-08 3.8200E-08

52	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	2.8650E-03	2.8650E-03	2.8650E-03
	2.8650E-03	2.8650E-03	2.8650E-03	2.8650E-03	2.8650E-03	2.8650E-03	2.8650E-03	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
53	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	2.8650E-03	2.8650E-03	2.8650E-03
	2.8650E-03	2.8650E-03	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
54	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	2.8650E-03	2.8650E-03	2.8650E-03
	2.8650E-03	2.8650E-03	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
55	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	2.8650E-03	2.8650E-03	2.8650E-03
	2.8650E-03	2.8650E-03	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								
56	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	2.8650E-03	2.8650E-03	2.8650E-03
	2.8650E-03	2.8650E-03	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08	3.8200E-08
	3.8200E-08	3.8200E-08								

BOTTOM FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10f8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-30.00	-40.00	-50.00	-50.00	-40.00	-30.00	-20.00
	-10.00	0.0000E+00								
2	250.0	250.0	250.0	250.0	250.0	250.0	190.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-30.00	-40.00	-500.0	-50.00	-40.00	-30.00	-20.00
	0.0000E+00	0.0000E+00								
3	250.0	250.0	250.0	250.0	250.0	220.0	190.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-40.00	-50.00	-40.00	-25.00	0.0000E+00
	0.0000E+00	25.00								
4	250.0	250.0	250.0	250.0	250.0	220.0	190.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-30.00	-40.00	-40.00	-20.00	0.0000E+00
	25.00	35.00								
5	250.0	250.0	250.0	250.0	250.0	250.0	190.0	180.0	175.0	125.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-35.00	-30.00	-25.00	-20.00	0.0000E+00
	25.00	50.00								
6	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	170.0	125.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-35.00	-30.00	-20.00	0.0000E+00	25.00
	50.00	100.0								
7	250.0	250.0	250.0	200.0	255.0	230.0	215.0	180.0	170.0	125.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-35.00	-20.00	0.0000E+00	25.00	50.00
	100.0	125.0								
8	250.0	250.0	250.0	250.0	235.0	230.0	205.0	180.0	150.0	100.0

(15)

	50.00	0.0000E+00	-20.00	-25.00	-30.00	-25.00	-20.00	0.0000E+00	50.00	100.0
	150.0	150.0								
9	250.0	250.0	250.0	250.0	230.0	220.0	205.0	180.0	150.0	100.0
	50.00	0.0000E+00	-15.00	-20.00	-25.00	-20.00	0.0000E+00	25.00	50.00	100.0
	150.0	250.0								
10	250.0	250.0	250.0	250.0	235.0	220.0	200.0	175.0	150.0	100.0
	50.00	0.0000E+00	-15.00	-20.00	-20.00	-15.00	0.0000E+00	50.00	100.0	125.0
	150.0	250.0								
11	250.0	250.0	250.0	250.0	250.0	220.0	195.0	175.0	150.0	100.0
	50.00	0.0000E+00	-10.00	-15.00	-15.00	0.0000E+00	50.00	75.00	100.0	125.0
	250.0	250.0								
12	250.0	250.0	250.0	250.0	250.0	200.0	180.0	165.0	150.0	100.0
	50.00	0.0000E+00	-10.00	-5.000	0.0000E+00	0.0000E+00	50.00	100.0	125.0	150.0
	250.0	250.0								
13	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	25.00	50.00	100.0	125.0	150.0
	170.0	225.0								
14	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	50.00	100.0	125.0	150.0	175.0
	170.0	225.0								
15	250.0	250.0	250.0	250.0	220.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	50.00	100.0	125.0	150.0	165.0
	250.0	250.0								
16	250.0	250.0	250.0	250.0	220.0	195.0	175.0	150.0	125.0	100.0
	75.00	50.00	25.00	0.0000E+00	0.0000E+00	50.00	100.0	150.0	160.0	200.0
	250.0	250.0								
17	250.0	250.0	250.0	250.0	220.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	8.000	8.000	50.00	100.0	150.0	160.0	200.0
	250.0	250.0								
18	250.0	250.0	250.0	220.0	200.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	10.00	25.00	50.00	100.0	150.0	160.0	250.0
	250.0	250.0								
19	250.0	250.0	250.0	220.0	200.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	10.00	25.00	50.00	100.0	150.0	160.0	250.0
	250.0	250.0								
20	250.0	250.0	250.0	210.0	190.0	175.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	15.00	25.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
21	250.0	250.0	210.0	180.0	175.0	170.0	165.0	150.0	125.0	100.0
	75.00	50.00	35.00	20.00	35.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
22	250.0	250.0	210.0	180.0	175.0	170.0	165.0	150.0	125.0	100.0
	75.00	50.00	35.00	20.00	35.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
23	250.0	250.0	210.0	180.0	175.0	170.0	150.0	125.0	100.0	80.00

	65.00	50.00	40.00	30.00	40.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
24	250.0	250.0	210.0	180.0	175.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	35.00	40.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
25	250.0	250.0	200.0	175.0	170.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	40.00	50.00	75.00	100.0	150.0	180.0	185.0
	210.0	230.0								
26	250.0	250.0	200.0	175.0	170.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	50.00	50.00	75.00	100.0	125.0	150.0	180.0	200.0
	220.0	250.0								
27	250.0	250.0	200.0	175.0	170.0	165.0	150.0	125.0	100.0	90.00
	80.00	70.00	65.00	75.00	85.00	100.0	125.0	150.0	170.0	180.0
	200.0	200.0								
28	250.0	250.0	200.0	175.0	170.0	165.0	150.0	125.0	100.0	90.00
	85.00	80.00	80.00	100.0	100.0	125.0	150.0	170.0	180.0	200.0
	250.0	200.0								
29	250.0	250.0	200.0	240.0	170.0	165.0	150.0	125.0	100.0	90.00
	85.00	90.00	100.0	100.0	125.0	150.0	170.0	180.0	200.0	210.0
	250.0	250.0								
30	250.0	250.0	200.0	175.0	160.0	150.0	135.0	120.0	100.0	95.00
	85.00	100.0	125.0	150.0	150.0	160.0	170.0	180.0	210.0	250.0
	250.0	250.0								
31	250.0	240.0	180.0	175.0	170.0	150.0	135.0	120.0	100.0	90.00
	100.0	100.0	150.0	150.0	150.0	180.0	190.0	205.0	250.0	250.0
	250.0	250.0								
32	250.0	180.0	175.0	170.0	150.0	140.0	125.0	115.0	100.0	95.00
	100.0	150.0	170.0	150.0	150.0	180.0	190.0	205.0	250.0	250.0
	250.0	250.0								
33	250.0	180.0	175.0	170.0	150.0	140.0	130.0	110.0	100.0	100.0
	150.0	200.0	160.0	160.0	160.0	180.0	190.0	210.0	250.0	250.0
	250.0	250.0								
34	250.0	180.0	175.0	150.0	140.0	130.0	120.0	115.0	110.0	110.0
	150.0	200.0	170.0	175.0	175.0	180.0	205.0	210.0	250.0	250.0
	250.0	250.0								
35	180.0	175.0	150.0	140.0	130.0	125.0	130.0	150.0	150.0	115.0
	120.0	150.0	150.0	150.0	150.0	180.0	180.0	250.0	250.0	250.0
	250.0	250.0								
36	180.0	150.0	140.0	135.0	130.0	125.0	135.0	150.0	150.0	120.0
	120.0	125.0	150.0	150.0	180.0	180.0	180.0	250.0	250.0	250.0
	250.0	250.0								
37	150.0	140.0	135.0	135.0	135.0	130.0	130.0	150.0	150.0	140.0
	135.0	125.0	130.0	150.0	150.0	180.0	210.0	250.0	250.0	250.0
	250.0	250.0								
38	140.0	140.0	140.0	150.0	150.0	150.0	140.0	135.0	135.0	136.0

	136.0	140.0	150:0	150.0	150.0	180.0	220.0	230.0	250.0	250.0
	250.0	250.0								
39	140.0	150.0	150.0	200.0	175.0	160.0	150.0	135.0	138.0	138.0
	140.0	150.0	185.0	175.0	180.0	190.0	220.0	230.0	250.0	250.0
	250.0	250.0								
40	150.0	180.0	200.0	203.0	180.0	175.0	150.0	150.0	140.0	140.0
	150.0	175.0	180.0	180.0	190.0	210.0	250.0	250.0	250.0	250.0
	250.0	250.0								
41	175.0	180.0	200.0	200.0	180.0	175.0	160.0	150.0	145.0	140.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
42	175.0	250.0	250.0	250.0	250.0	175.0	175.0	155.0	150.0	145.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
43	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0	150.0	145.0
	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
44	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	165.0	150.0
	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
45	250.0	250.0	250.0	250.0	250.0	240.0	180.0	175.0	165.0	150.0
	175.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
46	250.0	250.0	250.0	250.0	250.0	250.0	250.0	175.0	175.0	150.0
	175.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
47	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	150.0
	180.0	225.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
48	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
49	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	175.0	180.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
50	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	175.0	175.0
	170.0	180.0	190.0	200.0	200.0	200.0	250.0	250.0	250.0	250.0
	250.0	250.0								
51	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	180.0	185.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								
52	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	174.0	175.0
	150.0	150.0	170.0	185.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								
53	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0

	1	2	3	4	5	6	7	8	9	10
	150.0	150.0	165.0	180.0	200.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
54	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	200.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
55	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	200.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
56	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	180.0	160.0
	140.0	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

TOP FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10f8.0)

	1 11 21	2 12 22	3 13	4 14	5 15	6 16	7 17	8 18	9 19	10 20
1	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	195.0	190.0
	110.0	60.00	10.00	-10.00	-20.00	-30.00	-30.00	-20.00	-10.00	0.0000E+00
	10.00	20.00								
2	250.0	250.0	250.0	250.0	250.0	250.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-10.00	-20.00	-300.0	-30.00	-20.00	-10.00	10.00
	20.00	20.00								
3	250.0	250.0	250.0	250.0	250.0	240.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-5.000	-10.00	-20.00	-30.00	-15.00	10.00	20.00
	35.00	45.00								
4	250.0	250.0	250.0	250.0	250.0	240.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-5.000	-10.00	-10.00	-20.00	-10.00	10.00	35.00
	45.00	55.00								
5	250.0	250.0	250.0	250.0	250.0	250.0	210.0	200.0	195.0	190.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	-10.00	-5.000	10.00	35.00
	60.00	70.00								
6	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	193.0	190.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	-10.00	10.00	35.00	60.00
	110.0	120.0								
7	250.0	250.0	250.0	310.0	274.0	250.0	235.0	200.0	193.0	189.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	10.00	35.00	60.00	110.0
	135.0	145.0								
8	250.0	250.0	250.0	250.0	256.0	250.0	225.0	200.0	190.0	185.0
	110.0	60.00	10.00	-5.000	-10.00	-5.000	10.00	60.00	110.0	160.0
	170.0	170.0								
9	250.0	250.0	250.0	250.0	250.0	240.0	225.0	200.0	190.0	120.0
	110.0	60.00	10.00	0.0000E+00	-5.000	10.00	35.00	60.00	110.0	160.0

	170.0	250.0								
10	250.0	250.0	250.0	250.0	255.0	240.0	220.0	195.0	190.0	180.0
	70.00	60.00	10.00	0.0000E+00	0.0000E+00	10.00	60.00	110.0	135.0	145.0
	170.0	250.0								
11	250.0	250.0	250.0	250.0	250.0	240.0	215.0	197.0	190.0	180.0
	110.0	60.00	10.00	5.000	10.00	60.00	85.00	110.0	135.0	145.0
	250.0	250.0								
12	250.0	250.0	250.0	250.0	250.0	230.0	210.0	195.0	185.0	180.0
	170.0	60.00	10.00	15.00	20.00	60.00	110.0	135.0	160.0	170.0
	250.0	250.0								
13	250.0	250.0	250.0	250.0	250.0	230.0	200.0	195.0	185.0	179.0
	175.0	85.00	60.00	15.00	35.00	60.00	110.0	135.0	160.0	180.0
	180.0	235.0								
14	250.0	250.0	250.0	250.0	250.0	220.0	200.0	190.0	160.0	135.0
	110.0	85.00	60.00	15.00	60.00	110.0	135.0	160.0	185.0	195.0
	185.0	235.0								
15	250.0	250.0	250.0	250.0	240.0	220.0	198.0	190.0	185.0	135.0
	110.0	85.00	60.00	15.00	60.00	110.0	135.0	160.0	175.0	175.0
	250.0	250.0								
16	250.0	250.0	250.0	250.0	240.0	215.0	197.0	190.0	185.0	135.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	210.0
	250.0	250.0								
17	250.0	250.0	250.0	250.0	240.0	210.0	195.0	190.0	180.0	175.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	210.0
	250.0	250.0								
18	250.0	250.0	250.0	240.0	230.0	200.0	195.0	190.0	180.0	175.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	250.0
	250.0	250.0								
19	250.0	250.0	250.0	240.0	230.0	210.0	194.0	188.0	180.0	175.0
	170.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	250.0
	250.0	250.0								
20	250.0	250.0	250.0	240.0	210.0	198.0	194.0	188.0	180.0	175.0
	170.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	210.0	250.0
	250.0	250.0								
21	250.0	250.0	220.0	230.0	200.0	195.0	190.0	185.0	180.0	175.0
	110.0	85.00	60.00	45.00	60.00	110.0	160.0	170.0	210.0	250.0
	250.0	250.0								
22	250.0	250.0	230.0	200.0	197.0	193.0	190.0	185.0	180.0	175.0
	170.0	170.0	60.00	45.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								
23	250.0	250.0	230.0	200.0	197.0	193.0	187.0	183.0	177.0	173.0
	170.0	170.0	60.00	50.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								
24	250.0	250.0	230.0	200.0	195.0	190.0	185.0	180.0	177.0	173.0
	170.0	170.0	60.00	55.00	60.00	110.0	120.0	170.0	210.0	250.0

	250.0	250.0								
25	250.0	250.0	200.0	197.0	193.0	190.0	185.0	180.0	175.0	170.0
	90.00	75.00	60.00	60.00	85.00	110.0	160.0	190.0	195.0	205.0
	230.0	250.0								
26	250.0	250.0	200.0	197.0	193.0	190.0	184.0	180.0	175.0	110.0
	90.00	75.00	70.00	85.00	110.0	135.0	160.0	190.0	200.0	220.0
	240.0	250.0								
27	250.0	250.0	200.0	197.0	193.0	188.0	183.0	180.0	135.0	110.0
	100.0	90.00	85.00	95.00	110.0	135.0	160.0	190.0	200.0	220.0
	250.0	310.0								
28	250.0	250.0	200.0	197.0	193.0	185.0	180.0	160.0	135.0	110.0
	105.0	100.0	110.0	120.0	135.0	160.0	180.0	190.0	210.0	230.0
	260.0	310.0								
29	250.0	250.0	300.0	250.0	180.0	180.0	175.0	160.0	135.0	110.0
	105.0	110.0	120.0	135.0	160.0	180.0	190.0	210.0	230.0	240.0
	250.0	250.0								
30	250.0	250.0	210.0	185.0	185.0	170.0	160.0	145.0	130.0	115.0
	110.0	135.0	160.0	170.0	170.0	180.0	190.0	200.0	225.0	250.0
	250.0	250.0								
31	250.0	250.0	190.0	190.0	185.0	180.0	160.0	145.0	130.0	110.0
	120.0	160.0	170.0	190.0	190.0	200.0	215.0	225.0	250.0	250.0
	250.0	250.0								
32	250.0	190.0	190.0	185.0	180.0	160.0	150.0	135.0	125.0	115.0
	160.0	180.0	190.0	200.0	190.0	200.0	215.0	225.0	250.0	250.0
	250.0	250.0								
33	250.0	190.0	190.0	185.0	180.0	160.0	150.0	140.0	120.0	160.0
	170.0	220.0	220.0	210.0	200.0	200.0	200.0	230.0	250.0	250.0
	250.0	250.0								
34	250.0	190.0	190.0	185.0	160.0	150.0	140.0	135.0	130.0	160.0
	170.0	220.0	210.0	200.0	185.0	215.0	220.0	230.0	250.0	250.0
	250.0	250.0								
35	200.0	190.0	185.0	160.0	150.0	145.0	150.0	170.0	170.0	145.0
	177.0	177.0	190.0	190.0	200.0	190.0	200.0	250.0	250.0	250.0
	250.0	250.0								
36	200.0	190.0	160.0	155.0	150.0	145.0	155.0	170.0	170.0	179.0
	178.0	178.0	179.0	190.0	200.0	190.0	200.0	250.0	250.0	250.0
	250.0	250.0								
37	198.0	160.0	155.0	155.0	155.0	150.0	150.0	170.0	170.0	160.0
	155.0	180.0	180.0	185.0	190.0	200.0	230.0	250.0	250.0	250.0
	250.0	250.0								
38	197.0	160.0	160.0	170.0	170.0	170.0	160.0	155.0	155.0	156.0
	156.0	160.0	185.0	190.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								
39	195.0	170.0	170.0	210.0	195.0	185.0	170.0	160.0	158.0	158.0
	160.0	210.0	220.0	210.0	200.0	210.0	240.0	250.0	250.0	250.0

	250.0	250.0								
40	196.0	220.0	220.0	223.0	190.0	195.0	185.0	170.0	160.0	160.0
	185.0	195.0	190.0	200.0	210.0	230.0	250.0	250.0	250.0	250.0
	250.0	250.0								
41	200.0	250.0	220.0	220.0	190.0	190.0	185.0	170.0	165.0	160.0
	210.0	220.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
42	200.0	250.0	250.0	250.0	250.0	185.0	195.0	185.0	170.0	165.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
43	250.0	250.0	250.0	250.0	250.0	190.0	190.0	197.0	192.0	195.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
44	250.0	250.0	250.0	250.0	250.0	250.0	190.0	194.0	192.0	195.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
45	250.0	250.0	250.0	250.0	250.0	250.0	190.0	195.0	185.0	195.0
	200.0	260.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
46	250.0	250.0	250.0	250.0	250.0	250.0	250.0	185.0	195.0	185.0
	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
47	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	195.0	190.0
	200.0	225.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
48	250.0	250.0	250.0	250.0	250.0	250.0	250.0	210.0	196.0	194.0
	197.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
49	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	196.0	195.0
	198.0	200.0	220.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
50	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	197.0	196.0
	198.0	200.0	220.0	230.0	240.0	210.0	250.0	250.0	250.0	250.0
	250.0	250.0								
51	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	197.0	196.0
	198.0	200.0	212.0	230.0	240.0	275.0	280.0	250.0	250.0	250.0
	250.0	250.0								
52	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	198.0	197.0
	200.0	220.0	230.0	245.0	250.0	278.0	285.0	250.0	250.0	250.0
	250.0	250.0								
53	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	199.0	198.0
	220.0	225.0	185.0	190.0	210.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
54	250.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	199.0	198.0
	200.0	225.0	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0

	250.0	250.0								
55	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	199.0	199.0
	200.0	225.0	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
56	250.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	200.0	200.0
	200.0	225.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

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SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE

MAXIMUM ITERATIONS ALLOWED FOR CLOSURE = 750
ACCELERATION PARAMETER = 0.50000
HEAD CHANGE CRITERION FOR CLOSURE = 0.10000E-02
SIP HEAD CHANGE PRINTOUT INTERVAL = 999

CALCULATE ITERATION PARAMETERS FROM MODEL CALCULATED WSEED

STRESS PERIOD NO. 1, LENGTH = 86400.00

NUMBER OF TIME STEPS = 1

MULTIPLIER FOR DELT = 1.000

INITIAL TIME STEP SIZE = 86400.00

1 WELLS

LAYER	ROW	COL	STRESS RATE	WELL NO.
1	17	15	0.00000E+00	1

RECHARGE WILL BE READ ON UNIT 18 USING FORMAT: (20F4.0)

	1	2	3	4	5	6	7	8	9	10
1	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08
2	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
3	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
4	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
5	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
6	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08
7	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
8	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
9	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00

	11	12	13	14	15	16	17	18	19	20	21	22
1	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
4	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
5	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
6	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
8	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
9	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

10	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
11	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
12	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
13	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
14	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
15	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
16	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
17	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
18	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
19	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
20	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
21	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
22	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
23	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
24	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								

14	1000.	1000.	1000.	1000.	1000.	18.97	-3.329	-1.590	0.6069	1.809
	3.010	4.361	5.902	6.618	7.135	6.325	6.322	5.179	4.888	3.081
	2.517	1000.								
15	1000.	1000.	1000.	1000.	19.94	19.35	-2.442	-0.7077	1.165	2.142
	3.547	5.140	6.931	6.997	7.623	7.492	7.142	5.931	4.742	4.425
	1000.	1000.								
16	1000.	1000.	1000.	1000.	19.97	17.11	-2.748	0.1249	0.9751	2.720
	4.120	5.827	6.877	8.463	9.349	8.584	7.969	6.684	5.542	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	1.0000E+30	-4.636	-2.084	-0.1310	1.826	2.374
	3.541	5.359	7.551	8.781	11.38	8.490	7.639	7.288	6.208	1000.
	1000.	1000.								
18	1000.	1000.	1000.	19.80	26.32	-4.750	-2.246	0.6560	1.636	3.137
	3.916	5.711	6.836	8.418	9.479	8.572	8.021	6.774	6.848	1000.
	1000.	1000.								
19	1000.	1000.	1000.	19.96	27.07	-3.689	-1.368	0.3677	2.328	2.832
	4.225	5.494	6.486	7.391	7.856	6.922	6.819	6.845	6.345	1000.
	1000.	1000.								
20	1000.	1000.	1000.	29.72	10.09	-2.444	-0.5132	0.9964	2.784	3.142
	3.437	5.041	5.672	6.260	6.661	5.841	6.041	6.312	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	-3.223	-2.582	-0.9775	0.5188	1.648	2.133	3.155
	3.211	4.380	4.774	5.268	5.628	4.864	5.440	6.188	1000.	1000.
	1000.	1000.								
22	1000.	1000.	19.29	-2.417	-1.584	0.5060	1.565	2.245	2.460	3.359
	3.083	3.778	3.830	4.380	3.662	3.846	4.283	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	19.42	-1.807	3.0212E-02	0.9086	1.616	1.854	2.802	2.597
	3.300	2.819	3.313	2.641	2.813	2.919	2.847	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	19.53	-8.8013E-02	0.4821	1.051	2.449	2.430	2.200	2.892
	2.607	2.973	1.866	1.892	1.933	2.091	1.279	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	1.043	0.8517	1.995	2.094	1.859	2.475	2.040
	2.432	1.587	1.237	1.054	0.9871	0.9728	-0.4216	-2.007	-5.632	-9.379
	16.14	18.85								
26	1000.	1000.	1000.	1.300	1.922	1.762	1.596	2.175	1.643	1.996
	0.9779	0.9128	0.6360	0.4935	0.4159	-0.8053	-0.9883	-3.130	-4.562	1000.
	1000.	1000.								
27	1000.	1000.	1000.	1.344	1.815	1.403	1.984	1.392	1.642	0.6880
	0.5778	-0.6048	-0.9140	-0.9878	-1.134	-1.353	-2.523	-4.656	-6.642	-10.62
	40.94	1000.								
28	1000.	1000.	1000.	1.291	1.578	1.941	1.299	0.5275	0.5497	0.4402
	-0.7361	-1.018	-1.259	-1.418	-1.515	-1.637	-2.692	-5.089	-8.230	23.04
	1000.	1000.								

29	1000.	1000.	1000.	1000.	1.087	0.3168	0.5518	0.6609	-0.4291	-0.6189
	-0.9443	-1.322	-2.494	-2.584	-2.619	-2.757	-3.987	-6.455	24.41	28.61
	1000.	1000.								
30	1000.	1000.	1000.	9.9594E-02	0.4157	0.5966	-0.2135	-0.1620	-0.3081	-0.5737
	-1.985	-2.445	-2.618	-2.780	-2.878	-3.011	-4.051	-5.267	14.62	1000.
	1000.	1000.								
31	1000.	1000.	-0.5063	-0.2765	-6.9290E-02	7.3959E-02	0.1386	-0.8950	-1.060	-1.390
	-1.832	-2.193	-2.629	-3.079	-3.109	-4.232	-6.007	18.59	1000.	1000.
	1000.	1000.								
32	1000.	-0.8605	-0.7359	-0.6007	-0.5117	-0.4027	-0.4050	-0.5343	-1.741	-2.162
	-2.392	-2.738	-3.648	-3.811	-3.855	-4.129	-6.290	16.76	1000.	1000.
	1000.	1000.								
33	1000.	-9.8724E-03	4.5074E-02	-0.9083	-0.8344	-0.8411	-0.8894	-1.036	-1.337	-1.759
	-1.861	1000.	-4.566	-4.507	-4.510	-4.775	-6.373	18.75	1000.	1000.
	1000.	1000.								
34	1000.	-0.2250	-0.1765	-0.1651	-0.1693	-1.239	-1.300	-1.340	-1.743	-2.341
	-2.763	1000.	-4.046	-3.992	-4.108	-4.411	13.09	16.77	1000.	1000.
	1000.	1000.								
35	0.0000E+00	-0.4528	-0.3186	-0.3631	-0.5066	-0.6459	-0.7330	1000.	1000.	-2.409
	-2.779	-3.272	-3.387	-4.410	-4.497	-3.773	-4.427	1000.	1000.	1000.
	1000.	1000.								
36	0.0000E+00	-0.2772	-0.2806	-0.5282	-0.8482	-1.105	-1.252	1000.	1000.	-3.050
	-3.240	-3.641	-3.839	-3.914	-3.989	-4.245	-4.545	1000.	1000.	1000.
	1000.	1000.								
37	0.0000E+00	-0.4075	1.0773E-02	-0.6209	-1.253	-0.6731	-0.9185	1000.	1000.	-2.529
	-2.761	-3.071	-3.299	-3.410	-3.511	-3.704	19.35	1000.	1000.	1000.
	1000.	1000.								
38	0.0000E+00	-0.2414	-0.6479	-0.7130	-0.8701	-1.416	-1.830	-1.466	-1.829	-3.012
	-3.314	-3.582	-3.719	-3.852	-3.925	-4.139	19.77	17.89	1000.	1000.
	1000.	1000.								
39	0.0000E+00	0.3092	1000.	1000.	-1.730	-1.993	-1.312	-1.647	-1.954	-2.316
	-2.723	-4.037	-4.225	-4.380	-4.468	-4.876	19.88	19.39	1000.	1000.
	1000.	1000.								
40	0.0000E+00	0.1390	1000.	1000.	-1.094	-1.301	-1.538	-1.797	-2.120	-2.484
	-2.795	-3.020	-4.301	-4.604	5.168	19.84	1000.	1000.	1000.	1000.
	1000.	1000.								
41	0.0000E+00	-5.3406E-04	1000.	1000.	-1.347	-1.558	-1.754	-1.991	-2.267	-2.602
	-2.897	-3.088	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	0.0000E+00	1000.	1000.	1000.	1000.	-1.830	-0.9656	-1.141	-1.356	-1.624
	-1.874	-2.074	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	-0.9772	-1.099	-1.247	-1.413	-1.574
	-1.746	15.92	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

44	1000.	1000.	1000.	1000.	1000.	1000.	-1.194	-1.270	-1.385	-1.508
	-1.645	-0.8660	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	-1.206	-1.215	-0.2755	-0.3831
	-0.5097	-0.6688	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-5.3421E-02	-6.0913E-02	-0.2125
	-0.3336	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.1723	0.3416	-4.1290E-02
	0.7056	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.3431	2.8641E-02
	0.4960	1.051	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.1511	0.6565
	0.9264	1.426	1.650	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.6343	0.7271
	1.035	1.594	2.095	1.788	1.625	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.4977	0.1754	1.683
	1.220	1.962	1.749	1.574	1.457	2.176	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.7988	0.9737	0.7997
	1.613	1.520	1.543	1.461	1.375	2.140	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.142	1.129	1.033
	2.039	2.034	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.586	1.469	1.174
	1.502	1.573	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.205	1.972	1.532
	2.061	1.208	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.881	1.678	1.348
	1.829	2.004	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP150 IN STRESS PERIOD 1

CUMULATIVE VOLUMES L**3 RATES FOR THIS TIME STEP L**3/T

IN:	
STORAGE =	0.58069E+08
CONSTANT HEAD =	0.24571E+06
WELLS =	0.00000E+00
RIVER LEAKAGE =	0.20708E+07
HEAD DEP BOUNDS =	0.10015E+08
TOTAL IN =	0.70400E+08
OUT:	
STORAGE =	0.22365E+08
CONSTANT HEAD =	0.10432E+07
WELLS =	0.19059E+08
RIVER LEAKAGE =	0.39234E+07
HEAD DEP BOUNDS =	0.23623E+08
TOTAL OUT =	0.70013E+08
IN - OUT =	0.38692E+06
PERCENT DISCREPANCY =	0.55

IN:	
STORAGE =	2.1851
CONSTANT HEAD =	0.27843E-01
WELLS =	0.00000E+00
RIVER LEAKAGE =	0.14850
HEAD DEP BOUNDS =	0.68729
TOTAL IN =	3.0487
OUT:	
STORAGE =	0.27513E-02
CONSTANT HEAD =	0.55447E-01
WELLS =	1.2255
RIVER LEAKAGE =	0.22469
HEAD DEP BOUNDS =	1.4930
TOTAL OUT =	3.0014
IN - OUT =	0.47358E-01
PERCENT DISCREPANCY =	1.57

TIME SUMMARY AT END OF TIME STEP150 IN STRESS PERIOD 1

	SECONDS	MINUTES	HOURS	DAYS	YEARS
TIME STEP LENGTH	0.202852E+07	33808.6	563.477	23.4782	0.642798E-01
STRESS PERIOD TIME	0.155520E+08	259199.	4319.99	180.000	0.492812
TOTAL SIMULATION TIME	0.155520E+08	259199.	4319.99	180.000	0.492812

25	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08
	2.3200E-08	2.3200E-08								
26	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	0.0000E+00								
27	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08
	2.3200E-08	0.0000E+00								
28	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08
	0.0000E+00	0.0000E+00								
29	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08
	0.0000E+00	0.0000E+00								
30	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	0.0000E+00
	0.0000E+00	0.0000E+00								
31	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
32	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
33	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
34	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
35	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
36	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08
	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
37	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
38	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								
39	2.3200E-08	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.3200E-08	2.3200E-08	2.3200E-08	0.0000E+00	0.0000E+00
	0.0000E+00	0.0000E+00								

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40  2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

41  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

42  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

43  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  2.3200E-08  2.3200E-08
    0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

44  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  2.3200E-08  2.3200E-08
    0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

45  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

46  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

47  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

48  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

49  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

50  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

51  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

52  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

53  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  0.0000E+00  2.3200E-08
    2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

54  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  2.3200E-08  2.3200E-08
    2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00
```

```
55  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  2.3200E-08  2.3200E-08
    2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00

56  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  2.3200E-08  2.3200E-08  2.3200E-08
    2.3200E-08  2.3200E-08  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
    0.0000E+00  0.0000E+00
```

9 RIVER REACHES

LAYER	ROW	COL	STAGE	CONDUCTANCE	BOTTOM ELEVATION	RIVER REACH
1	56	10	212.0	0.2800E-01	210.0	1
1	55	10	211.0	0.2800E-01	209.0	2
1	54	10	209.0	0.2800E-01	207.0	3
1	53	9	207.0	0.2800E-01	205.0	4
1	52	9	206.0	0.2800E-01	204.0	5
1	51	9	204.0	0.2800E-01	202.0	6
1	50	9	202.0	0.2800E-01	200.0	7
1	49	9	200.0	0.2800E-01	198.0	8
1	48	9	198.0	0.2800E-01	196.0	9

13 HEAD-DEPENDENT BOUNDARY NODES

LAYER	ROW	COL	ELEVATION	CONDUCTANCE	BOUND NO.
1	1	16	172.0	0.3420	1
1	1	17	169.0	0.3420	2
1	1	18	166.0	999.1	3
1	1	19	160.0	999.1	4
1	1	20	158.0	999.1	5
1	1	21	157.0	999.1	6
1	1	22	158.0	999.1	7
1	2	22	159.0	999.1	8
1	3	22	159.0	999.1	9
1	4	22	164.0	999.1	10
1	5	22	166.0	999.1	11
1	6	22	168.0	999.1	12
1	1	15	174.0	999.1	13

AVERAGE SEED = 0.00068953
MINIMUM SEED = 0.00000003

5 ITERATION PARAMETERS CALCULATED FROM AVERAGE SEED:

0.0000000E+00 0.8379539E+00 0.9737411E+00 0.9957448E+00 0.9993105E+00

```
**********NODE   5   8   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1

**********NODE   6   8   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1

**********NODE   5   9   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1

**********NODE   6   9   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
```

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**********NODE   5  10   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   6  10   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   6  11   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   5  15   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   5  16   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   5  17   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   4  18   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   4  19   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   3  22   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   3  23   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   3  24   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  22  25   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  21  26   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  18  32   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  18  33   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  17  34   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  18  34   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  17  37   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  17  38   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  18  38   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  17  39   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  18  39   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  3  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7   2   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7   3   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7   4   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7   5   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7   8   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7   9   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7  10   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7  11   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
```

(29)

```
**********NODE   6  12   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   6  13   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   6  14   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   6  15   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   6  16   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   5  18   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   5  19   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   4  20   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   5  20   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  20  29   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  19  30   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  18  31   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  15  40   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  16  40   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  4  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   8   1   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  5  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   8   2   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  5  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   8   3   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  6  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   8   4   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  6  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   8   5   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  6  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   7  12   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  6  TIME STEP =  1  STRESS PERIOD =  1
**********NODE   8   9   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  7  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  21  25   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  7  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  19  29   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  7  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  20  26   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  8  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  20  28   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  8  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  17  31   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  9  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  12  43   1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  9  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  21  27   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 12  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  17  32   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 12  TIME STEP =  1  STRESS PERIOD =  1
**********NODE  12  44   1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 12  TIME STEP =  1  STRESS PERIOD =  1
```

**********NODE 8 6 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 15 TIME STEP = 1 STRESS PERIOD = 1

**********NODE 8 8 1 (COL,ROW,LAYER) WENT DRY AT ITERATION = 52 TIME STEP = 1 STRESS PERIOD = 1

68 ITERATIONS FOR TIME STEP 1 IN STRESS PERIOD 1

MAXIMUM HEAD CHANGE FOR EACH ITERATION:

HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL
-24.67	(1, 44, 12)	-22.45	(1, 10, 5)	-22.85	(1, 20, 4)	4.133	(1, 39, 13)	-4.899	(1, 9, 8)
30.13	(1, 6, 8)	-16.88	(1, 6, 8)	-8.439	(1, 6, 8)	-4.599	(1, 6, 8)	4.197	(1, 6, 8)
-3.587	(1, 6, 8)	4.355	(1, 8, 8)	-3.660	(1, 8, 8)	-2.278	(1, 6, 8)	0.9601	(1, 8, 8)
-1.429	(1, 8, 8)	55.47	(1, 8, 8)	-29.44	(1, 8, 8)	-14.77	(1, 8, 8)	-7.262	(1, 8, 8)
-3.405	(1, 8, 8)	0.3596	(1, 8, 8)	-0.7244	(1, 8, 8)	4.004	(1, 8, 8)	-3.581	(1, 8, 8)
-0.1329	(1, 27, 20)	-0.2413	(1, 8, 8)	0.7454	(1, 8, 8)	-1.257	(1, 8, 8)	49.83	(1, 8, 8)
-26.65	(1, 8, 8)	-13.32	(1, 8, 8)	-6.585	(1, 8, 8)	-2.986	(1, 8, 8)	2.789	(1, 8, 8)
-2.861	(1, 8, 8)	4.182	(1, 8, 8)	-3.667	(1, 8, 8)	-0.1892	(1, 8, 8)	0.5598	(1, 8, 8)
-1.024	(1, 8, 8)	11.83	(1, 8, 8)	-7.636	(1, 8, 8)	-3.592	(1, 8, 8)	-0.7479E-02	(1, 8, 8)
0.1942E-01	(1, 8, 8)	-0.4866E-01	(1, 8, 8)	0.1282	(1, 8, 8)	-0.2979	(1, 8, 8)	0.9765	(1, 8, 8)
-1.508	(1, 8, 8)	-0.4314E-01	(1, 8, 9)	-0.4245E-01	(1, 8, 9)	-0.8038E-02	(1, 7, 9)	-0.1866E-01	(1, 8, 9)
0.2476E-01	(1, 5, 9)	-0.1120E-01	(1, 5, 9)	-0.3309E-02	(1, 7, 9)	-0.7607E-02	(1, 8, 9)	-0.2190E-02	(1, 19, 19)
0.7699E-02	(1, 5, 9)	-0.3740E-02	(1, 5, 9)	-0.1405E-02	(1, 8, 9)	-0.1142E-02	(1, 19, 19)	-0.2147E-02	(1, 8, 9)
0.3810E-02	(1, 5, 9)	-0.1541E-02	(1, 5, 9)	-0.5327E-03	(1, 19, 19)				

HEAD/DRAWDOWN PRINTOUT FLAG = 1 TOTAL BUDGET PRINTOUT FLAG = 1 CELL-BY-CELL FLOW TERM FLAG = 0

OUTPUT FLAGS FOR ALL LAYERS ARE THE SAME:

HEAD PRINTOUT	DRAWDOWN PRINTOUT	HEAD SAVE	DRAWDOWN SAVE
1	1	1	0

HEAD IN LAYER 1 AT END OF TIME STEP 1 IN STRESS PERIOD 1

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	173.1	172.9
	172.7	172.6	172.6	173.3	174.0	171.6	169.0	166.0	160.0	158.0
	157.0	158.0								
2	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	173.1	172.9
	172.7	172.4	172.2	171.9	171.4	170.8	169.1	166.3	163.2	161.1
	159.9	159.0								
3	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	173.2	173.0
	172.7	172.3	172.0	171.6	171.2	170.5	168.8	166.9	165.1	163.4
	161.7	159.0								
4	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	173.3	173.2
	172.8	172.4	172.1	171.7	171.3	170.5	169.2	167.7	166.5	165.5
	164.4	164.0								
5	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	175.7	173.6
	173.1	172.6	172.3	172.0	171.6	171.0	169.9	168.7	167.7	166.9
	166.4	166.0								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	175.2	174.3
	173.7	173.1	172.8	172.4	172.1	171.6	170.7	169.9	168.9	167.9
	167.5	168.0								
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	175.7	174.9
	174.4	173.7	173.4	173.1	172.8	172.3	171.6	171.0	170.1	169.3
	168.7	168.6								
8	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	1.0000E+30	1.0000E+30	176.1	175.5
	175.1	174.5	174.1	173.8	173.6	173.2	172.6	172.0	171.3	170.8
	170.0	169.4								
9	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	1.0000E+30	1.0000E+30	176.8	176.3
	175.6	175.2	174.9	174.6	174.4	174.1	173.6	172.9	172.5	171.9
	171.1	1000.								
10	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	1.0000E+30	178.5	177.6	177.4
	176.7	176.1	175.7	175.5	175.3	175.0	174.6	174.0	173.6	173.2
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	179.0	178.2	177.9
	177.6	177.0	176.6	176.3	176.1	176.0	175.6	175.1	174.8	174.5
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	179.6	179.0	178.5
	178.3	177.8	177.6	177.2	177.0	176.7	176.4	176.1	175.8	175.6
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	1.0000E+30	180.9	180.2	179.7	179.1
	178.8	178.5	178.4	178.2	178.0	177.7	177.2	177.0	176.6	176.3
	176.4	1000.								

14	1000.	1000.	1000.	1000.	1000.	1.0000E+30	181.5	180.9	180.5	180.0
	179.5	179.2	179.0	178.9	178.8	178.7	178.3	177.9	177.5	177.0
	176.6	1000.								
15	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	182.1	181.6	181.3	180.8
	180.3	179.8	179.4	179.4	179.3	179.3	179.1	178.5	178.1	177.7
	1000.	1000.								
16	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	182.6	182.0	181.7	181.4
	180.8	180.2	179.8	179.8	179.7	179.6	179.5	179.0	178.6	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	1.0000E+30	184.0	183.0	182.4	182.0	181.8
	181.3	180.6	180.2	180.1	180.0	180.0	179.9	179.5	179.2	1000.
	1000.	1000.								
18	1000.	1000.	1000.	1.0000E+30	1.0000E+30	184.2	183.3	182.8	182.4	182.2
	181.8	181.1	180.6	180.5	180.4	180.4	180.3	180.0	179.6	1000.
	1000.	1000.								
19	1000.	1000.	1000.	1.0000E+30	1.0000E+30	184.6	183.8	183.3	182.9	182.6
	182.3	181.7	181.2	181.1	181.0	180.9	180.8	180.6	180.1	1000.
	1000.	1000.								
20	1000.	1000.	1000.	1.0000E+30	1.0000E+30	185.3	184.5	184.0	183.6	183.2
	182.9	182.4	182.0	181.8	181.7	181.7	181.5	181.4	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	187.5	187.0	186.1	185.3	184.7	184.3	184.0
	183.6	183.3	182.8	182.6	182.5	182.4	182.2	181.8	1000.	1000.
	1000.	1000.								
22	1000.	1000.	1.0000E+30	187.7	187.2	186.5	185.9	185.3	184.9	184.6
	184.3	184.0	183.6	183.3	183.2	183.1	183.0	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	1.0000E+30	188.0	187.6	186.9	186.3	185.9	185.5	185.1
	184.7	184.5	184.2	184.0	183.9	183.8	183.8	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	1.0000E+30	188.4	188.0	187.4	186.8	186.3	185.9	185.5
	185.1	184.9	184.8	184.7	184.6	184.5	184.7	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	188.7	188.4	187.8	187.2	186.8	186.4	186.0
	185.7	185.4	185.4	185.3	185.3	185.2	185.5	185.9	186.4	187.4
	1.0000E+30	1.0000E+30								
26	1000.	1000.	1000.	189.0	188.7	188.3	187.8	187.3	187.0	186.6
	186.4	186.1	186.0	185.9	185.9	185.9	186.0	186.2	186.6	1.0000E+30
	1.0000E+30	1000.								
27	1000.	1000.	1000.	189.3	189.1	188.8	188.3	187.9	187.6	187.3
	187.1	186.8	186.7	186.6	186.5	186.5	186.5	186.6	186.8	187.2
	1.0000E+30	1000.								
28	1000.	1000.	1000.	189.5	189.5	189.3	188.9	188.5	188.3	188.0
	187.8	187.5	187.3	187.2	187.2	187.1	187.0	186.9	186.9	1.0000E+30
	1000.	1000.								

29	1000.	1000.	1000.	1000.	190.2	189.9	189.5	189.2	188.9	188.7
	188.4	188.2	188.0	187.8	187.7	187.6	187.5	187.4	1.0000E+30	1.0000E+30
	1000.	1000.								
30	1000.	1000.	1000.	191.8	191.2	190.8	190.2	189.8	189.6	189.3
	189.0	188.8	188.6	188.6	188.5	188.2	187.9	187.9	1.0000E+30	1000.
	1000.	1000.								
31	1000.	1000.	193.2	192.6	192.0	191.4	190.9	190.5	190.2	189.9
	189.6	189.3	189.3	189.3	189.3	189.1	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
32	1000.	194.4	193.9	193.3	192.8	192.2	191.6	191.1	190.8	190.6
	190.2	189.8	189.8	189.8	189.8	189.8	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
33	1000.	195.0	194.6	194.1	193.4	192.9	192.3	191.7	191.3	191.2
	191.0	1000.	190.4	190.4	190.3	190.4	190.4	1.0000E+30	1000.	1000.
	1000.	1000.								
34	1000.	196.1	195.5	194.9	194.3	193.7	193.1	192.1	191.7	191.7
	191.8	1000.	191.1	191.0	191.0	191.0	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
35	200.0	197.7	196.4	195.6	195.0	194.6	194.3	1000.	1000.	192.4
	192.5	192.4	191.8	191.6	191.7	191.7	192.2	1000.	1000.	1000.
	1000.	1000.								
36	200.0	198.0	196.9	196.1	195.6	195.3	195.1	1000.	1000.	193.0
	192.9	192.8	192.5	192.4	192.4	192.4	192.4	1000.	1000.	1000.
	1000.	1000.								
37	198.0	197.5	196.9	196.4	196.1	195.8	195.7	1000.	1000.	193.7
	193.5	193.3	193.1	193.0	193.0	193.0	1.0000E+30	1000.	1000.	1000.
	1000.	1000.								
38	197.0	196.6	196.6	196.5	196.4	196.3	196.3	196.3	196.0	195.1
	194.7	194.1	193.5	193.4	193.4	193.3	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
39	195.0	195.6	1000.	1000.	196.6	196.6	196.6	196.5	196.3	195.9
	195.5	195.1	194.3	193.9	193.8	193.7	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
40	196.0	195.8	1000.	1000.	196.8	196.8	196.9	196.8	196.7	196.5
	196.2	195.7	194.9	194.5	1.0000E+30	1.0000E+30	1000.	1000.	1000.	1000.
	1000.	1000.								
41	198.0	196.9	1000.	1000.	196.9	197.1	197.2	197.3	197.2	197.1
	196.9	196.6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	200.0	1000.	1000.	1000.	1000.	197.5	197.6	197.7	197.8	197.8
	197.6	197.2	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	197.8	198.0	198.3	198.4	198.4
	198.3	1.0000E+30	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

44	1000.	1000.	1000.	1000.	1000.	1000.	198.6	198.8	198.9	199.0
	198.9	1.0000E+30	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	199.0	199.2	199.5	199.6
	199.6	199.7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	199.9	200.2	200.3
	200.5	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	200.4	200.8	201.2
	201.5	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	201.2	202.0
	202.5	203.2	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.2	202.9
	203.5	204.1	204.9	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	203.5	204.1
	204.7	205.1	205.6	205.8	206.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	205.5	204.9	205.2
	205.6	205.8	205.9	206.1	206.2	206.4	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.2	206.0	206.1
	206.2	206.2	206.1	206.2	206.2	206.4	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.8	206.7	206.7
	206.7	206.7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.2	207.2	207.4
	207.1	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.5	207.6	207.8
	207.5	207.3	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.7	207.8	207.9
	207.6	207.5	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

HEAD WILL BE SAVED ON UNIT 23 AT END OF TIME STEP 1, STRESS PERIOD 1

DRAWDOWN IN LAYER 1 AT END OF TIME STEP 1 IN STRESS PERIOD 1

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	-0.1054	8.5175E-02
	0.2931	0.4324	0.3546	-0.2523	5.7983E-04	0.3542	4.5837E-02	2.8992E-04	-7.6294E-04	-5.0354E-04
	-5.1880E-04	0.0000E+00								
2	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.1319	7.2464E-02
	0.3353	-0.4082	-0.1809	0.1372	-0.4080	0.2220	-7.0480E-02	-0.3029	-0.1665	-0.1057
	0.1227	1.5259E-05								
3	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.2060	4.1504E-03
	0.3238	-0.3430	-3.0853E-02	0.3786	-0.1977	-0.4624	0.1501	9.2438E-02	-0.1326	-0.3787
	0.3314	-8.8501E-04								
4	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.3367	-0.1678
	0.2188	-0.4201	-8.8394E-02	0.3287	-0.2531	-0.5211	-0.1747	0.2841	-0.4611	-0.4781
	-0.4174	2.7466E-04								
5	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	19.35	0.3869
	-0.1053	0.3566	-0.3460	3.6179E-02	0.4121	4.9835E-02	9.6237E-02	0.2559	0.3044	0.1312
	-0.4339	-6.1035E-05								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1.0000E+30	-0.2250	-0.2608
	0.3361	-8.1787E-02	0.2075	-0.4496	-0.1198	0.4247	0.2539	0.1457	0.1100	6.8970E-02
	-0.5004	2.7466E-04								
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.3086	6.3919E-02
	-0.3714	0.3085	-0.3896	-7.8415E-02	0.2148	-0.3034	0.3510	1.9135E-02	-6.1203E-02	-0.3126
	0.3390	0.3874								
8	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	1.0000E+30	1.0000E+30	-0.1393	-0.5320
	-8.2443E-02	-0.4593	-9.0469E-02	0.1867	0.4375	-0.1742	0.4325	-4.3900E-02	-0.3468	0.2378
	-3.7079E-02	-0.4167								
9	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	1.0000E+30	1.0000E+30	0.1928	-0.3381
	0.3603	-0.2424	0.1285	0.3989	-0.3724	-7.5089E-02	0.3822	8.0231E-02	-0.4600	0.1252
	-0.1400	1000.								
10	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	1.0000E+30	-0.4927	-0.5619	-0.3718
	0.3178	-7.1762E-02	0.2861	-0.4712	-0.2870	-3.5812E-02	0.3962	-8.0872E-04	0.4215	-0.1508
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-2.0920E-02	-0.2314	7.1259E-02
	0.3629	-2.9724E-02	0.3744	-0.3315	-0.1429	8.8348E-03	0.3915	-0.1200	0.2311	-0.5202
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	0.3865	4.3488E-03	-0.5255
	-0.2547	0.1617	0.3875	-0.2452	1.0513E-02	0.3028	-0.4022	-0.1247	0.2110	-0.5730
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	1.0000E+30	5.5817E-02	-0.2199	0.3189	-0.1435
	0.2102	-0.5365	-0.4410	-0.2027	-2.7222E-02	0.2617	-0.2332	1.0834E-02	0.3695	-0.2583
	13.61	1000.								

14	1000.	1000.	1000.	1000.	1000.	1.0000E+30	-0.4920	6.2927E-02	-0.5232	3.6469E-03
	-0.5378	-0.2245	-1.2894E-02	9.0637E-02	0.1694	0.2629	-0.3115	9.6085E-02	-0.5410	7.952
	13.39	1000.								
15	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.1155	-0.5577	-0.2870	0.1684
	-0.2863	0.2057	-0.4491	-0.4213	-0.3431	-0.2868	-9.1415E-02	-0.5240	-6.9077E-02	0.2801
	1000.	1000.								
16	1000.	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.5854	3.1387E-02	0.3302	-0.3843
	0.2142	-0.2078	0.1891	0.2446	0.3169	0.3515	-0.5490	-2.7527E-02	0.4194	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	1.0000E+30	6.5155E-03	3.0670E-03	-0.3809	-4.0741E-02	0.1653
	-0.2964	0.3609	-0.2342	-9.6527E-02	-1.6891E-02	-9.6283E-03	8.7387E-02	-0.5473	-0.1622	1000.
	1000.	1000.								
18	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.1602	-0.2933	0.2439	-0.3964	-0.1507
	0.1939	-7.3532E-02	0.3541	-0.4935	-0.4002	-0.3792	-0.2842	5.7983E-03	0.3845	1000.
	1000.	1000.								
19	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.5672	0.2143	-0.2911	9.0500E-02	-0.6099
	-0.3236	0.2825	-0.2463	-8.6700E-02	-9.1553E-05	5.9036E-02	0.1597	-0.5960	-0.1060	1000.
	1000.	1000.								
20	1000.	1000.	1000.	1.0000E+30	1.0000E+30	-0.2549	-0.5459	2.1820E-03	-0.5825	-0.2380
	0.1472	-0.4410	1.3885E-02	0.1603	0.2705	0.3290	-0.5474	-0.3585	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	-0.5206	-0.9530	-6.0867E-02	-0.2910	-0.6916	-0.2667	4.5502E-02
	-0.6133	-0.2711	0.2263	-0.6059	-0.4792	-0.3928	-0.1566	0.1624	1000.	1000.
	1000.	1000.								
22	1000.	1000.	1.0000E+30	12.29	-0.2172	-0.5436	9.7687E-02	-0.3446	8.6563E-02	-0.5733
	-0.3158	-3.8986E-02	-0.5844	-0.3464	-0.2237	-0.1410	4.0924E-02	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	1.0000E+30	12.00	-0.5565	7.1121E-02	-0.3374	0.1330	-0.4576	-8.6548E-02
	0.2552	-0.4808	-0.2070	-1.8066E-02	8.5266E-02	0.1545	0.1696	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	1.0000E+30	11.64	4.5578E-02	-0.3528	0.2389	-0.3112	8.4000E-02	-0.5303
	-0.1059	0.1456	0.2228	0.3261	-0.6015	-0.4974	0.3260	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	0.3312	-0.3556	0.1769	-0.2419	0.1905	-0.4244	-4.2557E-02
	0.3158	-0.4067	-0.3798	-0.3442	-0.3059	-0.2275	-0.4515	0.1411	-0.3585	-0.4362
	1.0000E+30	1.0000E+30								
26	1000.	1000.	1000.	1.8265E-02	0.2659	-0.2979	0.2421	-0.3468	2.0325E-02	-0.6167
	-0.3663	-0.1118	-1.3397E-02	5.0873E-02	8.4000E-02	0.1019	2.6642E-02	-0.2164	-0.6053	1.0000E+30
	1.0000E+30	1000.								
27	1000.	1000.	1000.	-0.2996	-0.1218	0.2337	-0.3081	7.5562E-02	-0.6105	-0.3297
	-5.7510E-02	0.1963	0.3139	-0.5792	-0.5464	-0.5113	-0.5024	-0.5844	0.1686	-0.2082
	1.0000E+30	1000.								
28	1000.	1000.	1000.	-0.5498	-0.5385	-0.2687	0.1178	-0.5224	-0.2913	-4.9866E-02
	0.2398	-0.4918	-0.3139	-0.2416	-0.1760	-8.7204E-02	3.0350E-02	0.1199	0.1440	1.0000E+30
	1000.	1000.								

29	1000.	1000.	1000.	1000.	-0.2492	9.5673E-02	-0.4905	-0.1520	5.7419E-02	0.3026
	-0.4415	-0.1988	4.0451E-02	0.1708	0.2534	0.3671	-0.4839	-0.3799	1.0000E+30	1.0000E+30
	1000.	1000.								
30	1000.	1000.	1000.	0.1693	-0.1970	0.2489	-0.2387	0.1797	-0.5667	-0.3152
	-4.2938E-02	0.1596	0.3715	-0.5531	-0.4513	-0.2218	6.6132E-02	8.9493E-02	1.0000E+30	1000.
	1000.	1000.								
31	1000.	1000.	-0.2381	-0.5851	3.5278E-02	-0.4175	5.0140E-02	-0.4859	-0.1673	6.6406E-02
	0.3622	-0.3232	-0.2546	-0.3425	-0.2827	-5.2826E-02	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
32	1000.	-0.4066	0.1090	-0.2867	0.2337	-0.1593	0.3852	-0.1429	0.2463	-0.5672
	-0.1960	0.2131	0.1574	0.2001	0.2090	0.2421	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
33	1000.	-2.5406E-02	0.3950	-7.7698E-02	-0.4393	7.3776E-02	-0.2900	0.2897	-0.3186	-0.2225
	2.6260E-02	1000.	-0.4286	-0.3830	-0.3257	-0.3597	9.639	1.0000E+30	1000.	1000.
	1000.	1000.								
34	1000.	-0.1486	-0.5101	0.1260	-0.2617	0.2865	-9.9808E-02	-0.1434	0.2932	0.2965
	0.1912	1000.	-6.8268E-02	-2.0599E-02	-6.7596E-03	1.6602E-02	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
35	0.0000E+00	0.2770	-0.4279	0.3816	-1.7395E-02	0.4337	-0.2524	1000.	1000.	-0.3907
	-0.4738	-0.3624	0.1922	0.3519	0.3385	0.2864	-0.1532	1000.	1000.	1000.
	1000.	1000.								
36	0.0000E+00	-4.6448E-02	7.3822E-02	-0.1366	0.3769	-0.2820	-9.0927E-02	1000.	1000.	4.3488E-02
	0.1218	0.1990	-0.5277	-0.4188	-0.3977	-0.4042	-0.4290	1000.	1000.	1000.
	1000.	1000.								
37	0.0000E+00	-0.4778	0.1438	-0.3787	-5.6473E-02	0.1525	0.2617	1000.	1000.	0.2640
	-0.5220	-0.2523	-8.9661E-02	-3.8925E-02	-4.6783E-02	-8.4381E-03	1.0000E+30	1000.	1000.	1000.
	1000.	1000.								
38	0.0000E+00	0.3961	0.3581	-0.4657	-0.3765	-0.3133	-0.2761	-0.3011	2.7649E-02	-0.1144
	0.3388	-0.1072	-0.5049	-0.4283	-0.3882	-0.3465	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
39	0.0000E+00	0.4450	1000.	1000.	0.4176	0.3965	0.3909	-0.5345	-0.3428	7.4280E-02
	-0.5292	-9.6512E-02	-0.2861	0.1049	0.2393	0.3106	1.0000E+30	1.0000E+30	1000.	1000.
	1000.	1000.								
40	0.0000E+00	0.1570	1000.	1000.	0.2449	0.1907	0.1446	0.1759	0.2938	-0.4867
	-0.2324	0.2845	0.1336	-0.5369	1.0000E+30	1.0000E+30	1000.	1000.	1000.	1000.
	1000.	1000.								
41	0.0000E+00	7.8491E-02	1000.	1000.	6.6040E-02	-8.3038E-02	-0.1785	-0.2641	-0.2231	-8.9478E-02
	7.0038E-02	0.3629	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	0.0000E+00	1000.	1000.	1000.	1000.	-0.4740	0.4023	0.2557	0.1676	0.2176
	0.4206	-0.2016	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	0.2218	-3.1784E-02	-0.2537	-0.3972	-0.4324
	-0.2995	1.0000E+30	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

44	1000.	1000.	1000.	1000.	1000.	1000.	0.4244	0.2205	0.1217	4.6417E-02
	0.1245	1.0000E+30	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	3.9093E-02	-0.2499	-0.4638	0.4051
	0.3814	0.2888	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	9.4513E-02	-0.1690	-0.3494
	-0.4664	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.4282	0.1798	-0.1768
	-0.4754	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.2470	4.9118E-02
	-0.4859	-0.1808	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.2214	9.9777E-02
	-0.4946	-5.4398E-02	8.1345E-02	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.4631	-0.1337
	0.3227	-8.4427E-02	0.4392	0.1538	5.7678E-03	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.4534	7.8461E-02	-0.2302
	0.4351	0.2248	6.3843E-02	-7.4890E-02	-0.1635	-0.3768	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.1912	2.2522E-02	-6.1142E-02
	-0.1538	-0.2008	-0.1454	-0.1929	-0.2497	-0.4155	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.2471	0.2960	0.2754
	0.3349	0.3487	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.1987	-0.2455	-0.3909
	-0.1165	-4.9011E-02	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.5049	0.3899	0.1989
	-0.4545	-0.3461	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.2502	0.1865	6.9260E-02
	0.3725	-0.5058	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP 1 IN STRESS PERIOD 1

CUMULATIVE VOLUMES L**3 RATES FOR THIS TIME STEP L**3/T

	Cumulative volumes	Rates for this time step
IN:		
STORAGE =	0.00000E+00	0.00000E+00
CONSTANT HEAD =	16442.	0.19030
WELLS =	0.00000E+00	0.00000E+00
RECHARGE =	94962.	1.0991
RIVER LEAKAGE =	14340.	0.16597
HEAD DEP BOUNDS =	0.13563E+06	1.5698
TOTAL IN =	0.26138E+06	3.0252
OUT:		
STORAGE =	0.00000E+00	0.00000E+00
CONSTANT HEAD =	5373.4	0.62192E-01
WELLS =	0.00000E+00	0.00000E+00
RECHARGE =	0.00000E+00	0.00000E+00
RIVER LEAKAGE =	19177.	0.22195
HEAD DEP BOUNDS =	0.23578E+06	2.7289
TOTAL OUT =	0.26033E+06	3.0130
IN - OUT =	1051.3	0.12167E-01
PERCENT DISCREPANCY =	0.40	0.40

TIME SUMMARY AT END OF TIME STEP 1 IN STRESS PERIOD 1

	SECONDS	MINUTES	HOURS	DAYS	YEARS
TIME STEP LENGTH	86400.0	1440.00	24.0000	1.00000	0.273785E-02
STRESS PERIOD TIME	86400.0	1440.00	24.0000	1.00000	0.273785E-02
TOTAL SIMULATION TIME	86400.0	1440.00	24.0000	1.00000	0.273785E-02

APPENDIX 5

PUMPING RUNS

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                    U.S. GEOLOGICAL SURVEY MODULAR FINITE-DIFFERENCE GROUND-WATER MODEL

SOUTHAMPTON AQUIFER SIMULATION                                                  3-D Model-- hydraulic conductivity = 220 ft/day
    1 LAYERS        56 ROWS        22 COLUMNS
  1 STRESS PERIOD(S) IN SIMULATION
MODEL TIME UNIT IS SECONDS

I/O UNITS:
ELEMENT OF IUNIT:  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
        I/O UNIT: 11 12  0 14  0  0 17  0 19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0

BAS1 -- BASIC MODEL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  1
ARRAYS RHS AND BUFF WILL SHARE MEMORY.
START HEAD WILL BE SAVED
 11170 ELEMENTS IN X ARRAY ARE USED BY BAS
 11170 ELEMENTS OF X ARRAY USED OUT OF  56000

BCF1 -- BLOCK-CENTERED FLOW PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 11
TRANSIENT SIMULATION
     LAYER  AQUIFER TYPE
     -------------------
        1         3
  6161 ELEMENTS IN X ARRAY ARE USED BY BCF
 17331 ELEMENTS OF X ARRAY USED OUT OF  56000

WEL1 -- WELL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM 12
MAXIMUM OF    3 WELLS
    12 ELEMENTS IN X ARRAY ARE USED FOR WELLS
 17343 ELEMENTS OF X ARRAY USED OUT OF  56000

RIV1 -- RIVER PACKAGE, VERSION 1,  12/08/83 INPUT READ FROM UNIT 14
MAXIMUM OF    9 RIVER NODES
    54 ELEMENTS IN X ARRAY ARE USED FOR RIVERS
 17397 ELEMENTS OF X ARRAY USED OUT OF  56000

GHB1 -- GHB PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 17
MAXIMUM OF   13 HEAD-DEPENDENT BOUNDARY NODES
CELL-BY-CELL FLOW WILL BE PRINTED WHEN ICBCFL NOT 0
    65 ELEMENTS IN X ARRAY ARE USED FOR HEAD-DEPENDENT BOUNDARIES
 17462 ELEMENTS OF X ARRAY USED OUT OF  56000

SIP1 -- STRONGLY IMPLICIT PROCEDURE SOLUTION PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 19
MAXIMUM OF 750 ITERATIONS ALLOWED FOR CLOSURE
 5 ITERATION PARAMETERS
  7933 ELEMENTS IN X ARRAY ARE USED BY SIP
 25395 ELEMENTS OF X ARRAY USED OUT OF  56000
```

BOUNDARY ARRAY FOR LAYER 1 WILL BE READ ON UNIT 1 USING FORMAT: (20I4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
10	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
11	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
12	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0

(3)

13	0	0	0	0	0	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
14	0	0	0	0	0	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
15	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
16	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
17	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
18	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
19	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
20	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
21	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
22	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
23	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
24	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
25	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	1								
26	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
27	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								

28	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
29	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
30	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
31	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
32	0	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
33	0	1	1	1	1	1	1	1	1	1
	1	0	1	1	1	1	1	1	0	0
	0	0								
34	0	1	1	1	1	1	1	1	1	1
	1	0	1	1	1	1	1	1	0	0
	0	0								
35	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
36	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
37	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
38	-1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
39	-1	1	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
40	-1	1	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
41	-1	1	0	0	1	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
42	-1	0	0	0	0	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								

(5)

43	0	0	0	0	0	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
44	0	0	0	0	0	0	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
45	0	0	0	0	0	0	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
46	0	0	0	0	0	0	0	1	1	1
	1	0	0	0	0	0	0	0	0	0
	0	0								
47	0	0	0	0	0	0	0	1	1	1
	1	0	0	0	0	0	0	0	0	0
	0	0								
48	0	0	0	0	0	0	0	0	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
49	0	0	0	0	0	0	0	0	1	1
	1	1	1	0	0	0	0	0	0	0
	0	0								
50	0	0	0	0	0	0	0	0	1	1
	1	1	1	1	1	0	0	0	0	0
	0	0								
51	0	0	0	0	0	0	0	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
52	0	0	0	0	0	0	0	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
53	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
54	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
55	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
56	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								

AQUIFER HEAD WILL BE SET TO 999.99 AT ALL NO-FLOW NODES (IBOUND=0).

INITIAL HEAD FOR LAYER 1 WILL BE READ ON UNIT 1 USING FORMAT: (10F8.0)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	181.0	177.0	176.0	175.0	175.0	174.0	174.0	174.0	172.0	169.0	166.0	160.0	158.0	157.0	158.0
2	1000.	1000.	1000.	1000.	1000.	1000.	210.0	181.0	177.0	176.0	175.0	174.0	174.0	173.0	172.0	172.0	170.0	167.0	164.0	161.0	160.0	159.0
3	1000.	1000.	1000.	1000.	1000.	1000.	210.0	182.0	177.0	176.0	175.0	175.0	174.0	173.0	173.0	172.0	170.0	168.0	166.0	164.0	162.0	159.0
4	1000.	1000.	1000.	1000.	1000.	1000.	210.0	182.0	177.0	177.0	176.0	175.0	174.0	174.0	173.0	172.0	171.0	169.0	167.0	166.0	165.0	164.0
5	1000.	1000.	1000.	1000.	1000.	1000.	210.0	183.0	179.0	178.0	176.0	175.0	175.0	174.0	174.0	173.0	172.0	170.0	169.0	168.0	167.0	166.0
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	183.0	180.0	179.0	177.0	176.0	176.0	175.0	175.0	174.0	173.0	172.0	170.0	169.0	168.0	168.0
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	181.0	180.0	179.0	177.0	177.0	176.0	176.0	175.0	174.0	173.0	172.0	171.0	170.0	169.0
8	1000.	1000.	1000.	1000.	256.0	250.0	225.0	184.0	182.0	181.0	180.0	178.0	178.0	177.0	177.0	177.0	176.0	175.0	174.0	173.0	172.0	171.0
9	1000.	1000.	1000.	1000.	250.0	240.0	225.0	184.0	183.0	182.0	180.0	180.0	179.0	179.0	178.0	178.0	177.0	176.0	175.0	175.0	174.0	1000.
10	1000.	1000.	1000.	1000.	255.0	240.0	220.0	185.0	184.0	183.0	182.0	181.0	180.0	180.0	180.0	179.0	179.0	178.0	177.0	176.0	1000.	1000.
11	1000.	1000.	1000.	1000.	1000.	240.0	215.0	185.0	185.0	184.0	183.0	182.0	182.0	181.0	181.0	181.0	180.0	179.0	179.0	179.0	1000.	1000.
12	1000.	1000.	1000.	1000.	1000.	230.0	188.0	187.0	186.0	185.0	184.0	184.0	183.0	182.0	182.0	182.0	181.0	181.0	180.0	180.0	1000.	1000.
13	1000.	1000.	1000.	1000.	1000.	230.0	188.0	187.0	186.0	186.0	185.0	184.0	184.0	184.0	184.0	183.0	182.0	182.0	182.0	181.0		

	181.0	1000.								
14	1000.	1000.	1000.	1000.	1000.	220.0	189.0	188.0	188.0	187.0
	186.0	185.0	185.0	185.0	185.0	184.0	184.0	183.0	183.0	182.0
	182.0	1000.								
15	1000.	1000.	1000.	1000.	240.0	220.0	190.0	189.0	189.0	188.0
	187.0	186.0	186.0	185.0	185.0	185.0	185.0	184.0	183.0	183.0
	1000.	1000.								
16	1000.	1000.	1000.	1000.	240.0	215.0	190.0	190.0	189.0	189.0
	188.0	187.0	186.0	186.0	186.0	186.0	186.0	185.0	184.0	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	240.0	192.0	191.0	190.0	190.0	189.0
	188.0	187.0	187.0	186.0	186.0	186.0	186.0	186.0	185.0	1000.
	1000.	1000.								
18	1000.	1000.	1000.	240.0	230.0	192.0	191.0	191.0	190.0	190.0
	189.0	188.0	187.0	187.0	187.0	187.0	187.0	186.0	186.0	1000.
	1000.	1000.								
19	1000.	1000.	1000.	240.0	230.0	193.0	192.0	191.0	191.0	190.0
	190.0	189.0	188.0	188.0	188.0	187.0	187.0	187.0	186.0	1000.
	1000.	1000.								
20	1000.	1000.	1000.	240.0	210.0	194.0	193.0	192.0	192.0	191.0
	190.0	190.0	189.0	189.0	189.0	188.0	188.0	188.0	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	197.0	196.0	195.0	194.0	193.0	192.0	192.0
	191.0	191.0	190.0	190.0	190.0	189.0	189.0	189.0	1000.	1000.
	1000.	1000.								
22	1000.	1000.	230.0	197.0	196.0	196.0	195.0	194.0	193.0	193.0
	192.0	192.0	191.0	191.0	190.0	190.0	190.0	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	230.0	197.0	197.0	196.0	195.0	194.0	194.0	193.0
	193.0	192.0	192.0	191.0	191.0	191.0	191.0	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	230.0	198.0	197.0	196.0	196.0	195.0	194.0	194.0
	193.0	193.0	192.0	192.0	192.0	192.0	192.0	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	198.0	197.0	197.0	196.0	195.0	195.0	194.0
	194.0	193.0	193.0	193.0	193.0	193.0	193.0	194.0	194.0	195.0
	230.0	250.0								
26	1000.	1000.	1000.	198.0	198.0	197.0	196.0	196.0	195.0	195.0
	194.0	194.0	194.0	194.0	194.0	193.0	194.0	194.0	195.0	220.0
	240.0	1000.								
27	1000.	1000.	1000.	198.0	198.0	197.0	197.0	196.0	196.0	195.0
	195.0	194.0	194:0	194.0	194.0	194.0	194.0	194.0	195.0	195.0
	250.0	1000.								
28	1000.	1000.	1000.	198.0	198.0	198.0	197.0	196.0	196.0	196.0
	195.0	195.0	195.0	195.0	195.0	195.0	195.0	195.0	195.0	230.0

(8)

	1000.	1000.								
29	1000.	1000.	1000.	1000.	198.0	197.0	197.0	197.0	196.0	196.0
	196.0	196.0	195.0	195.0	195.0	195.0	195.0	195.0	230.0	240.0
	1000.	1000.								
30	1000.	1000.	1000.	198.0	198.0	198.0	197.0	197.0	197.0	197.0
	196.0	196.0	196.0	196.0	196.0	196.0	196.0	196.0	225.0	1000.
	1000.	1000.								
31	1000.	1000.	198.0	198.0	198.0	198.0	198.0	197.0	197.0	197.0
	197.0	197.0	197.0	197.0	197.0	196.0	196.0	225.0	1000.	1000.
	1000.	1000.								
32	1000.	198.0	198.0	198.0	198.0	198.0	198.0	198.0	197.0	197.0
	197.0	197.0	197.0	197.0	197.0	197.0	197.0	225.0	1000.	1000.
	1000.	1000.								
33	1000.	199.0	199.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0
	198.0	1000.	197.0	197.0	197.0	197.0	197.0	230.0	1000.	1000.
	1000.	1000.								
34	1000.	199.0	199.0	199.0	199.0	198.0	198.0	198.0	198.0	198.0
	198.0	1000.	198.0	198.0	198.0	198.0	220.0	230.0	1000.	1000.
	1000.	1000.								
35	200.0	199.0	199.0	199.0	199.0	199.0	199.0	1000.	1000.	199.0
	199.0	199.0	199.0	198.0	198.0	199.0	199.0	1000.	1000.	1000.
	1000.	1000.								
36	200.0	199.0	199.0	199.0	199.0	199.0	199.0	1000.	1000.	199.0
	199.0	199.0	199.0	199.0	199.0	199.0	199.0	1000.	1000.	1000.
	1000.	1000.								
37	198.0	198.0	199.0	199.0	199.0	200.0	200.0	1000.	1000.	200.0
	200.0	200.0	200.0	200.0	200.0	200.0	230.0	1000.	1000.	1000.
	1000.	1000.								
38	197.0	197.0	198.0	199.0	200.0	200.0	200.0	201.0	201.0	200.0
	200.0	200.0	200.0	200.0	200.0	200.0	240.0	250.0	1000.	1000.
	1000.	1000.								
39	195.0	196.0	1000.	1000.	200.0	200.0	201.0	201.0	201.0	201.0
	201.0	200.0	200.0	200.0	200.0	200.0	240.0	250.0	1000.	1000.
	1000.	1000.								
40	196.0	196.0	1000.	1000.	201.0	201.0	201.0	201.0	201.0	201.0
	201.0	201.0	200.0	200.0	210.0	230.0	1000.	1000.	1000.	1000.
	1000.	1000.								
41	198.0	197.0	1000.	1000.	201.0	201.0	201.0	201.0	201.0	201.0
	201.0	201.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	200.0	1000.	1000.	1000.	1000.	201.0	202.0	202.0	202.0	202.0
	202.0	202.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	202.0	202.0	202.0	202.0	202.0
	202.0	220.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.

	1000.	1000.								
44	1000.	1000.	1000.	1000.	1000.	1000.	202.0	202.0	202.0	202.0
	202.0	203.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	202.0	202.0	203.0	203.0
	203.0	203.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	203.0	203.0	203.0
	203.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	203.0	203.0	203.0
	204.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.0	203.0
	204.0	205.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.0	204.0
	205.0	206.0	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	204.0	205.0
	206.0	207.0	208.0	208.0	208.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.0	205.0	207.0
	207.0	208.0	208.0	208.0	208.0	209.0	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.0	207.0	207.0
	208.0	208.0	208.0	208.0	208.0	209.0	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	208.0	208.0	208.0
	209.0	209.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	209.0	209.0	209.0
	209.0	209.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	209.0	210.0	210.0
	210.0	209.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	210.0	210.0	210.0
	210.0	210.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

DEFAULT OUTPUT CONTROL -- THE FOLLOWING OUTPUT COMES AT THE END OF EACH STRESS PERIOD:
TOTAL VOLUMETRIC BUDGET
HEAD
DRAWDOWN

COLUMN TO ROW ANISOTROPY = 1.000000

DELR WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	250.00	250.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00								

DELC WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	250.00	250.00	250.00	250.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00				

PRIMARY STORAGE COEF = 0.2200000E-04 FOR LAYER 1

HYD. COND. ALONG ROWS FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	1.5020E-03	1.5020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
2	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
3	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
4	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
5	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
6	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								

7 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 5.0000E-04 5.0000E-04 5.0000E-04 5.0000E-04 5.0000E-04 5.0000E-04
5.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 5.0000E-04
5.0000E-04 5.0000E-04

8 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 5.0000E-04 5.0000E-04 5.0000E-04 5.0000E-04 5.0000E-04 5.0000E-04
5.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 5.0000E-04 5.0000E-04
8.0000E-04 8.0000E-04

9 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04
8.0000E-04 2.0000E-08

10 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 7.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04
2.0000E-08 2.0000E-08

11 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04
2.0000E-08 2.0000E-08

12 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04
2.0000E-08 2.0000E-08

13 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 2.0000E-08

14 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
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15 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
2.0000E-08 2.0000E-08

16 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 2.0000E-08
2.0000E-08 2.0000E-08

17 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 2.0000E-08
2.0000E-08 2.0000E-08

18 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 2.0000E-08
2.0000E-08 2.0000E-08

19 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 8.0000E-04 2.0000E-08
2.0000E-08 2.0000E-08

20 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

21 2.0000E-08 2.0000E-08 2.0000E-08 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
8.0000E-04 1.0020E-03 2.8020E-03 2.8020E-03 2.8020E-03 2.8020E-03 8.0000E-04 8.0000E-04 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

22	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
23	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
24	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
25	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	4.0000E-04								
26	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	2.0000E-08								
27	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	1.0020E-03	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	2.0000E-08								
28	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	1.0020E-03
	1.0020E-03	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	2.0000E-08	2.0000E-08								
29	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	1.0020E-03
	1.0020E-03	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	2.0000E-08	2.0000E-08								
30	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	1.0020E-03	1.0020E-03
	1.0020E-03	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08
	2.0000E-08	2.0000E-08								
31	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	1.0020E-03	1.0020E-03
	1.0020E-03	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
32	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	1.0020E-03	1.0020E-03
	1.0020E-03	8.0000E-04	2.8000E-03	2.003	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
33	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	1.0020E-03	1.0020E-03
	8.0000E-04	2.0000E-08	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
34	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	2.0000E-08	2.8000E-03	2.003	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
35	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08	8.0000E-04
	8.0000E-04	8.0000E-04	2.0000E-03	2.0000E-03	2.0000E-03	2.0000E-03	8.0000E-04	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
36	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08	8.0000E-04
	8.0000E-04	8.0000E-04	2.0000E-03	2.0000E-03	2.0000E-03	2.0000E-03	8.0000E-04	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								

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37  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08  8.0000E-04
    8.0000E-04  8.0000E-04  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  8.0000E-04  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

38  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  8.0000E-04  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

39  2.0000E-03  2.0000E-03  2.0000E-08  2.0000E-08  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  1.2000E-03
    2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

40  1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

41  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

42  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

43  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

44  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

45  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

46  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

47  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

48  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

49  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

50  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

51  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  1.5000E-03  1.5000E-03  1.5000E-03
    1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  1.5000E-03  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08
```

52	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	1.5000E-03	1.5000E-03	1.5000E-03
	1.5000E-03	1.5000E-03	1.5000E-03	1.5000E-03	1.5000E-03	1.5000E-03	1.5000E-03	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
53	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	1.5000E-03	1.5000E-03	1.5000E-03
	1.5000E-03	1.5000E-03	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
54	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	1.5000E-03	1.5000E-03	1.5000E-03
	1.5000E-03	1.5000E-03	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
55	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	1.5000E-03	1.5000E-03	1.5000E-03
	1.5000E-03	1.5000E-03	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
56	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	1.5000E-03	1.5000E-03	1.5000E-03
	1.5000E-03	1.5000E-03	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								

BOTTOM FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10f8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-30.00	-40.00	-50.00	-50.00	-40.00	-30.00	-20.00
	-10.00	0.0000E+00								
2	250.0	250.0	250.0	250.0	250.0	250.0	190.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-30.00	-40.00	-500.0	-50.00	-40.00	-30.00	-20.00
	0.0000E+00	0.0000E+00								
3	250.0	250.0	250.0	250.0	250.0	220.0	190.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-40.00	-50.00	-40.00	-25.00	0.0000E+00
	0.0000E+00	25.00								
4	250.0	250.0	250.0	250.0	250.0	220.0	190.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-30.00	-40.00	-40.00	-20.00	0.0000E+00
	25.00	35.00								
5	250.0	250.0	250.0	250.0	250.0	250.0	190.0	180.0	175.0	125.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-35.00	-30.00	-25.00	-20.00	0.0000E+00
	25.00	50.00								
6	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	170.0	125.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-35.00	-30.00	-20.00	0.0000E+00	25.00
	50.00	100.0								
7	250.0	250.0	250.0	200.0	255.0	230.0	215.0	180.0	170.0	125.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-35.00	-20.00	0.0000E+00	25.00	50.00
	100.0	125.0								

8	250.0	250.0	250.0	250.0	235.0	230.0	205.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-25.00	-20.00	0.0000E+00	50.00	100.0
	150.0	150.0								
9	250.0	250.0	250.0	250.0	230.0	220.0	205.0	180.0	150.0	100.0
	50.00	0.0000E+00	-15.00	-20.00	-25.00	-20.00	0.0000E+00	25.00	50.00	100.0
	150.0	250.0								
10	250.0	250.0	250.0	250.0	235.0	220.0	200.0	175.0	150.0	100.0
	50.00	0.0000E+00	-15.00	-20.00	-20.00	-15.00	0.0000E+00	50.00	100.0	125.0
	150.0	250.0								
11	250.0	250.0	250.0	250.0	250.0	220.0	195.0	175.0	150.0	100.0
	50.00	0.0000E+00	-10.00	-15.00	-15.00	0.0000E+00	50.00	75.00	100.0	125.0
	250.0	250.0								
12	250.0	250.0	250.0	250.0	250.0	200.0	180.0	165.0	150.0	100.0
	50.00	0.0000E+00	-10.00	-5.000	0.0000E+00	0.0000E+00	50.00	100.0	125.0	150.0
	250.0	250.0								
13	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	25.00	50.00	100.0	125.0	150.0
	170.0	225.0								
14	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	50.00	100.0	125.0	150.0	175.0
	170.0	225.0								
15	250.0	250.0	250.0	250.0	220.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	50.00	100.0	125.0	150.0	165.0
	250.0	250.0								
16	250.0	250.0	250.0	250.0	220.0	195.0	175.0	150.0	125.0	100.0
	75.00	50.00	25.00	0.0000E+00	0.0000E+00	50.00	100.0	150.0	160.0	200.0
	250.0	250.0								
17	250.0	250.0	250.0	250.0	220.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	8.000	8.000	50.00	100.0	150.0	160.0	200.0
	250.0	250.0								
18	250.0	250.0	250.0	220.0	200.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	10.00	25.00	50.00	100.0	150.0	160.0	250.0
	250.0	250.0								
19	250.0	250.0	250.0	220.0	200.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	10.00	25.00	50.00	100.0	150.0	160.0	250.0
	250.0	250.0								
20	250.0	250.0	250.0	210.0	190.0	175.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	15.00	25.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
21	250.0	250.0	210.0	180.0	175.0	170.0	165.0	150.0	125.0	100.0
	75.00	50.00	35.00	20.00	35.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
22	250.0	250.0	210.0	180.0	175.0	170.0	165.0	150.0	125.0	100.0
	75.00	50.00	35.00	20.00	35.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								

(16)

23	250.0	250.0	210.0	180.0	175.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	30.00	40.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
24	250.0	250.0	210.0	180.0	175.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	35.00	40.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
25	250.0	250.0	200.0	175.0	170.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	40.00	50.00	75.00	100.0	150.0	180.0	185.0
	210.0	230.0								
26	250.0	250.0	200.0	175.0	170.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	50.00	50.00	75.00	100.0	125.0	150.0	180.0	200.0
	220.0	250.0								
27	250.0	250.0	200.0	175.0	170.0	165.0	150.0	125.0	100.0	90.00
	80.00	70.00	65.00	75.00	85.00	100.0	125.0	150.0	170.0	180.0
	200.0	200.0								
28	250.0	250.0	200.0	175.0	170.0	165.0	150.0	125.0	100.0	90.00
	85.00	80.00	80.00	100.0	100.0	125.0	150.0	170.0	180.0	200.0
	250.0	200.0								
29	250.0	250.0	200.0	240.0	170.0	165.0	150.0	125.0	100.0	90.00
	85.00	90.00	100.0	100.0	125.0	150.0	170.0	180.0	200.0	210.0
	250.0	250.0								
30	250.0	250.0	200.0	175.0	160.0	150.0	135.0	120.0	100.0	95.00
	85.00	100.0	125.0	150.0	150.0	160.0	170.0	180.0	210.0	250.0
	250.0	250.0								
31	250.0	240.0	180.0	175.0	170.0	150.0	135.0	120.0	100.0	90.00
	100.0	100.0	150.0	150.0	150.0	180.0	190.0	205.0	250.0	250.0
	250.0	250.0								
32	250.0	180.0	175.0	170.0	150.0	140.0	125.0	115.0	100.0	95.00
	100.0	150.0	170.0	150.0	150.0	180.0	190.0	205.0	250.0	250.0
	250.0	250.0								
33	250.0	180.0	175.0	170.0	150.0	140.0	130.0	110.0	100.0	100.0
	150.0	200.0	160.0	160.0	160.0	180.0	190.0	210.0	250.0	250.0
	250.0	250.0								
34	250.0	180.0	175.0	150.0	140.0	130.0	120.0	115.0	110.0	110.0
	150.0	200.0	170.0	175.0	175.0	180.0	205.0	210.0	250.0	250.0
	250.0	250.0								
35	180.0	175.0	150.0	140.0	130.0	125.0	130.0	150.0	150.0	115.0
	120.0	150.0	150.0	150.0	150.0	180.0	180.0	250.0	250.0	250.0
	250.0	250.0								
36	180.0	150.0	140.0	135.0	130.0	125.0	135.0	150.0	150.0	120.0
	120.0	125.0	150.0	150.0	180.0	180.0	180.0	250.0	250.0	250.0
	250.0	250.0								
37	150.0	140.0	135.0	135.0	135.0	130.0	130.0	150.0	150.0	140.0
	135.0	125.0	130.0	150.0	150.0	180.0	210.0	250.0	250.0	250.0
	250.0	250.0								

(17)

38	140.0	140.0	140.0	150.0	150.0	150.0	140.0	135.0	135.0	136.0
	136.0	140.0	150.0	150.0	150.0	180.0	220.0	230.0	250.0	250.0
	250.0	250.0								
39	140.0	150.0	150.0	200.0	175.0	160.0	150.0	135.0	138.0	138.0
	140.0	150.0	185.0	175.0	180.0	190.0	220.0	230.0	250.0	250.0
	250.0	250.0								
40	150.0	180.0	200.0	203.0	180.0	175.0	150.0	150.0	140.0	140.0
	150.0	175.0	180.0	180.0	190.0	210.0	250.0	250.0	250.0	250.0
	250.0	250.0								
41	175.0	180.0	200.0	200.0	180.0	175.0	160.0	150.0	145.0	140.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
42	175.0	250.0	250.0	250.0	250.0	175.0	175.0	155.0	150.0	145.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
43	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0	150.0	145.0
	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
44	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	165.0	150.0
	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
45	250.0	250.0	250.0	250.0	250.0	240.0	180.0	175.0	165.0	150.0
	175.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
46	250.0	250.0	250.0	250.0	250.0	250.0	250.0	175.0	175.0	150.0
	175.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
47	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	150.0
	180.0	225.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
48	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
49	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	175.0	180.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
50	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	175.0	175.0
	170.0	180.0	190.0	200.0	200.0	200.0	250.0	250.0	250.0	250.0
	250.0	250.0								
51	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	180.0	185.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								
52	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	174.0	175.0
	150.0	150.0	170.0	185.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								

53	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	165.0	180.0	200.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
54	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	200.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
55	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	200.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
56	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	180.0	160.0
	140.0	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

SECONDARY STORAGE COEF = 0.2000000 FOR LAYER 1

TOP FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10f8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	195.0	190.0
	110.0	60.00	10.00	-10.00	-20.00	-30.00	-30.00	-20.00	-10.00	0.0000E+00
	10.00	20.00								
2	250.0	250.0	250.0	250.0	250.0	250.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-10.00	-20.00	-300.0	-30.00	-20.00	-10.00	10.00
	20.00	20.00								
3	250.0	250.0	250.0	250.0	250.0	240.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-5.000	-10.00	-20.00	-30.00	-15.00	10.00	20.00
	35.00	45.00								
4	250.0	250.0	250.0	250.0	250.0	240.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-5.000	-10.00	-10.00	-20.00	-10.00	10.00	35.00
	45.00	55.00								
5	250.0	250.0	250.0	250.0	250.0	250.0	210.0	200.0	195.0	190.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	-10.00	-5.000	10.00	35.00
	60.00	70.00								
6	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	193.0	190.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	-10.00	10.00	35.00	60.00
	110.0	120.0								
7	250.0	250.0	250.0	310.0	274.0	250.0	235.0	200.0	193.0	189.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	10.00	35.00	60.00	110.0
	135.0	145.0								
8	250.0	250.0	250.0	250.0	256.0	250.0	225.0	200.0	190.0	185.0
	110.0	60.00	10.00	-5.000	-10.00	-5.000	10.00	60.00	110.0	160.0
	170.0	170.0								

9	250.0	250.0	250.0	250.0	250.0	240.0	225.0	200.0	190.0	120.0
	110.0	60.00	10.00	0.0000E+00	-5.000	10.00	35.00	60.00	110.0	160.0
	170.0	250.0								
10	250.0	250.0	250.0	250.0	255.0	240.0	220.0	195.0	190.0	180.0
	70.00	60.00	10.00	0.0000E+00	0.0000E+00	10.00	60.00	110.0	135.0	145.0
	170.0	250.0								
11	250.0	250.0	250.0	250.0	250.0	240.0	215.0	197.0	190.0	180.0
	110.0	60.00	10.00	5.000	10.00	60.00	85.00	110.0	135.0	145.0
	250.0	250.0								
12	250.0	250.0	250.0	250.0	250.0	230.0	210.0	195.0	185.0	180.0
	170.0	60.00	10.00	15.00	20.00	60.00	110.0	135.0	160.0	170.0
	250.0	250.0								
13	250.0	250.0	250.0	250.0	250.0	230.0	200.0	195.0	185.0	179.0
	175.0	85.00	60.00	15.00	35.00	60.00	110.0	135.0	160.0	180.0
	180.0	235.0								
14	250.0	250.0	250.0	250.0	250.0	220.0	200.0	190.0	160.0	135.0
	110.0	85.00	60.00	15.00	60.00	110.0	135.0	160.0	185.0	195.0
	185.0	235.0								
15	250.0	250.0	250.0	250.0	240.0	220.0	198.0	190.0	185.0	135.0
	110.0	85.00	60.00	15.00	60.00	110.0	135.0	160.0	175.0	175.0
	250.0	250.0								
16	250.0	250.0	250.0	250.0	240.0	215.0	197.0	190.0	185.0	135.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	210.0
	250.0	250.0								
17	250.0	250.0	250.0	250.0	240.0	210.0	195.0	190.0	180.0	175.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	210.0
	250.0	250.0								
18	250.0	250.0	250.0	240.0	230.0	200.0	195.0	190.0	180.0	175.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	250.0
	250.0	250.0								
19	250.0	250.0	250.0	240.0	230.0	210.0	194.0	188.0	180.0	175.0
	170.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	250.0
	250.0	250.0								
20	250.0	250.0	250.0	240.0	210.0	198.0	194.0	188.0	180.0	175.0
	170.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	210.0	250.0
	250.0	250.0								
21	250.0	250.0	220.0	230.0	200.0	195.0	190.0	185.0	180.0	175.0
	110.0	85.00	60.00	45.00	60.00	110.0	160.0	170.0	210.0	250.0
	250.0	250.0								
22	250.0	250.0	230.0	200.0	197.0	193.0	190.0	185.0	180.0	175.0
	170.0	170.0	60.00	45.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								
23	250.0	250.0	230.0	200.0	197.0	193.0	187.0	183.0	177.0	173.0
	170.0	170.0	60.00	50.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								

24	250.0	250.0	230.0	200.0	195.0	190.0	185.0	180.0	177.0	173.0
	170.0	170.0	60.00	55.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								
25	250.0	250.0	200.0	197.0	193.0	190.0	185.0	180.0	175.0	170.0
	90.00	75.00	60.00	60.00	85.00	110.0	160.0	190.0	195.0	205.0
	230.0	250.0								
26	250.0	250.0	200.0	197.0	193.0	190.0	184.0	180.0	175.0	110.0
	90.00	75.00	70.00	85.00	110.0	135.0	160.0	190.0	200.0	220.0
	240.0	250.0								
27	250.0	250.0	200.0	197.0	193.0	188.0	183.0	180.0	135.0	110.0
	100.0	90.00	85.00	95.00	110.0	135.0	160.0	190.0	200.0	220.0
	250.0	310.0								
28	250.0	250.0	200.0	197.0	193.0	185.0	180.0	160.0	135.0	110.0
	105.0	100.0	110.0	120.0	135.0	160.0	180.0	190.0	210.0	230.0
	260.0	310.0								
29	250.0	250.0	300.0	250.0	180.0	180.0	175.0	160.0	135.0	110.0
	105.0	110.0	120.0	135.0	160.0	180.0	190.0	210.0	230.0	240.0
	250.0	250.0								
30	250.0	250.0	210.0	185.0	185.0	170.0	160.0	145.0	130.0	115.0
	110.0	135.0	160.0	170.0	170.0	180.0	190.0	200.0	225.0	250.0
	250.0	250.0								
31	250.0	250.0	190.0	190.0	185.0	180.0	160.0	145.0	130.0	110.0
	120.0	160.0	170.0	190.0	190.0	200.0	215.0	225.0	250.0	250.0
	250.0	250.0								
32	250.0	190.0	190.0	185.0	180.0	160.0	150.0	135.0	125.0	115.0
	160.0	180.0	190.0	200.0	190.0	200.0	215.0	225.0	250.0	250.0
	250.0	250.0								
33	250.0	190.0	190.0	185.0	180.0	160.0	150.0	140.0	120.0	160.0
	170.0	220.0	220.0	210.0	200.0	200.0	200.0	230.0	250.0	250.0
	250.0	250.0								
34	250.0	190.0	190.0	185.0	160.0	150.0	140.0	135.0	130.0	160.0
	170.0	220.0	210.0	200.0	185.0	215.0	220.0	230.0	250.0	250.0
	250.0	250.0								
35	200.0	190.0	185.0	160.0	150.0	145.0	150.0	170.0	170.0	145.0
	177.0	177.0	190.0	190.0	200.0	190.0	200.0	250.0	250.0	250.0
	250.0	250.0								
36	200.0	190.0	160.0	155.0	150.0	145.0	155.0	170.0	170.0	179.0
	178.0	178.0	179.0	190.0	200.0	190.0	200.0	250.0	250.0	250.0
	250.0	250.0								
37	198.0	160.0	155.0	155.0	155.0	150.0	150.0	170.0	170.0	160.0
	155.0	180.0	180.0	185.0	190.0	200.0	230.0	250.0	250.0	250.0
	250.0	250.0								
38	197.0	160.0	160.0	170.0	170.0	170.0	160.0	155.0	155.0	156.0
	156.0	160.0	185.0	190.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								

39	195.0	170.0	170.0	210.0	195.0	185.0	170.0	160.0	158.0	158.0
	160.0	210.0	220.0	210.0	200.0	210.0	240.0	250.0	250.0	250.0
	250.0	250.0								
40	196.0	220.0	220.0	223.0	190.0	195.0	185.0	170.0	160.0	160.0
	185.0	195.0	190.0	200.0	210.0	230.0	250.0	250.0	250.0	250.0
	250.0	250.0								
41	200.0	250.0	220.0	220.0	190.0	190.0	185.0	170.0	165.0	160.0
	210.0	220.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
42	200.0	250.0	250.0	250.0	250.0	185.0	195.0	185.0	170.0	165.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
43	250.0	250.0	250.0	250.0	250.0	190.0	190.0	197.0	192.0	195.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
44	250.0	250.0	250.0	250.0	250.0	250.0	190.0	194.0	192.0	195.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
45	250.0	250.0	250.0	250.0	250.0	250.0	190.0	195.0	185.0	195.0
	200.0	260.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
46	250.0	250.0	250.0	250.0	250.0	250.0	250.0	185.0	195.0	185.0
	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
47	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	195.0	190.0
	200.0	225.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
48	250.0	250.0	250.0	250.0	250.0	250.0	250.0	210.0	196.0	194.0
	197.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
49	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	196.0	195.0
	198.0	200.0	220.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
50	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	197.0	196.0
	198.0	200.0	220.0	230.0	240.0	210.0	250.0	250.0	250.0	250.0
	250.0	250.0								
51	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	197.0	196.0
	198.0	200.0	212.0	230.0	240.0	275.0	280.0	250.0	250.0	250.0
	250.0	250.0								
52	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	198.0	197.0
	200.0	220.0	230.0	245.0	250.0	278.0	285.0	250.0	250.0	250.0
	250.0	250.0								
53	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	199.0	198.0
	220.0	225.0	185.0	190.0	210.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

22

54	250.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	199.0	198.0
	200.0	225.0	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
55	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	199.0	199.0
	200.0	225.0	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
56	250.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	200.0	200.0
	200.0	225.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE

MAXIMUM ITERATIONS ALLOWED FOR CLOSURE = 750
ACCELERATION PARAMETER = 0.50000
HEAD CHANGE CRITERION FOR CLOSURE = 0.10000E-02
SIP HEAD CHANGE PRINTOUT INTERVAL = 999

CALCULATE ITERATION PARAMETERS FROM MODEL CALCULATED WSEED

STRESS PERIOD NO. 1, LENGTH = 604800.0

NUMBER OF TIME STEPS = 50

MULTIPLIER FOR DELT = 1.500

INITIAL TIME STEP SIZE = 0.4742625E-03

3 WELLS

LAYER	ROW	COL	STRESS RATE	WELL NO.
1	17	15	-1.2255	1
1	16	14	0.00000E+00	2
1	16	15	0.00000E+00	3

9 RIVER REACHES

LAYER	ROW	COL	STAGE	CONDUCTANCE	BOTTOM ELEVATION	RIVER REACH
1	56	10	212.0	0.2800E-01	210.0	1
1	55	10	211.0	0.2800E-01	209.0	2
1	54	10	209.0	0.2800E-01	207.0	3
1	53	9	207.0	0.2800E-01	205.0	4
1	52	9	206.0	0.2800E-01	204.0	5
1	51	9	204.0	0.2800E-01	202.0	6
1	50	9	202.0	0.2800E-01	200.0	7
1	49	9	200.0	0.2800E-01	198.0	8
1	48	9	198.0	0.2800E-01	196.0	9

13 HEAD-DEPENDENT BOUNDARY NODES

LAYER	ROW	COL	ELEVATION	CONDUCTANCE	BOUND NO.
1	1	16	172.0	0.3420	1
1	1	17	169.0	0.3420	2
1	1	18	166.0	999.1	3
1	1	19	160.0	999.1	4
1	1	20	158.0	999.1	5
1	1	21	157.0	999.1	6
1	1	22	158.0	999.1	7
1	2	22	159.0	999.1	8
1	3	22	159.0	999.1	9
1	4	22	164.0	999.1	10
1	5	22	166.0	999.1	11
1	6	22	168.0	999.1	12
1	1	15	174.0	999.1	13

AVERAGE SEED = 0.00073643
MINIMUM SEED = 0.00000003

5 ITERATION PARAMETERS CALCULATED FROM AVERAGE SEED:

0.0000000E+00 0.8352659E+00 0.9728627E+00 0.9955295E+00 0.9992636E+00

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 1 ITERATIONS FOR TIME STEP  1 IN STRESS PERIOD 1
 1 ITERATIONS FOR TIME STEP  2 IN STRESS PERIOD 1
 1 ITERATIONS FOR TIME STEP  3 IN STRESS PERIOD 1
 1 ITERATIONS FOR TIME STEP  4 IN STRESS PERIOD 1
 1 ITERATIONS FOR TIME STEP  5 IN STRESS PERIOD 1
 2 ITERATIONS FOR TIME STEP  6 IN STRESS PERIOD 1
 3 ITERATIONS FOR TIME STEP  7 IN STRESS PERIOD 1
 3 ITERATIONS FOR TIME STEP  8 IN STRESS PERIOD 1
 4 ITERATIONS FOR TIME STEP  9 IN STRESS PERIOD 1
 4 ITERATIONS FOR TIME STEP 10 IN STRESS PERIOD 1
 5 ITERATIONS FOR TIME STEP 11 IN STRESS PERIOD 1
 5 ITERATIONS FOR TIME STEP 12 IN STRESS PERIOD 1
 6 ITERATIONS FOR TIME STEP 13 IN STRESS PERIOD 1
 7 ITERATIONS FOR TIME STEP 14 IN STRESS PERIOD 1
10 ITERATIONS FOR TIME STEP 15 IN STRESS PERIOD 1
 8 ITERATIONS FOR TIME STEP 16 IN STRESS PERIOD 1
10 ITERATIONS FOR TIME STEP 17 IN STRESS PERIOD 1
 9 ITERATIONS FOR TIME STEP 18 IN STRESS PERIOD 1
 9 ITERATIONS FOR TIME STEP 19 IN STRESS PERIOD 1
 9 ITERATIONS FOR TIME STEP 20 IN STRESS PERIOD 1
 9 ITERATIONS FOR TIME STEP 21 IN STRESS PERIOD 1
 9 ITERATIONS FOR TIME STEP 22 IN STRESS PERIOD 1
10 ITERATIONS FOR TIME STEP 23 IN STRESS PERIOD 1
10 ITERATIONS FOR TIME STEP 24 IN STRESS PERIOD 1
11 ITERATIONS FOR TIME STEP 25 IN STRESS PERIOD 1
11 ITERATIONS FOR TIME STEP 26 IN STRESS PERIOD 1
11 ITERATIONS FOR TIME STEP 27 IN STRESS PERIOD 1
12 ITERATIONS FOR TIME STEP 28 IN STRESS PERIOD 1
11 ITERATIONS FOR TIME STEP 29 IN STRESS PERIOD 1
11 ITERATIONS FOR TIME STEP 30 IN STRESS PERIOD 1
13 ITERATIONS FOR TIME STEP 31 IN STRESS PERIOD 1
11 ITERATIONS FOR TIME STEP 32 IN STRESS PERIOD 1
14 ITERATIONS FOR TIME STEP 33 IN STRESS PERIOD 1
15 ITERATIONS FOR TIME STEP 34 IN STRESS PERIOD 1
16 ITERATIONS FOR TIME STEP 35 IN STRESS PERIOD 1
17 ITERATIONS FOR TIME STEP 36 IN STRESS PERIOD 1
19 ITERATIONS FOR TIME STEP 37 IN STRESS PERIOD 1
19 ITERATIONS FOR TIME STEP 38 IN STRESS PERIOD 1
20 ITERATIONS FOR TIME STEP 39 IN STRESS PERIOD 1
19 ITERATIONS FOR TIME STEP 40 IN STRESS PERIOD 1
17 ITERATIONS FOR TIME STEP 41 IN STRESS PERIOD 1
15 ITERATIONS FOR TIME STEP 42 IN STRESS PERIOD 1
12 ITERATIONS FOR TIME STEP 43 IN STRESS PERIOD 1
12 ITERATIONS FOR TIME STEP 44 IN STRESS PERIOD 1
12 ITERATIONS FOR TIME STEP 45 IN STRESS PERIOD 1
18 ITERATIONS FOR TIME STEP 46 IN STRESS PERIOD 1
16 ITERATIONS FOR TIME STEP 47 IN STRESS PERIOD 1
16 ITERATIONS FOR TIME STEP 48 IN STRESS PERIOD 1
19 ITERATIONS FOR TIME STEP 49 IN STRESS PERIOD 1
22 ITERATIONS FOR TIME STEP 50 IN STRESS PERIOD 1
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MAXIMUM HEAD CHANGE FOR EACH ITERATION:

HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL	HEAD CHANGE	LAYER,ROW,COL
3.513	(1, 23, 4)	1.727	(1, 23, 4)	1.593	(1, 22, 5)	0.8264	(1, 22, 5)	0.4432	(1, 23, 5)
0.1582	(1, 22, 5)	0.1057	(1, 22, 5)	0.7619E-01	(1, 23, 5)	0.5246E-01	(1, 24, 9)	0.8271E-01	(1, 23, 10)
0.1996E-01	(1, 21, 18)	0.1351E-01	(1, 19, 19)	0.8219E-02	(1, 37, 7)	0.1031E-01	(1, 21, 18)	0.6534E-02	(1, 37, 7)
0.5828E-02	(1, 19, 19)	0.2500E-02	(1, 19, 19)	0.2407E-02	(1, 21, 18)	0.1429E-02	(1, 24, 17)	0.2174E-02	(1, 21, 18)

0.1664E-02 (1, 19, 19) 0.9862E-03 (1, 19, 19)

(25)

HEAD IN LAYER 1 AT END OF TIME STEP 50 IN STRESS PERIOD 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	181.0	176.8	175.9	175.0	174.2	173.8	173.8	174.0	171.8	169.0	166.0	160.0	158.0	157.0	158.0
2	1000.	1000.	1000.	1000.	1000.	1000.	209.6	181.3	176.8	175.9	175.0	174.1	173.5	172.8	172.0	171.3	169.4	166.5	163.3	161.2	159.9	159.0
3	1000.	1000.	1000.	1000.	1000.	1000.	209.3	182.5	176.9	176.1	175.1	174.1	173.5	172.8	172.2	171.2	169.4	167.3	165.4	163.6	161.8	159.0
4	1000.	1000.	1000.	1000.	1000.	1000.	209.3	182.6	177.1	176.6	175.4	174.3	173.7	173.0	172.4	171.5	169.9	168.2	166.8	165.8	164.6	164.0
5	1000.	1000.	1000.	1000.	1000.	1000.	209.1	183.8	179.0	177.7	176.0	174.6	174.0	173.4	172.9	172.0	170.7	169.4	168.2	167.2	166.6	166.0
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	182.9	180.0	178.8	176.8	175.1	174.6	174.0	173.5	172.7	171.7	170.6	169.5	168.3	167.7	168.0
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	180.9	179.7	177.7	175.9	175.2	174.7	174.2	173.5	172.6	171.8	170.8	169.9	169.1	168.9
8	1000.	1000.	1000.	1000.	254.4	247.2	225.6	185.9	181.9	180.4	178.5	176.8	176.0	175.5	175.0	174.4	173.6	172.9	172.2	171.5	170.7	170.0
9	1000.	1000.	1000.	1000.	249.5	239.8	224.1	187.1	182.9	181.0	178.9	177.6	176.7	176.1	175.7	175.2	174.6	173.8	173.4	172.7	171.9	1000.
10	1000.	1000.	1000.	1000.	252.1	238.5	219.0	188.9	183.8	182.1	180.0	178.3	177.4	176.8	176.4	176.0	175.5	174.9	174.6	174.2	1000.	1000.
11	1000.	1000.	1000.	1000.	1000.	234.7	213.1	188.4	184.3	182.3	180.8	179.2	178.1	177.3	176.9	176.6	176.3	176.0	176.0	176.0	1000.	1000.
12	1000.	1000.	1000.	1000.	1000.	225.6	195.6	187.3	184.6	182.5	181.3	179.8	178.5	177.8	177.3	177.0	176.9	177.1	177.5	177.8	1000.	1000.
13	1000.	1000.	1000.	1000.	1000.	222.6	193.6	187.4	185.0	183.1	181.6	179.9	178.5	178.0	177.6	177.3	177.4	178.0	179.0	179.7	180.6	1000.

14	1000.	1000.	1000.	1000.	1000.	216.9	192.8	188.1	186.0	184.0
	182.0	179.9	178.5	177.9	177.5	177.3	177.8	178.9	181.0	181.7
	181.9	1000.								
15	1000.	1000.	1000.	1000.	236.1	215.9	193.1	188.8	186.8	184.9
	182.6	180.2	178.5	177.5	177.0	177.1	177.8	178.9	180.3	181.2
	1000.	1000.								
16	1000.	1000.	1000.	1000.	235.0	210.8	192.7	189.1	187.1	185.4
	183.1	180.5	178.6	177.0	176.2	177.0	177.9	178.8	179.9	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	231.8	202.4	192.2	189.4	187.3	185.8
	183.7	181.0	178.9	176.7	174.2	177.1	178.1	178.9	179.6	1000.
	1000.	1000.								
18	1000.	1000.	1000.	237.7	227.8	199.3	191.9	189.5	187.6	186.1
	184.4	181.7	179.6	178.1	177.0	178.0	178.6	179.2	179.6	1000.
	1000.	1000.								
19	1000.	1000.	1000.	236.8	224.6	198.0	192.2	189.8	188.0	186.5
	185.1	182.9	180.9	180.0	179.6	179.6	179.7	179.9	179.8	1000.
	1000.	1000.								
20	1000.	1000.	1000.	229.9	212.5	196.9	192.8	190.4	188.7	187.3
	186.0	184.3	182.7	182.1	181.7	181.5	181.4	181.2	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	203.6	199.3	196.7	193.7	191.2	189.6	188.4
	187.3	186.0	184.6	184.0	183.6	183.4	182.9	182.2	1000.	1000.
	1000.	1000.								
22	1000.	1000.	225.8	209.7	200.5	197.4	194.4	192.0	190.4	189.3
	188.4	187.6	186.4	185.8	185.5	185.3	184.8	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	225.9	212.0	203.4	198.3	194.8	192.7	191.3	190.2
	189.2	188.5	187.9	187.4	187.2	187.0	187.0	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	226.0	210.8	203.4	198.4	195.1	193.2	191.9	190.9
	189.9	189.3	189.2	189.0	188.8	188.6	189.2	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	203.9	201.1	197.9	195.3	193.7	192.7	191.8
	191.1	190.5	190.5	190.6	190.5	190.4	191.3	192.9	194.2	199.0
	227.9	247.6								
26	1000.	1000.	1000.	200.3	199.1	197.2	195.4	194.3	193.5	192.8
	192.3	191.9	191.9	191.9	191.9	192.0	192.8	194.0	194.8	1000.
	1000.	1000.								
27	1000.	1000.	1000.	197.9	197.7	196.7	195.6	194.9	194.3	193.8
	193.5	193.2	193.2	193.2	193.3	193.5	194.4	195.8	197.4	209.0
	238.8	1000.								
28	1000.	1000.	1000.	197.0	197.1	196.6	196.0	195.4	195.1	194.8
	194.5	194.4	194.3	194.5	194.5	194.7	195.9	198.7	203.6	222.7
	1000.	1000.								

44	1000.	1000.	1000.	1000.	1000.	1000.	202.1	202.2	202.3	202.4
	202.4	203.3	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	202.3	202.3	202.4	202.5
	202.6	202.9	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.4	202.5	202.7
	202.8	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.4	202.4	202.8
	203.2	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	201.7	203.1
	203.7	204.5	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.3	203.7
	204.6	205.5	206.9	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	203.7	204.9
	205.9	206.6	207.6	207.9	208.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.1	205.3	206.2
	206.9	207.4	207.8	208.0	208.2	208.8	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.0	206.7	207.2
	207.7	208.0	208.0	208.1	208.2	208.8	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.8	207.7	208.1
	208.4	208.5	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	208.7	208.6	208.8
	208.9	208.9	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	209.2	209.3	209.6
	209.3	209.3	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	209.8	209.7	210.0
	209.6	209.6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

DRAWDOWN IN LAYER 1 AT END OF TIME STEP 50 IN STRESS PERIOD 1

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	4.4861E-02	0.1838	0.1269
	1.9638E-02	0.7636	0.1892	0.2233	2.4414E-04	0.1560	-3.1189E-02	1.3733E-04	-4.2725E-04	-2.5940E-04
	-2.7466E-04	0.0000E+00								
2	1000.	1000.	1000.	1000.	1000.	1000.	0.4083	-0.3390	0.1626	9.4940E-02
	2.3987E-02	-0.1056	0.5329	0.2052	-4.6738E-02	0.7136	0.5599	0.4595	0.6677	-0.2109
	6.5460E-02	0.0000E+00								
3	1000.	1000.	1000.	1000.	1000.	1000.	0.6656	-0.5333	6.3339E-02	-8.2031E-02
	-9.5154E-02	0.8601	0.5368	0.2031	0.8294	0.8190	0.6083	0.6953	0.5704	0.4236
	0.2291	-4.5776E-04								
4	1000.	1000.	1000.	1000.	1000.	1000.	0.6995	-0.5683	-0.1191	0.3669
	0.6148	0.6725	0.3439	0.9795	0.5722	0.5408	1.127	0.7677	0.1507	0.2408
	0.4279	1.5259E-04								
5	1000.	1000.	1000.	1000.	1000.	1000.	0.9086	-0.7937	-7.0190E-04	0.3134
	1.1581E-02	0.4064	0.9843	0.5646	1.103	0.9679	1.263	0.6254	0.8311	0.7960
	0.3644	-4.5776E-05								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	7.1548E-02	8.8196E-03	0.2406
	0.1770	0.8644	1.443	0.9862	1.479	1.253	1.333	1.413	0.5364	0.6736
	0.2604	1.2207E-04								
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	8.3023E-02	0.2656
	1.272	1.128	1.765	1.296	1.765	1.491	1.377	1.190	1.242	1.123
	0.9292	9.7336E-02								
8	1000.	1000.	1000.	1000.	1.567	2.809	-0.5975	-1.916	6.8970E-02	0.6125
	1.505	1.179	2.012	1.547	1.993	2.633	2.445	2.058	1.840	1.506
	1.342	1.026								
9	1000.	1000.	1000.	1000.	0.4836	0.1569	0.9342	-3.119	8.5892E-02	0.9974
	1.139	2.374	2.274	2.852	2.294	2.818	2.423	2.160	1.635	2.259
	2.092	1000.								
10	1000.	1000.	1000.	1000.	2.945	1.539	1.039	-3.862	0.2029	0.9264
	1.969	2.697	2.589	3.167	3.570	3.043	3.534	3.082	2.395	1.756
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	5.319	1.909	-3.358	0.6763	1.705
	2.160	2.784	3.946	3.651	4.056	4.364	3.708	2.960	2.962	2.960
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	4.378	-7.610	-0.3392	1.369	2.453
	2.750	4.193	4.495	4.216	4.651	4.992	4.136	3.933	2.533	2.163
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	7.395	-5.583	-0.3638	0.9831	2.900
	3.368	4.094	5.452	5.965	6.373	5.664	4.641	3.957	2.973	1.265
	0.3681	1000.								

14	1000.	1000.	1000.	1000.	1000.	3.117	-3.822	-0.1302	1.962	3.021
	4.032	5.121	6.488	7.105	7.537	6.654	6.240	4.101	1.959	0.2651
	0.1315	1000.								
15	1000.	1000.	1000.	1000.	3.898	4.070	-3.090	0.2257	2.207	3.144
	4.424	5.835	7.499	7.484	8.044	7.854	7.181	5.115	2.675	1.850
	1000.	1000.								
16	1000.	1000.	1000.	1000.	5.015	4.221	-2.694	0.8746	1.899	3.600
	4.919	6.490	7.437	8.950	9.789	8.971	8.133	6.174	4.106	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	8.158	-10.42	-1.185	0.6148	2.667	3.170
	4.279	6.000	8.110	9.282	11.84	8.910	7.891	7.068	5.366	1000.
	1000.	1000.								
18	1000.	1000.	1000.	2.297	2.243	-7.337	-0.9217	1.470	2.418	3.879
	4.601	6.336	7.403	8.941	9.969	9.031	8.355	6.770	6.392	1000.
	1000.	1000.								
19	1000.	1000.	1000.	3.170	5.356	-5.045	-0.1516	1.182	3.025	3.494
	4.862	6.108	7.072	7.952	8.399	7.447	7.267	7.089	6.241	1000.
	1000.	1000.								
20	1000.	1000.	1000.	10.06	-2.506	-2.864	0.2473	1.559	3.313	3.694
	4.024	5.651	6.296	6.887	7.286	6.465	6.625	6.811	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	-6.587	-3.326	-1.719	0.3474	1.778	2.441	3.577
	3.738	4.996	5.448	5.977	6.354	5.605	6.140	6.809	1000.	1000.
	1000.	1000.								
22	1000.	1000.	4.247	-12.74	-4.519	-1.413	0.6296	1.959	2.551	3.682
	3.577	4.398	4.554	5.184	4.512	4.734	5.165	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	4.090	-14.96	-6.398	-2.274	0.1924	1.299	2.729	2.835
	3.774	3.461	4.122	3.579	3.827	3.990	3.989	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	4.041	-12.79	-6.372	-2.415	0.9153	1.799	2.062	3.083
	3.085	3.670	2.822	3.023	3.161	3.378	2.810	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	-5.911	-4.052	-0.8507	0.7481	1.275	2.322	2.178
	2.945	2.492	2.461	2.447	2.470	2.558	1.666	1.140	-0.1966	-4.048
	2.115	2.379								
26	1000.	1000.	1000.	-2.287	-1.079	-0.1738	0.6007	1.731	1.524	2.227
	1.696	2.069	2.100	2.088	2.074	0.9612	1.242	7.4310E-03	0.1770	1000.
	1000.	1000.								
27	1000.	1000.	1000.	9.8282E-02	0.2977	0.2728	1.364	1.134	1.691	1.166
	1.543	0.7906	0.7743	0.7812	0.6890	0.5339	-0.3616	-1.828	-2.403	-13.99
	11.20	1000.								
28	1000.	1000.	1000.	1.043	0.8927	1.384	1.040	0.5516	0.8883	1.188
	0.4785	0.6407	0.6547	0.5456	0.4606	0.3218	-0.9139	-3.717	-8.616	7.280
	1000.	1000.								

29	1000.	1000.	1000.	1000.	0.8770	0.2132	0.6377	0.9741	0.1720	0.3756
	0.5410	0.6294	-0.3027	-0.3795	-0.4401	-0.6659	-2.684	-5.603	7.901	5.712
	1000.	1000.								
30	1000.	1000.	1000.	0.3364	0.5773	0.8121	0.1234	0.3792	0.5064	0.6343
	-0.2345	-0.1750	-8.3511E-02	-0.1597	-0.2670	-0.5842	-4.238	-13.58	2.689	1000.
	1000.	1000.								
31	1000.	1000.	-0.1626	4.7745E-02	0.2530	0.4538	0.6288	-0.2131	-0.1369	-0.1003
	4.2419E-02	0.2939	0.3134	0.2041	0.2563	-0.4764	-2.367	5.140	1000.	1000.
	1000.	1000.								
32	1000.	-0.5097	-0.3745	-0.2215	-9.9167E-02	6.3156E-02	0.1659	0.1944	-0.8105	-0.9348
	-0.6502	-0.2047	-0.2596	-0.2001	-0.2186	-0.1840	-2.868	2.414	1000.	1000.
	1000.	1000.								
33	1000.	0.3266	0.4100	-0.5018	-0.3829	-0.3261	-0.2816	-0.3237	-0.5181	-0.8683
	-0.7406	1000.	-0.8138	-0.9333	-0.9084	-1.436	-12.26	3.434	1000.	1000.
	1000.	1000.								
34	1000.	6.1508E-02	0.1722	0.2469	0.3040	-0.6927	-0.6849	-0.6636	-1.052	-1.739
	-2.263	1000.	-1.114	-1.382	-1.932	-2.748	4.408	1.875	1000.	1000.
	1000.	1000.								
35	0.0000E+00	-0.2709	-9.5367E-03	4.3655E-02	-3.1281E-03	-6.4651E-02	-0.1020	1000.	1000.	-2.259
	-2.797	-3.347	-2.777	-4.027	-4.669	-5.816	-11.94	1000.	1000.	1000.
	1000.	1000.								
36	0.0000E+00	-0.1327	2.6550E-03	-0.1011	-0.2961	-0.4613	-0.5576	1000.	1000.	-3.160
	-3.606	-4.588	-5.292	-6.118	-7.028	-10.34	-15.51	1000.	1000.	1000.
	1000.	1000.								
37	0.0000E+00	-0.2876	0.3020	-0.1550	-0.6194	7.2403E-02	-0.1103	1000.	1000.	-2.486
	-3.220	-4.620	-6.109	-7.716	-9.294	-13.25	4.728	1000.	1000.	1000.
	1000.	1000.								
38	0.0000E+00	-0.1567	-0.3522	-0.2020	-9.9274E-02	-0.5199	-0.8470	-0.3802	-0.7677	-2.241
	-2.814	-4.043	-6.555	-9.028	-11.03	-16.56	5.060	2.332	1000.	1000.
	1000.	1000.								
39	0.0000E+00	0.3092	1000.	1000.	-0.7691	-0.9729	-0.2189	-0.4769	-0.7082	-0.9541
	-1.071	-1.905	-3.711	-8.185	-12.39	-20.26	4.858	4.157	1000.	1000.
	1000.	1000.								
40	0.0000E+00	7.4356E-02	1000.	1000.	-5.6030E-02	-0.2162	-0.3945	-0.5715	-0.7534	-0.8933
	-0.9855	-1.486	-6.131	-11.33	-4.489	7.576	1000.	1000.	1000.	1000.
	1000.	1000.								
41	0.0000E+00	-1.8311E-04	1000.	1000.	-0.2604	-0.4312	-0.5781	-0.7333	-0.8474	-0.8624
	-0.6747	-0.6273	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	0.0000E+00	1000.	1000.	1000.	1000.	-0.6799	0.2120	8.2870E-02	-4.0771E-02	-0.1175
	-9.5627E-02	-0.5533	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	0.1654	3.6118E-02	-9.6252E-02	-0.2366	-0.3719
	-0.5844	13.03	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

(33)

```
 44   1000.      1000.      1000.      1000.      1000.      1000.      -0.1479    -0.2365    -0.3335    -0.4260
     -0.4376    -0.2704     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 45   1000.      1000.      1000.      1000.      1000.      1000.      -0.2530    -0.3320     0.5697     0.4602
      0.3648     0.1280     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 46   1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.5967     0.5119     0.3308
      0.2010     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 47   1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.6145     0.6278     0.1724
      0.8463     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 48   1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.3425    -5.1041E-02
      0.2555     0.5381     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 49   1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.      -0.3248     0.3140
      0.3500     0.5318     0.1190     1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 50   1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.3015     0.1071
      0.1193     0.3734     0.3891     8.6304E-02 1.6785E-04 1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 51   1000.      1000.      1000.      1000.      1000.      1000.      1000.      -0.1210    -0.3150     0.8366
      6.2332E-02 0.5986     0.1788    -1.7365E-02 -0.1810    0.1917     1000.      1000.      1000.      1000.
      1000.      1000.

 52   1000.      1000.      1000.      1000.      1000.      1000.      1000.       4.7806E-02 0.3435    -0.2006
      0.3010     4.2633E-02 1.7212E-02 -7.1732E-02 -0.2115   0.1885     1000.      1000.      1000.      1000.
      1000.      1000.

 53   1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.1712     0.3389    -6.9702E-02
      0.5838     0.4689     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 54   1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.2725     0.3728     0.1604
      0.1223     5.7617E-02 1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 55   1000.      1000.      1000.      1000.      1000.      1000.      1000.      -0.1773     0.7238     0.3725
      0.6712    -0.2859     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.

 56   1000.      1000.      1000.      1000.      1000.      1000.      1000.       0.1814     0.2974     5.8441E-03
      0.3925     0.4487     1000.      1000.      1000.      1000.      1000.      1000.      1000.      1000.
      1000.      1000.


                    VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP 50 IN STRESS PERIOD  1
                    ------------------------------------------------------------------------------

             CUMULATIVE VOLUMES      L**3                                      RATES FOR THIS TIME STEP      L**3/T
             ------------------                                                ------------------------
```

IN:

STORAGE =	0.92006E+07	
CONSTANT HEAD =	20950.	
WELLS =	0.00000E+00	
RIVER LEAKAGE =	57023.	
HEAD DEP BOUNDS =	0.42847E+06	
TOTAL IN =	0.97070E+07	

OUT:

STORAGE =	0.78369E+07	
CONSTANT HEAD =	28849.	
WELLS =	0.74118E+06	
RIVER LEAKAGE =	0.17711E+06	
HEAD DEP BOUNDS =	0.88924E+06	
TOTAL OUT =	0.96733E+07	
IN - OUT =	33781.	
PERCENT DISCREPANCY =		0.35

IN:

STORAGE =	11.968	
CONSTANT HEAD =	0.31142E-01	
WELLS =	0.00000E+00	
RIVER LEAKAGE =	0.98921E-01	
HEAD DEP BOUNDS =	0.70890	
TOTAL IN =	12.807	

OUT:

STORAGE =	9.7205	
CONSTANT HEAD =	0.50739E-01	
WELLS =	1.2255	
RIVER LEAKAGE =	0.28878	
HEAD DEP BOUNDS =	1.4742	
TOTAL OUT =	12.760	
IN - OUT =	0.47103E-01	
PERCENT DISCREPANCY =		0.37

TIME SUMMARY AT END OF TIME STEP 50 IN STRESS PERIOD 1

	SECONDS	MINUTES	HOURS	DAYS	YEARS
TIME STEP LENGTH	201600.	3360.00	56.0000	2.33333	0.638832E-02
STRESS PERIOD TIME	604800.	10080.0	168.000	7.00000	0.191650E-01
TOTAL SIMULATION TIME	604800.	10080.0	168.000	7.00000	0.191650E-01

```
                        U.S. GEOLOGICAL SURVEY MODULAR FINITE-DIFFERENCE GROUND-WATER MODEL

 SOUTHAMPTON AQUIFER SIMULATION                                                   3-D Model-- hydraulic conductivity = 220 ft/day
    1 LAYERS         56 ROWS         22 COLUMNS
   1 STRESS PERIOD(S) IN SIMULATION
 MODEL TIME UNIT IS SECONDS

 I/O UNITS:
 ELEMENT OF IUNIT:  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
        I/O UNIT: 11 12  0 14  0  0 17  0 19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0

 BAS1 -- BASIC MODEL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT  1
 ARRAYS RHS AND BUFF WILL SHARE MEMORY.
 START HEAD WILL BE SAVED
  11170 ELEMENTS IN X ARRAY ARE USED BY BAS
  11170 ELEMENTS OF X ARRAY USED OUT OF  56000

 BCF1 -- BLOCK-CENTERED FLOW PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 11
 TRANSIENT SIMULATION
      LAYER  AQUIFER TYPE
      ------------------
        1          3
   6161 ELEMENTS IN X ARRAY ARE USED BY BCF
  17331 ELEMENTS OF X ARRAY USED OUT OF  56000

 WEL1 -- WELL PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM 12
 MAXIMUM OF     3 WELLS
     12 ELEMENTS IN X ARRAY ARE USED FOR WELLS
  17343 ELEMENTS OF X ARRAY USED OUT OF  56000

 RIV1 -- RIVER PACKAGE, VERSION 1,  12/08/83 INPUT READ FROM UNIT 14
 MAXIMUM OF     9 RIVER NODES
     54 ELEMENTS IN X ARRAY ARE USED FOR RIVERS
  17397 ELEMENTS OF X ARRAY USED OUT OF  56000

 GHB1 -- GHB PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 17
 MAXIMUM OF    13 HEAD-DEPENDENT BOUNDARY NODES
 CELL-BY-CELL FLOW WILL BE PRINTED WHEN ICBCFL NOT 0
     65 ELEMENTS IN X ARRAY ARE USED FOR HEAD-DEPENDENT BOUNDARIES
  17462 ELEMENTS OF X ARRAY USED OUT OF  56000

 SIP1 -- STRONGLY IMPLICIT PROCEDURE SOLUTION PACKAGE, VERSION 1, 12/08/83 INPUT READ FROM UNIT 19
 MAXIMUM OF 750 ITERATIONS ALLOWED FOR CLOSURE
  5 ITERATION PARAMETERS
   7933 ELEMENTS IN X ARRAY ARE USED BY SIP
  25395 ELEMENTS OF X ARRAY USED OUT OF  56000
```

BOUNDARY ARRAY FOR LAYER 1 WILL BE READ ON UNIT 1 USING FORMAT: (20I4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
10	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
11	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
12	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0

13	0	0	0	0	0	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
14	0	0	0	0	0	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								
15	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
16	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
17	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
18	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
19	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
20	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
21	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
22	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
23	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
24	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
25	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	1								
26	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
27	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	1	0								

28	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
29	0	0	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1
	0	0								
30	0	0	0	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	0
	0	0								
31	0	0	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
32	0	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
33	0	1	1	1	1	1	1	1	1	1
	1	0	1	1	1	1	1	1	0	0
	0	0								
34	0	1	1	1	1	1	1	1	1	1
	1	0	1	1	1	1	1	1	0	0
	0	0								
35	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
36	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
37	-1	1	1	1	1	1	1	0	0	1
	1	1	1	1	1	1	1	0	0	0
	0	0								
38	-1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
39	-1	1	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	0	0
	0	0								
40	-1	1	0	0	1	1	1	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
41	-1	1	0	0	1	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
42	-1	0	0	0	0	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								

43	0	0	0	0	0	1	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
44	0	0	0	0	0	0	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
45	0	0	0	0	0	0	1	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
46	0	0	0	0	0	0	0	1	1	1
	1	0	0	0	0	0	0	0	0	0
	0	0								
47	0	0	0	0	0	0	0	1	1	1
	1	0	0	0	0	0	0	0	0	0
	0	0								
48	0	0	0	0	0	0	0	0	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
49	0	0	0	0	0	0	0	0	1	1
	1	1	1	0	0	0	0	0	0	0
	0	0								
50	0	0	0	0	0	0	0	0	1	1
	1	1	1	1	1	0	0	0	0	0
	0	0								
51	0	0	0	0	0	0	0	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
52	0	0	0	0	0	0	0	1	1	1
	1	1	1	1	1	1	0	0	0	0
	0	0								
53	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
54	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
55	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								
56	0	0	0	0	0	0	0	1	1	1
	1	1	0	0	0	0	0	0	0	0
	0	0								

AQUIFER HEAD WILL BE SET TO 999.99 AT ALL NO-FLOW NODES (IBOUND=0).

INITIAL HEAD FOR LAYER 1 WILL BE READ ON UNIT 1 USING FORMAT: (10F8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	181.0	177.0	176.0
	175.0	175.0	174.0	174.0	174.0	172.0	169.0	166.0	160.0	158.0
	157.0	158.0								
2	1000.	1000.	1000.	1000.	1000.	1000.	210.0	181.0	177.0	176.0
	175.0	174.0	174.0	173.0	172.0	172.0	170.0	167.0	164.0	161.0
	160.0	159.0								
3	1000.	1000.	1000.	1000.	1000.	1000.	210.0	182.0	177.0	176.0
	175.0	175.0	174.0	173.0	173.0	172.0	170.0	168.0	166.0	164.0
	162.0	159.0								
4	1000.	1000.	1000.	1000.	1000.	1000.	210.0	182.0	177.0	177.0
	176.0	175.0	174.0	174.0	173.0	172.0	171.0	169.0	167.0	166.0
	165.0	164.0								
5	1000.	1000.	1000.	1000.	1000.	1000.	210.0	183.0	179.0	178.0
	176.0	175.0	175.0	174.0	174.0	173.0	172.0	170.0	169.0	168.0
	167.0	166.0								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	183.0	180.0	179.0
	177.0	176.0	176.0	175.0	175.0	174.0	173.0	172.0	170.0	169.0
	168.0	168.0								
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	181.0	180.0
	179.0	177.0	177.0	176.0	176.0	175.0	174.0	173.0	172.0	171.0
	170.0	169.0								
8	1000.	1000.	1000.	1000.	256.0	250.0	225.0	184.0	182.0	181.0
	180.0	178.0	178.0	177.0	177.0	177.0	176.0	175.0	174.0	173.0
	172.0	171.0								
9	1000.	1000.	1000.	1000.	250.0	240.0	225.0	184.0	183.0	182.0
	180.0	180.0	179.0	179.0	178.0	178.0	177.0	176.0	175.0	175.0
	174.0	1000.								
10	1000.	1000.	1000.	1000.	255.0	240.0	220.0	185.0	184.0	183.0
	182.0	181.0	180.0	180.0	180.0	179.0	179.0	178.0	177.0	176.0
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	240.0	215.0	185.0	185.0	184.0
	183.0	182.0	182.0	181.0	181.0	181.0	180.0	179.0	179.0	179.0
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	230.0	188.0	187.0	186.0	185.0
	184.0	184.0	183.0	182.0	182.0	182.0	181.0	181.0	180.0	180.0
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	230.0	188.0	187.0	186.0	186.0
	185.0	184.0	184.0	184.0	184.0	183.0	182.0	182.0	182.0	181.0

	181.0	1000.								
14	1000.	1000.	1000.	1000.	1000.	220.0	189.0	188.0	188.0	187.0
	186.0	185.0	185.0	185.0	185.0	184.0	184.0	183.0	183.0	182.0
	182.0	1000.								
15	1000.	1000.	1000.	1000.	240.0	220.0	190.0	189.0	189.0	188.0
	187.0	186.0	186.0	185.0	185.0	185.0	185.0	184.0	183.0	183.0
	1000.	1000.								
16	1000.	1000.	1000.	1000.	240.0	215.0	190.0	190.0	189.0	189.0
	188.0	187.0	186.0	186.0	186.0	186.0	186.0	185.0	184.0	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	240.0	192.0	191.0	190.0	190.0	189.0
	188.0	187.0	187.0	186.0	186.0	186.0	186.0	186.0	185.0	1000.
	1000.	1000.								
18	1000.	1000.	1000.	240.0	230.0	192.0	191.0	191.0	190.0	190.0
	189.0	188.0	187.0	187.0	187.0	187.0	187.0	186.0	186.0	1000.
	1000.	1000.								
19	1000.	1000.	1000.	240.0	230.0	193.0	192.0	191.0	191.0	190.0
	190.0	189.0	188.0	188.0	188.0	187.0	187.0	187.0	186.0	1000.
	1000.	1000.								
20	1000.	1000.	1000.	240.0	210.0	194.0	193.0	192.0	192.0	191.0
	190.0	190.0	189.0	189.0	189.0	188.0	188.0	188.0	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	197.0	196.0	195.0	194.0	193.0	192.0	192.0
	191.0	191.0	190.0	190.0	190.0	189.0	189.0	189.0	1000.	1000.
	1000.	1000.								
22	1000.	1000.	230.0	197.0	196.0	196.0	195.0	194.0	193.0	193.0
	192.0	192.0	191.0	191.0	190.0	190.0	190.0	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	230.0	197.0	197.0	196.0	195.0	194.0	194.0	193.0
	193.0	192.0	192.0	191.0	191.0	191.0	191.0	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	230.0	198.0	197.0	196.0	196.0	195.0	194.0	194.0
	193.0	193.0	192.0	192.0	192.0	192.0	192.0	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	198.0	197.0	197.0	196.0	195.0	195.0	194.0
	194.0	193.0	193.0	193.0	193.0	193.0	193.0	194.0	194.0	195.0
	230.0	250.0								
26	1000.	1000.	1000.	198.0	198.0	197.0	196.0	196.0	195.0	195.0
	194.0	194.0	194.0	194.0	194.0	193.0	194.0	194.0	195.0	220.0
	240.0	1000.								
27	1000.	1000.	1000.	198.0	198.0	197.0	197.0	196.0	196.0	195.0
	195.0	194.0	194.0	194.0	194.0	194.0	194.0	194.0	195.0	195.0
	250.0	1000.								
28	1000.	1000.	1000.	198.0	198.0	198.0	197.0	196.0	196.0	196.0
	195.0	195.0	195.0	195.0	195.0	195.0	195.0	195.0	195.0	230.0

	1000.	1000.								
29	1000.	1000.	1000.	1000.	198.0	197.0	197.0	197.0	196.0	196.0
	196.0	196.0	195.0	195.0	195.0	195.0	195.0	195.0	230.0	240.0
	1000.	1000.								
30	1000.	1000.	1000.	198.0	198.0	198.0	197.0	197.0	197.0	197.0
	196.0	196.0	196.0	196.0	196.0	196.0	196.0	196.0	225.0	1000.
	1000.	1000.								
31	1000.	1000.	198.0	198.0	198.0	198.0	198.0	197.0	197.0	197.0
	197.0	197.0	197.0	197.0	197.0	196.0	196.0	225.0	1000.	1000.
	1000.	1000.								
32	1000.	198.0	198.0	198.0	198.0	198.0	198.0	198.0	197.0	197.0
	197.0	197.0	197.0	197.0	197.0	197.0	197.0	225.0	1000.	1000.
	1000.	1000.								
33	1000.	199.0	199.0	198.0	198.0	198.0	198.0	198.0	198.0	198.0
	198.0	1000.	197.0	197.0	197.0	197.0	197.0	230.0	1000.	1000.
	1000.	1000.								
34	1000.	199.0	199.0	199.0	199.0	198.0	198.0	198.0	198.0	198.0
	198.0	1000.	198.0	198.0	198.0	198.0	220.0	230.0	1000.	1000.
	1000.	1000.								
35	200.0	199.0	199.0	199.0	199.0	199.0	199.0	1000.	1000.	199.0
	199.0	199.0	199.0	198.0	198.0	199.0	199.0	1000.	1000.	1000.
	1000.	1000.								
36	200.0	199.0	199.0	199.0	199.0	199.0	199.0	1000.	1000.	199.0
	199.0	199.0	199.0	199.0	199.0	199.0	199.0	1000.	1000.	1000.
	1000.	1000.								
37	198.0	198.0	199.0	199.0	199.0	200.0	200.0	1000.	1000.	200.0
	200.0	200.0	200.0	200.0	200.0	200.0	230.0	1000.	1000.	1000.
	1000.	1000.								
38	197.0	197.0	198.0	199.0	200.0	200.0	200.0	201.0	201.0	200.0
	200.0	200.0	200.0	200.0	200.0	200.0	240.0	250.0	1000.	1000.
	1000.	1000.								
39	195.0	196.0	1000.	1000.	200.0	200.0	201.0	201.0	201.0	201.0
	201.0	200.0	200.0	200.0	200.0	200.0	240.0	250.0	1000.	1000.
	1000.	1000.								
40	196.0	196.0	1000.	1000.	201.0	201.0	201.0	201.0	201.0	201.0
	201.0	201.0	200.0	200.0	210.0	230.0	1000.	1000.	1000.	1000.
	1000.	1000.								
41	198.0	197.0	1000.	1000.	201.0	201.0	201.0	201.0	201.0	201.0
	201.0	201.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	200.0	1000.	1000.	1000.	1000.	201.0	202.0	202.0	202.0	202.0
	202.0	202.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	202.0	202.0	202.0	202.0	202.0
	202.0	220.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.

```
      1000.     1000.

 44   1000.     1000.     1000.     1000.     1000.     1000.     202.0     202.0     202.0     202.0
      202.0     203.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 45   1000.     1000.     1000.     1000.     1000.     1000.     202.0     202.0     203.0     203.0
      203.0     203.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 46   1000.     1000.     1000.     1000.     1000.     1000.     1000.     203.0     203.0     203.0
      203.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 47   1000.     1000.     1000.     1000.     1000.     1000.     1000.     203.0     203.0     203.0
      204.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 48   1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     202.0     203.0
      204.0     205.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 49   1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     202.0     204.0
      205.0     206.0     207.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 50   1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     204.0     205.0
      206.0     207.0     208.0     208.0     208.0     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 51   1000.     1000.     1000.     1000.     1000.     1000.     1000.     206.0     205.0     207.0
      207.0     208.0     208.0     208.0     208.0     209.0     1000.     1000.     1000.     1000.
      1000.     1000.

 52   1000.     1000.     1000.     1000.     1000.     1000.     1000.     207.0     207.0     207.0
      208.0     208.0     208.0     208.0     208.0     209.0     1000.     1000.     1000.     1000.
      1000.     1000.

 53   1000.     1000.     1000.     1000.     1000.     1000.     1000.     208.0     208.0     208.0
      209.0     209.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 54   1000.     1000.     1000.     1000.     1000.     1000.     1000.     209.0     209.0     209.0
      209.0     209.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 55   1000.     1000.     1000.     1000.     1000.     1000.     1000.     209.0     210.0     210.0
      210.0     209.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

 56   1000.     1000.     1000.     1000.     1000.     1000.     1000.     210.0     210.0     210.0
      210.0     210.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.

DEFAULT OUTPUT CONTROL -- THE FOLLOWING OUTPUT COMES AT THE END OF EACH STRESS PERIOD:
TOTAL VOLUMETRIC BUDGET
     HEAD
     DRAWDOWN

                              COLUMN TO ROW ANISOTROPY =    1.000000
```

DELR WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	250.00	250.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00								

DELC WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	250.00	250.00	250.00	250.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00
500.00	500.00	500.00	500.00	500.00	500.00				

PRIMARY STORAGE COEF = 0.2200000E-04 FOR LAYER 1

HYD. COND. ALONG ROWS FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10F8.0)

	1 11 21	2 12 22	3 13	4 14	5 15	6 16	7 17	8 18	9 19	10 20
1	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	1.5020E-03	1.5020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
2	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
3	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
4	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
5	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								
6	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03
	2.8020E-03	2.8020E-03								

7	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	5.0000E-04
	5.0000E-04	5.0000E-04								
8	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04	5.0000E-04
	5.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	5.0000E-04	5.0000E-04
	8.0000E-04	8.0000E-04								
9	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04
	8.0000E-04	2.0000E-08								
10	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	7.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04
	2.0000E-08	2.0000E-08								
11	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04
	2.0000E-08	2.0000E-08								
12	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04
	2.0000E-08	2.0000E-08								
13	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	2.0000E-08								
14	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	2.0000E-08								
15	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	2.0000E-08	2.0000E-08								
16	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08
	2.0000E-08	2.0000E-08								
17	2.0000E-08	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08
	2.0000E-08	2.0000E-08								
18	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08
	2.0000E-08	2.0000E-08								
19	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	8.0000E-04	2.0000E-08
	2.0000E-08	2.0000E-08								
20	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								
21	2.0000E-08	2.0000E-08	2.0000E-08	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04	8.0000E-04
	8.0000E-04	1.0020E-03	2.8020E-03	2.8020E-03	2.8020E-03	2.8020E-03	8.0000E-04	8.0000E-04	2.0000E-08	2.0000E-08
	2.0000E-08	2.0000E-08								

```
22  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

23  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

24  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

25  2.0000E-08  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  4.0000E-04

26  2.0000E-08  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  2.0000E-08

27  2.0000E-08  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    1.0020E-03  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  2.0000E-08

28  2.0000E-08  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  1.0020E-03
    1.0020E-03  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    2.0000E-08  2.0000E-08

29  2.0000E-08  2.0000E-08  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  1.0020E-03
    1.0020E-03  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    2.0000E-08  2.0000E-08

30  2.0000E-08  2.0000E-08  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  1.0020E-03  1.0020E-03
    1.0020E-03  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  8.0000E-04  2.0000E-08
    2.0000E-08  2.0000E-08

31  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  1.0020E-03  1.0020E-03
    1.0020E-03  1.0020E-03  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

32  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  1.0020E-03  1.0020E-03
    1.0020E-03  8.0000E-04  2.8000E-03   2.003      2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

33  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  1.0020E-03  1.0020E-03
    8.0000E-04  2.0000E-08  2.8020E-03  2.8020E-03  2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

34  2.0000E-08  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04
    8.0000E-04  2.0000E-08  2.8000E-03   2.003      2.8020E-03  2.8020E-03  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

35  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08  8.0000E-04
    8.0000E-04  8.0000E-04  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  8.0000E-04  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08

36  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  8.0000E-04  2.0000E-08  2.0000E-08  8.0000E-04
    8.0000E-04  8.0000E-04  2.0000E-03  2.0000E-03  2.0000E-03  2.0000E-03  8.0000E-04  2.0000E-08  2.0000E-08  2.0000E-08
    2.0000E-08  2.0000E-08
```

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37  8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 2.0000E-08 2.0000E-08 8.0000E-04
    8.0000E-04 8.0000E-04 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 8.0000E-04 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

38  8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04 8.0000E-04
    8.0000E-04 8.0000E-04 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 8.0000E-04 8.0000E-04 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

39  2.0000E-03 2.0000E-03 2.0000E-08 2.0000E-08 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 1.2000E-03
    2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-03 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

40  1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

41  1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

42  1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

43  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

44  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

45  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

46  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

47  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

48  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

49  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

50  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08

51  2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
    1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08
    2.0000E-08 2.0000E-08
```

52 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

53 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

54 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

55 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

56 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 1.5000E-03 1.5000E-03 1.5000E-03
1.5000E-03 1.5000E-03 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08 2.0000E-08
2.0000E-08 2.0000E-08

BOTTOM FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10f8.0)

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22

1 250.0 250.0 250.0 250.0 250.0 250.0 250.0 180.0 150.0 100.0
50.00 0.0000E+00 -20.00 -30.00 -40.00 -50.00 -50.00 -40.00 -30.00 -20.00
-10.00 0.0000E+00

2 250.0 250.0 250.0 250.0 250.0 250.0 190.0 180.0 150.0 100.0
50.00 0.0000E+00 -20.00 -30.00 -40.00 -500.0 -50.00 -40.00 -30.00 -20.00
0.0000E+00 0.0000E+00

3 250.0 250.0 250.0 250.0 250.0 220.0 190.0 180.0 150.0 100.0
50.00 0.0000E+00 -20.00 -25.00 -30.00 -40.00 -50.00 -40.00 -25.00 0.0000E+00
0.0000E+00 25.00

4 250.0 250.0 250.0 250.0 250.0 220.0 190.0 180.0 150.0 100.0
50.00 0.0000E+00 -20.00 -25.00 -30.00 -30.00 -40.00 -40.00 -20.00 0.0000E+00
25.00 35.00

5 250.0 250.0 250.0 250.0 250.0 250.0 190.0 180.0 175.0 125.0
50.00 0.0000E+00 -20.00 -25.00 -30.00 -35.00 -30.00 -25.00 -20.00 0.0000E+00
25.00 50.00

6 250.0 250.0 250.0 250.0 250.0 250.0 250.0 180.0 170.0 125.0
50.00 0.0000E+00 -20.00 -25.00 -30.00 -35.00 -30.00 -20.00 0.0000E+00 25.00
50.00 100.0

7 250.0 250.0 250.0 200.0 255.0 230.0 215.0 180.0 170.0 125.0
50.00 0.0000E+00 -20.00 -25.00 -30.00 -35.00 -20.00 0.0000E+00 25.00 50.00
100.0 125.0

8	250.0	250.0	250.0	250.0	235.0	230.0	205.0	180.0	150.0	100.0
	50.00	0.0000E+00	-20.00	-25.00	-30.00	-25.00	-20.00	0.0000E+00	50.00	100.0
	150.0	150.0								
9	250.0	250.0	250.0	250.0	230.0	220.0	205.0	180.0	150.0	100.0
	50.00	0.0000E+00	-15.00	-20.00	-25.00	-20.00	0.0000E+00	25.00	50.00	100.0
	150.0	250.0								
10	250.0	250.0	250.0	250.0	235.0	220.0	200.0	175.0	150.0	100.0
	50.00	0.0000E+00	-15.00	-20.00	-20.00	-15.00	0.0000E+00	50.00	100.0	125.0
	150.0	250.0								
11	250.0	250.0	250.0	250.0	250.0	220.0	195.0	175.0	150.0	100.0
	50.00	0.0000E+00	-10.00	-15.00	-15.00	0.0000E+00	50.00	75.00	100.0	125.0
	250.0	250.0								
12	250.0	250.0	250.0	250.0	250.0	200.0	180.0	165.0	150.0	100.0
	50.00	0.0000E+00	-10.00	-5.000	0.0000E+00	0.0000E+00	50.00	100.0	125.0	150.0
	250.0	250.0								
13	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	25.00	50.00	100.0	125.0	150.0
	170.0	225.0								
14	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	50.00	100.0	125.0	150.0	175.0
	170.0	225.0								
15	250.0	250.0	250.0	250.0	220.0	200.0	175.0	150.0	125.0	100.0
	75.00	50.00	0.0000E+00	-5.000	0.0000E+00	50.00	100.0	125.0	150.0	165.0
	250.0	250.0								
16	250.0	250.0	250.0	250.0	220.0	195.0	175.0	150.0	125.0	100.0
	75.00	50.00	25.00	0.0000E+00	0.0000E+00	50.00	100.0	150.0	160.0	200.0
	250.0	250.0								
17	250.0	250.0	250.0	250.0	220.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	8.000	8.000	50.00	100.0	150.0	160.0	200.0
	250.0	250.0								
18	250.0	250.0	250.0	220.0	200.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	10.00	25.00	50.00	100.0	150.0	160.0	250.0
	250.0	250.0								
19	250.0	250.0	250.0	220.0	200.0	180.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	10.00	25.00	50.00	100.0	150.0	160.0	250.0
	250.0	250.0								
20	250.0	250.0	250.0	210.0	190.0	175.0	165.0	150.0	125.0	100.0
	75.00	50.00	25.00	15.00	25.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
21	250.0	250.0	210.0	180.0	175.0	170.0	165.0	150.0	125.0	100.0
	75.00	50.00	35.00	20.00	35.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
22	250.0	250.0	210.0	180.0	175.0	170.0	165.0	150.0	125.0	100.0
	75.00	50.00	35.00	20.00	35.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								

23	250.0	250.0	210.0	180.0	175.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	30.00	40.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
24	250.0	250.0	210.0	180.0	175.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	35.00	40.00	50.00	100.0	150.0	200.0	250.0
	250.0	250.0								
25	250.0	250.0	200.0	175.0	170.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	40.00	40.00	50.00	75.00	100.0	150.0	180.0	185.0
	210.0	230.0								
26	250.0	250.0	200.0	175.0	170.0	170.0	150.0	125.0	100.0	80.00
	65.00	50.00	50.00	50.00	75.00	100.0	125.0	150.0	180.0	200.0
	220.0	250.0								
27	250.0	250.0	200.0	175.0	170.0	165.0	150.0	125.0	100.0	90.00
	80.00	70.00	65.00	75.00	85.00	100.0	125.0	150.0	170.0	180.0
	200.0	200.0								
28	250.0	250.0	200.0	175.0	170.0	165.0	150.0	125.0	100.0	90.00
	85.00	80.00	80.00	100.0	100.0	125.0	150.0	170.0	180.0	200.0
	250.0	200.0								
29	250.0	250.0	200.0	240.0	170.0	165.0	150.0	125.0	100.0	90.00
	85.00	90.00	100.0	100.0	125.0	150.0	170.0	180.0	200.0	210.0
	250.0	250.0								
30	250.0	250.0	200.0	175.0	160.0	150.0	135.0	120.0	100.0	95.00
	85.00	100.0	125.0	150.0	150.0	160.0	170.0	180.0	210.0	250.0
	250.0	250.0								
31	250.0	240.0	180.0	175.0	170.0	150.0	135.0	120.0	100.0	90.00
	100.0	100.0	150.0	150.0	150.0	180.0	190.0	205.0	250.0	250.0
	250.0	250.0								
32	250.0	180.0	175.0	170.0	150.0	140.0	125.0	115.0	100.0	95.00
	100.0	150.0	170.0	150.0	150.0	180.0	190.0	205.0	250.0	250.0
	250.0	250.0								
33	250.0	180.0	175.0	170.0	150.0	140.0	130.0	110.0	100.0	100.0
	150.0	200.0	160.0	160.0	160.0	180.0	190.0	210.0	250.0	250.0
	250.0	250.0								
34	250.0	180.0	175.0	150.0	140.0	130.0	120.0	115.0	110.0	110.0
	150.0	200.0	170.0	175.0	175.0	180.0	205.0	210.0	250.0	250.0
	250.0	250.0								
35	180.0	175.0	150.0	140.0	130.0	125.0	130.0	150.0	150.0	115.0
	120.0	150.0	150.0	150.0	150.0	180.0	180.0	250.0	250.0	250.0
	250.0	250.0								
36	180.0	150.0	140.0	135.0	130.0	125.0	135.0	150.0	150.0	120.0
	120.0	125.0	150.0	150.0	180.0	180.0	180.0	250.0	250.0	250.0
	250.0	250.0								
37	150.0	140.0	135.0	135.0	135.0	130.0	130.0	150.0	150.0	140.0
	135.0	125.0	130.0	150.0	150.0	180.0	210.0	250.0	250.0	250.0
	250.0	250.0								

38	140.0	140.0	140.0	150.0	150.0	150.0	140.0	135.0	135.0	136.0
	136.0	140.0	150.0	150.0	150.0	180.0	220.0	230.0	250.0	250.0
	250.0	250.0								
39	140.0	150.0	150.0	200.0	175.0	160.0	150.0	135.0	138.0	138.0
	140.0	150.0	185.0	175.0	180.0	190.0	220.0	230.0	250.0	250.0
	250.0	250.0								
40	150.0	180.0	200.0	203.0	180.0	175.0	150.0	150.0	140.0	140.0
	150.0	175.0	180.0	180.0	190.0	210.0	250.0	250.0	250.0	250.0
	250.0	250.0								
41	175.0	180.0	200.0	200.0	180.0	175.0	160.0	150.0	145.0	140.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
42	175.0	250.0	250.0	250.0	250.0	175.0	175.0	155.0	150.0	145.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
43	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0	150.0	145.0
	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
44	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	165.0	150.0
	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
45	250.0	250.0	250.0	250.0	250.0	240.0	180.0	175.0	165.0	150.0
	175.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
46	250.0	250.0	250.0	250.0	250.0	250.0	250.0	175.0	175.0	150.0
	175.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
47	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	150.0
	180.0	225.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
48	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	175.0	150.0
	150.0	180.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
49	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	175.0	180.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
50	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	175.0	175.0
	170.0	180.0	190.0	200.0	200.0	200.0	250.0	250.0	250.0	250.0
	250.0	250.0								
51	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	180.0	185.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								
52	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	174.0	175.0
	150.0	150.0	170.0	185.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								

53	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	165.0	180.0	200.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
54	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	200.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
55	250.0	250.0	250.0	250.0	250.0	250.0	250.0	180.0	175.0	175.0
	150.0	150.0	200.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
56	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	180.0	160.0
	140.0	150.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

SECONDARY STORAGE COEF = 0.2000000 FOR LAYER 1

TOP FOR LAYER 1 WILL BE READ ON UNIT 11 USING FORMAT: (10f8.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	195.0	190.0
	110.0	60.00	10.00	-10.00	-20.00	-30.00	-30.00	-20.00	-10.00	0.0000E+00
	10.00	20.00								
2	250.0	250.0	250.0	250.0	250.0	250.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-10.00	-20.00	-300.0	-30.00	-20.00	-10.00	10.00
	20.00	20.00								
3	250.0	250.0	250.0	250.0	250.0	240.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-5.000	-10.00	-20.00	-30.00	-15.00	10.00	20.00
	35.00	45.00								
4	250.0	250.0	250.0	250.0	250.0	240.0	210.0	200.0	195.0	190.0
	110.0	60.00	10.00	-5.000	-10.00	-10.00	-20.00	-10.00	10.00	35.00
	45.00	55.00								
5	250.0	250.0	250.0	250.0	250.0	250.0	210.0	200.0	195.0	190.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	-10.00	-5.000	10.00	35.00
	60.00	70.00								
6	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	193.0	190.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	-10.00	10.00	35.00	60.00
	110.0	120.0								
7	250.0	250.0	250.0	310.0	274.0	250.0	235.0	200.0	193.0	189.0
	70.00	60.00	10.00	-5.000	-10.00	-15.00	10.00	35.00	60.00	110.0
	135.0	145.0								
8	250.0	250.0	250.0	250.0	256.0	250.0	225.0	200.0	190.0	185.0
	110.0	60.00	10.00	-5.000	-10.00	-5.000	10.00	60.00	110.0	160.0
	170.0	170.0								

9	250.0	250.0	250.0	250.0	250.0	240.0	225.0	200.0	190.0	120.0
	110.0	60.00	10.00	0.0000E+00	-5.000	10.00	35.00	60.00	110.0	160.0
	170.0	250.0								
10	250.0	250.0	250.0	250.0	255.0	240.0	220.0	195.0	190.0	180.0
	70.00	60.00	10.00	0.0000E+00	0.0000E+00	10.00	60.00	110.0	135.0	145.0
	170.0	250.0								
11	250.0	250.0	250.0	250.0	250.0	240.0	215.0	197.0	190.0	180.0
	110.0	60.00	10.00	5.000	10.00	60.00	85.00	110.0	135.0	145.0
	250.0	250.0								
12	250.0	250.0	250.0	250.0	250.0	230.0	210.0	195.0	185.0	180.0
	170.0	60.00	10.00	15.00	20.00	60.00	110.0	135.0	160.0	170.0
	250.0	250.0								
13	250.0	250.0	250.0	250.0	250.0	230.0	200.0	195.0	185.0	179.0
	175.0	85.00	60.00	15.00	35.00	60.00	110.0	135.0	160.0	180.0
	180.0	235.0								
14	250.0	250.0	250.0	250.0	250.0	220.0	200.0	190.0	160.0	135.0
	110.0	85.00	60.00	15.00	60.00	110.0	135.0	160.0	185.0	195.0
	185.0	235.0								
15	250.0	250.0	250.0	250.0	240.0	220.0	198.0	190.0	185.0	135.0
	110.0	85.00	60.00	15.00	60.00	110.0	135.0	160.0	175.0	175.0
	250.0	250.0								
16	250.0	250.0	250.0	250.0	240.0	215.0	197.0	190.0	185.0	135.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	210.0
	250.0	250.0								
17	250.0	250.0	250.0	250.0	240.0	210.0	195.0	190.0	180.0	175.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	210.0
	250.0	250.0								
18	250.0	250.0	250.0	240.0	230.0	200.0	195.0	190.0	180.0	175.0
	110.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	250.0
	250.0	250.0								
19	250.0	250.0	250.0	240.0	230.0	210.0	194.0	188.0	180.0	175.0
	170.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	170.0	250.0
	250.0	250.0								
20	250.0	250.0	250.0	240.0	210.0	198.0	194.0	188.0	180.0	175.0
	170.0	85.00	60.00	35.00	60.00	110.0	160.0	170.0	210.0	250.0
	250.0	250.0								
21	250.0	250.0	220.0	230.0	200.0	195.0	190.0	185.0	180.0	175.0
	110.0	85.00	60.00	45.00	60.00	110.0	160.0	170.0	210.0	250.0
	250.0	250.0								
22	250.0	250.0	230.0	200.0	197.0	193.0	190.0	185.0	180.0	175.0
	170.0	170.0	60.00	45.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								
23	250.0	250.0	230.0	200.0	197.0	193.0	187.0	183.0	177.0	173.0
	170.0	170.0	60.00	50.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								

24	250.0	250.0	230.0	200.0	195.0	190.0	185.0	180.0	177.0	173.0
	170.0	170.0	60.00	55.00	60.00	110.0	120.0	170.0	210.0	250.0
	250.0	250.0								
25	250.0	250.0	200.0	197.0	193.0	190.0	185.0	180.0	175.0	170.0
	90.00	75.00	60.00	60.00	85.00	110.0	160.0	190.0	195.0	205.0
	230.0	250.0								
26	250.0	250.0	200.0	197.0	193.0	190.0	184.0	180.0	175.0	110.0
	90.00	75.00	70.00	85.00	110.0	135.0	160.0	190.0	200.0	220.0
	240.0	250.0								
27	250.0	250.0	200.0	197.0	193.0	188.0	183.0	180.0	135.0	110.0
	100.0	90.00	85.00	95.00	110.0	135.0	160.0	190.0	200.0	220.0
	250.0	310.0								
28	250.0	250.0	200.0	197.0	193.0	185.0	180.0	160.0	135.0	110.0
	105.0	100.0	110.0	120.0	135.0	160.0	180.0	190.0	210.0	230.0
	260.0	310.0								
29	250.0	250.0	300.0	250.0	180.0	180.0	175.0	160.0	135.0	110.0
	105.0	110.0	120.0	135.0	160.0	180.0	190.0	210.0	230.0	240.0
	250.0	250.0								
30	250.0	250.0	210.0	185.0	185.0	170.0	160.0	145.0	130.0	115.0
	110.0	135.0	160.0	170.0	170.0	180.0	190.0	200.0	225.0	250.0
	250.0	250.0								
31	250.0	250.0	190.0	190.0	185.0	180.0	160.0	145.0	130.0	110.0
	120.0	160.0	170.0	190.0	190.0	200.0	215.0	225.0	250.0	250.0
	250.0	250.0								
32	250.0	190.0	190.0	185.0	180.0	160.0	150.0	135.0	125.0	115.0
	160.0	180.0	190.0	200.0	190.0	200.0	215.0	225.0	250.0	250.0
	250.0	250.0								
33	250.0	190.0	190.0	185.0	180.0	160.0	150.0	140.0	120.0	160.0
	170.0	220.0	220.0	210.0	200.0	200.0	200.0	230.0	250.0	250.0
	250.0	250.0								
34	250.0	190.0	190.0	185.0	160.0	150.0	140.0	135.0	130.0	160.0
	170.0	220.0	210.0	200.0	185.0	215.0	220.0	230.0	250.0	250.0
	250.0	250.0								
35	200.0	190.0	185.0	160.0	150.0	145.0	150.0	170.0	170.0	145.0
	177.0	177.0	190.0	190.0	200.0	190.0	200.0	250.0	250.0	250.0
	250.0	250.0								
36	200.0	190.0	160.0	155.0	150.0	145.0	155.0	170.0	170.0	179.0
	178.0	178.0	179.0	190.0	200.0	190.0	200.0	250.0	250.0	250.0
	250.0	250.0								
37	198.0	160.0	155.0	155.0	155.0	150.0	150.0	170.0	170.0	160.0
	155.0	180.0	180.0	185.0	190.0	200.0	230.0	250.0	250.0	250.0
	250.0	250.0								
38	197.0	160.0	160.0	170.0	170.0	170.0	160.0	155.0	155.0	156.0
	156.0	160.0	185.0	190.0	190.0	200.0	240.0	250.0	250.0	250.0
	250.0	250.0								

39	195.0	170.0	170.0	210.0	195.0	185.0	170.0	160.0	158.0	158.0
	160.0	210.0	220.0	210.0	200.0	210.0	240.0	250.0	250.0	250.0
	250.0	250.0								
40	196.0	220.0	220.0	223.0	190.0	195.0	185.0	170.0	160.0	160.0
	185.0	195.0	190.0	200.0	210.0	230.0	250.0	250.0	250.0	250.0
	250.0	250.0								
41	200.0	250.0	220.0	220.0	190.0	190.0	185.0	170.0	165.0	160.0
	210.0	220.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
42	200.0	250.0	250.0	250.0	250.0	185.0	195.0	185.0	170.0	165.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
43	250.0	250.0	250.0	250.0	250.0	190.0	190.0	197.0	192.0	195.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
44	250.0	250.0	250.0	250.0	250.0	250.0	190.0	194.0	192.0	195.0
	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
45	250.0	250.0	250.0	250.0	250.0	250.0	190.0	195.0	185.0	195.0
	200.0	260.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
46	250.0	250.0	250.0	250.0	250.0	250.0	250.0	185.0	195.0	185.0
	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
47	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	195.0	190.0
	200.0	225.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
48	250.0	250.0	250.0	250.0	250.0	250.0	250.0	210.0	196.0	194.0
	197.0	200.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
49	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	196.0	195.0
	198.0	200.0	220.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
50	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	197.0	196.0
	198.0	200.0	220.0	230.0	240.0	210.0	250.0	250.0	250.0	250.0
	250.0	250.0								
51	250.0	250.0	250.0	250.0	250.0	250.0	250.0	190.0	197.0	196.0
	198.0	200.0	212.0	230.0	240.0	275.0	280.0	250.0	250.0	250.0
	250.0	250.0								
52	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	198.0	197.0
	200.0	220.0	230.0	245.0	250.0	278.0	285.0	250.0	250.0	250.0
	250.0	250.0								
53	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	199.0	198.0
	220.0	225.0	185.0	190.0	210.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

54	250.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	199.0	198.0
	200.0	225.0	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
55	250.0	250.0	250.0	250.0	250.0	250.0	250.0	200.0	199.0	199.0
	200.0	225.0	210.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								
56	250.0	250.0	250.0	250.0	250.0	250.0	250.0	220.0	200.0	200.0
	200.0	225.0	210.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
	250.0	250.0								

SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE

MAXIMUM ITERATIONS ALLOWED FOR CLOSURE = 750
ACCELERATION PARAMETER = 0.50000
HEAD CHANGE CRITERION FOR CLOSURE = 0.10000E-02
SIP HEAD CHANGE PRINTOUT INTERVAL = 999

CALCULATE ITERATION PARAMETERS FROM MODEL CALCULATED WSEED

STRESS PERIOD NO. 1, LENGTH = 0.1555200E+08

NUMBER OF TIME STEPS = 150

MULTIPLIER FOR DELT = 1.150

INITIAL TIME STEP SIZE = 0.1833164E-02

3 WELLS

LAYER	ROW	COL	STRESS RATE	WELL NO.
1	17	15	-1.2255	1
1	16	14	0.00000E+00	2
1	16	15	0.00000E+00	3

9 RIVER REACHES

LAYER	ROW	COL	STAGE	CONDUCTANCE	BOTTOM ELEVATION	RIVER REACH
1	56	10	212.0	0.2800E-01	210.0	1
1	55	10	211.0	0.2800E-01	209.0	2
1	54	10	209.0	0.2800E-01	207.0	3
1	53	9	207.0	0.2800E-01	205.0	4
1	52	9	206.0	0.2800E-01	204.0	5
1	51	9	204.0	0.2800E-01	202.0	6
1	50	9	202.0	0.2800E-01	200.0	7
1	49	9	200.0	0.2800E-01	198.0	8
1	48	9	198.0	0.2800E-01	196.0	9

13 HEAD-DEPENDENT BOUNDARY NODES

LAYER	ROW	COL	ELEVATION	CONDUCTANCE	BOUND NO.
1	1	16	172.0	0.3420	1
1	1	17	169.0	0.3420	2
1	1	18	166.0	999.1	3
1	1	19	160.0	999.1	4
1	1	20	158.0	999.1	5
1	1	21	157.0	999.1	6
1	1	22	158.0	999.1	7
1	2	22	159.0	999.1	8
1	3	22	159.0	999.1	9
1	4	22	164.0	999.1	10
1	5	22	166.0	999.1	11
1	6	22	168.0	999.1	12
1	1	15	174.0	999.1	13

AVERAGE SEED = 0.00073643
MINIMUM SEED = 0.00000003

5 ITERATION PARAMETERS CALCULATED FROM AVERAGE SEED:

0.0000000E+00 0.8352659E+00 0.9728627E+00 0.9955295E+00 0.9992636E+00

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 1 ITERATIONS FOR TIME STEP   1 IN STRESS PERIOD  1
 1 ITERATIONS FOR TIME STEP   2 IN STRESS PERIOD  1
 1 ITERATIONS FOR TIME STEP   3 IN STRESS PERIOD  1
 2 ITERATIONS FOR TIME STEP   4 IN STRESS PERIOD  1
 2 ITERATIONS FOR TIME STEP   5 IN STRESS PERIOD  1
 2 ITERATIONS FOR TIME STEP   6 IN STRESS PERIOD  1
 2 ITERATIONS FOR TIME STEP   7 IN STRESS PERIOD  1
 2 ITERATIONS FOR TIME STEP   8 IN STRESS PERIOD  1
 3 ITERATIONS FOR TIME STEP   9 IN STRESS PERIOD  1
 3 ITERATIONS FOR TIME STEP  10 IN STRESS PERIOD  1
 3 ITERATIONS FOR TIME STEP  11 IN STRESS PERIOD  1
 3 ITERATIONS FOR TIME STEP  12 IN STRESS PERIOD  1
 3 ITERATIONS FOR TIME STEP  13 IN STRESS PERIOD  1
 4 ITERATIONS FOR TIME STEP  14 IN STRESS PERIOD  1
 4 ITERATIONS FOR TIME STEP  15 IN STRESS PERIOD  1
 4 ITERATIONS FOR TIME STEP  16 IN STRESS PERIOD  1
 4 ITERATIONS FOR TIME STEP  17 IN STRESS PERIOD  1
 4 ITERATIONS FOR TIME STEP  18 IN STRESS PERIOD  1
 5 ITERATIONS FOR TIME STEP  19 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  20 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  21 IN STRESS PERIOD  1
 5 ITERATIONS FOR TIME STEP  22 IN STRESS PERIOD  1
 5 ITERATIONS FOR TIME STEP  23 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  24 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  25 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  26 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  27 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  28 IN STRESS PERIOD  1
 6 ITERATIONS FOR TIME STEP  29 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  30 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  31 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  32 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  33 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  34 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  35 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  36 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  37 IN STRESS PERIOD  1
 7 ITERATIONS FOR TIME STEP  38 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  39 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  40 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  41 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  42 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  43 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  44 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  45 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  46 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  47 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  48 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP  49 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  50 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  51 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  52 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  53 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  54 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  55 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  56 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  57 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  58 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  59 IN STRESS PERIOD  1
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10 ITERATIONS FOR TIME STEP  60 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  61 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  62 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  63 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  64 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  65 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  66 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  67 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  68 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  69 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  70 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP  71 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  72 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  73 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  74 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  75 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  76 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP  77 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  78 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  79 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  80 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  81 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  82 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  83 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  84 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP  85 IN STRESS PERIOD  1
12 ITERATIONS FOR TIME STEP  86 IN STRESS PERIOD  1
12 ITERATIONS FOR TIME STEP  87 IN STRESS PERIOD  1
12 ITERATIONS FOR TIME STEP  88 IN STRESS PERIOD  1
14 ITERATIONS FOR TIME STEP  89 IN STRESS PERIOD  1
14 ITERATIONS FOR TIME STEP  90 IN STRESS PERIOD  1
14 ITERATIONS FOR TIME STEP  91 IN STRESS PERIOD  1
14 ITERATIONS FOR TIME STEP  92 IN STRESS PERIOD  1
14 ITERATIONS FOR TIME STEP  93 IN STRESS PERIOD  1
14 ITERATIONS FOR TIME STEP  94 IN STRESS PERIOD  1
13 ITERATIONS FOR TIME STEP  95 IN STRESS PERIOD  1
13 ITERATIONS FOR TIME STEP  96 IN STRESS PERIOD  1
13 ITERATIONS FOR TIME STEP  97 IN STRESS PERIOD  1
12 ITERATIONS FOR TIME STEP  98 IN STRESS PERIOD  1
12 ITERATIONS FOR TIME STEP  99 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 100 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 101 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP 102 IN STRESS PERIOD  1
 8 ITERATIONS FOR TIME STEP 103 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP 104 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP 105 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP 106 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP 107 IN STRESS PERIOD  1
 9 ITERATIONS FOR TIME STEP 108 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP 109 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP 110 IN STRESS PERIOD  1
10 ITERATIONS FOR TIME STEP 111 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 112 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 113 IN STRESS PERIOD  1
16 ITERATIONS FOR TIME STEP 114 IN STRESS PERIOD  1
17 ITERATIONS FOR TIME STEP 115 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 116 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 117 IN STRESS PERIOD  1
16 ITERATIONS FOR TIME STEP 118 IN STRESS PERIOD  1
11 ITERATIONS FOR TIME STEP 119 IN STRESS PERIOD  1
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    12 ITERATIONS FOR TIME STEP 120 IN STRESS PERIOD  1
    12 ITERATIONS FOR TIME STEP 121 IN STRESS PERIOD  1
    15 ITERATIONS FOR TIME STEP 122 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 123 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 124 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 125 IN STRESS PERIOD  1
    18 ITERATIONS FOR TIME STEP 126 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 127 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 128 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 129 IN STRESS PERIOD  1
    18 ITERATIONS FOR TIME STEP 130 IN STRESS PERIOD  1
    19 ITERATIONS FOR TIME STEP 131 IN STRESS PERIOD  1
    23 ITERATIONS FOR TIME STEP 132 IN STRESS PERIOD  1
    23 ITERATIONS FOR TIME STEP 133 IN STRESS PERIOD  1
    23 ITERATIONS FOR TIME STEP 134 IN STRESS PERIOD  1
    25 ITERATIONS FOR TIME STEP 135 IN STRESS PERIOD  1
    27 ITERATIONS FOR TIME STEP 136 IN STRESS PERIOD  1
    29 ITERATIONS FOR TIME STEP 137 IN STRESS PERIOD  1
    23 ITERATIONS FOR TIME STEP 138 IN STRESS PERIOD  1
    23 ITERATIONS FOR TIME STEP 139 IN STRESS PERIOD  1
    22 ITERATIONS FOR TIME STEP 140 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 141 IN STRESS PERIOD  1
    17 ITERATIONS FOR TIME STEP 142 IN STRESS PERIOD  1
    21 ITERATIONS FOR TIME STEP 143 IN STRESS PERIOD  1
    23 ITERATIONS FOR TIME STEP 144 IN STRESS PERIOD  1
    25 ITERATIONS FOR TIME STEP 145 IN STRESS PERIOD  1

**********NODE    5  17    1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  2  TIME STEP =146  STRESS PERIOD =  1
    27 ITERATIONS FOR TIME STEP 146 IN STRESS PERIOD  1
    27 ITERATIONS FOR TIME STEP 147 IN STRESS PERIOD  1
    31 ITERATIONS FOR TIME STEP 148 IN STRESS PERIOD  1

**********NODE    6  11    1 (COL,ROW,LAYER) WENT DRY AT ITERATION =  2  TIME STEP =149  STRESS PERIOD =  1
    32 ITERATIONS FOR TIME STEP 149 IN STRESS PERIOD  1
    29 ITERATIONS FOR TIME STEP 150 IN STRESS PERIOD  1

MAXIMUM HEAD CHANGE FOR EACH ITERATION:

 HEAD CHANGE LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL HEAD CHANGE LAYER,ROW,COL
 ------------------------------------------------------------------------------------------------------------------------------------
 -0.7929     (  1, 25, 21) -0.5015     (  1, 25, 20) -0.2786     (  1, 38, 16) -0.3312     (  1, 32, 11) -0.2535     (  1, 34, 11)
 -0.1741     (  1, 36, 17) -0.7798E-01 (  1, 36, 17) -0.7337E-01 (  1, 36, 17) -0.8756E-01 (  1, 34, 11) -0.1516     (  1, 21, 18)
 -0.5546E-01 (  1, 36, 17) -0.3122E-01 (  1, 36, 17) -0.3066E-01 (  1, 34, 11) -0.4015E-01 (  1, 32, 11) -0.2694E-01 (  1, 34, 11)
 -0.2186E-01 (  1, 19, 19) -0.9872E-02 (  1, 19, 19) -0.9691E-02 (  1, 21, 18) -0.8686E-02 (  1, 34, 11) -0.1574E-01 (  1, 21, 18)
 -0.7489E-02 (  1, 19, 19) -0.4668E-02 (  1, 19, 19) -0.2944E-02 (  1, 34, 11) -0.4334E-02 (  1, 21, 18) -0.2490E-02 (  1, 17, 17)
 -0.3016E-02 (  1, 19, 19) -0.1362E-02 (  1, 19, 19) -0.1199E-02 (  1, 19, 19) -0.9552E-03 (  1, 19, 16)
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HEAD IN LAYER 1 AT END OF TIME STEP150 IN STRESS PERIOD 1

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	180.8	176.9	176.1
	175.2	174.5	174.0	173.9	174.0	171.9	169.0	166.0	160.0	158.0
	157.0	158.0								
2	1000.	1000.	1000.	1000.	1000.	1000.	194.9	185.2	177.8	176.4
	175.3	174.4	173.7	173.0	172.2	171.4	169.5	166.6	163.4	161.2
	159.9	159.0								
3	1000.	1000.	1000.	1000.	1000.	1000.	194.8	185.7	178.5	176.8
	175.6	174.5	173.8	173.0	172.4	171.3	169.5	167.4	165.5	163.6
	161.8	159.0								
4	1000.	1000.	1000.	1000.	1000.	1000.	194.7	186.1	179.0	177.2
	175.9	174.7	174.0	173.3	172.7	171.7	170.0	168.4	166.9	165.8
	164.6	164.0								
5	1000.	1000.	1000.	1000.	1000.	1000.	194.7	187.2	180.8	178.1
	176.5	175.0	174.4	173.8	173.2	172.3	170.9	169.5	168.3	167.3
	166.7	166.0								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	183.8	181.1	179.3
	177.4	175.7	175.0	174.5	173.9	173.1	171.9	170.8	169.6	168.4
	167.8	168.0								
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	182.9	180.8
	178.7	176.6	175.8	175.2	174.7	173.9	172.9	172.0	170.9	170.0
	169.1	168.9								
8	1000.	1000.	1000.	1000.	239.2	230.7	208.4	193.0	185.8	182.2
	179.8	177.7	176.7	176.0	175.5	174.7	173.8	173.2	172.3	171.6
	170.7	170.0								
9	1000.	1000.	1000.	1000.	234.4	225.0	208.3	192.8	187.1	183.4
	180.3	178.6	177.5	176.7	176.2	175.6	174.8	174.0	173.5	172.8
	172.0	1000.								
10	1000.	1000.	1000.	1000.	235.7	222.0	204.0	191.8	187.0	184.4
	181.6	179.3	178.2	177.4	176.9	176.3	175.7	175.1	174.6	174.1
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	1.0000E+30	197.8	190.5	186.7	184.2
	182.3	180.3	178.8	177.9	177.4	177.0	176.5	176.0	175.7	175.6
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	201.8	193.8	190.0	186.5	184.1
	182.6	180.8	179.2	178.3	177.8	177.3	177.0	176.8	176.7	176.7
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	201.3	192.6	189.5	186.7	184.5
	182.9	180.8	179.2	178.5	178.0	177.6	177.4	177.4	177.5	177.8
	178.9	1000.								

14	1000.	1000.	1000.	1000.	1000.	201.0	192.3	189.6	187.4	185.2
	183.0	180.6	179.1	178.4	177.9	177.7	177.7	177.8	178.1	178.9
	179.5	1000.								
15	1000.	1000.	1000.	1000.	220.1	200.7	192.4	189.7	187.8	185.9
	183.5	180.9	179.1	178.0	177.4	177.5	177.9	178.1	178.3	178.6
	1000.	1000.								
16	1000.	1000.	1000.	1000.	220.0	197.9	192.7	189.9	188.0	186.3
	183.9	181.2	179.1	177.5	176.7	177.4	178.0	178.3	178.5	1000.
	1000.	1000.								
17	1000.	1000.	1000.	1000.	1.0000E+30	196.6	193.1	190.1	188.2	186.6
	184.5	181.6	179.4	177.2	174.6	177.5	178.4	178.7	178.8	1000.
	1000.	1000.								
18	1000.	1000.	1000.	220.2	203.7	196.8	193.2	190.3	188.4	186.9
	185.1	182.3	180.2	178.6	177.5	178.4	179.0	179.2	179.2	1000.
	1000.	1000.								
19	1000.	1000.	1000.	220.0	202.9	196.7	193.4	190.6	188.7	187.2
	185.8	183.5	181.5	180.6	180.1	180.1	180.2	180.2	179.7	1000.
	1000.	1000.								
20	1000.	1000.	1000.	210.3	199.9	196.4	193.5	191.0	189.2	187.9
	186.6	185.0	183.3	182.7	182.3	182.2	182.0	181.7	1000.	1000.
	1000.	1000.								
21	1000.	1000.	1000.	200.2	198.6	196.0	193.5	191.4	189.9	188.8
	187.8	186.6	185.2	184.7	184.4	184.1	183.6	182.8	1000.	1000.
	1000.	1000.								
22	1000.	1000.	210.7	199.4	197.6	195.5	193.4	191.8	190.5	189.6
	188.9	188.2	187.2	186.6	186.3	186.2	185.7	1000.	1000.	1000.
	1000.	1000.								
23	1000.	1000.	210.6	198.8	197.0	195.1	193.4	192.1	191.2	190.4
	189.7	189.2	188.7	188.4	188.2	188.1	188.2	1000.	1000.	1000.
	1000.	1000.								
24	1000.	1000.	210.5	198.1	196.5	194.9	193.6	192.6	191.8	191.1
	190.4	190.0	190.1	190.1	190.1	189.9	190.7	1000.	1000.	1000.
	1000.	1000.								
25	1000.	1000.	1000.	197.0	196.1	195.0	193.9	193.1	192.5	192.0
	191.6	191.4	191.8	191.9	192.0	192.0	193.4	196.0	199.6	204.4
	213.9	231.1								
26	1000.	1000.	1000.	196.7	196.1	195.2	194.4	193.8	193.4	193.0
	193.0	193.1	193.4	193.5	193.6	193.8	195.0	197.1	199.6	1000.
	1000.	1000.								
27	1000.	1000.	1000.	196.7	196.2	195.6	195.0	194.6	194.4	194.3
	194.4	194.6	194.9	195.0	195.1	195.4	196.5	198.7	201.6	205.6
	209.1	1000.								
28	1000.	1000.	1000.	196.7	196.4	196.1	195.7	195.5	195.5	195.6
	195.7	196.0	196.3	196.4	196.5	196.6	197.7	200.1	203.2	207.0
	1000.	1000.								

29	1000.	1000.	1000.	1000.	196.9	196.7	196.4	196.3	196.4	196.6
	196.9	197.3	197.5	197.6	197.6	197.8	199.0	201.5	205.6	211.4
	1000.	1000.								
30	1000.	1000.	1000.	197.9	197.6	197.4	197.2	197.2	197.3	197.6
	198.0	198.4	198.6	198.8	198.9	199.0	200.1	201.3	210.4	1000.
	1000.	1000.								
31	1000.	1000.	198.5	198.3	198.1	197.9	197.9	197.9	198.1	198.4
	198.8	199.2	199.6	200.1	200.1	200.2	202.0	206.4	1000.	1000.
	1000.	1000.								
32	1000.	198.9	198.7	198.6	198.5	198.4	198.4	198.5	198.7	199.2
	199.4	199.7	200.6	200.8	200.9	201.1	203.3	208.2	1000.	1000.
	1000.	1000.								
33	1000.	199.0	199.0	198.9	198.8	198.8	198.9	199.0	199.3	199.8
	199.9	1000.	201.6	201.5	201.5	201.8	203.4	211.3	1000.	1000.
	1000.	1000.								
34	1000.	199.2	199.2	199.2	199.2	199.2	199.3	199.3	199.7	200.3
	200.8	1000.	202.0	202.0	202.1	202.4	206.9	213.2	1000.	1000.
	1000.	1000.								
35	200.0	199.5	199.3	199.4	199.5	199.6	199.7	1000.	1000.	201.4
	201.8	202.3	202.4	202.4	202.5	202.8	203.4	1000.	1000.	1000.
	1000.	1000.								
36	200.0	199.3	199.3	199.5	199.8	200.1	200.3	1000.	1000.	202.0
	202.2	202.6	202.8	202.9	203.0	203.2	203.5	1000.	1000.	1000.
	1000.	1000.								
37	198.0	198.4	199.0	199.6	200.3	200.7	200.9	1000.	1000.	202.5
	202.8	203.1	203.3	203.4	203.5	203.7	210.7	1000.	1000.	1000.
	1000.	1000.								
38	197.0	197.2	198.6	199.7	200.9	201.4	201.8	202.5	202.8	203.0
	203.3	203.6	203.7	203.9	203.9	204.1	220.2	232.1	1000.	1000.
	1000.	1000.								
39	195.0	195.7	1000.	1000.	201.7	202.0	202.3	202.6	203.0	203.3
	203.7	204.0	204.2	204.4	204.5	204.9	220.1	230.6	1000.	1000.
	1000.	1000.								
40	196.0	195.9	1000.	1000.	202.1	202.3	202.5	202.8	203.1	203.5
	203.8	204.0	204.3	204.6	204.8	210.2	1000.	1000.	1000.	1000.
	1000.	1000.								
41	198.0	197.0	1000.	1000.	202.3	202.6	202.8	203.0	203.3	203.6
	203.9	204.1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
42	200.0	1000.	1000.	1000.	1000.	202.8	203.0	203.1	203.4	203.6
	203.9	204.1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
43	1000.	1000.	1000.	1000.	1000.	203.0	203.1	203.2	203.4	203.6
	203.7	204.1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

44	1000.	1000.	1000.	1000.	1000.	1000.	203.2	203.3	203.4	203.5
	203.6	203.9	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
45	1000.	1000.	1000.	1000.	1000.	1000.	203.2	203.2	203.3	203.4
	203.5	203.7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
46	1000.	1000.	1000.	1000.	1000.	1000.	1000.	203.1	203.1	203.2
	203.3	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
47	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.8	202.7	203.0
	203.3	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
48	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	201.7	203.0
	203.5	203.9	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
49	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	202.2	203.3
	204.1	204.6	205.4	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
50	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	203.4	204.3
	205.0	205.4	205.9	206.2	206.4	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
51	1000.	1000.	1000.	1000.	1000.	1000.	1000.	205.5	204.8	205.3
	205.8	206.0	206.3	206.4	206.5	206.8	1000.	1000.	1000.	1000.
	1000.	1000.								
52	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.2	206.0	206.2
	206.4	206.5	206.5	206.5	206.6	206.9	1000.	1000.	1000.	1000.
	1000.	1000.								
53	1000.	1000.	1000.	1000.	1000.	1000.	1000.	206.9	206.9	207.0
	207.0	207.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
54	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.4	207.5	207.8
	207.5	207.4	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
55	1000.	1000.	1000.	1000.	1000.	1000.	1000.	207.8	208.0	208.5
	207.9	207.8	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
56	1000.	1000.	1000.	1000.	1000.	1000.	1000.	208.1	208.3	208.7
	208.2	208.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

DRAWDOWN IN LAYER 1 AT END OF TIME STEP150 IN STRESS PERIOD 1

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22								
1	1000.	1000.	1000.	1000.	1000.	1000.	1000.	0.1767	0.1451	-6.0867E-02
	-0.2473	0.5084	-8.8043E-03	0.1315	2.2888E-04	0.1374	-4.1550E-02	1.3733E-04	-4.1199E-04	-2.7466E-04
	-2.7466E-04	0.0000E+00								
2	1000.	1000.	1000.	1000.	1000.	1000.	15.09	-4.206	-0.8211	-0.3616
	-0.3459	-0.4022	0.2920	2.5604E-02	-0.1721	0.6143	0.4842	0.4073	0.6301	-0.2349
	5.2399E-02	1.5259E-05								
3	1000.	1000.	1000.	1000.	1000.	1000.	15.20	-3.680	-1.470	-0.7593
	-0.5658	0.5060	0.2425	-4.4205E-02	0.6213	0.6633	0.4867	0.6040	0.5019	0.3782
	0.2058	-4.7302E-04								
4	1000.	1000.	1000.	1000.	1000.	1000.	15.29	-4.126	-2.048	-0.2479
	0.1239	0.2689	-8.0872E-03	0.6696	0.2982	0.3182	0.9601	0.6451	6.0104E-02	0.1764
	0.3932	1.3733E-04								
5	1000.	1000.	1000.	1000.	1000.	1000.	15.26	-4.238	-1.757	-6.7169E-02
	-0.4633	-4.8767E-02	0.5697	0.1930	0.7694	0.6912	1.053	0.4717	0.7203	0.7205
	0.3205	-4.5776E-05								
6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-0.7618	-1.075	-0.3211
	-0.4403	0.3158	0.9510	0.5477	1.088	0.9311	1.090	1.232	0.4036	0.5879
	0.2110	1.2207E-04								
7	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	-1.900	-0.8486
	0.3205	0.4407	1.180	0.7868	1.319	1.136	1.113	0.9862	1.086	1.018
	0.8697	8.2703E-02								
8	1000.	1000.	1000.	1000.	16.82	19.31	16.57	-9.043	-3.788	-1.213
	0.2002	0.3081	1.333	0.9757	1.504	2.256	2.173	1.844	1.688	1.414
	1.290	1.037								
9	1000.	1000.	1000.	1000.	15.58	15.02	16.73	-8.773	-4.101	-1.391
	-0.2730	1.384	1.532	2.254	1.800	2.441	2.151	1.961	1.524	2.204
	2.038	1000.								
10	1000.	1000.	1000.	1000.	19.32	18.04	16.04	-6.789	-2.996	-1.361
	0.4311	1.697	1.830	2.570	3.085	2.688	3.281	2.934	2.411	1.869
	1000.	1000.								
11	1000.	1000.	1000.	1000.	1000.	1.0000E+30	17.24	-5.495	-1.657	-0.1998
	0.7281	1.742	3.194	3.098	3.627	4.040	3.490	2.968	3.274	3.450
	1000.	1000.								
12	1000.	1000.	1000.	1000.	1000.	28.23	-5,849	-3.001	-0.5262	0.8535
	1.437	3.174	3.786	3.690	4.250	4.704	3.980	4.186	3.314	3.255
	1000.	1000.								
13	1000.	1000.	1000.	1000.	1000.	28.74	-4.639	-2.509	-0.7489	1.452
	2.146	3.192	4.824	5.452	5.966	5.368	4.622	4.628	4.526	3.164
	2.069	1000.								

WEHRAN ENGINEERING
CONSULTING ENGINEERS

Drawn by: GB
Checked by: AB
Date: 11/24/87

Scales
1" = 1,000'

ADAPTED FROM F. LARSEN, 1972

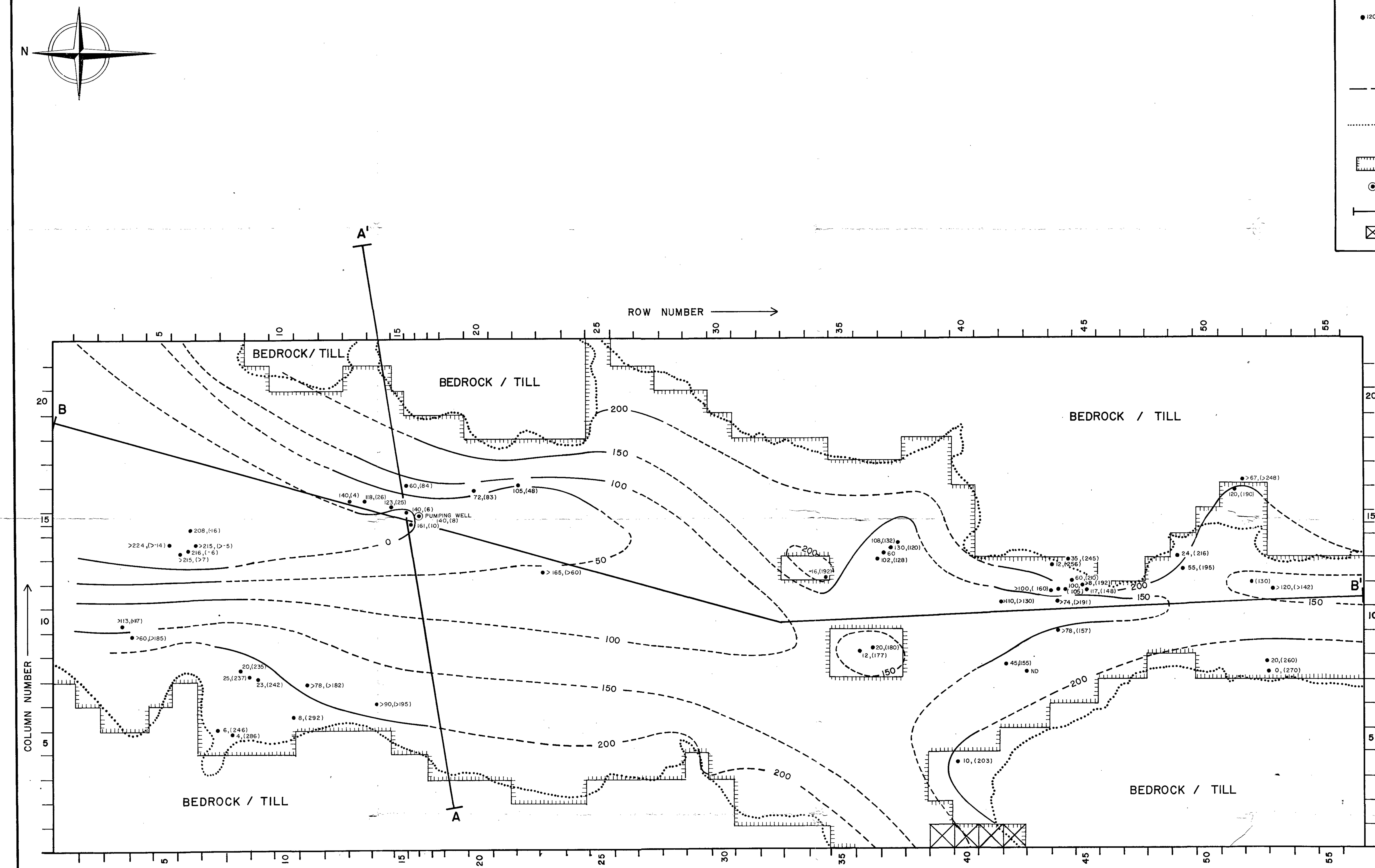
SOUTHAMPTON AQUIFER PROTECTION STUDY

SOUTHAMPTON MA.

PLATE I
SURFICIAL GEOLOGY MAP

Sheet 1 of 8

Project No. 06308 HF



LEGEND

- ● 120, (190) WELL LOCATION WITH THE DEPTH TO BEDROCK / TILL SURFACE (BELOW GROUND SURFACE), AND THE ELEVATION OF THE BEDROCK / TILL SURFACE
- BEDROCK / TILL SURFACE CONTOURS (DASHED WHERE INFERRED)
- GEOLOGIC CONTACT BEDROCK / TILL AND VALLEY FILL DEPOSITS
- ACTIVE NODES
- COLLEGE HIGHWAY WELL
- LOCATION OF GEOLOGIC CROSS SECTIONS
- CONSTANT HEAD NODE

WEHRAN ENGINEERING CONSULTING ENGINEERS	Drawn by: GB Checked by: AB Date: 11/24/87	Scales 1" = 1,000'	SOUTHAMPTON AQUIFER PROTECTION STUDY SOUTHAMPTON MA	PLATE 2 CONTOUR MAP OF BEDROCK / TILL SURFACE AND ACTIVE NODES	Sheet 2 of 8 Project No. 06308 HF

WEHRAN ENGINEERING
CONSULTING ENGINEERS

Drawn by: GB
Checked by: AB
Date: 11/24/87

Scales: 1" = 1,000'

NOTE: WELL LOCATIONS ARE APPROXIMATE BASED ON VERBAL DESCRIPTIONS. THEY MAY BE SHIFTED SLIGHTLY DUE TO DISTORTION DURING MAP REPRODUCTION.

SOUTHAMPTON AQUIFER PROTECTION STUDY

SOUTHAMPTON MA.

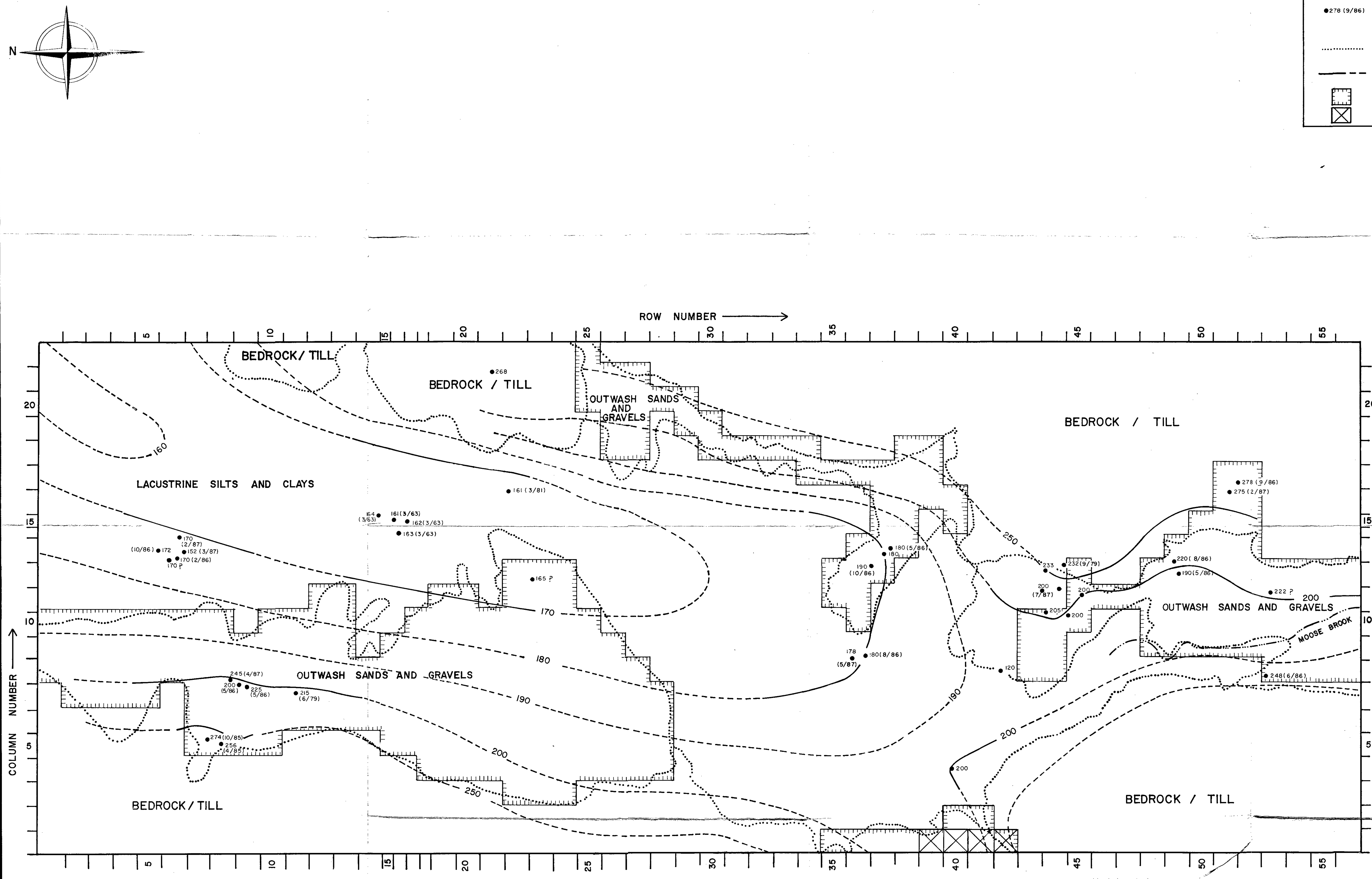
PLATE 3
SITE MAP

Sheet 3 of 8

Project No. 06308 HF

LEGEND:

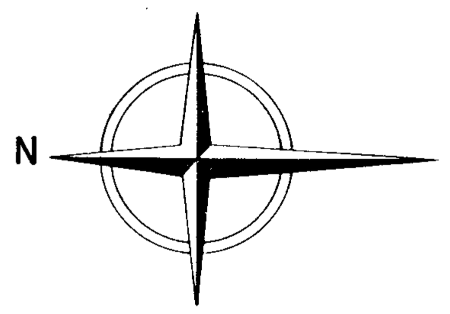
- WELL LOCATION WITH STATIC WATER ELEVATION AND DATE OF MEASUREMENT (●278 (9/86))
- GEOLOGIC CONTACT
- EQUIPOTENTIAL CONTOUR (DASHED WHERE INFERRED)
- ACTIVE NODES THAT RECEIVE PRECIPITATION
- CONSTANT HEAD NODE



WEHRAN ENGINEERING CONSULTING ENGINEERS	Drawn by: GB Checked by: AC Date: 11/24/87	Scales 1" = 1,000'		SOUTHAMPTON AQUIFER PROTECTION STUDY SOUTHAMPTON MA.	PLATE 4 CONTOUR MAP OF PIEZOMETRIC SURFACE	Sheet 4 of 8 Project No. 06308 HF

Tech-Repro, Inc.

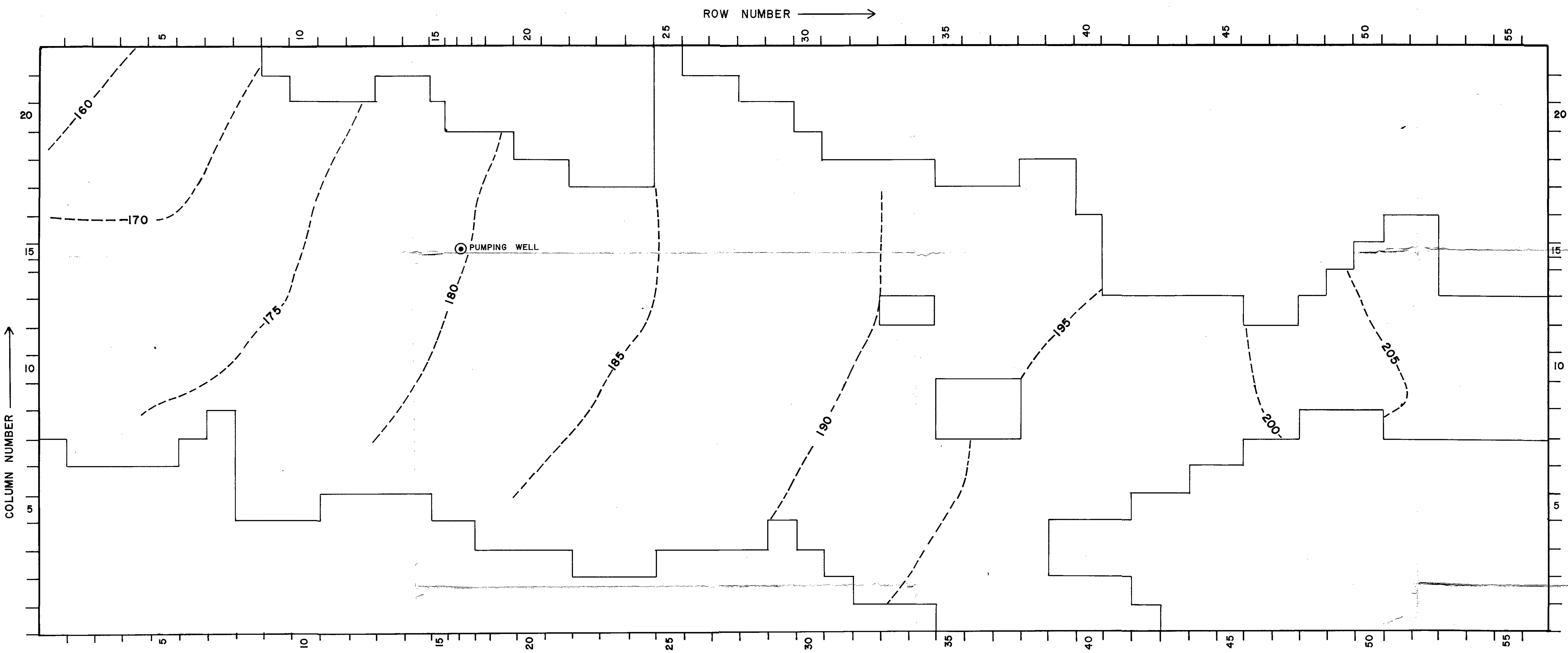

WEHRAN ENGINEERING
CONSULTING ENGINEERS
PLATE 5
WATERSHED MAP
LEGEND
ZONE II RECHARGE AREA (DASHED WHERE INFERRED)
ZONE III RECHARGE AREA BOUNDARY (DASHED WHERE INFERRED)
SOUTHAMPTON CORPORATE BOUNDARY
MODEL GRID OUTLINE
COLLEGE HIGHWAY WELL (MUNICIPAL WELL)
SCALE 1:25,000
PUMPING WELL
SOUTHAMPTON
MONTGOMERY
EASTHAMPTON
Pomeroy Mtn
Wolf Hill
TIGHE CARMODY RESERVOIR
White Reservoir
Norwich Pond
HUNTINGTON STATE FOREST
Horse Hill
Bungy Mtn
Montgomery
Shatterack Pond
Westfield Reservoir
Grindstone Mtn
Flat Hill
Alder Pond
Alder Meadow
HAMPSHIRE CO
HAMPDEN CO
BARNES MUNICIPAL AIRPORT
Horse Pond
Buck Pond
West Farms
Fairground
Ball Mtn
Tekoa Mtn
Woronoco
McLean Reservoir
Rock Valley



LEGEND:

- - - - - EQUIPOTENTIAL CONTOUR

⊙ COLLEGE HIGHWAY WELL



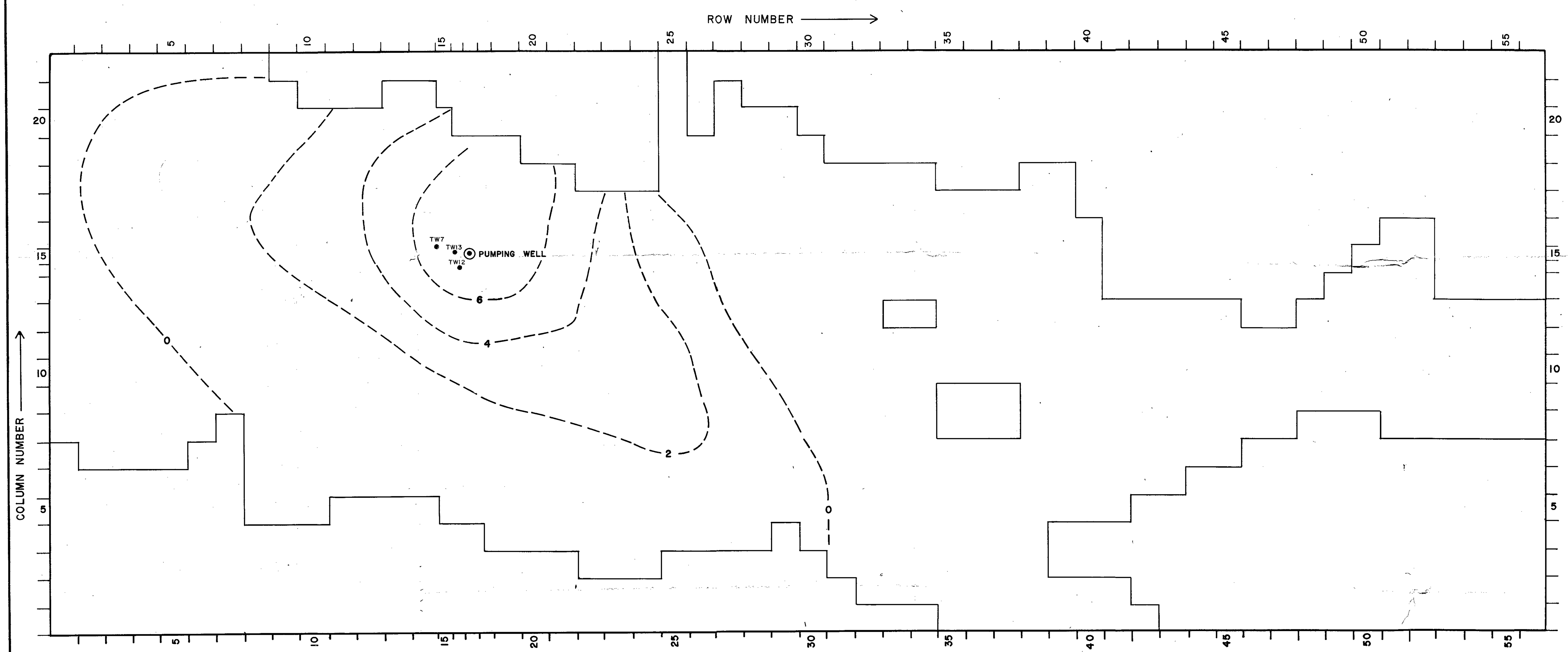
WEHRAN ENGINEERING CONSULTING ENGINEERS	Drawn by: GB Checked by: AB Date: 11/24/83	Scales 1" = 1,000'		SOUTHAMPTON AQUIFER PROTECTION STUDY SOUTHAMPTON MA.	PLATE 6 CONTOUR MAP OF CALIBRATION RUN HYDRAULIC HEAD	Sheet 6 of 8 Project No. 06308 HF

Tech-Repro, Inc.

LEGEND:

- – – – EQUIPOTENTIAL CONTOUR
- ⊙ COLLEGE HIGHWAY WELL
- • OBSERVATION WELL

NOTE 180 DAYS PUMPING AT 550 GPM WITH NO RECHARGE



WEHRAN ENGINEERING CONSULTING ENGINEERS	Drawn by GB Checked by AB Date 11/25/87	Scales 1" = 1,000'	SOUTHAMPTON AQUIFER PROTECTION STUDY SOUTHAMPTON MA.	PLATE 7 CONTOUR MAP OF DRAWDOWN UNDER SIMULATED PUMPING CONDITIONS

Sheet 7


LEGEND:
SHORT NAME | FULL NAME | MINIMUM LOT AREA (SQ. FT.)
R-R Residential - Rural 60,000
R-N Residential - Neighborhood 40,000
R-V Residential - Village 30,000
C-V Commercial - Village 25,000
C-H Commercial - Highway 40,000
I-P Industrial - Park 80,000
NOTES:
PL = PROPERTY LINE
SLC = STRAIGHT LINE CONNECTION
CL = CENTERLINE
CI = INTERSECTION OF CENTERLINES
This is to certify that this is the Zoning Map referred to in Section III of the Zoning By-law of the Town of Southampton, Massachusetts on FEBRUARY 13, 1979
Attest
Town Clerk
Town Seal
PLANNING BOARD
SOURCE OF BASE MAP: ALMER HUNTLEY, JR. & ASSOC., INC.
APPROVED BY ATTORNEY GENERAL: APRIL 19 1979
PLATE 8
ZONING MAP OF THE TOWN OF SOUTHAMPTON, MASSACHUSETTS
METCALF & EDDY, INC. • PLANNERS • BOSTON
DECEMBER 1975
0 1000 2000 3000 4000 FEET
INSET SCALE
0 200 400 600 800 FEET
A true copy attest
Barbara A Parker
WESTHAMPTON
EASTHAMPTON
HUNTINGTON
MONTGOMERY
WESTFIELD
HOLYOKE
MEADOW RD
MT. VIEW CIRCLE
HIGHWAY
COLLEGE
POMEROY
HELEN
KAREN LANE
DRIVE
MEADOW RD EXT
PUMPING WELL
See Inset
Glendale
Pomeroy
Mountain
Water
Area
Wolf
Hill
Flat
Whiteloaf
Power
Line
R-R
R-N
R-V
C-V
C-H
I-P