



Shaw Environmental, Inc.
3010 Briarpark Drive, Suite 4N
Houston, Texas 77042
713.996.4400
Fax: 713.996.4401

March 30, 2005

Mr. Subhash Pal
Project Manager
Superfund Cleanup Section
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. D
Austin, Texas 78753

Re: First Three-Month Water Level Measuring Event Report
January, 2005
Jones Road Superfund Site
Houston, Texas

Dear Mr. Pal:

Shaw Environmental, Inc. (Shaw) is pleased to present to the Texas Commission on Environmental Quality (TCEQ) this letter report which summarizes the field activities and findings from the data collected from five In-Situ miniTROLLs installed, in selected private wells, within the Jones Road study area. The In-Situ miniTROLLs were installed in four abandoned private wells and one active well, all believed to be completed within the Chicot Aquifer. The In-Situ miniTROLLs have been programmed to collect groundwater elevations in fifteen minute intervals, on a continuous basis. This letter report is not intended to be a final report nor does it preclude or serve in the place of the Remedial Investigation Technical Memorandum; rather, this interim letter report provides a summary of activities and findings based upon Shaw's observations in the field.

The objectives of the field activities were to:

- Continuously measure groundwater fluctuations at fifteen minute intervals in the Chicot Aquifer,
- To determine the effects of private well pumpage on the Chicot Aquifer,
- To observe the seasonal impact on groundwater levels in the Chicot Aquifer,
- To survey the elevations and locations for each of the selected wells, and
- To determine the groundwater flow direction and gradient of the Chicot Aquifer in this area.

Prior to conducting this data collection, representatives from Shaw, the TCEQ, and Wellco (a water well drilling subcontractor) visited the area and selected the wells to be used as data gathering points.

Y:\Common\Jones Road\Minitroll Data\First Three-Month Water Level Measuring Document (2).doc

The results of this private well survey can be found as an attachment to this report (See Attached Letter Report dated June 30, 2004). In addition, each selected well had to be retrofitted so that it could accommodate the In-Situ miniTROLL and provide undisturbed data collection. The procedures that were taken to assure quality data are presented in the report "Interim Report for Well Head Retrofit/Cleanout", dated December 8, 2004. This report documents all removed equipment from the selected wells, the current status of each well, the amount of drop pipe installed in each well, and the depth from surface where each In-Situ miniTROLL was set.

The following five well locations were chosen for data gathering points:

- 11619 Advance
- 11622 Jones Road
- 11634 Oak Valley
- 11103 Timber Crest
- 11234 Jones Road West

Please refer to Figure 1 for the exact locations of each of these five wells.

The private well located at 11234 Jones Road West was the only well used that was an active pumping well. All of the other four locations utilized the abandoned wells located on the properties, near their active pumping well. The well at 11619 Advance was observed to have a break in the well casing at 43 feet below ground surface (bgs) allowing water from the shallow water bearing units to flow down the inside of the well casing.

Summary of Data Collection

On October 4, 2004, In-Situ miniTROLLS were set in four of the five selected wells (11234 Jones Road West, 11622 Jones Road, 11634 Oak Valley, and 11103 Timber Crest) and the In-Situ miniTROLL was installed in the fifth well (located at 11619 Advance) on November 18, 2004. The In-Situ miniTROLLS were programmed to collect water level measurements above the transducer every fifteen minutes. This data is collected and stored in the unit's data logger and can be easily downloaded to a laptop computer in the field. Initially, every week for the first four weeks of operation, the In-Situ miniTROLLS were checked by a Shaw technician to verify that they were operating correctly and the cumulative data for each well location was downloaded to a laptop computer. In addition, the technician would take water level readings at each well location using an electronic water probe to verify the data. At each location (with the exception of the pumping well located at 11234 Jones Road West), an extra access port was added in the well top flange so that the water probe could be lowered down into the well adjacent to the drop tube with the In-Situ miniTROLL in it so that water levels could be checked without disturbing the transducer. At the end of each week a brief status report showing the collected data was submitted to the TCEQ. After four

weeks of downloading data, the frequency of site visits and data downloading was increased to once every two weeks, and is currently being collected monthly until the remainder of the fiscal year. Status reports were prepared on the same frequency of the site visits. Table 1 identifies the dates of each site visit and the corresponding reporting. This can be found under the Attachment "Status Reports". All five In-Situ miniTROLLs have been collecting data on 15 minute intervals and appear to be operating with no problems.

Observations

Individual graphs were plotted for each well from the In-Situ miniTROLL data (Figures 2 – 6). Each graph shows the relationship of the water level above the In-Situ miniTROLL over time. The left side of the graph (0 Days from Start of Test) represents the date (October 4, 2004) when the In-Situ miniTROLLs were installed. In all cases, you can see an increase in the water level in the aquifer of approximately 1 ½ feet within the first week of data collection, and then a gradual increase in water levels over time to the last reading on the graph which was collected on January 4, 2005. The graph for well located at 11234 Jones Road West is an active pumping well and the In-Situ miniTROLL was set just above the top of pump. Therefore, when the pump is on and a reading is being taken by the In-Situ miniTROLL you see the drawdown of the water level in the well.

In an attempt to better compare the water level elevations in each of the wells, Figure 7 presents all five wells plotted on the same graph. In order to reduce the range of water level readings in each of the wells so that a better comparison can be made of the water level trends, 20 feet of water elevation was subtracted from all data points at 11622 Jones Road (JR11622), 5 feet of water elevation was subtracted from all data points at 11619 Advance (AD11619), and 15 feet was added to all data points for the well located at 11234 Jones Road West (JRW11234). Using this visual presentation, you can easily see how each well follows the same general trend line throughout the study period. Figure 8 presents a plot of daily rainfall amounts (inches) and high and low barometric pressure (inches of mercury) recorded on a daily basis throughout the study period. The effect of fluctuating barometric pressure on the transducers located in the wells is minimal. The In-Situ MiniTROLLs are designed to adjust for changes in barometric pressure by using vented cables. The cables allow the transducers to be vented to the atmosphere, letting the forces on both sides of the pressure transducer to equalize, providing a more accurate reading. In addition, a review of the rainfall amounts in the area compared to the water levels in the selected wells would not provide an explanation for the increase in water elevations. Although significant rainfall was recorded around the second and third week of November, all of the study wells were completed at depths ranging from 150 - 200 feet and would not be immediately influenced by local rainfall amounts. The completion information on the five water wells is provided on Table 2. The historical weather data was assembled from the Harris County Office of Homeland Security and Emergency Management weather station #555 located where White Oak Bayou crosses Jones Road, approximately 1 ½ miles south of the site.

Another observation made from these graphs is the rate of recharge for the Chicot aquifer in response to pumping. The data collected from the pumping well at 11234 Jones Road West indicates that the Chicot aquifer is very prolific and recharges quickly back to static levels after pumping. The little dips observed in each of the other four wells is likely the result of the pumpage of the adjoining active well

located on the property (approximately 100 feet) and the general affect of pumpage across the study area.

Site Hydrology

Groundwater elevation data were plotted for three days, one in October, one in November, and one in December, 2004 (Figures 9, 10, and 11). The data points were selected as close to each other in reference to the time of the day (between 11:00 and 11:30 in the morning) and were taken during the work week. The only requirement was to select a time period when the pumping well at 11234 Jones Road West was not pumping and the aquifer appeared to be stable. The data presented on October 20, 2004 (Figure 9) shows only data from four of the five wells because the In-Situ miniTROLL had not yet been installed in the abandoned well located at 11619 Advance. The data on this date indicated that the groundwater flow was towards the south with a steeper downward gradient in the aquifer as you proceed towards the southern well located at 11234 Jones Road West. This same pattern was observed in data collected and mapped for November 19, 2004 (Figure 10) and again for data collected on December 16, 2004 (Figure 11). Although there were data for the well located at 11619 Advance on November 19 and December 16, 2004, it was not used in the construction of the groundwater gradient maps. The reason for this was because a hole in the upper casing of the well was observed at approximately 43 feet bgs during the video taping of the well. This water was likely flowing into the well from an upper water bearing zone which could account for the higher groundwater elevation observed in this well.

Conclusions and Recommendations

Based upon the objectives of the field activities, the conclusions can be made:

- The In-Situ miniTROLLS were installed in four abandoned wells and one active well and collected data groundwater level data at fifteen minute intervals in the Chicot Aquifer.
- The Chicot Aquifer is very prolific and the general trend of water fluctuations across the study area follow the same pattern for each well, regardless of whether or not it is an abandoned well or an active pumping well.
- The atmospheric pressure and current rainfall amounts do not appear to be affecting the water levels in the study wells based upon the current data.
- The seasonal rainfall impact on groundwater in the Chicot Aquifer cannot be determined by such a short duration of time. Approximately one year of data collection from the In-Situ miniTROLL along with rainfall amounts should provide a better representation of the potential seasonal affects on the aquifer.
- Based upon the survey elevations of the study wells, the general groundwater flow direction in the Chicot Aquifer is to the south. This may be somewhat influenced by pumpage in the study area.

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Mr. Subhash Pal
Texas Commission on Environmental Quality
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- Groundwater elevations in the 11619 Advance well appear to be anomalously high due to the break observed in the casing at 43 feet bgs which is allowing water to flow inside the well casing from above.

If you have any questions, please contact either me at 713-996-4519 or Bill Hardmant at 713-996-4599.

Sincerely,
Shaw Environmental, Inc.

Gregory Park Long
Project Manager

GPL/mfa
Attachments

TABLES

TABLE 1

**Schedule for the MiniTROLL Data Collection and Reporting
Jones Road Groundwater Plume
Houston, Texas**

Date - Week Beginning	Date of Field Reading	Date of Field Report
10/4/2004	10/4/2004	----
10/11/2004	10/11/2004	10/13/2004
10/18/2004	10/20/2004	10/21/2004
10/25/2004	10/27/2004	10/28/2004
11/1/2004	11/3/2004	11/11/2004
11/15/2004	11/18/2004	11/19/2004
11/29/2004	12/1/2004	12/3/2004
12/27/2004	1/4/2005	1/6/2005

Weekly Schedule

Bi-monthly Schedule

Monthly Schedule

MiniTROLL installed at 11619 Advance on 11-18-04

TABLE 2

**Completion Information on Selected Wells in Study Area
Jones Road Groundwater Plume
Houston, Texas**

Well Location	Date Drilled	*Total Depth (ft)	*Screen Interval (ft)	Static Water Level TOC (MSL ft)	Approximate MiniTROLL Depth TOC (MSL ft)
11619 Advance	Unknown	173	Unknown	19.60	-7.40
11622 Jones Road	Unknown	180	173 - 180	6.00	-51.00
11234 Jones Road West	Unknown	210	205 - 210	-24.20	-33.20
11634 Oak Valley	Unknown	Unknown	Unknown	-1.20	-28.20
11103 Timber Crest	Unknown	195	Unknown	-5.30	-30.30

*Note: Total depth of wells and screen intervals are estimates based upon the electrical logs and well videos
Static water levels were measured the day the miniTROLLs were installed.

FIGURES



Legend

- SURVEYED LOCATION OF PRIVATE WATER WELL USED FOR WATER LEVEL MEASUREMENTS
- STREET



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

FIGURE 1

LOCATION OF STUDY WELLS
JONES ROAD GROUNDWATER PLUME

CERCLIS #TXN000605460
HOUSTON, TEXAS

OFFICE Houston, TX
 DRAWN BY B. Lu 03/29/05
 CHECKED BY B. Hardman 03/29/05
 APPROVED BY G. Long 03/29/05
 FILE PATH D:\JonesRd\GIS\workspace\BLU\IMXD\SampleLoc.mxd

Plot Date: 03/05

FIGURE 2
AD11619 Period from November 18, 2004 to January 4, 2005

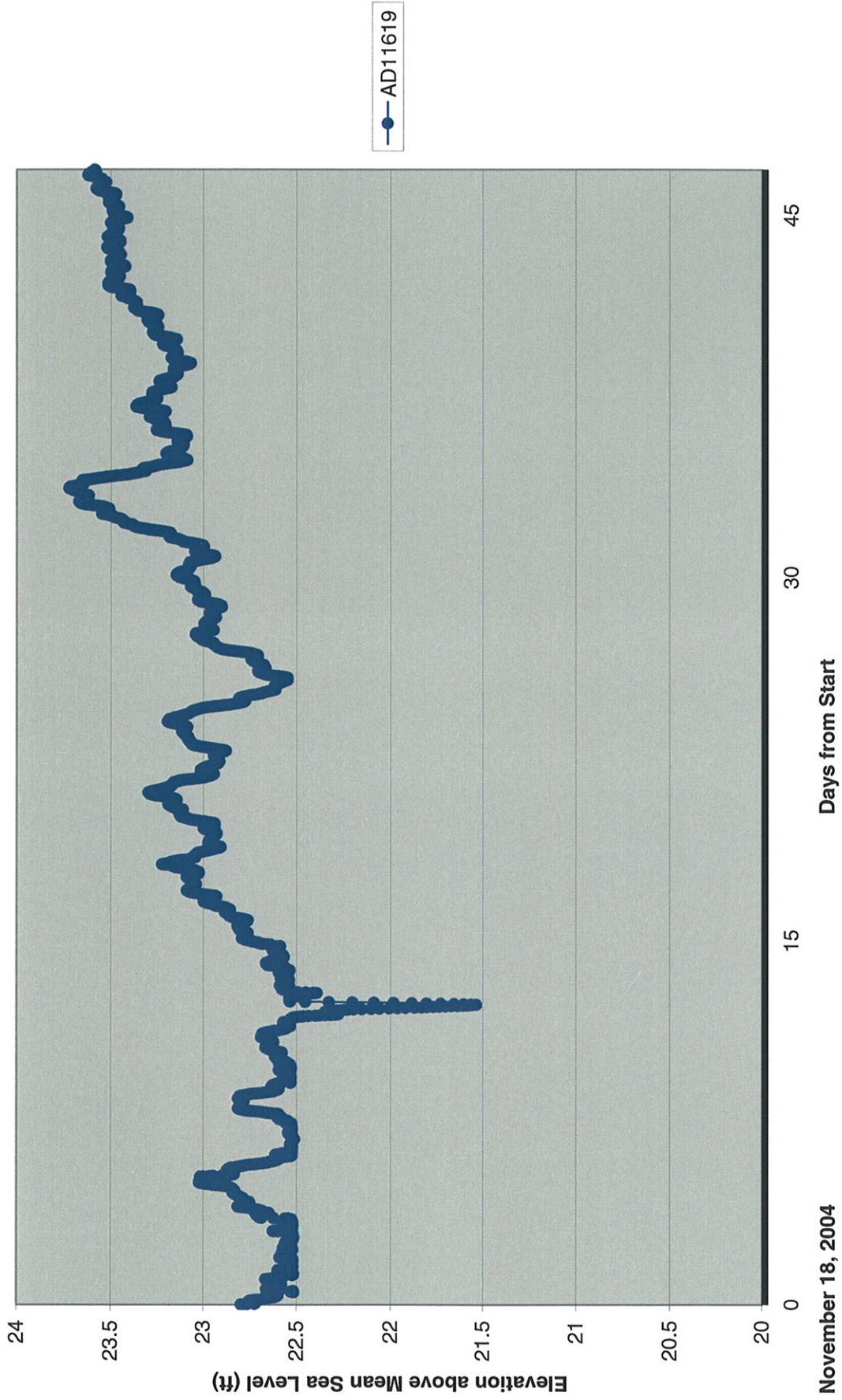


FIGURE 3
JR11622 Period from October 4, 2004 to January 4, 2005

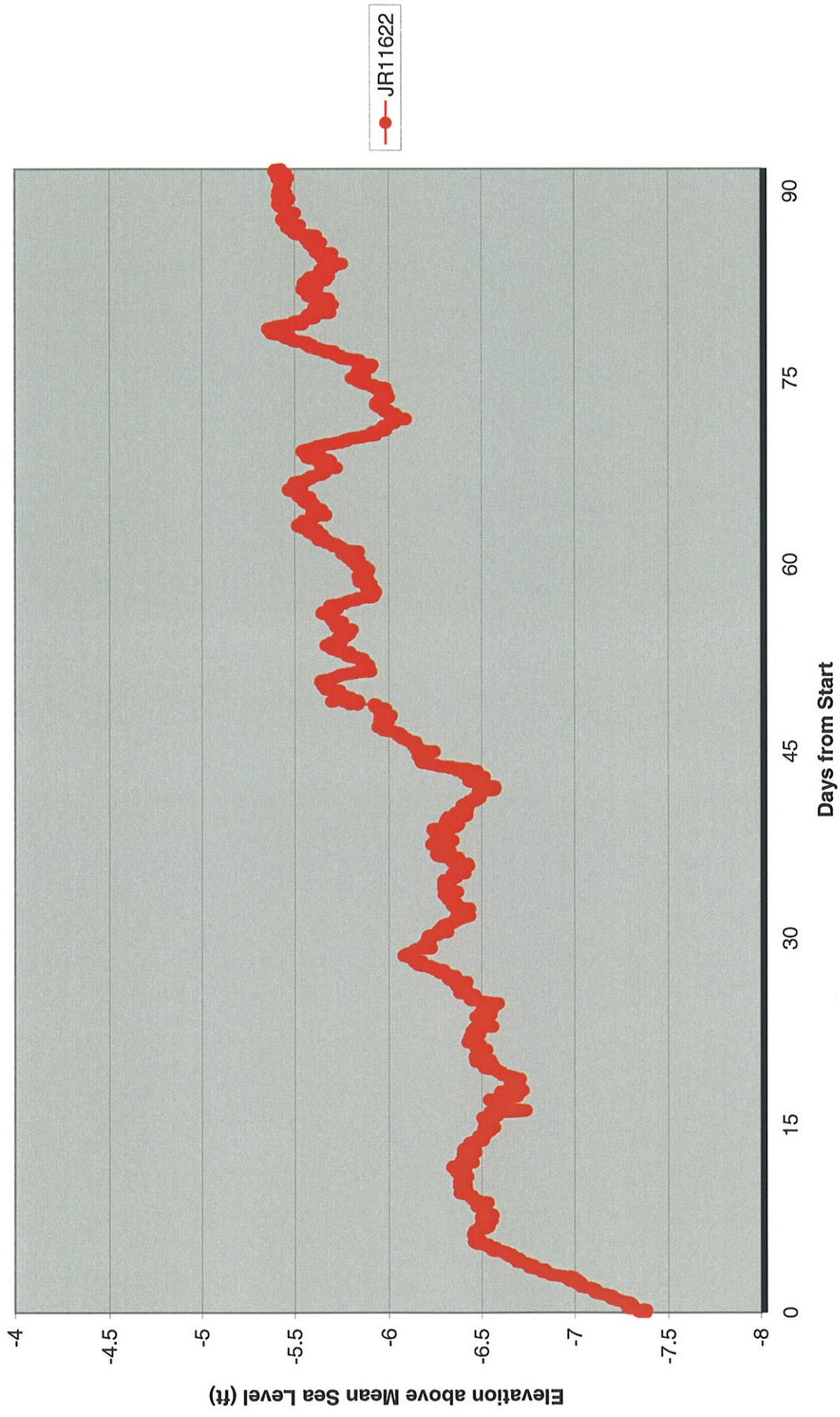


FIGURE 4
JRW11234 Period from October 4, 2004 to January 4, 2005

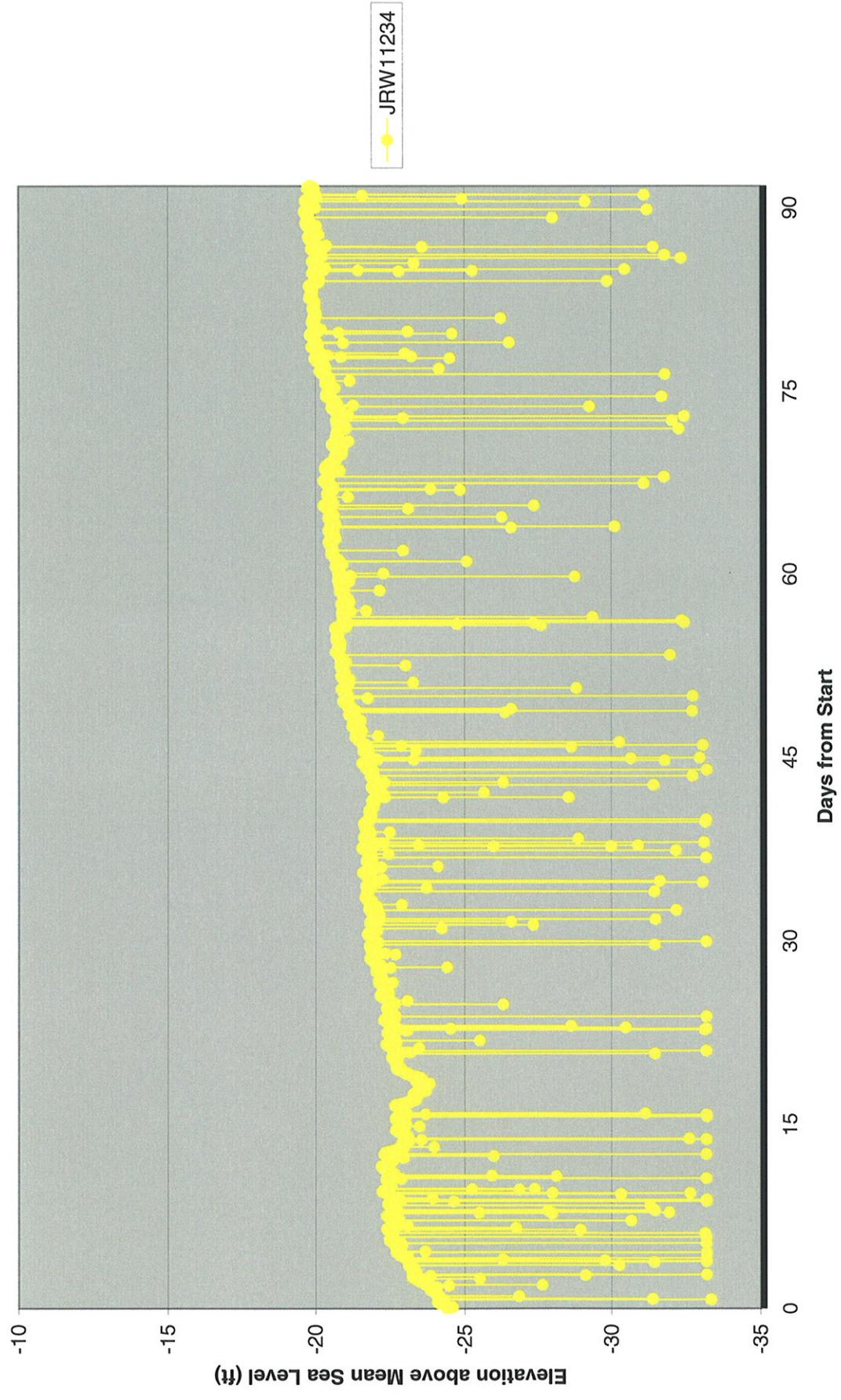


FIGURE 5
OV11634 Period from October 4, 2004 to January 4, 2005

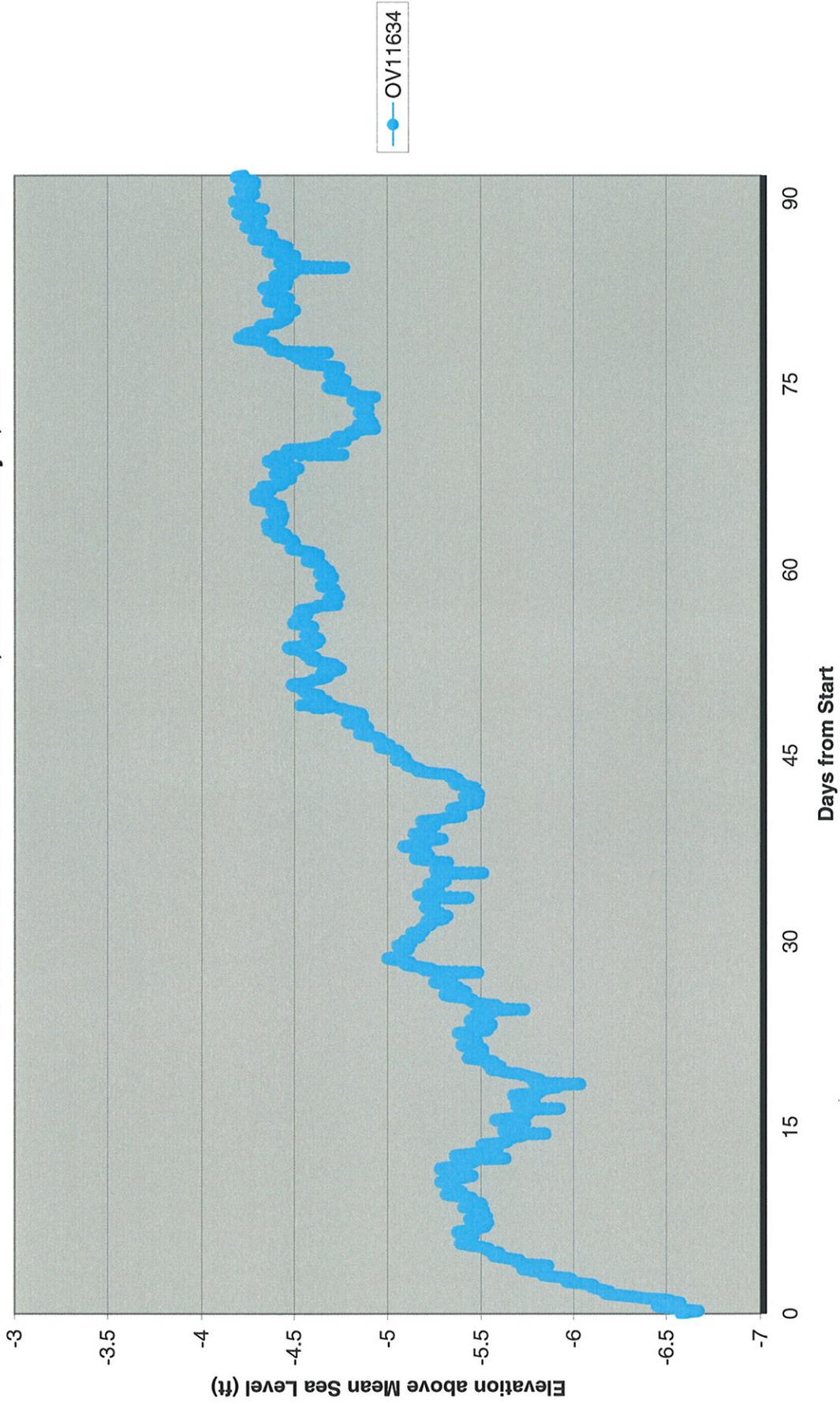


FIGURE 6
TC11103 Period from October 4, 2004 to January 4, 2005

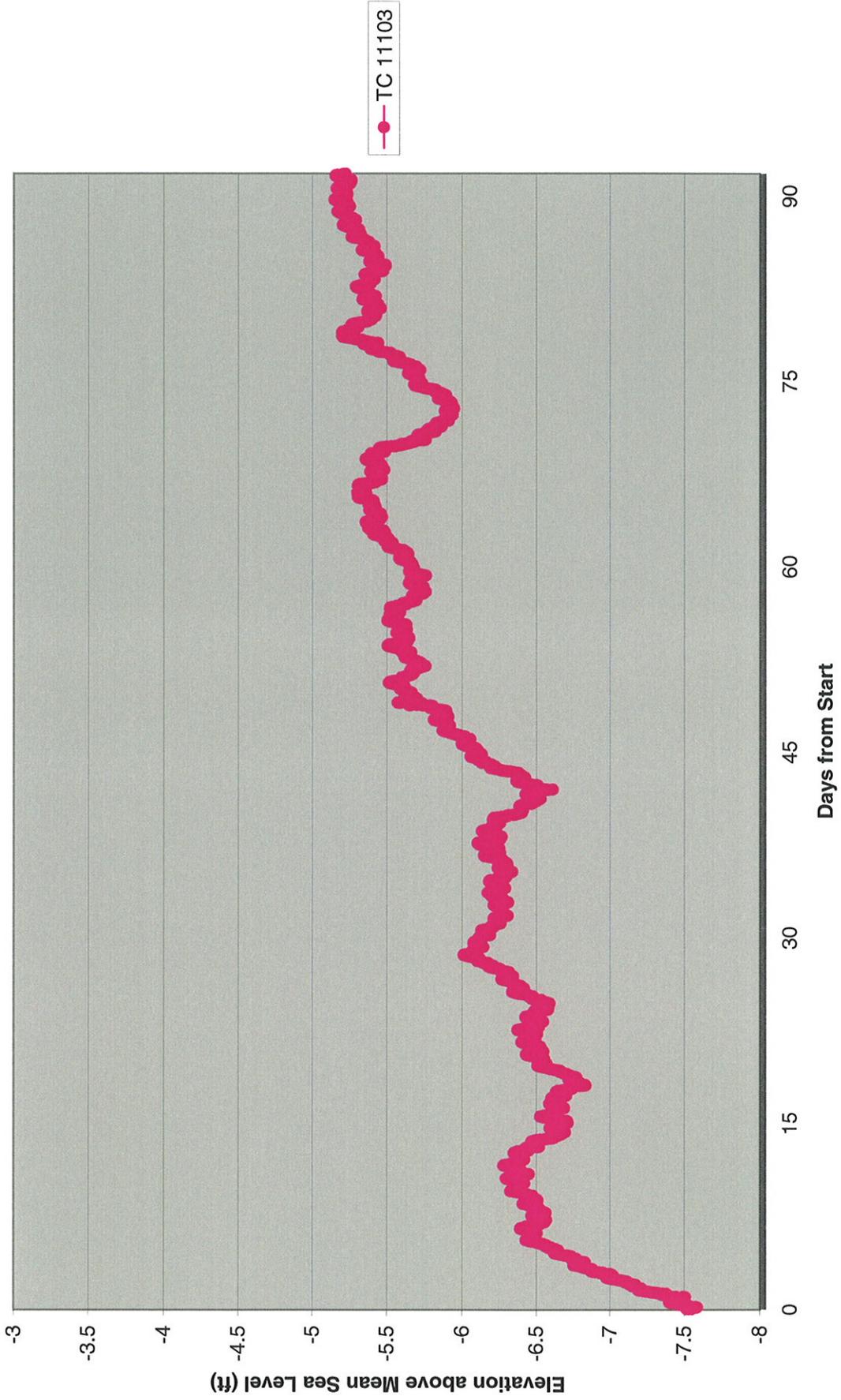


FIGURE 7
Cumulative Graph - Period from October 4, 2004 to January 4, 2005

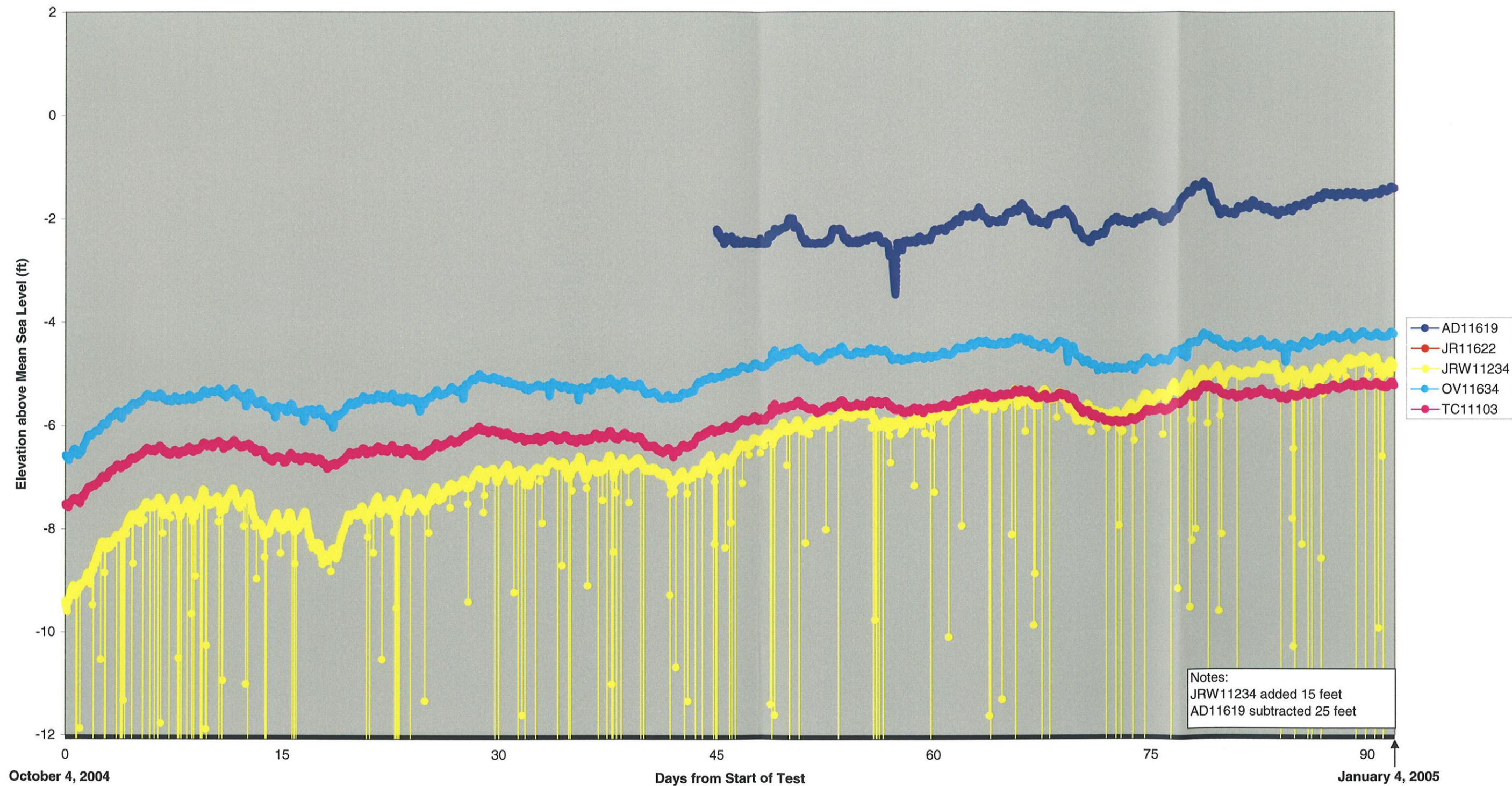
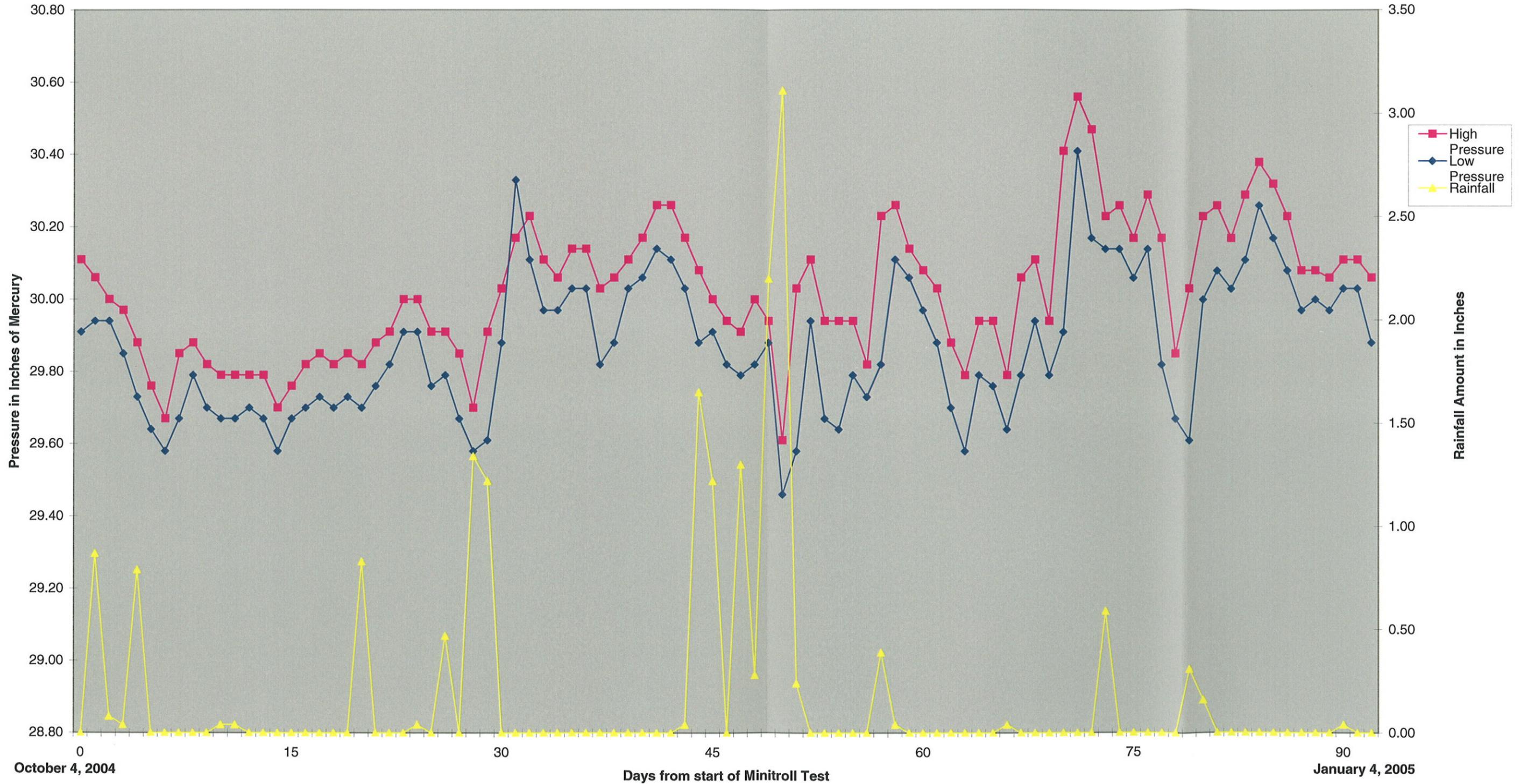


FIGURE 8

Northwest Houston Pressure Plotted with Rainfall - Period from October 4, 2004 to January 4, 2005





Legend

- SURVEYED LOCATION OF PRIVATE WATER WELL USED FOR WATER LEVEL MEASUREMENTS
- STREET
- (-6.588) ELEVATION IN FEET (MEAN SEA LEVEL) OF CHICOT AQUIFER
- (NA) NOT APPLICABLE -- NO MEASURE DEVICE INSTALLED AT THIS TIME
- GROUNDWATER FLOW DIRECTION

GAUGING DATE:
OCTOBER 20, 2004



OFFICE Houston, TX
 DRAWN BY B. Lu 03/29/05
 CHECKED BY B. Hardman 03/29/05
 APPROVED BY G. Long 03/29/05
 FILE PATH D:\JonesRd\GIS\workspace\BLU\IMXD\OCT04_CON.mxd

Plot Date: 03/05



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

FIGURE 9
GROUNDWATER ELEVATIONS IN CHICOT AQUIFER
OCTOBER 20, 2004
JONES ROAD STUDY AREA
CERCLIS #TXN000605460
HOUSTON, TEXAS



- Legend**
- SURVEYED LOCATION OF PRIVATE WATER WELL USED FOR WATER LEVEL MEASUREMENTS
 - STREET
 - (-6.104) ELEVATION IN FEET (MEAN SEA LEVEL) OF CHICOT AQUIFER
 - GROUNDWATER FLOW DIRECTION

NOTE:
 DATA COLLECTED FROM WELL LOCATED AT AD11619 WAS NOT USED IN THE CONSTRUCTION OF THIS MAP BECAUSE A HOLE IN THE CASING WAS DETECTED AT 43' BELOW GROUND SURFACE ALLOWING INFILTRATION INTO WELL FROM A SHALLOW SATURATED ZONE.

GAUGING DATE:
 NOVEMBER 19, 2004



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

FIGURE 10
 GROUNDWATER ELEVATIONS IN CHICOT AQUIFER
 NOVEMBER 19, 2004
 JONES ROAD STUDY AREA
 CERCLIS #TXN000605460
 HOUSTON, TEXAS

OFFICE Houston, TX
 DRAWN BY B. Lu
 CHECKED BY B. Hardman
 APPROVED BY G. Long
 FILE PATH D:\JonesRd\GIS\workspace\BLU\IMXD\NOV04 CON.mxd
 Plot Date: 03/05

OFFICE Houston, TX
 DRAWN BY B. Lu
 CHECKED BY B. Hardman
 APPROVED BY G. Long
 FILE PATH D:\JonesRd\GIS\workspace\BL\11MXD\DEC04 CON.mxd

Plot Date: 03/05



- Legend**
- SURVEYED LOCATION OF PRIVATE WATER WELL USED FOR WATER LEVEL MEASUREMENTS
 - STREET
 - (-5.932) ELEVATION IN FEET (MEAN SEA LEVEL) OF CHICOT AQUIFER
 - GROUNDWATER FLOW DIRECTION

NOTE:
 DATA COLLECTED FROM WELL LOCATED AT AD11619 WAS NOT USED IN THE CONSTRUCTION OF THIS MAP BECAUSE A HOLE IN THE CASING WAS DETECTED AT 43' BELOW GROUND SURFACE ALLOWING INFILTRATION INTO WELL FROM A SHALLOW SATURATED ZONE.

GAUGING DATE:
 DECEMBER 16, 2004



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

FIGURE 11
 GROUNDWATER ELEVATIONS IN CHICOT AQUIFER
 DECEMBER 16, 2004
 JONES ROAD STUDY AREA
 CERCLIS #TXN000605460
 HOUSTON, TEXAS

WATER WELL INSPECTION REPORT
June 30, 2004

**Please Refer to the Document "INTERIM REPORT FOR WELL HEAD RETROFIT/CLEANOUT
- December 8, 2004" for a copy of the "WATER WELL INSPECTION REPORT -
June 30, 2004"**

INTERIM REPORT FOR WELL HEAD RETROFIT/CLEANOUT
December 8, 2004



Shaw Environmental, Inc.

1430 Enclave Parkway
Houston, Texas 77077-2023
281.368.4400
Fax: 281.368.4401

December 8, 2004

Mr. Subhash Pal
Project Manager
Superfund Cleanup Section
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. D
Austin, Texas 78753

Re: Interim Report For Well Head Retrofit/Cleanout
September 2004
Jones Road Superfund Site
Houston, Texas

Dear Mr. Pal:

Shaw Environmental, Inc. (Shaw) is pleased to present to the Texas Commission on Environmental Quality (TCEQ) this letter report which summarizes the field activities and results of the retrofit/cleanout for five private wells located within the investigative area of the Jones Road Site. These wells are currently being used to monitor water levels in the Chicot Aquifer through the use of In-Situ miniTROLLs which have been programmed to collect groundwater elevations on a continuous basis. This letter report is not intended to be a final report nor does it preclude or serve in the place of the Remedial Investigation Technical Memorandum; rather, this interim letter report provides a summary of activities and findings based upon Shaw's observations in the field.

The objectives of the field activities were to:

- To pull the production pipe and jet pumps (where applicable) from the each of the targeted wells,
- To video tape the inside of each well to total depth or refusal,
- To install geophysical logging equipment into each well and run a gamma log for the entire well string,
- To install a one-inch diameter PVC drop tube into each well to a depth below the current water levels (to be determined in the field),
- To install a new four-inch diameter gripper cap on the well head at the surface, and
- To install an In-Situ miniTROLL into the drop tube of each well to measure water levels at predetermined time intervals.

Prior to conducting these field activities, on June 15, 2004, a representative from Shaw, the TCEQ, and Wellco (a water well drilling subcontractor) visited several previously identified private well locations within the Jones Road Groundwater Plume Site to evaluate their potential for use as data gathering points (See Attached Letter Report dated June 30, 2004). The final selection of the wells to be used were based upon the following factors: well owner access to the property and their consent to use the well for data collection, the accessibility of getting equipment to the well head, the current status of the well (active or abandon), the location of the well with respect to the groundwater plume, and the costs involved to retrofit the well for proper data collection. Please refer to Figure 1 for the approximate location of these five wells.

The following five well locations were chosen for data gathering points:

- 11619 Advance
- 11622 Jones Road
- 11634 Oak Valley
- 11103 Timber Crest
- 11234 Jones Road West

The private well located at 11234 Jones Road West was the only well used that was an active pumping well. All of the other four locations utilized the abandon wells located on the properties, near their active pumping well.

Summary of Field Activities

On September 30, 2004, Shaw personnel, a TCEQ representative, Wellco personnel, and a representative from Collier Consulting (Geophysical Logging Company) mobilized to the field to begin these activities. Procedures and observations obtained from each location will be addressed separately.

11619 Advance

This site contained both an active and inactive well. Wellco setup their pulling rig unit over the abandon well and pulled approximately 101 feet of production pipe from the well. This well had contained a jet pump which was no longer working. All of the pulled pipe and jet pump was placed in an open shed near the well location. The current property owner requested that the pipe be left there. Preliminary water level measurements were collected using a water probe which resulted in a measured depth of approximately 85 feet below top-of-casing. Collier Consulting then setup a tripod over the well so that they could log the well using their gamma ray tool. The gamma tool reached refusal at approximately 103 feet. Wellco then setup to video tape the inside of the well casing. Prior to video taping, Wellco flushed the well with water from an onsite garden hose so that the sediments would settle out and a clearer picture could be obtained from their video camera. During the video taping of the well, a small leak in the well casing was observed at approximately 43 feet below top of casing. When the video camera reached the expected total depth of 103 feet (based upon the geophysical logging refusal) a carbonate deposit was observed partially blocking the annulus of the well. A small opening was observed in the middle of this deposit allowing water to pass through but not any of the equipment, therefore any further investigation beyond this point at this time was not possible. The decision was made to revisit the well in the near future and ream out this blockage so that a drop tube could be properly installed.

On November 15, 2004, a representative from Shaw, the TCEQ, and Wellco returned to this location and reamed out the blockage. A total depth of 173.5 feet was then measured in the well and groundwater was measured at approximately 110 feet. A one-inch diameter drop tube approximately 138 feet long was then installed in the abandoned well and the well head was retrofitted with four-inch diameter cap. On November 18, 2004, Shaw personnel returned to the site and installed the In-Situ miniTROLL in the drop tube. The transducer was set at the bottom of the drop tube. Photographic documentation of these activities can be found presented on Photos 1, 2, 3, and 4.

11622 Jones Road

This site contained both an active and inactive well. Wellco setup their pulling rig unit over the abandon well and pulled approximately 171 feet of production pipe and a submersible pump from the well. All of the pulled pipe and the submersible pump was laid down on wood blocks adjacent to the well. The property owner requested that the pipe and pump be left there. Preliminary water level measurements were collected using a water probe resulting in a measured depth of approximately 132 feet below top-of-casing. Wellco then video

taped the well with their video camera. The video indicated that the top of the screen interval was at approximately 173 feet. Collier Consulting then setup a tripod over the well so that they could log the well using their gamma ray tool. The gamma tool reached refusal at approximately 178 feet. The well head was then temporarily secured for the night and the following day 160 feet of one-inch diameter drop pipe was installed in the well and the well head was retrofitted with a four-inch diameter gripper cap.

On October 4, Shaw personnel returned to the site and installed the In-Situ miniTROLL in the drop tube. The transducer was set at the bottom of the drop tube. Photographic documentation of these activities can be found presented on Photos 5, 6, and 7.

11103 Timber Crest

This site contained both an active and inactive well. There was no production piping in this well therefore Collier Consulting was able to setup their tripod over the well immediately and log the well using their gamma ray tool. The gamma ray tool reached a total depth of approximately 195 feet below top-of-casing. Static water level measurements indicated a water level of 132 feet below top-of-casing. Wellco video taped the well but could not get their camera to go past 147 feet. All video footage below the top of the water level was not viewable because the water color was too dark to allow the camera's lighting system to see anything. Approximately 160 feet of one-inch diameter drop tube was then installed in the well and the well head retrofitted with a four-inch diameter gripper cap.

Shaw personnel returned to the site on October 4, 2004 and installed the In-Situ miniTROLL in the drop tube. The transducer was set at the bottom of the drop tube. Photographic documentation of these activities can be found presented on Photos 8, 9, 10, and 17.

11234 Jones Road West

This site contained an active pumping well so the power to the well was disconnected prior to beginning work. Wellco then setup their pulling rig unit over the well and pulled approximately 168 feet of well pipe and the submersible pump from the well and laid it down adjacent to the well on plastic. Initial water measurements indicated that the static water level in this well was approximately 151 feet below top-of-casing. Wellco then video taped the well and estimated the top of the screen at approximately 205 feet. However, they could not get their video camera to go beyond past this point because the well diameter had been reduced to two inches from this point down. Collier Consulting then setup their tripod over the well and logged the hole using a gamma and resistivity tool. Their tool reached refusal at approximately 205 feet. The production piping and pump were then reinstalled into the well along with the one-inch drop tube. Approximately 163 feet of drop was installed in this well. The electrical wiring was then reconnected to the well and the power turned back on.

Shaw personnel returned to the site on October 4, 2004 and installed the In-Situ miniTROLL in the drop tube. The transducer was set at the bottom of the drop tube. Photographic documentation of these activities can be found presented on Photos 11, 12, 13, 14, 15, and 18.

11634 Oak Valley

This site contained both an active and inactive well. Prior to mobbing to the well, plywood was laid out on the yard to cover the septic system and the underground sprinkler system so that Wellco's pulling rig could safely mobilize to the well head. Once Wellco's pulling rig unit was in place they removed the old production piping and the attached jet pump. At the request of the owner, this material was hauled off and disposed by Wellco. Approximately 150 feet of production piping was pulled from the well. An initial water level was measured at 130.5 feet. Wellco then video taped the well and their video camera reached refusal at approximately 153 feet below top-of-casing. The water in the well was too cloudy at this depth to determine where the well screen was located. Collier Consulting then setup their tripod over the well and logged the well using their gamma tool. The tool reached refusal at approximately 154 feet. A one-inch diameter drop tube approximately 160 feet was then set into the well and the well head was retrofitted with a four-inch diameter gripper cap.

December 8, 2004
Mr. Subhash Pal
Superfund Cleanup Section
Texas Commission on Environmental Quality
Page 4

Shaw personnel returned to the site on October 4, 2004 and installed the In-Situ miniTROLL in the drop tube. The transducer was set at the bottom of the drop tube. The final well head completion with the In-Situ miniTROLL installed is presented on Photo 16.

All the gamma ray logs and video tape footage can be found in the Attachments section of this letter report.

Data Collection

The In-Situ miniTROLLs were setup to measure the depth of the water above the transducer at 15 minute intervals. This data is collected and stored in the units data logger and can be easily downloaded to a laptop computer in the field. Initially, every week for the first four weeks of operation, the In-Situ miniTROLLs were checked by a Shaw technician to verify that they were operating correctly and the cumulative data for each well location was downloaded to a laptop computer. After four weeks of downloading data, the frequency of site visits and data downloading was increased to once every two weeks, and is currently being collected once a month. All five In-Situ miniTROLLs have been collecting data on 15 minute intervals and appear to operating with no problems.

If you have any questions, please either contact me at 281-368-4519 or Bill Hardmant at 281-368-4599.

Sincerely,
Shaw Environmental, Inc.



Gregory Park Long
Project Manager

GPL/mfa
Attachments



FIGURE

IMAGE X-REF ---
 OFFICE HOUSTON, TX
 DRAWN BY D. DAY 10/25/04
 CHECKED BY
 APPROVED BY
 DRAWING NUMBER 111108-D4

PLOT DATE: 10/25/04
 FORMAT REVISION 7/15/03



LEGEND:
 ● APPROXIMATE LOCATION OF PRIVATE WATER WELL USED FOR LONG TERM WATER LEVEL MEASUREMENTS



	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<p align="center"> FIGURE 1 WATER LEVEL MEASUREMENT WELLS—OCTOBER 2004 CERCLIS #TXN000605460 HOUSTON, TEXAS </p>	

ATTACHMENTS

ATTACHMENTS

WATER WELL INSPECTION REPORT
June 30, 2004



Shaw™ Shaw Environmental & Infrastructure, Inc.

June 30, 2004

Mr. Subhash Pal
Project Manager
Superfund Cleanup Section
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. D
Austin, Texas 78753

Re: Remedial Investigation – Water Well Inspections to Support Planning for Water Level Measurement Collection, June 2004 at Jones Road Superfund Site, Northwest Harris County (near Houston), Texas

Dear Mr. Pal:

Shaw Environmental, Inc. (Shaw) is pleased to present to the Texas Commission on Environmental Quality (TCEQ) this letter report which summarizes the results of the Remedial Investigation (RI) – Water Well Inspections to Support Planning for Water Level Measurement Collection and the related field work conducted at the above-referenced site in June 2004. This letter report is not intended to be a final report nor does it preclude or serve in the place of the Remedial Investigation Technical Memorandum; rather, this letter report provides a summary of results and preliminary conclusions based on Shaw's interpretations of the currently available data.

The objective of this specific phase of the RI investigation was to verify the status of select existing private water wells serving residential or business property owners (herein after referred to collectively as "residential wells") to assess their potential use as data collection points for water level measurements. An additional objective was to collect information during the field inspections of these wells related to the design/construction needs for retrofitting of the wells to allow for access for water level measurements to be collected (e.g., modification or replacement of well caps, installation/construction of drop pipe, and installation/construction of data logger housing, etc.)

Wells originally specified by the TCEQ in the Work Order for inspection included the following locations: 11025 Forest Valley, 10810 Barely Lane, 10622 Jones Road, 10622 Jones Road, 11002 Jones Road [correction: this is 11002 Tower Oaks], 11350 Jones Road West, 11643 Oak Valley, 11019 [correction: this is 11619] Timber Crest, 11027 Timber Crest, and 11303 Timber Crest. In addition, the Work Order included the proviso that this list could be modified at the request of the TCEQ.

Shaw contracted Wellco (Wellco) Drilling & Service Company, Houston, Texas to provide a Texas Licensed Water Well Driller and Service professional to participate directly in the well inspections to provide recommendations based on their well servicing experience.

Upon completion of the inspection and submittal of a letter report documenting the findings, it was understood that a joint conference call would be held between TCEQ and Shaw to review the results of the inspections and discuss future plans for monitoring water levels at some or all of these wells.

Summary of Field Activities

On June 15, 2004, inspection of a select group of water wells was performed for the purposes as described previously above. The individuals participating in these field activities included Ben Shields, representing TCEQ, Perry Mann, representing Shaw, and Rick Davis, representing Wellco.

A brief meeting was held at Shaw's Jones Road Field Office to review the scope and objectives of the well inspections with all parties. Afterwards, inspections of wells led by Ben Shields-TCEQ were conducted.

A total of 13 water wells were inspected whose locations are provided in Figure 1. The wells included on the list provided in the TCEQ's Work Order associated with this activity were all inspected with the following exceptions noted:

11643 Oak Valley Drive	Not inspected because of the presence of dog; the residents could not be contacted to allow safe entry.
11222 Timber Crest Drive	Added in the field by TCEQ after being observed during inspection of other well.
11002 Tower Oaks	Field observations suggest an additional third well may be present at this location.
11010 Jones Road	Added in the field by TCEQ after being observed while driving along Jones Road.
11234 Jones Road West	Added in the field by TCEQ after being observed during inspection of other well.
11103 Timber Crest Drive	Added in the field by TCEQ.
11619 Advance Drive	Added in the field by TCEQ.

11635 Timber Hollow Drive

Two apparent well heads were spotted in the field; later identified to part of a partially buried fuel oil tank.

As part of the inspection process, each water well was photographed and a written log describing photographic information (date, time, description of photo subject, direction taken) was completed. Copies of these photographs and the written log have been provided separately to the TCEQ.

Summary of Results and Preliminary Recommendations

The inspection results have been presented in a separate letter report prepared by Wellco (attached). Information in Wellco's letter includes the design/construction needs for retrofitting of the wells to allow for access for water level measurements to be collected (e.g., modification or replacement of well caps, and installation/construction of drop pipe.

Provided below is some additional information to supplement the information provided by the Wellco's letter report.

Three types of wells were found to exist among the wells that were inspected:

- Type I: Currently contains a pump that with owner's permission will be removed to allow for water levels to be collected.
- Type II Currently contains a pump that is in use and must remain in use.
- Type III Currently has no pump or drop pipe.

Type I	Type II	Type III
JR10622B	JRW11350	TC11103B
TC11104	JRW11234	AD11619
TC11303	BL10810	TO11002B
	TC11027	
	TC11222	
	FV11025	
	JR11010B	

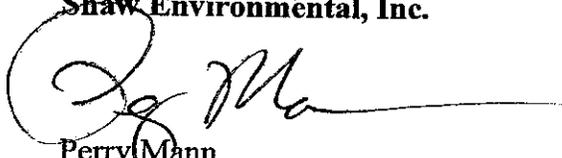
Two of the Type I wells, TC11104 and TC11303, have jet pumps installed at the surface for 3-inch ID PVC wells. Because both of these wells provide what appears to be the only source of water available to the private residents living at these addresses, it is not recommended that these wells be considered as potential water level monitoring points in the future.

The locations of BL10810 and JR10622B are in close proximity of one another. JR10622B is not currently in use; another well, JR10622 exists on this property (see Figure 1). The owner has expressed his willingness to have the pump in this well removed and for it to be used as a water level monitoring point. BL10810 is also not in use presently. Property owners had intended BL10810 to be used for landscape irrigation purposes only; instead, an alternate source of water will be used for this purpose. Access around BL10810 is limited because of its associated appurtenances. Access around JR10622B is not an issue. Based on these facts, it is recommended that only one of these two wells be considered BL10810 as a potential water level monitoring point for the near term, with preference be given to JR10622B.

This concludes the summary letter report. A joint conference call to review the results of the inspections and to discuss future plans and strategies for monitoring water levels at some or all of these wells can be held at your convenience.

If you have any questions about this report, please feel free to contact me directly at 281-396-4590.

Sincerely,
Shaw Environmental, Inc.



Perry Mann
Program Manager

PM/mfa
Attachments

cc: Marilyn Long- TCEQ
Ben Shields-TCEQ
Shaw File copy

FIGURES

ATTACHMENTS

Wellco Letter Report



WELLCO

DRILLING & SERVICE COMPANY

ENVIRONMENTAL SERVICES

713.729.1440 • 979.849.2162 • 800.891.1440

5423 LOTUS STREET • HOUSTON, TEXAS 77085

Attn: Perry Mann – Bill HardMant 281.368.4590
SHAW ENVIRONMENTAL & INFRASTRUCTURE, INC
1430 Enclave Parkway
Houston, Texas 77077

June 29, 2004

Dear Mr. Mann:

Please find submitted water well reports for the Jones Road area project. Wellco has come to the following conclusion for the most inexpensive accurate way to monitor the various well applications.

There are three types of wells that are addressed.

- **Type I** A well that currently has pump and drop pipe in well that with owners permission will be removed and will not be re-installed while monitoring.
- **Type II** A well that currently contains a pump and drop pipe that is in use and must remain in use.
- **Type III** A well that currently has no pump and no drop pipe in well.

Price estimate for mobilization, pulling rig unit, labor, well video and install well equipment Type I will cost approx. \$1,500 per well. Type II well will cost approx. \$2,000. Type III well will only require a gripper cap and lock, well video for verification of any damages prior to use of well, cost approx. \$550. Unless requested 1" PVC drop pipe and well seal be installed for safe protective guide for choice measuring device. (These are estimates of cost and not a bid price). Any parts that have to be replaced during pulling of pumps will be additional and job location specific. The measuring device chosen will be additional cost.

1" ID PVC pipe will be installed in Type II wells and will serve as a protective guide for measuring device to keep from entanglement in wells with pump and drop pipe in well.

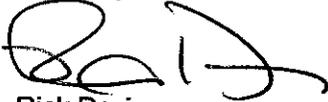
List of different types of instruments that could be used in preference is as follows:

- A. Transistorized water level meter (see attached schematics sheet) (manual)
- B. Air tube or pipe air/water displacement gauge (see attached schematics sheet) (manual)
- C. Data logger / hermetically sealed submersible transducer with digital recording system
- D. Stevens Continuous / water recorder
- E. Sonic water level meter (manual) used only in (Type I & III wells only)

Water meter option A is accurate and the best choice for manual recordings (see attached schematics sheet). Option B manual recording is not as accurate as option A, but is the same application used in city wells for gauging (see attached schematics sheet). Option C & D afford the collection of multiple water level measurement to be collected and recorded remotely. The option with the digital data logger (C) is preferable over the ink/drum recording method (D) as water levels readings can be referenced to a datum (e.g., sea level) and easily transferred electronically. Options A, B & E require manual collection of individual water level readings. Option E, Sonic Water Level Measuring Device while useful is the least accurate of the water level measuring options listed.

Please let me know if I can further assist you.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Davis", written in a cursive style.

Rick Davis
Wellco Services



WELL #	NAME:	ADDRESS:
JR-11622(b)	Mauk	11622 Jones Rd

FINDINGS

4" Galvanize casing
1 1/4" Galvanize Drop pipe

Well is not currently in operation
Access is weather permitted / landowner would have to clear the driveway of debris to get access to well prior to arrival.
There are a few tree limbs that may have to be cut directly above well while rig is on location.

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 1/4" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" PVC stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.

WELL #	NAME:	ADDRESS:
JRW-11350	OMEGA	11350 Jones Rd West

FINDINGS

4" PVC Casing
1 1/4" Drop Pipe

Well is currently in operation
Access is OK. On pavement
Submersible cable is brittle and most likely has to be replaced when pulled
Tree limb may have to be cut above well

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 1/4" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.



WELL #	NAME:	ADDRESS:
JRW 11234	Gulf Coast Candy	11234 Jones Rd West

FINDINGS

4" PVC Casing
1 ¼" Drop Pipe
2 wire submersible pump cable

Well is currently in operation
Access is OK on pavement / No trees
Air release valve will need to be replaced

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 ¼" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.

WELL #	NAME:	ADDRESS:
BL 10810	Patton	10810 Barely Ln.

FINDINGS

4" Galvanized casing
1 ½" Galvanized drop pipe
7 ½ HP Submersible pump

Well not currently in service
Access weather permitting on fresh fill dirt

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 ½" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.



WELL #	NAME:	ADDRESS:
TC 11027(b)	Fraiser	11027 Timbercrest

FINDINGS

4" PVC Casing
1 ¼" Drop pipe

Well currently in operation
Easy access/ No trees/ Hard surface

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 ½" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.

WELL #	NAME:	ADDRESS:
TC 11104	Sidel	1114 Timbercrest

FINDINGS

2" PVC Casing
1 Hp Jet pump

Easy Access/ on grass/ no trees
In a wishing well decoy

RECOMMENDATIONS

Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Pump drop pipe would have to be pulled and stored while monitoring.
Well seal replaced
Pump re-installed after monitoring
Install any parts necessary to keep well in current condition.



WELL #	NAME:	ADDRESS:
TC 11103(b)	Williams	11103 Timbercrest

FINDINGS

3" Galvanized casing
No drop pipe
No pump
No well seal

Well not currently in service
No vehicle access

RECOMMENDATIONS

Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install well seal

WELL #	NAME:	ADDRESS:
TC 11222	EPV Drywall Contractor	11222 Timbercrest

FINDINGS

4" PVC casing
1 1/4" No drop pipe

Well not currently in service
Easy Access/ No trees/ Hard surface

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 1/4" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring



WELL #	NAME:	ADDRESS:
TC 11303		11303 Timbercrest

FINDINGS

2" PVC casing

Well not currently in service
In a wishing well decoy
On hard surface/Tree above well/ Dogs

RECOMMENDATIONS

Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Pump would have to be pulled and stored while monitoring.
Well seal replaced
Pump re-installed after monitoring
Install any parts necessary to keep well in current condition.

WELL #	NAME:	ADDRESS:
AD 11619(b)	Ballew	11619 Advance

FINDINGS

3" Galvanized casing
Drop pipe on well head
No pump

Well not currently in service
Weather permitting / on grass

RECOMMENDATIONS

Pull well head and inside drop pipe
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install well seal



WELL #	NAME:	ADDRESS:
TO 11002(b)	Phillips 66	11002 Tower Oaks

FINDINGS

4" Drain pipe & 4" PVC well casing side by side
No pump
No well seals
Not currently in service
On hard surface/shrubs over and in casing

RECOMMENDATIONS

Determine if well is usable and or if filled up with dirt or other obstructions.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.

WELL #	NAME:	ADDRESS:
FV 11025	Olle	11025 Forest Valley

FINDINGS

4" PVC well casing
1 1/4" drop pipe

On hard surface
3 Phase live electric line directly over well that would have to be turned off by electric company before service to well

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table, top of well screen, total depth & for verification of any damages prior to service.
Install 1" PVC pipe attached to 1 1/4" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition



WELL #	NAME:	ADDRESS:
JR 11010 (b)	Mulligans Golf Center	11010 Jones Rd.

FINDINGS

5" & 4" PVC casing's
2" & 1 1/4" Drop pipe
Grundfos pump

Well's currently in service
On Grass
Weather permitted
Easy Access
No trees

RECOMMENDATIONS

Pull pump and inside drop pipe.
Video inside well casing to determine static water table/top of well screen/total depth & for verification of condition of well for any damages prior to service.
Install 1" PVC pipe attached to 1 1/4" Galv drop pipe and reinstall in well.
Install new well seal that will have 1" stubbed out of well seal for easy access for monitoring.
Install any parts necessary to keep well in current condition.

INDUCTION LOGS
September/October 2004



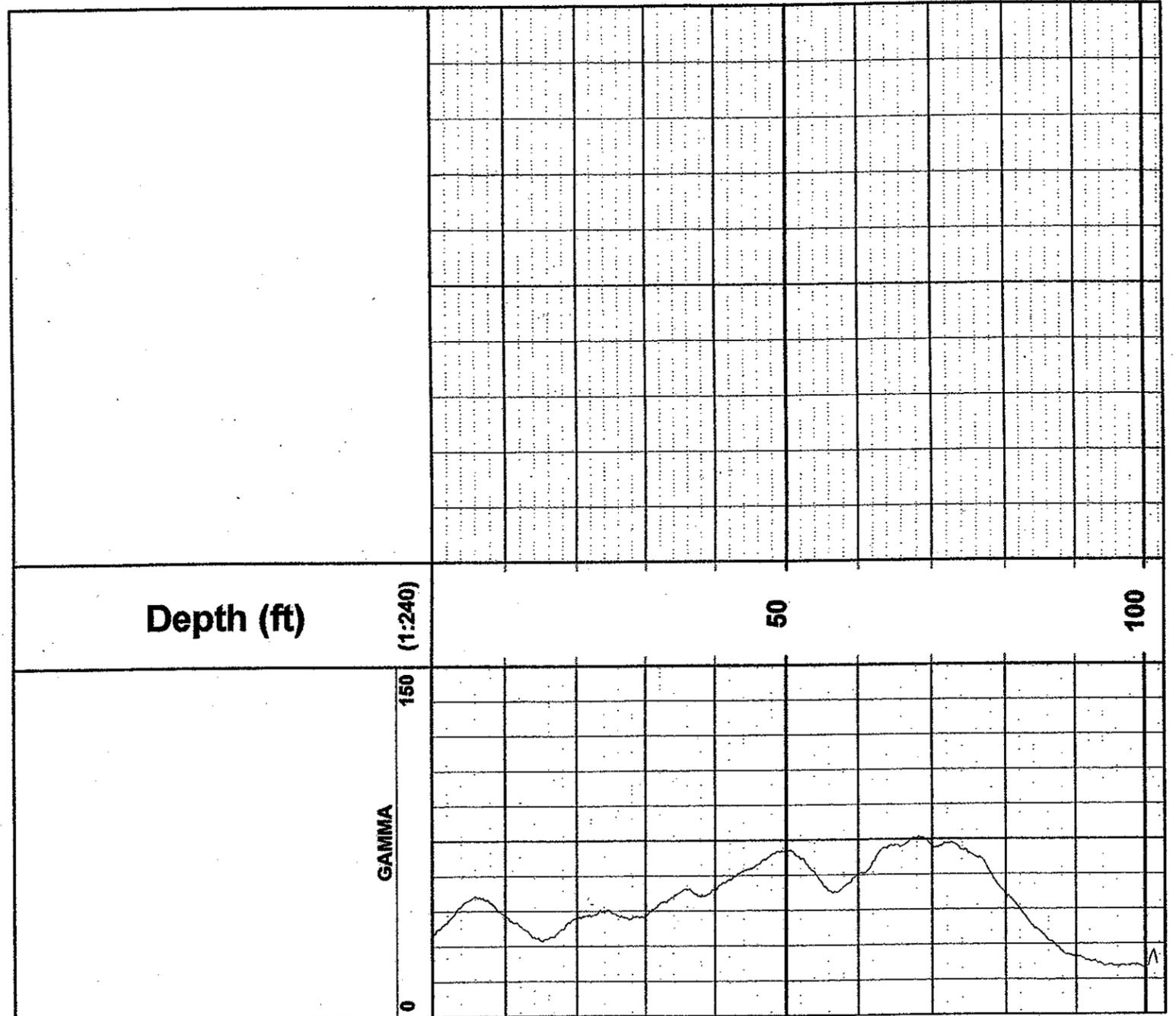
Collier Consulting, Inc.
254-968-8721

Induction Log

County: Harris State: Tx Field: Location: Well: AD11619 Company: Wellco	COMPANY: Wellco Well: AD11619 DRILLING COMPANY: County Harris State Tx	
	LOCATION X-Y Location Well ID No.:	Other Services: NONE NONE NONE
Permanent Datum TOC Elevation (Ft): Log Measured From: GL 0 Ft. above Perm. Datum Drilling Measured From: GL 0 FT ABOVE PERM. DATUM	Elevations: KB: DF: N/A TOC (Ft): 0.00	
Date	09/30/04	
Run No.	1	
Depth-Driller		
Depth-Logger		
Btm. Log Interval	102.900 ft	
Top Log Interval	0.000 ft	
Casing Bottom Driller		
Casing Bottom Logger		
Bit Size	2.5 in	
Fluid Type	Water	
Dens. / Visc.	lb/g	
pH / Fluid Loss	NONE	
Source of Sample	NONE	
Rm @ Meas. Temp	ohmm	
Rmf @ Meas. Temp	ohmm	
Rmc @ Meas. Temp	ohmm	
Source: Rmf/Rmc	Press/Press	
Rm @ BHT	NONE	
Time Circ. Stopped	NONE	
Logger on Btm.	NONE	
Max. Rec. Temp.	<input type="checkbox"/> NONE	
Equip. / Location		
Recording Engineer	Jason Rankin	
Witnessed by	Rick Davis	

Furnished by the operator: Well name, location and borehole reference data.

Run No.	
Service Order No.	
Logging Speed	28 Ft / Min
Chlorides	





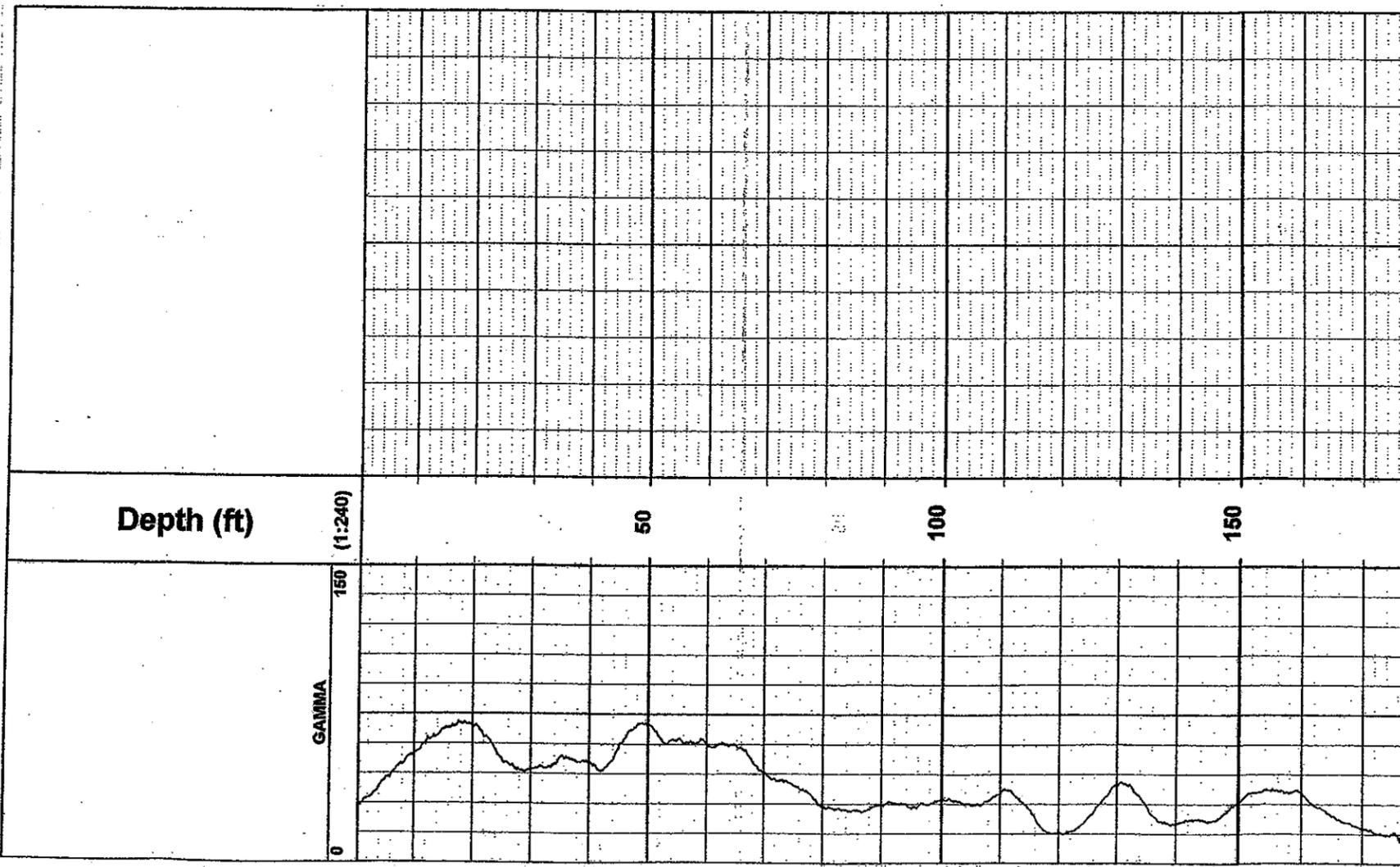
Collier Consulting, Inc.
254-968-8721

Induction Log

County: Harris State: Tx Field: Location: Well: JR11622 Company: Wellco		COMPANY: Wellco Well: JR11622 DRILLING COMPANY: County Harris State Tx	
LOCATION X-Y Location Well ID No.:		Other Services: NONE NONE NONE	
Permanent Datum TOC Elevation (Ft): Log Measured From: GL 0 Ft. above Perm. Datum Drilling Measured From: GL 0 FT ABOVE PERM. DATUM		Elevations: KB: DF: N/A TOC (Ft): 0.00	
Date	09/30/04		
Run No.	1		
Depth-Driller			
Depth-Logger			
Btm. Log Interval	177.800 ft		
Top Log Interval	0 ft		
Casing Bottom Driller			
Casing Bottom Logger			
Bit Size	4.0		
Fluid Type	Water		
Dens. / Visc.	lb/g		
pH / Fluid Loss	NONE		
Source of Sample	NONE		
Rm @ Meas. Temp	ohmm		
Rmf @ Meas. Temp	ohmm		
Rmc @ Meas. Temp	ohmm		
Source: Rmf/Rmc	Press/Press		
Rm @ BHT	NONE		
Time Circ. Stopped	NONE		
Logger on Btm.	NONE		
Max. Rec. Temp.	NONE		
Equip. / Location			
Recording Engineer	Jason Rankin		
Witnessed by	Rick Davis		

Furnished by the operator: Well name, location and borehole reference data.

Run No.	
Service Order No.	
Logging Speed	28 FT / Min
Chlorides	





Collier Consulting, Inc.
254-968-8721

Induction Log

COMPANY: Wellco

Well: JRW11234

DRILLING COMPANY:

County Harris

State Tx

Field:
Location:
Well: JRW11234
Company: Wellco

LOCATION
X-Y Location

Other Services:
NONE
NONE
NONE

Well ID No.:

Elevations:
KB:
DF: N/A
TOC (Ft): 0.00

Permanent Datum TOC Elevation (Ft):

Measured From: GL 0 Ft. above Perm. Datum

Logging Measured From: GL 0 FT ABOVE PERM. DATUM

TOC (Ft): 0.00

Date: 10/01/04

Run No. 1

Driller

Logger

Log Interval 204.800 ft

Log Interval 0 ft

Logging Bottom Driller

Logging Bottom Logger

Bit Size 4.0 in

Fluid Type Water

Sp. / Visc. lb/g

Fluid Loss NONE

Pressure of Sample NONE

@ Meas. Temp ohmm

@ Meas. Temp ohmm

@ Meas. Temp ohmm

Pressure: Rmf/Rmc Press/Press

@ BHT NONE

Motor Circ. Stopped NONE

Motor on Btm. NONE

Rec. Temp. NONE

Log. / Location

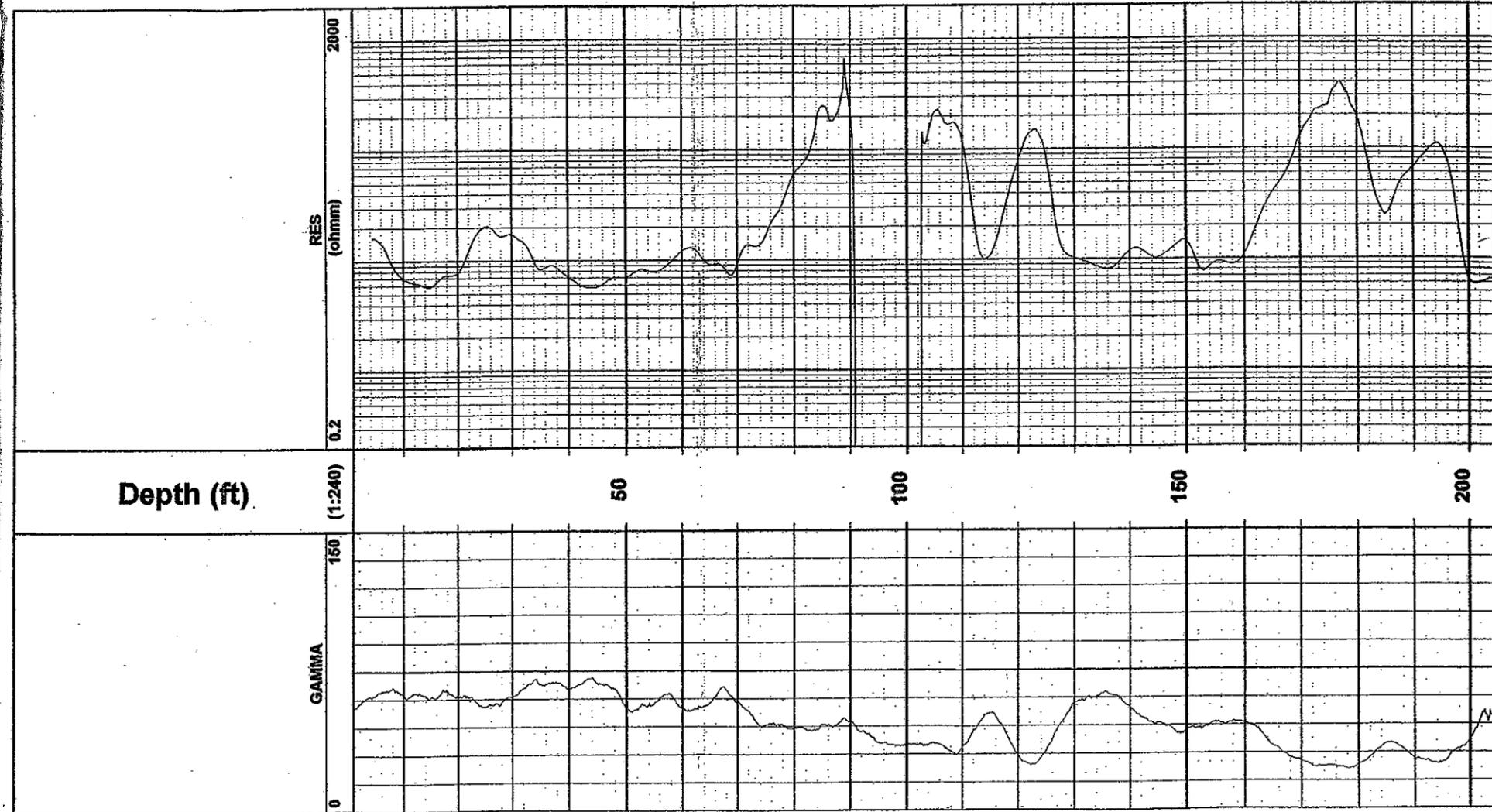
Logging Engineer Jason Rankin

Checked by Rick Davis

Furnished by the operator: Well name, location and borehole reference data.

Run No.
Service Order No.
Logging Speed
Chlorides

28 Ft / Min





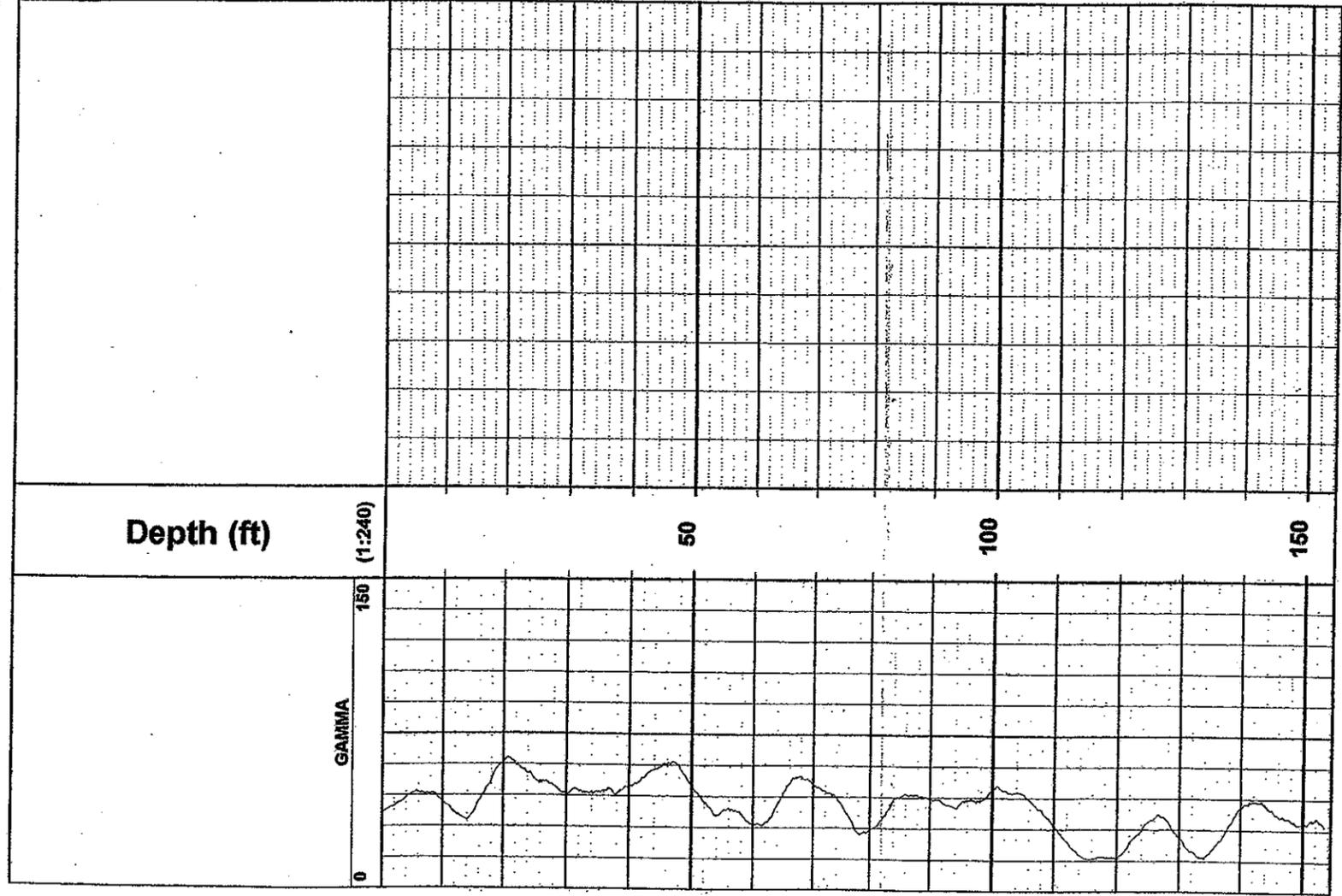
Collier Consulting, Inc.
254-968-8721

Induction Log

County: Harris State: Tx Field: Location: Well: OV11634 Company: Wellco	COMPANY: Wellco Well: OV11634 DRILLING COMPANY: County Harris State Tx	
LOCATION	X-Y Location	Other Services: NONE NONE NONE
Well ID No.:		
Permanent Datum	TOO Elevation (Ft):	Elevations: KB: DF: N/A TOO (Ft): 0.00
Log Measured From:	GL 0 Ft. above Perm. Datum	
Drilling Measured From:	GL 0 FT ABOVE PERM. DATUM	
Date	10/01/04	
Run No.	1	
Depth-Driller		
Depth-Logger		
Btm. Log Interval	164.400 ft	
Top Log Interval	0.000 ft	
Casing Bottom Driller		
Casing Bottom Logger		
BH Size	4.0 in	
Fluid Type	Water	
Dens. / Visc.	lb/g	
pH / Fluid Loss	NONE	
Source of Sample	NONE	
Rm @ Meas. Temp	ohmm	
Rmf @ Meas. Temp	ohmm	
Rmc @ Meas. Temp	ohmm	
Source: Rmf/Rmc	Press/Press	
Rm @ BHT	NONE	
Time Circ. Stopped	NONE	
Logger on Btm.	NONE	
Max. Rec. Temp.	DNONE	
Equip. / Location		
Recording Engineer	Jason Rankin	
Witnessed by	Rick Davis	

Furnished by the operator. Well name, location and borehole reference data.

Run No.	
Service Order No.	
Logging Speed	28 Ft / Min
Chlorides	





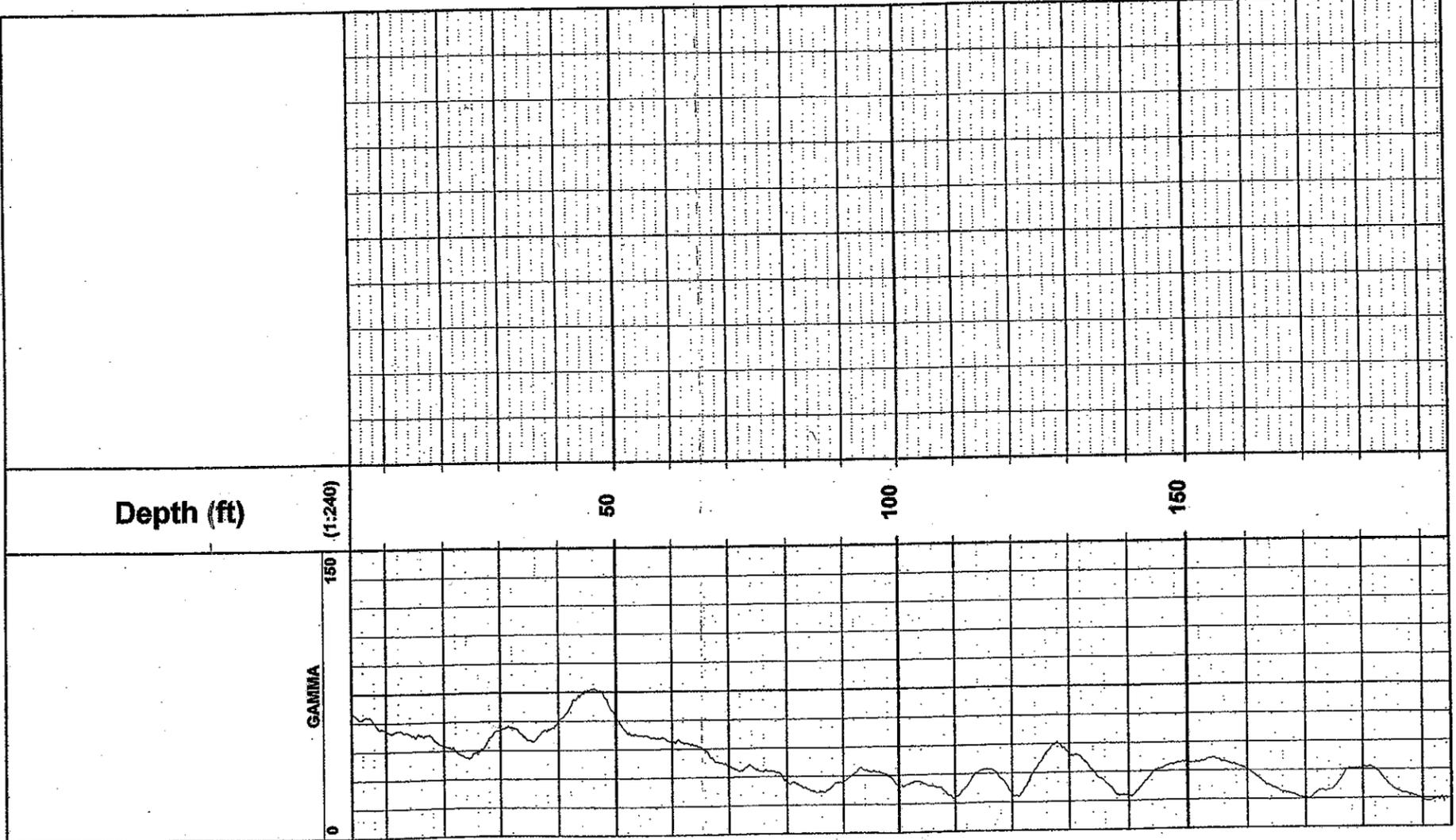
Collier Consulting, Inc.
254-968-8721

Induction Log

County: Harris Field: Location: Well: TC11103 Company: Wellco	State: Tx	COMPANY: Wellco Well: TC11103 DRILLING COMPANY: County Harris State Tx
Well ID No.:	X-Y Location	Other Services: NONE NONE NONE
Permanent Datum TOC Elevation (Ft):	Log Measured From: GL 0 Ft. above Perm. Datum	Elevations: KB: DF: N/A TOC (Ft): 0.00
Date: 09/30/04	Run No.: 1	
Depth-Driller:	Depth-Logger:	
Btm. Log Interval: 194.800 ft	Top Log Interval: 0 ft	
Casing Bottom Driller:	Casing Bottom Logger:	
BH Size: 2.6 in	Fluid Type: Water	
Dens. / Visc.:	pH / Fluid Loss:	
Source of Sample:	Rm @ Meas. Temp:	
Rmf @ Meas. Temp:	Rmc @ Meas. Temp:	
Source: Rmf/Rmc:	Rm @ BHT:	
Time Circ. Stopped:	Logger on Btm.:	
Max. Rec. Temp.:	Equip. / Location:	
Recording Engineer: Jason Rankin	Witnessed by: Rick Davis	

Furnished by the operator: Well name, location and borehole reference data.

Run No.	Service Order No.
	Logging Speed
	Chlorides



WELLCO'S DOWN HOLE VIDEO
September/October 2004

PHOTOGRAPHIC DOCUMENTATION



Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11619 Advance, Houston, TX

Photograph Number:

1

Photographer:

Bill Hardmant, Shaw

Date:

09/30/04

Direction:

View to the Northeast

Comments:

View shows location of the abandon well at 11619 Advance. Drillers are pulling the pump piping from the well.



Photograph Number:

2

Photographer:

Bill Hardmant, Shaw

Date:

09/30/04

Direction:

View to the Northeast

Comments:

View shows the setting up of the logging tool at the abandoned well located at 11619 Advance.





Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11619 Advance, Houston, TX

Photograph Number:

3

Photographer:

Bill Hardmant, Shaw

Date:

09/30/04

Direction:

View to the North

Comments:

View shows Wellco preparing to video tape the inside of the abandon well at 11619 Advance.



Photograph Number:

4

Photographer:

Greg Long, Shaw

Date:

11/15/04

Direction:

View to the Northwest

Comments:

View shows the installation of the drop pipe into the abandoned well located at 11619 Advance.





Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11622 Jones Road, Houston, TX

Photograph Number:
5

Photographer:
Bill Hardmant, Shaw

Date:
09/30/04

Direction:
View to the Northeast

Comments:
View shows Wellco pulling production pipe from the abandon well located at 11622 Jones Road.



Photograph Number:
6

Photographer:
Bill Hardmant, Shaw

Date:
09/30/04

Direction:
View to the East

Comments:
View shows the logging of the abandoned well located at 11622 Jones Road.





Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11622 Jones Road / 11103 Timber Crest

Photograph Number:

7

Photographer:

Bill Hardmant, Shaw

Date:

09/30/04

Direction:

View to the East

Comments:

View shows the video taping of the abandon well located at 11622 Jones Road.



Photograph Number:

8

Photographer:

Bill Hardmant, Shaw

Date:

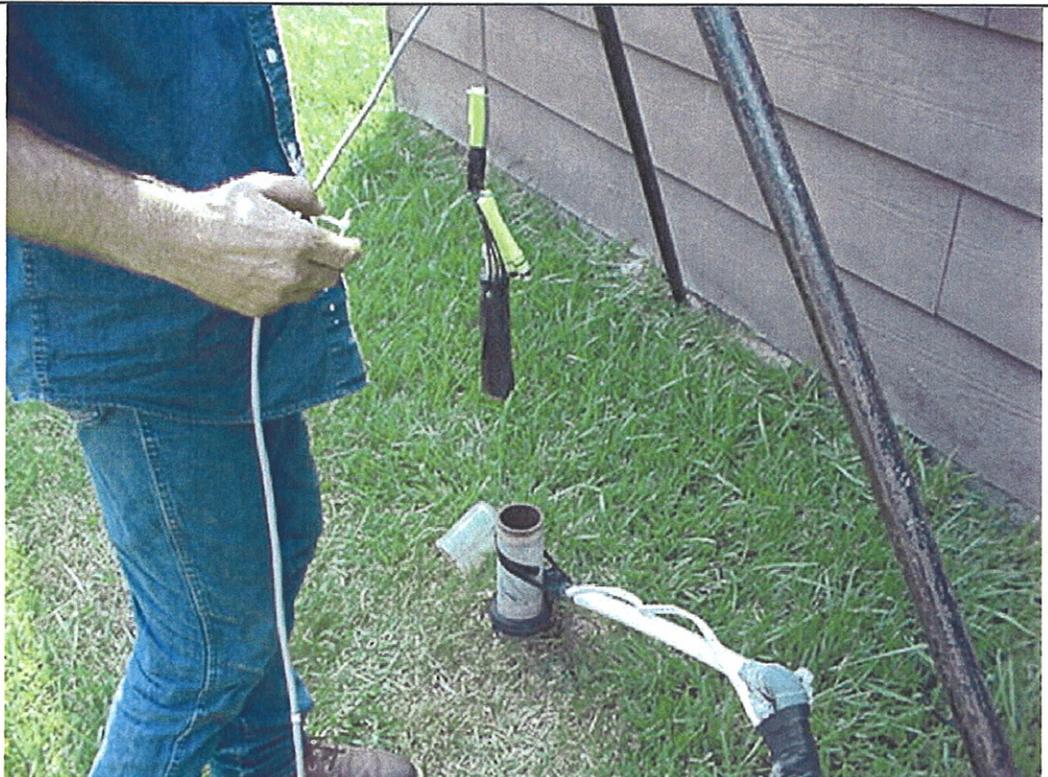
09/30/04

Direction:

View to the Southwest

Comments:

View shows Wellco preparing to video tape the inside of the abandon well located at 11103 Timber Crest.



Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11103 Timber Crest, Houston, TX

Photograph Number:

9

Photographer:

Bill Hardmant, Shaw

Date:

09/30/04

Direction:

View to the Northwest

Comments:

View shows the logging of the abandon well located at 11103 Timber Crest.



Photograph Number:

10

Photographer:

Bill Hardmant, Shaw

Date:

09/30/04

Direction:

View to the South

Comments:

View shows the installation of the drop tube in the abandoned well located at 11103 Timber Crest.





Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11234 Jones Road West, Houston, TX

Photograph Number:

11

Photographer:

Carol Dye, TCEQ

Date:

10/01/04

Direction:

View to the South

Comments:

View shows Wellco pulling the production pipe from the active well at 11234 Jones Road West.



Photograph Number:

12

Photographer:

Carol Dye, TCEQ

Date:

10/01/04

Direction:

View to the Southwest

Comments:

View shows the submersible pump in the active well at 11234 Jones Road West.





Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11234 Jones Road West, Houston, TX

Photograph Number:
13

Photographer:
Carol Dye, TCEQ

Date:
10/01/04

Direction:
View to the West

Comments:
View shows Wellco lowering their video camera into the well at 11234 Jones Road West.



Photograph Number:
14

Photographer:
Carol Dye, TCEQ

Date:
10/01/04

Direction:
View to the Southeast

Comments:
View shows Wellco's setup for viewing and tapping the video from their downhole camera at 11234 Jones Road West.





Shaw Environmental & Infrastructure, Inc.

Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11234 Jones Road West / 11634 Oak Valley

Photograph Number:
15

Photographer:
Carol Dye, TCEQ

Date:
10/01/04

Direction:
View to the West

Comments:
View shows Collier Consulting's geophysical gamma ray tool about to be lowered into the well located at 11234 Jones Road West.



Photograph Number:
16

Photographer:
Bill Hardmant, Shaw

Date:
10/04/04

Direction:
View to the West

Comments:
View shows the well head setup at 11634 Oak Valley with the In-Situ miniTROLL installed in the well. The plastic box contains all of the above ground cable.



Photographic Record

Client: TCEQ

Project Number: 110798

Site Name: Jones Road Groundwater Plume

Site Location: 11103 Timber Crest / 11234 Jones Rd. West

Photograph Number:

17

Photographer:

Bill Hardmant, Shaw

Date:

10/04/04

Direction:

View to the West

Comments:

View shows a technician downloading the In-Situ miniTROLL data onto a laptop computer at 11103 Timber Crest well.



Photograph Number:

18

Photographer:

Bill Hardmant, Shaw

Date:

10/04/04

Direction:

View to the East

Comments:

View shows a technician downloading the In-Situ miniTROLL data onto a laptop computer at 11234 Jones Road West.



FIELD NOTES



Shaw Environmental & Infrastructure, Inc.

SHAW E & I, INC. DAILY FIELD REPORT

Project Name: TCEQ/Jones Road
Project Number: 110798

Date: 9-30-04
Daily Report #: 1

Weather: WARM, SUNNY

Summary of Day's Activities

- * PULLED JET PUMP, LOGGED AND PHOTOGRAPHED PRIVATE WELL @ AD 11619
- * PULLED SUB. PUMP, LOGGED AND PHOTOGRAPHED PRIVATE WELL @ JR 11622
- * LOGGED, PHOTOGRAPHED, AND INSTALLED DROP TUBE @ TC 11103
- * MOVED PLYWOOD FROM CAVALCADE TO JONES ROAD TO USE @ OV 11634

Summary of Quantities

Units	Day's Quantity	Total Quantity	Activity	Comment/Notes
Units			MW purged	Units-Number of locations
Units			MW sampled	Units-Number of locations
Units			Private well samples	Units-Number of sample points
Units			Private well locations	Units-Number of locations
Units			Odor test Samples	Units-Number of sample points
Tests			Color Tec water Tests	
Drums			IDW water generated	
Drums			IDW solids generated	
Units			Draegers PCE used	
Units			En Cores Used	
Units			VOAs used	
Units			Draegers (other) used	
Drums			IDW water staged	Units-Drums moved to staging area
Drums			IDW solids staged	Units-Drums moved to staging area

Personnel On Site

Name	Affiliation	Function/Activity
JASON RAVEN	CENTREY	WELL LOGGING - GAMMA
GARY DAVIS	WELCO	WELL PULL & PHOTOGRAPHING INSIDE WELL
RICK DAVIS	WELCO	WELL PULL & PHOTOGRAPHING INSIDE WELL
BILL HAEDMER	SHAW	OVERSIGHT AND COMMUNICATION WITH LAND OWNER
MARILYN LONG	TCEQ	OVERSIGHT AND COMMUNICATION WITH LAND OWNER
GREG LONG	SHAW	PROJECT MANAGER - SITE UNIT TO VERIFY TASK PERFORMANCE

Initials: [Signature]

Subcontractor Activities						
Quantity	Trade	Hours Worked	Activities Performed	Name		

Equipment Information						
Type Equipment	Vendor	Units	Onsite/used	Comments		
Laptop computer	Shaw	1	0			
printer/copier	Shaw	1	0			
Flow through Cells	Multiple	0	0			
PID			0			

Day's Safety Activities		
	Yes/No	Comment
Tailgate Safety Meeting Conducted	✓	
Equipment Inspections Performed	✓	
Breathing Zone Air Monitoring Conducted	NO	
Heat Stress Monitoring Conducted	NO	
Safety Comments: NO SAFETY ISSUES FOR THE DAY.		

Potential Scope Changes/Variations (note actions taken below)
* COULD NOT COMPLETE LOG WELL LOCATED @ AD11619 CALCIUM/CARBONATE BUILD UP
* AT ≈ 101 FEET IN WELL, VIEWED PROPERTY @ OV11634 NEED TO MOBILIZE
* PLYWOOD TO SITE TO COVER YARD - SEWER & SEPTIC SYSTEM INSTALL
New Instructions Received (who/what)

Additional Comments
* RECEIVED COMMENT FROM NEW LANDOWNER @ AD11619 - APPARENTLY TWO SMALL TV'S DISAPPEARED FROM HIS GARAGE WHEN HE LEFT HOUSE. SHAW VERIFIED WITH SUBCONTRACTOR'S THAT THEY DID NOT DO THIS. ALL TV'S WERE PRESENT WITH THE PROPERTY OWNER'S GARAGE WHEN SHAW & ALL SUBS LEFT THEIR HOUSE @ 11:20 AM. PROPERTY OWNER WAS NOT THERE AT THAT TIME AND RETURNED BACK @ ≈ 12:30pm AT WHICH TIME THEY NOTICED THE TWO TV'S MISSING.

Date Submitted: 10-01-04

Submitted By: Shaw E & I, Inc. Field Supervisor



By J Date 9-30-04 Subject JONES ROAD - WELL RETROFIT Sheet No. 1 of 1

Chkd. By _____ Date _____ Proj. No. 110798

25 in. X 25 in.

ADANCE 11619

PULLED 4 STEWS OF PIPE (21' EACH) + ADDITIONAL 17'
TOTAL PIPE STEWS 101' - JET PUMP

2 1/2" WELL CASING

GAMMA LOG TOTAL DEPTH 102.8 FEET FROM TOC

INITIAL WATER WAS @ 85' - FLUSH WELL TO SETTLE SEDIMENTS

WENT BACK IN WITH CAMERA - SAW HOLE IN CASING @ 43'

CARBONATE DEPOSIT @ ≈ 105' - WATER LEVEL IN WELL HAD

DROPPED AFTER FLUSHING - COULD NOT MEASURE IT. BUILT UP CARBONATE

DEPOSIT WITH WELL FLUSHING AND WATER CONTINUED DOWN WELL.

IF WE WANT TO USE THIS WELL - WELCO WILL HAVE TO COME

BACK AND WORK OVER WELL SO THAT WE CAN GET DEEPER.

DROP PIPE WAS NOT INSTALLED AT THIS TIME

SR 11622

PULLED 8 STEWS OF PIPE (21' EACH) + SUBMERSIBLE PUMP

TOTAL PIPE STEWS WITH PUMP ≈ 171'

4" WELL CASING

STATIC WATER LEVEL @ 132' FROM TOC

TOP OF SCREEN WAS APPROXIMATELY 173' SCREEN 173-180'

~~DO NOT~~

GAMMA LOG TOTAL DEPTH 177.8 FEET FROM TOC

DID NOT SET DROP PIPE AT THIS TIME - WE COMPARE TO MORGAN.

TC 11103

NO PIPE IN WELL

GAMMA LOG TOTAL DEPTH 174.80' FROM TOC

STATIC WATER @ 132' FROM TOC - COULD NOT GET CAMERA PAST 147'

COULD NOT SEE ANYTHING ONCE IN WATER - WATER TOO DARK.

SET 160' OF 1" OD SCH 40 PVC FROM TOC TO WELL.

9-30-04

0545 LEAVE OFFICE FOR SITE

MILE OUT 4429

STARTED CURBMAN TO PICKUP WATER

STARTED STORAGE SITES TO DRASP OFF

STARTED + PICKUP OBTAIN

ARRIVE 1160 @ 0640 - MURKIN LOGS

AVL READY INSIDE

CALLED RICE OASIS (WELLS)

THEY WERE SURE IN RICE LOGS LOT OF OLD

LEAVE

CONDUCTED TAILGATE SAFETY MEETING @ 0725

0730 HEADED OVER TO ADVANCE -

FIRST HASSLE

GET NEW OWNER TO SIGN ACCESS AGREEMENTS

WELLS PULLS DRASP PIPE OUT OF WELL

WITH JET PUMP ATTACHED

4 STRINGS OF 21 + 17 FEET

101' OF DRASP PIPE

CASING SIZE WAS 2 1/2"

USED TOP OF CASING FOR START OF

CAMM

FINISHED LOGGING WITH 0845

HIT WATER WITH CAMM @ 285'

@ 1021 WITH GEAR IN THE WELL

6

9-30-04

WENT BACK W WITH WATER TO

FLOW OUT SECTIONS

WATER LEVEL TEST DROPPED IN THE

WELL

WENT BACK INTO WELL WITH

CAMERA - FOUND HOLE IN CASING @ 43'

WENT BEYOND THAT TO 105' -

LOGS LIKE THERE WAS A CASING

DEPTH IN THE WELL COULD NOT

GET BEYOND THAT POINT. NO WATER LEVEL

IN WELL COULD NOT FIND TO OR SCREEN

1120 LEFT ADVANCE SITE FOR

MAYES PROPER

JR11622 @ 1130 SETUP OVER WITH

1220 STRAND PULLING CASING FOR

WELL PUMP FROM WELL

PULLED OUT 8x21' + PUMP

PULLED @ 171' FROM THE WELL

1245, STAND LOGGING THE HOLE

REACHED TO @ 178'

WATER LEVEL START @ 132' FROM TOC

TOP OF SCREEN @ 180' TOC (BOTTOM)

LEFT JR11622 @ 1420 WILL

COME BACK TO MURKIN TO SET

6

9-30-24

DEEP PIPE

MOB TO TC11103 @ 1430

SETUP TO VIDEO TAPE WELL FIRST
 START WATER LEVEL @ 132' FROM TOL
 BRADY'S REFOSA @ 147'

WATER WAS BLACK SO WE COULD
 NOT VISUALLY SEE ANYTHING OTHER
 THE WATER.

MR WILLIAMS THOUGHT THE WELL
 WAS DEEPER TO 220'

GAMMA LOG WENT TO ~~1947~~ 1947'
 STRAD LOG - FINISHED @ 1545'

INSTANCES 160' OF 1" OD SCA 40 PUL.

WELLS LEFT @ ~~1630~~ 1630

HELP PAUL & HEIDI UNLOAD PLYWOODS
 FOR MR. DABBS PROPERTY FOR TOMORROW
 LEFT SITE @ 1730

AGENCY BUREAU OFFICE @ 1815

TRAC MILES IN 7476

10-0-24

0735 LEAVE FOR SITE

MILES OUT 4476

0750 - CALLED M CONK @ TCEC TO
 DISCUSS POSSIBILITY OF NOT LOSING @
 011634 BECAUSE OF POTENTIAL CONTACT
 WITH SPENTISE SYSTEM - SUE ACCED.

0800 - CALLED SUPER SUE - REPORT MRE
 @ JEWEL 11234 - LEFT MESSAGE THAT WE
 WOULD BE ON SITE @ 0900

0805 - CALLED ALVIN CASTRO (GUY CONT CARD)
 & LET HIM KNOW THAT WE WOULD BE
 ON SITE AROUND 9 AM AND WOULD NEED TO START
 OFF BEFORE TO WELL. HE WOULD NOT BE

THAT - BUT OFFICE MRE - SARDRA SHOULD BE THERE
 AROUND 9:00. HE DID NOT KNOW WHERE SARDRA
 WAS!

ALSO ASKED HIM ABOUT THE WELL PRODUCTION
 HE SAID FOR ABOUT 1 YEAR NOW THE WELL
 WAS PRODUCING ABOUT 15 GPM @ 20 GPM RATE.

ARRIVE ACE @ 0830

HEAD HOSPITAL @ 0850

MOB TO JUNE @ 0900

JIM, CHARLIE, SUE, MRE @ 0900

10-01-04
 TAKE TO SANDRA C GOLF COURSE
 SITE SHOWS GRAY W/HAIR BEARING BORE
 MEET COOPER SURV -
 GET PERMISSION FROM DAVID C (BOS. PERSON)
 LEC'S ELECTRIC TO CUT DOWN PIPE IN
 1411 PINEHURST LOT

WELLS STAFF AND PULLING WELL
 TOP SLIP CAP CAME OUT WITH WELL
 HEAD - NO VISUAL CONTACT AS BELOW
 SURFACE.

PULLED 168' FEET OF PIPE
 STAFF USED C 1020'
 EXT W/ART OPTH 151' REWIND
 205 TOP OF SCREEN THRU TO A
 2" INCH DIAMETER SCREEN
 STAFF GANN CASE 1050' STAFF
 PULLED UP FROM 205'
 MOBBED TO OV11634 TO LOCATE
 STAFFING HEADS

1300 LAD DOWN PULVER C OV11634
 1350 BORE LEATHER PULVER C BORDMAN
 WELL STAFF - WELL PULVER FILL
 STAFF PULVER STAFF FROM WELLS
 BOUND 7 STAFF + PUMP

10-01-04
 5 214-438-0587
 DUE TO SURV

10-01-04

111

130.5 DTW FROM TBL
 1430 - STOPPED BY 1619 ADVANCE
 AND TALKED WITH SPENCER CORNHART
 HE WAS RELUCTANT TO TAKE CERTIFICATE
 BUT DID FOR HIS WIFE

DTW 130.5

153 WITH VIDEO

GANN RAY WAS 154.60

SEE DEEP FIVE AND PULVER UP ALL PULVER

LEFT MEX DEPT C 1617

SET 160 OF DEEP

WENT TO TC11303 TO FINISH WELL HEAD
 COMPLETION

WENT TO MR MARES C JR 11622

SET 160' OF DEEP PIPE.

FINISH OF MAIN WIRE 1655

WENT TO WRECK HOUSE TO UNLOAD PULVER
 AND SUPPLIES

LEFT JONES FOR OFFICE C 1755

ARRIVE OFFICE C 1845

MILES IN 4519

10-04-24

1000 LEAVE TO PICK UP WARM PASS
 1130 ARRIVE SITE - MEET BILL SHARP
 TO SEE POTENTIAL LEASE SPACE
 1150 MOVED TO JRW 11234 TO CHECK
 WARM DEPTH + SET PINE TROLL

JRW 11234 (CANDY) DTW 150.27
 TOP OF NIPPLE - TD 159.94
 SET 160' OF CABLE WITH MINTURN
 SETUP FERRIS TREAD OVER WELL HEAD
 LEFT FOR TC 11103

TC 11103 DTW 134.14
 TOP OF NIPPLE TD 157.88
 MINTURN SERIAL # 017081

OV 11634 DTW 135.45
 TOP OF NIPPLE TD 157.43
 MINTURN SERIAL # ~~0171018~~ 0171018

JR 11622 DTW TROLL 133.11
 DTW WARM PASS 133.13
 177.45 TROLL TD
 MIN TROLL SN 016862

10-04-24

JR 11622 # 16862
 STARTED TROLL @ 1457
 STOPPED TROLL W/ BACE
 TO CHANGE UNIT TO FEET
 STARTED TROLL @ 1501

OV 11634 TROLL # 017148
 STARTED TROLL @ 1514

TC 11103 TROLL # 017081
 STARTED TROLL @ 1525

JRW 11234 TROLL # 017208
 STARTED TROLL @ 1554

DROPPED OFF EQUIPMENT @ STORAGE -
 LEFT SITE @ 1605

SHAW E & I, INC. DAILY FIELD REPORT

Project Name: TCEQ/Jones Road
Project Number: 110798

Date: 10-10-04
Daily Report #: 2

Weather: WARM, SUNNY

Summary of Day's Activities

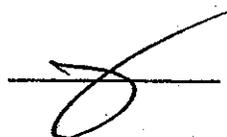
- * PULLED ACTIVE SUBMERSIBLE PUMP @ SRW 11234 AND REINSTALLED WITH DROP TUBE
- * PULLED JET PUMP AT ABANDON WELL @ OV11634 AND INSTALLED DROP PIPE.
- * REMOVED ALL WELL MATERIALS PULLED FROM ABANDON WELL AT REQUEST OF LANDOWNER
- * INSTALLED DROP PIPE @ SR11622. TALKED WITH PROPERTY OWNER @ AD11619 AND GAVE THEM \$100 GIFT CERTIFICATE TO WALMART.

Summary of Quantities

Units	Day's Quantity	Total Quantity	Activity	Comment/Notes
Units			MW purged	Units-Number of locations
Units			MW sampled	Units-Number of locations
Units			Private well samples	Units-Number of sample points
Units			Private well locations	Units-Number of locations
Units			Odor test Samples	Units-Number of sample points
Tests			Color Tec water Tests	
Drums			IDW water generated	
Drums			IDW solids generated	
Units			Draegers PCE used	
Units			En Cores Used	
Units			VOAs used	
Units			Draegers (other) used	
Drums			IDW water staged	Units-Drums moved to staging area
Drums			IDW solids staged	Units-Drums moved to staging area

Personnel On Site

Name	Affiliation	Function/Activity
JASON RANSEN	SHAW CENTURY	WELL LOGGING - Gamma Ray
GARY DAVIS	WELCO	WELL PULL + PHOTOGRAPH INSIDE WELL
RICK DAVIS	WELCO	WELL PULL + PHOTOGRAPH INSIDE WELL
BILL HARDMAN	SHAW	OVERSIGHT AND COMMUNICATION WITH LAND OWNER
GREG LONG	SHAW	PROJECT MANAGER - BRUL OUT TRANSDUCER (MUTATED)
SIM SHER	TCEQ	OVERSIGHT
CAROL DYE	TCEQ	OVERSIGHT
KRISTY MAURICIO	TCEQ	OVERSIGHT

Initials: 

Subcontractor Activities						
Quantity	Trade	Hours Worked	Activities Performed	Name		

Equipment Information						
Type Equipment	Vendor	Units	Onsite/used	Comments		
Laptop computer	Shaw	1	0			
printer/copier	Shaw	1	0			
Flow through Cells	Multiple	0	0			
PID			0			

Day's Safety Activities		
	Yes/No	Comment
Tailgate Safety Meeting Conducted	YE	
Equipment Inspections Performed	YE	
Breathing Zone Air Monitoring Conducted	NO	
Heat Stress Monitoring Conducted	ND	

Safety Comments: *LAYING DOWN PLYWOOD @ OV11634 TO PROTECT UNDERGROUND SPRINKLER HEADS.*

Potential Scope Changes/Variations (note actions taken below)

- * *WELL MATERIAL DISPOSAL OV11634*
- *
- *

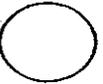
New Instructions Received (who/what)

- * *LANDOWNER @ OV11634 REQUESTED THAT ALL REMOVED PIPE FROM WELL BE*
- * *DISPOSED OF. ASKED WELCO TO HANDLE THIS AND PROVIDE COSTS TO US*
- * *THIS.*
- *
- *

Additional Comments

- * *GAVE \$100 WALMART GIFT CERTIFICATE TO NEW PROPERTY OWNER @ AD11619*
- * *FOR HIS LOSS OF 2 TUS THE PREVIOUS DAY. TRIED TO RECTIFY HIS TRUST.*
- *
- *
- *

Date Submitted: 10-04-04
 Submitted By: *[Signature]*
 Shaw E & I, Inc. Field Supervisor



By J Date 10-04-04 Subject JONES ROAD - WELL REEQUIP Sheet No. 1 of 1

Chkd. By _____ Date _____ Proj. No. 110793

.25 in. X .25 in.

JLW 11234

MET WITH COOPER SLAY @ SITE @ 0900 - JIM STEEL, CAROL DYE, KRISTY MAUEICIS (TCEO) WERE PRESENT ON SITE. SHUT POWER OFF TO WELL
POOLED WELL STRING AND LAID DOWN 4" DIAMETER WELL
≈ 168' OF PIPE (W/PUMP) IN THE WELL
ESTIMATED WATER DEPTH OF 151'
TOP OF SCREEN INTERNAL ≈ 205' THW IT LOOKED LIKE WELL SCREEN REDUCED TO 2" DIAMETER. COULD NOT SEE BOTTOM OF SCREEN
GAMMA LOG WENT TO 205'
SET ≈ 163' FEET OF DROP PIPE IN WELL NEXT TO PRODUCTION STRING.
REINSTALLED ALL EQUIPMENT BACK INTO WELL.

OV 11634

~~TRIP~~ MARKED ALL SPRINKLER HEADS WITH PIN FLAG TO IDENTIFY
LAID DOWN PLYWOOD OVER SERVIC SYSTEM AND OVER ALL SPRINKLER HEADS.
POOLED OUT 7 STANDS OF PIPE + JET PUMP ≈ 150'
DTH WAS 130.5'
VIDEO TAPED DOWN TO 153' COULD NOT SEE THE WELL SCREEN - WATER TOO CLOUDY
GAMMA RAY WIDE WELL CAME - TOTAL DEPTH OF GAMMA RAY 154.60'
SET IN ≈ 160' OF DROP PIPE IN WELL.

JR 11622

SET ≈ 160' OF DROP PIPE INTO MR MAUEICIS ABANDON WELL.



SHAW E & I, INC. DAILY FIELD REPORT

Project Name: TCEQ/Jones Road
Project Number: 111108

Date: 11/15/2004
Daily Report #: 6

Weather : High 60's, overcast

Summary of Day's Activities

* CLP sampling of private wells

*

*

*

*

Summary of Quantities

Units	Day's Quantity	Total Quantity	Activity	Comment/Notes
Units			MW purged	Units-Number of locations
Units			MW sampled	Units-Number of locations
Units	36	197	Private well samples	Units-Number of sample points
Units	24	143	Private well locations	Units-Number of locations
Units	5	26	QA/QC Samples-Dups	Duplicate samples collected
Units	3	15	QA/QC MS/MSD	MS/MSD Samples Collected
Tests	2	11	QA/QC Field Blanks	Field Blank Samples Collected
	2	10	QA/QC Trip Blanks	Trip Blank Samples Collected
Drums			IDW water generated	Poured into drum currently staged at site
Drums			IDW solids generated	
Units				
Units	153	816	VOA Bottles Used	
Units	7	29	Color Tec Tubes Used	
Units				
			IDW Haz water staged	
Drums			IDW water staged	
Drums			IDW solids staged	

Personnel On Site

Name	Affiliation	Function/Activity
Bill Hardmant	Shaw	CLP Oversight
Heidi Woelfel	Shaw	CLP
Baron Tucker	Shaw	Sampler
Mike Martinez	Shaw	Sampler
Jorge Rodriguez	Shaw	Sampler
Will Hudgins	Shaw	Sampler
Marilyn Long	TCEQ	PM
Greg Long	Shaw	PM

Initials:

Subcontractor Activities						
Quantity	Trade	Hours Worked	Activities Performed	Name		
1	Well Retro fit		Well Retro fit	Wellco		

Equipment Information						
Type Equipment	Vendor	Units	Onsite/used	Comments		
Laptop computer	Shaw	1	1			
printer/copier	Shaw	1	1			
Flow through Cells	Multiple	4	4			
Colorimetric Kit	Rental					

Day's Safety Activities		
	Yes/No	Comment
Tailgate Safety Meeting Conducted	Yes	
Equipment Inspections Performed	Yes	
Breathing Zone Air Monitoring Conducted	NA	
Heat Stress Monitoring Conducted	NA	
Safety Comments:		

Potential Scope Changes/Variations (note actions taken below)
*
*
*
New Instructions Received (who/what)
*
*
*
*
*

Additional Comments
* Wellco conducted a retro-fit on the abandoned well at Advance 11619
*
*
*
*

Date Submitted: 11-16-04
 Submitted By: Will B. [Signature]
 Shaw E & I, Inc. Field Supervisor

11/15/2004 Grey Long

0930 arrive at 11619 Advance
to clean out well, worked
Rick Davis, Gay Davis and
Marilyn Long, TREC
Homeowner contacted by
phone at 8/14/5, said
he was not able to be
on site.

0950 Rigging up at well
head, well cleaned out

10:30 Install PVC Drop
tube and well head, used
147 feet of PVC pipe

10:40 Rig moves off site

10:45 Tagged water level

at 110.1 feet below

TOC

10:50 138 feet to screen

logs tube,

11:15 173.5 feet tagged TD of

well, homeowner arrived

11:20 leave site, homeowner

still on site when

we left.

**ELECTRIC LOGS
September/October 2004**

Due to oversized drawings, please refer to the original document for the Electric Logs.

**WELLCO'S DOWN HOLE VIDEO
September/October 2004**

Please refer to the original document for a copy of the Down Hole Video

STATUS REPORTS
October 2004 – January 2005

Hardmant, William

From: Hardmant, William
Sent: Wednesday, October 13, 2004 1:38 PM
To: 'Marilyn Long'
Cc: 'Benjamin Shields'; Subhash Pal; Long, Greg
Subject: Mini trolls
Attachments: Minitroll Data File.xls

Tracking:	Recipient	Delivery	Read
	'Marilyn Long'		
	'Benjamin Shields'		
	Subhash Pal		
	Long, Greg	Delivered: 10/13/2004 1:55 PM	Read: 10/13/2004 1:56 PM

Marilyn,

Attached please find a spread containing a quick graph of the results for the first week of mini troll data collection. The graph shows the initial startup, the high water level, the low water level, and the final water level for the week.

Thank you.

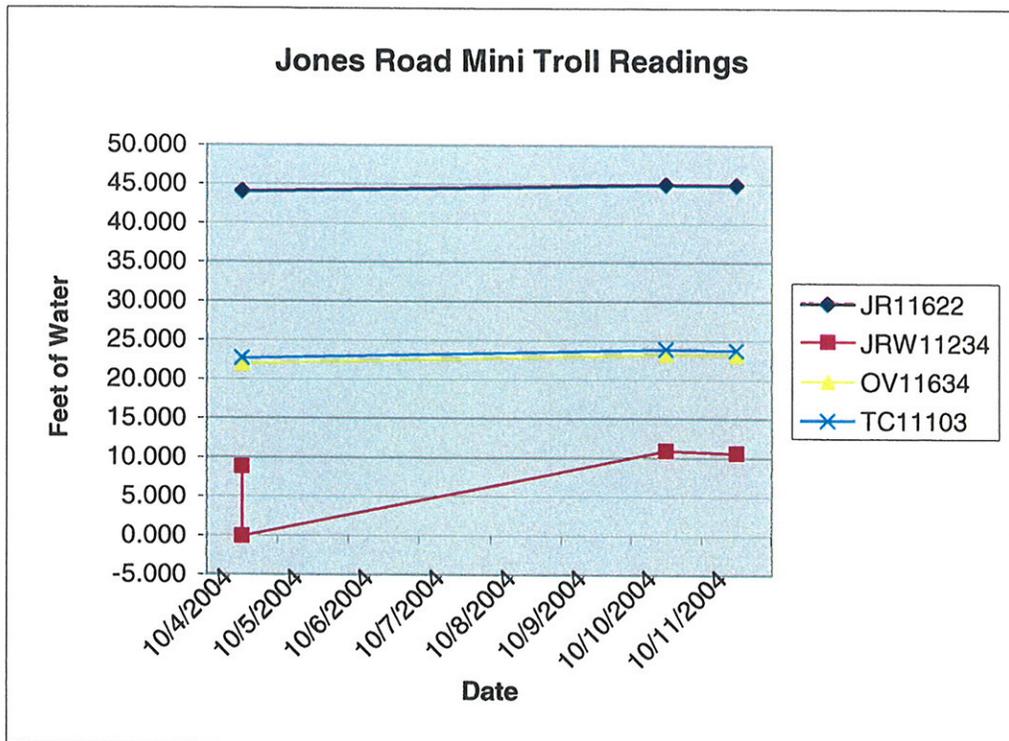
Bill

William B. Hardmant
Shaw Environmental & Infrastructure, Inc.
1430 Enclave Parkway
Houston, Texas 77077
Phone: 281-368-4599
Fax: 281-368-4401
Cell: 281-221-4036
william.hardmant@shawgrp.com

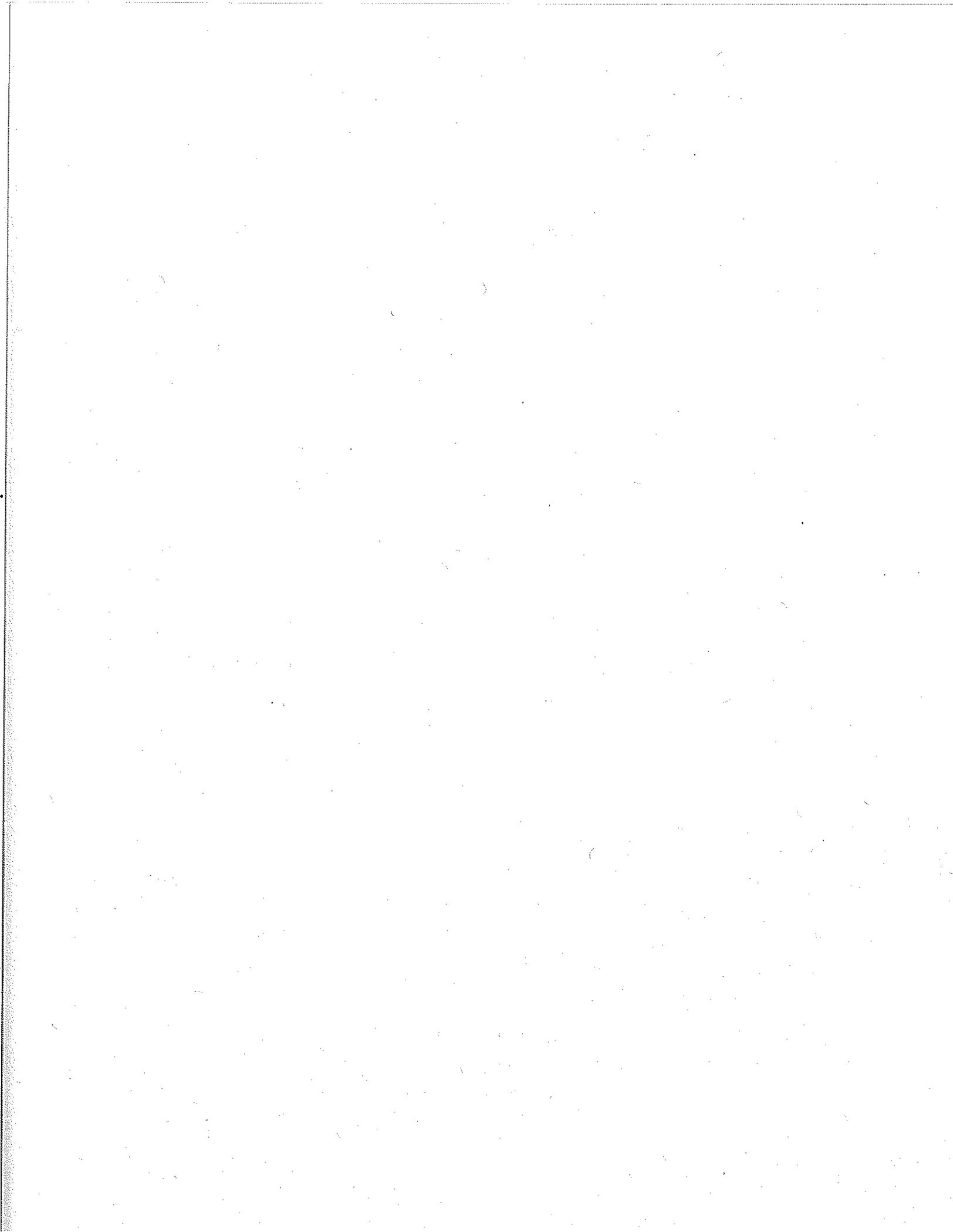
10/21/2004

**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA**

Well Location ID	Minitroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Minitroll Reading	Comments
JR11622	16862	10/4/2004	1501		44.093	Initial @ startup
JR11622	16862	10/4/2004	2016		44.065	Highest water level
JR11622	16862	10/10/2004	2316		44.996	Lowest water level
JR11622	16862	10/11/2004	1116		44.921	End of First week
JRW11234	17208	10/4/2004	1553		8.688	Initial @ startup
JRW11234	17208	10/5/2004	953		-0.193	Lowest water level
JRW11234	17208	10/11/2004	423		10.745	Highest water level
JRW11234	17208	10/11/2004	1153		10.455	End of First week
OV11634	17148	10/4/2004	1513		22.053	Initial @ startup
OV11634	17148	10/4/2004	2058		21.957	Lowest water level
OV11634	17148	10/11/2004	543		23.258	Highest water level
OV11634	17148	10/11/2004	1128		23.147	End of First week
TC11103	17081	10/4/2004	1525		22.823	Initial @ startup
TC11103	17081	10/4/2004	2040		22.762	Lowest water level
TC11103	17081	10/11/2004	455		23.955	Highest water level
TC11103	17081	10/11/2004	1140		23.850	End of First week



Plot represents startup and highs and lows for the first week of data collection.



Hardmant, William

From: Hardmant, William
Sent: Thursday, October 21, 2004 9:30 AM
To: 'mlong@tceq.state.tx.us'
Cc: Long, Greg; 'Benjamin Shields'; Subhash Pal
Subject: Mini Troll Weekly Report
Attachments: Second Weekly Report.xls

Tracking:

Recipient	Delivery
'mlong@tceq.state.tx.us'	
Long, Greg	Delivered: 10/21/2004 9:30 AM
'Benjamin Shields'	
Subhash Pal	

Marilyn,

Attached please find the results of the second weekly readings from the mini trolls.

Thank you.

Bill

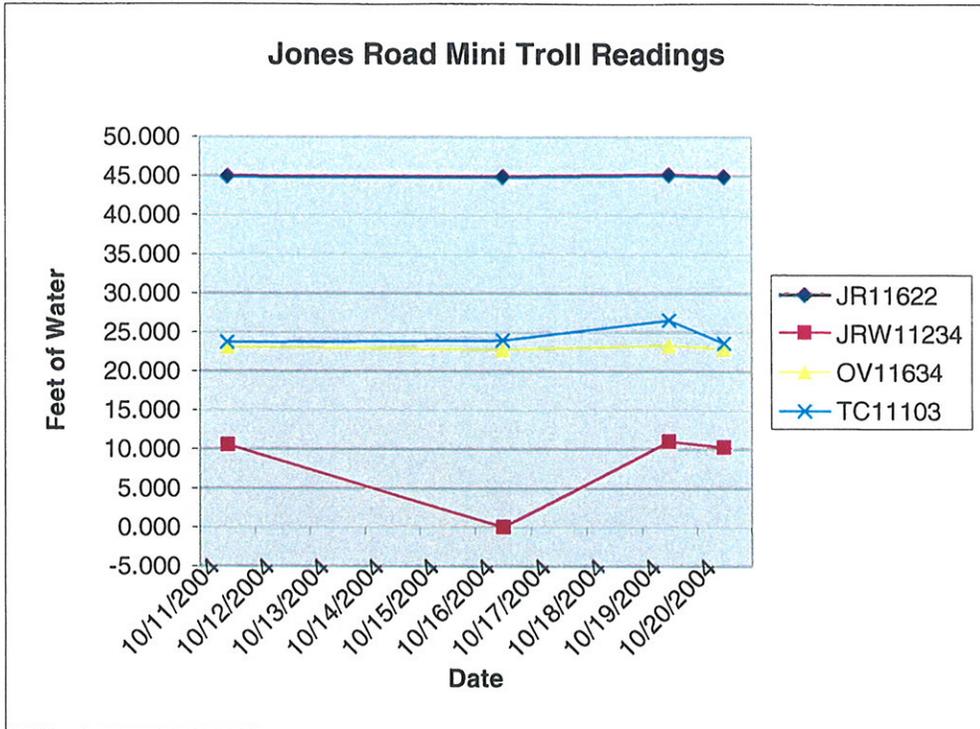
William B. Hardmant
Shaw Environmental & Infrastructure, Inc.
1430 Enclave Parkway
Houston, Texas 77077
Phone: 281-368-4599
Fax: 281-368-4401
Cell: 281-221-4036
william.hardmant@shawgrp.com

10/21/2004

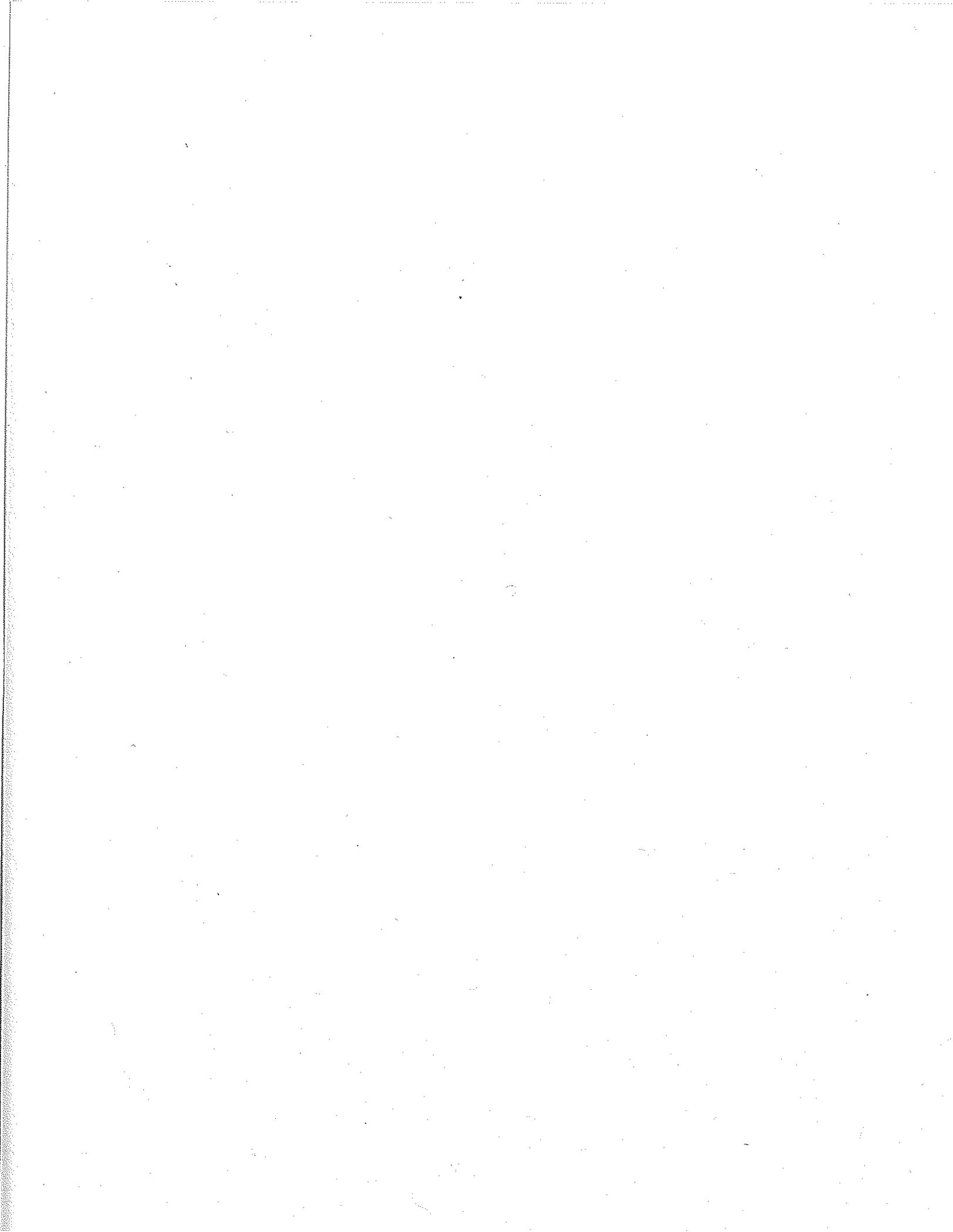
**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA**

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JRW11234	17208	10/5/2004	953		-0.193	Lowest water level
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JRW11234	17208	10/11/2004	1153		10.455	End of First week
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TC11103	17081	10/11/2004	1140		23.850	End of First week
TC11103	17081	10/20/2004	1555		23.717	End of Second week
TC11103	17081	10/16/2004	625		24.069	Lowest water level Second week
TC11103	17081	10/19/2004	1640		26.632	Highest water level Second week

JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA



Plot represents startup and highs and lows for the second week of data collection.



**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA**

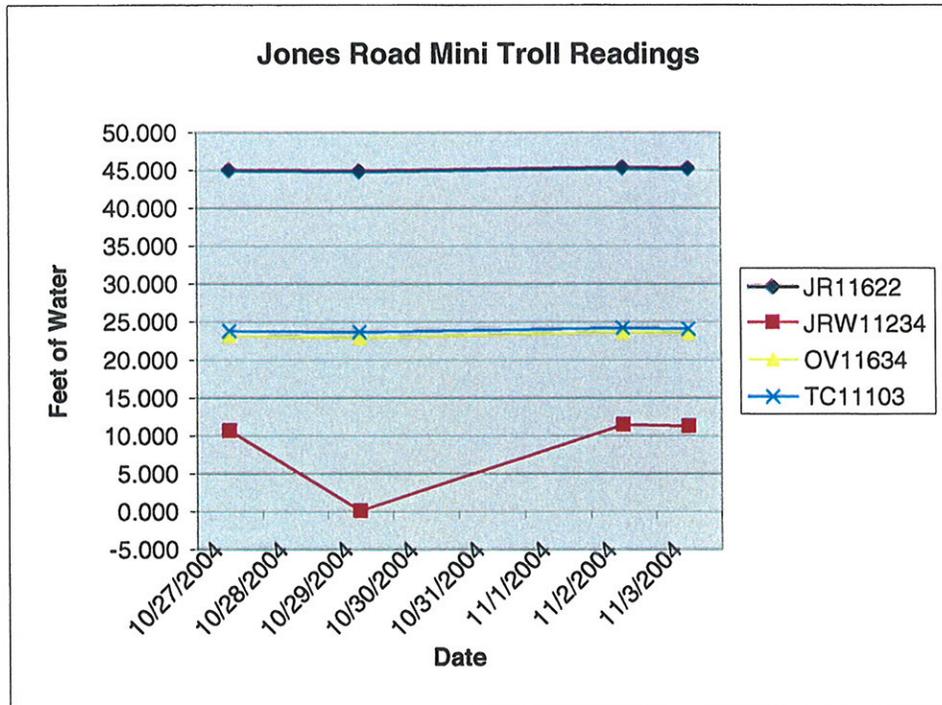
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JR11622	16862	10/27/2004	846		44.987	End of Third week
JR11622	16862	10/20/2004	1931		44.705	Lowest water level Third week
JR11622	16862	10/26/2004	646		45.026	Highest water level Third week
JR11622	16862	11/3/2004	1216		45.246	End of Fourth week
JR11622	16862	10/29/2004	931		44.855	Lowest water level Fourth week
JR11622	16862	11/2/2004	546		45.372	Highest water level Fourth week
JRW11234	17208	10/4/2004	1553		8.688	Initial @ startup
JRW11234	17208	10/5/2004	953		-0.193	Lowest water level
JRW11234	17208	10/11/2004	423		10.745	Highest water level
JRW11234	17208	10/11/2004	1153		10.455	End of First week
JRW11234	17208	10/20/2004	1508		10.151	End of Second week
JRW11234	17208	10/13/2004	1238		-0.052	Lowest water level Second week
JRW11234	17208	10/16/2004	608		10.920	Highest water level Second week
JRW11234	17208	10/27/2004	823		10.466	End of Third week
JRW11234	17208	10/25/2004	1623		-0.034	Lowest water level Third week
JRW11234	17208	10/26/2004	523		10.767	Highest water level Third week
JRW11234	17208	11/3/2004	1208		11.132	End of Fourth week
JRW11234	17208	10/28/2004	1138		-0.050	Lowest water level Fourth week
JRW11234	17208	11/3/2004	538		11.316	Highest water level Fourth week
OV11634	17148	10/4/2004	1513		22.053	Initial @ startup
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OV11634	17148	10/27/2004	513		23.253	Highest water level Third week
OV11634	17148	11/3/2004	1243		23.500	End of Fourth week
OV11634	17148	10/29/2004	228		22.895	Lowest water level Fourth week
OV11634	17148	11/2/2004	558		23.629	Highest water level Fourth week
TC11103	17081	10/4/2004	1525		22.823	Initial @ startup
TC11103	17081	10/4/2004	2040		22.762	Lowest water level
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TC11103	17081	10/16/2004	625		24.069	Lowest water level Second week
TC11103	17081	10/19/2004	1640		26.632	Highest water level Second week
TC11103	17081	10/27/2004	855		23.886	End of Third week
TC11103	17081	10/22/2004	1710		23.511	Lowest water level Third week
TC11103	17081	10/27/2004	440		23.973	Highest water level Third week
TC11103	17081	11/3/2004	1225		24.219	End of Fourth week
TC11103	17081	10/29/2004	755		23.755	Lowest water level Fourth week
TC11103	17081	11/2/2004	610		24.335	Highest water level Fourth week

**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA**

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OV11634	17148	10/29/2004	228		22.895	Lowest water level Fourth week
OV11634	17148	11/2/2004	558		23.629	Highest water level Fourth week

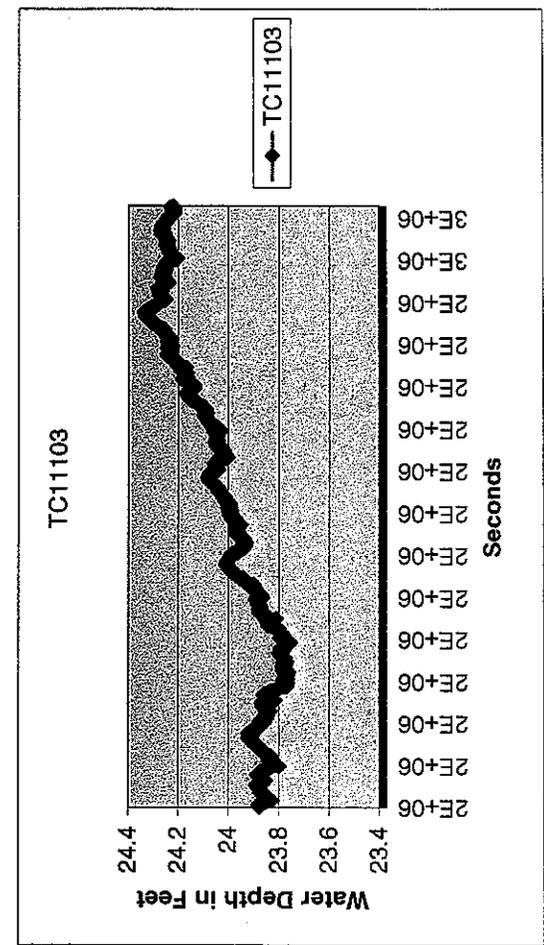
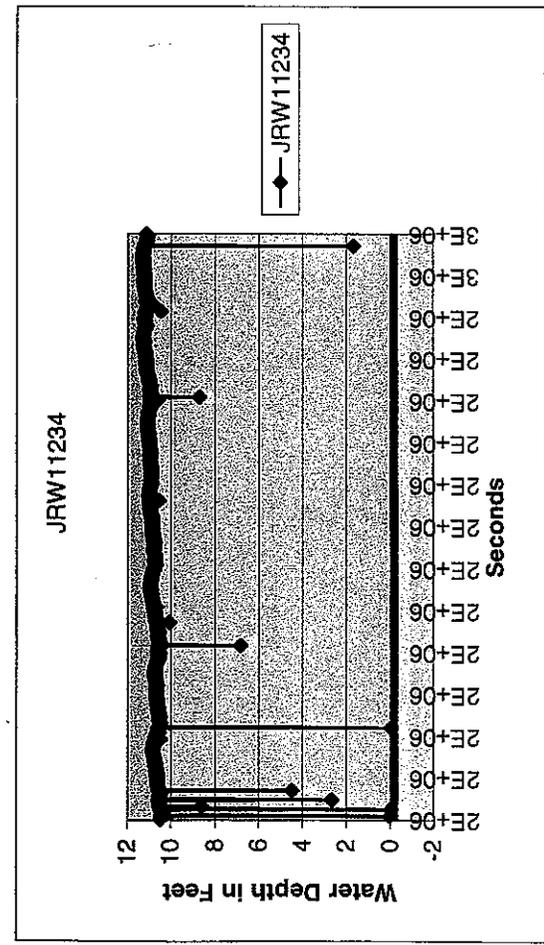
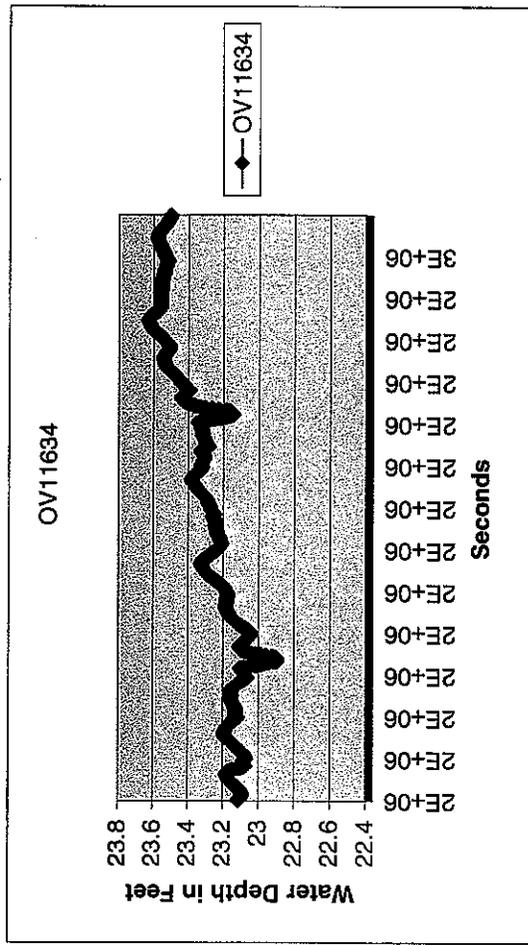
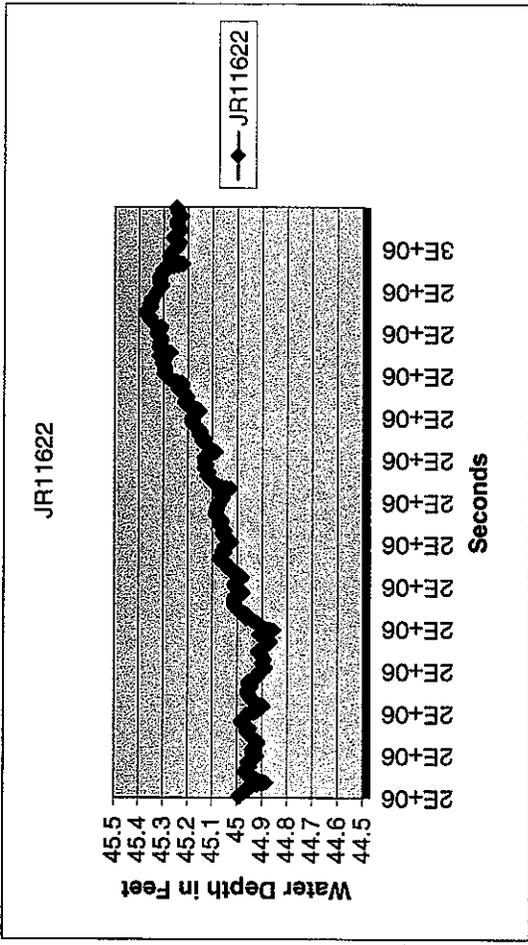
**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA**

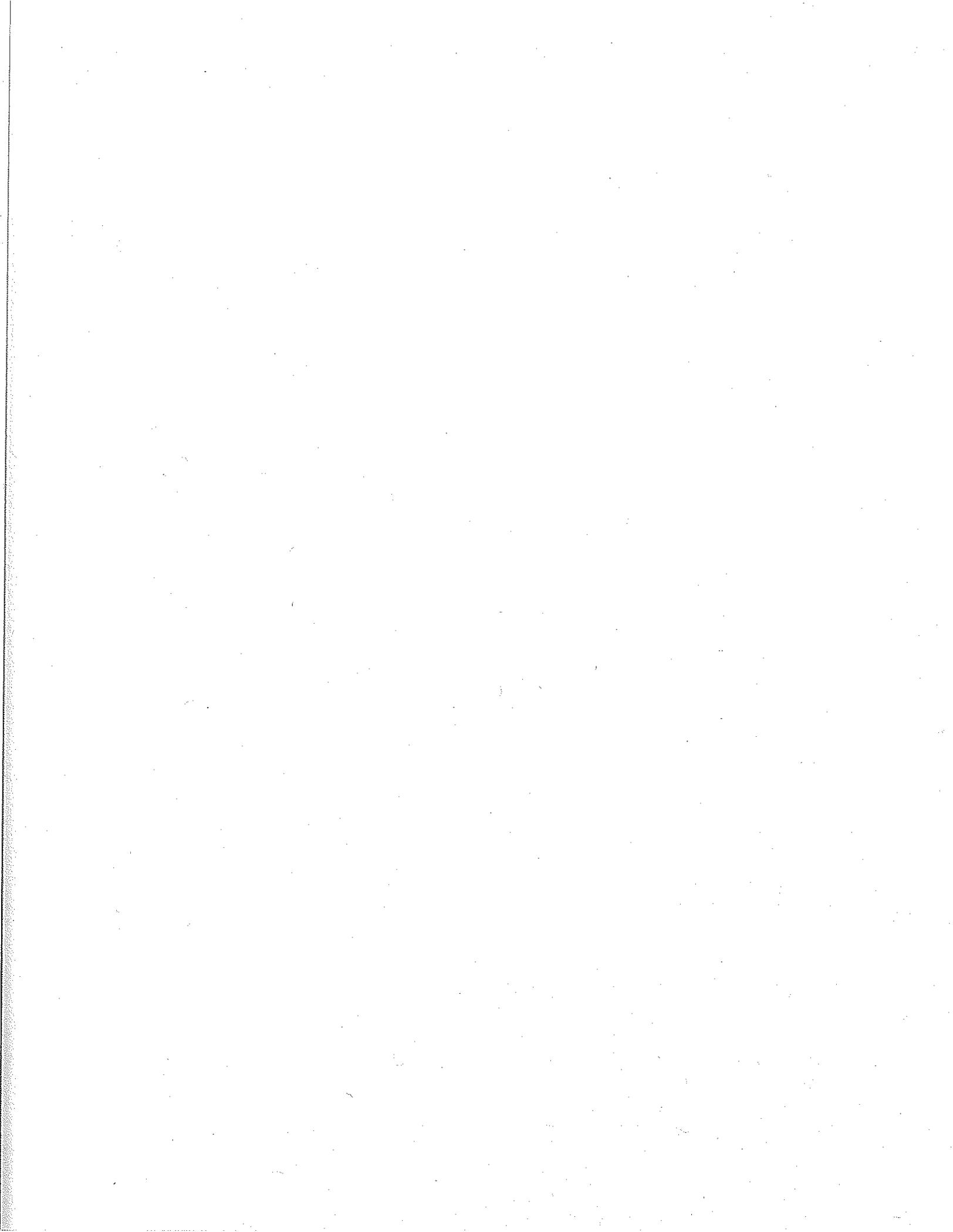
Well Location ID	Minitroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Minitroll Reading	Comments
TC11103	17081	10/4/2004	1525		22.823	Initial @ startup
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TC11103	17081	10/16/2004	625		24.069	Lowest water level Second week
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Plot represents highs and lows for the fourth week of data collection.

**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA
PLOTTED DATA FOR THE TIME INTERVAL 10/27/04 THROUGH 11/03/04**





Hardmant, William

From: Hardmant, William
Sent: Thursday, October 28, 2004 1:42 PM
To: 'Marilyn Long'
Cc: Subhash Pal; 'Benjamin Shields'; Long, Greg
Subject: Minitroll Weekly Report - Week 3
Attachments: Third Weekly Report.xls

Marilyn,

Attached please find the weekly report for the minitroll data collected for the third week.

Thank you.

Bill

William B. Hardmant
Shaw Environmental & Infrastructure, Inc.
1430 Enclave Parkway
Houston, Texas 77077
Phone: 281-368-4599
Fax: 281-368-4401
Cell: 281-221-4036
william.hardmant@shawgrp.com

10/28/2004

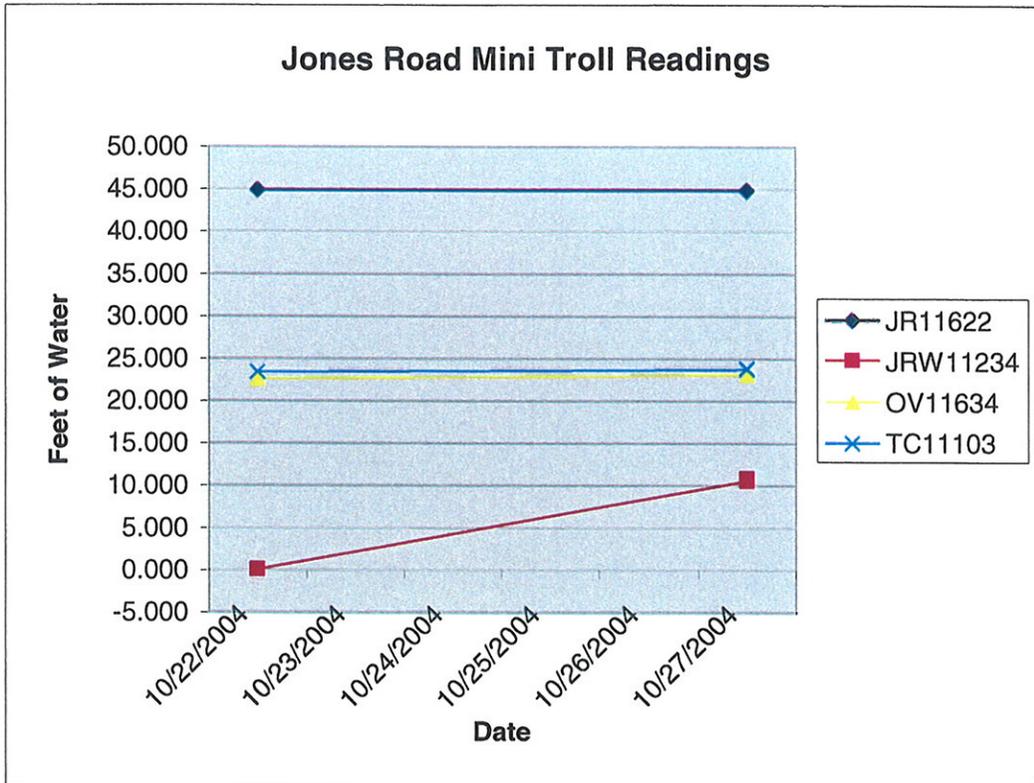
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**JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA**

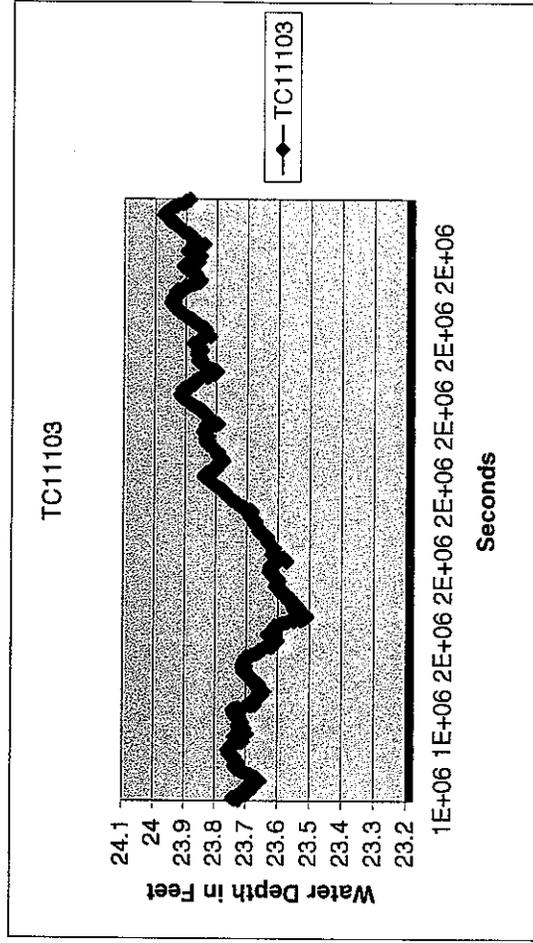
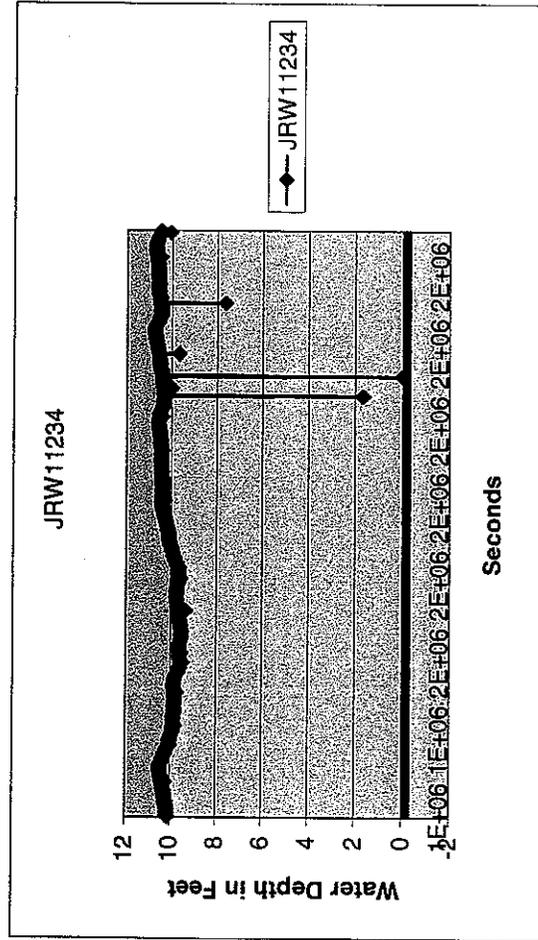
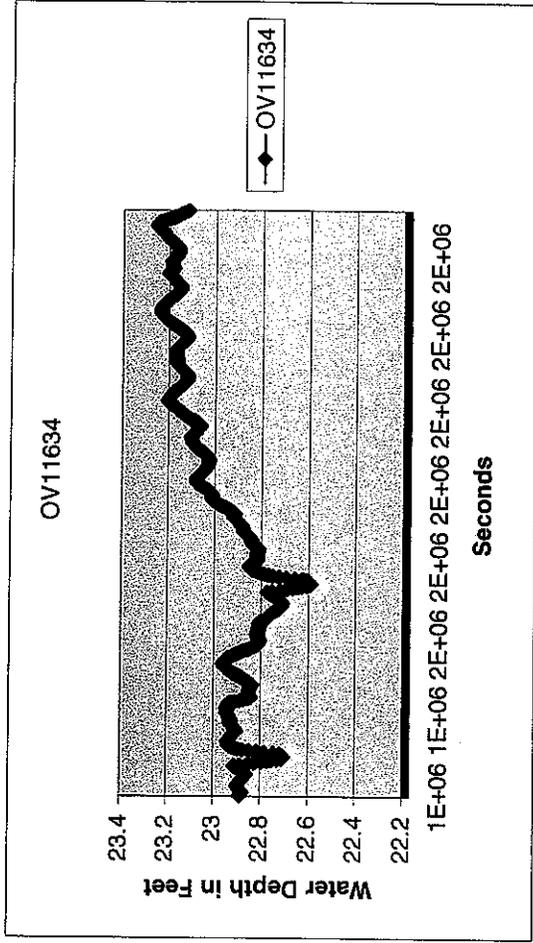
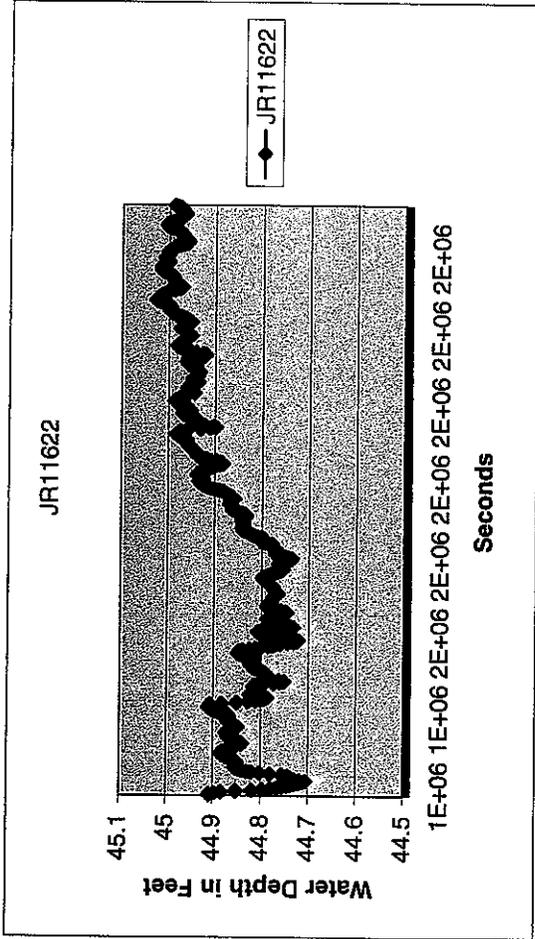
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TC11103	17081	10/20/2004	1555		23.717	End of Second week
TC11103	17081	10/16/2004	625		24.069	Lowest water level Second week
TC11103	17081	10/19/2004	1640		26.632	Highest water level Second week
TC11103	17081	10/27/2004	855		23.886	End of Third week
TC11103	17081	10/22/2004	1710		23.511	Lowest water level Third week
TC11103	17081	10/27/2004	440		23.973	Highest water level Third week

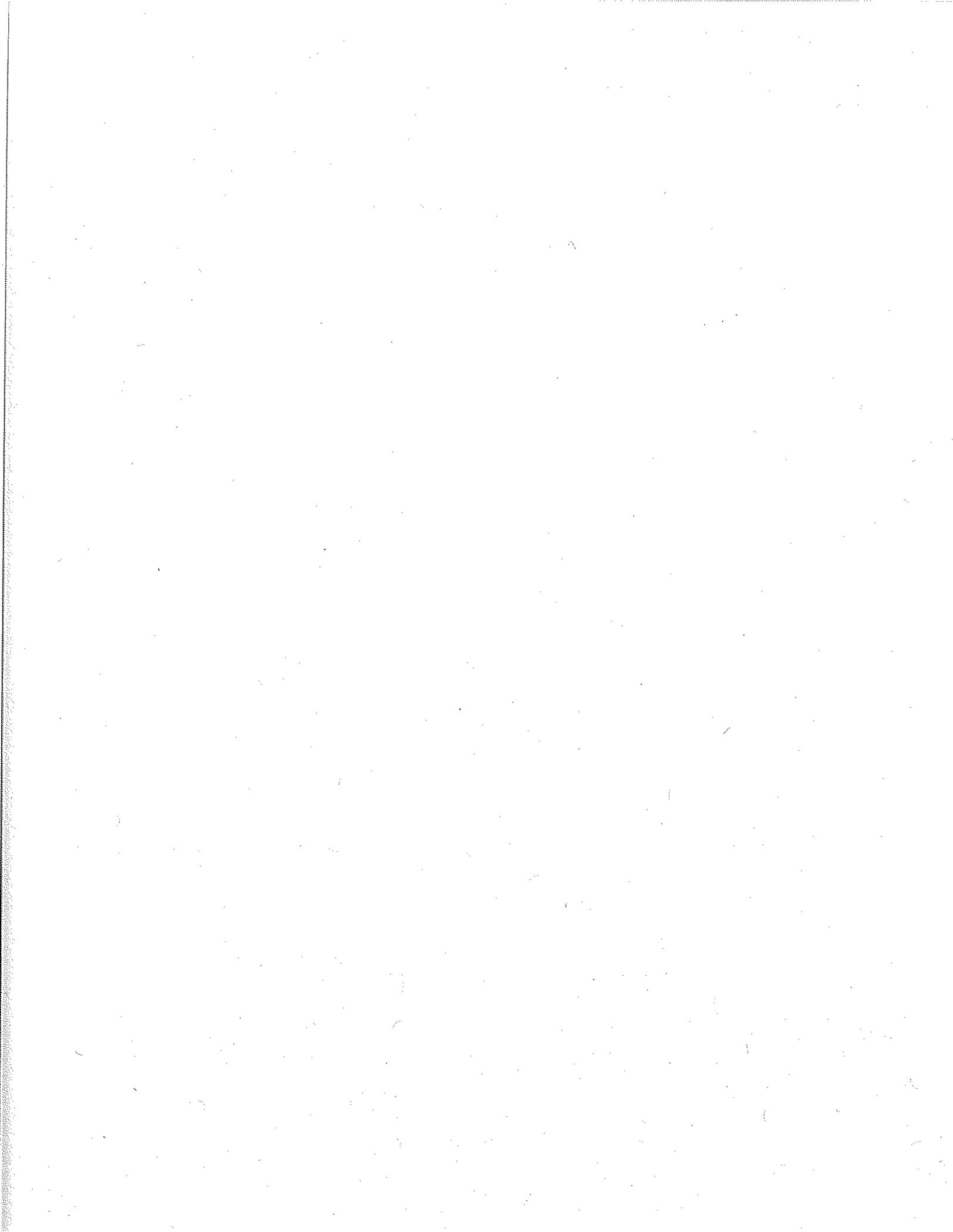
JONES ROAD GROUNDWATER PLUME
MINITROLL WEEKLY DATA



Plot represents highs and lows for the third week of data collection.

JONES ROAD GROUNDWATER PLUME
 MINITROLL WEEKLY DATA
 PLOTTED DATA FOR THE TIME INTERVAL 10/20/04 THROUGH 10/27/04





Hardmant, William

From: Hardmant, William
Sent: Friday, November 19, 2004 2:32 PM
To: 'Marilyn Long'; Subhash Pal
Cc: Long, Greg
Subject: Minitroll Report
Attachments: Sixth Weekly Report.xls

Marilyn,

Attached please find the minitroll report for data collected through the end of the sixth week. I changed this report a little based upon our last discussion. Should you like additional modifications, please let me know.

Thank you.

Bill

William B. Hardmant
Shaw Environmental & Infrastructure, Inc.
1430 Enclave Parkway
Houston, Texas 77077
Phone: 281-368-4599
Fax: 281-368-4401
Cell: 281-221-4036
william.hardmant@shawgrp.com

11/19/2004

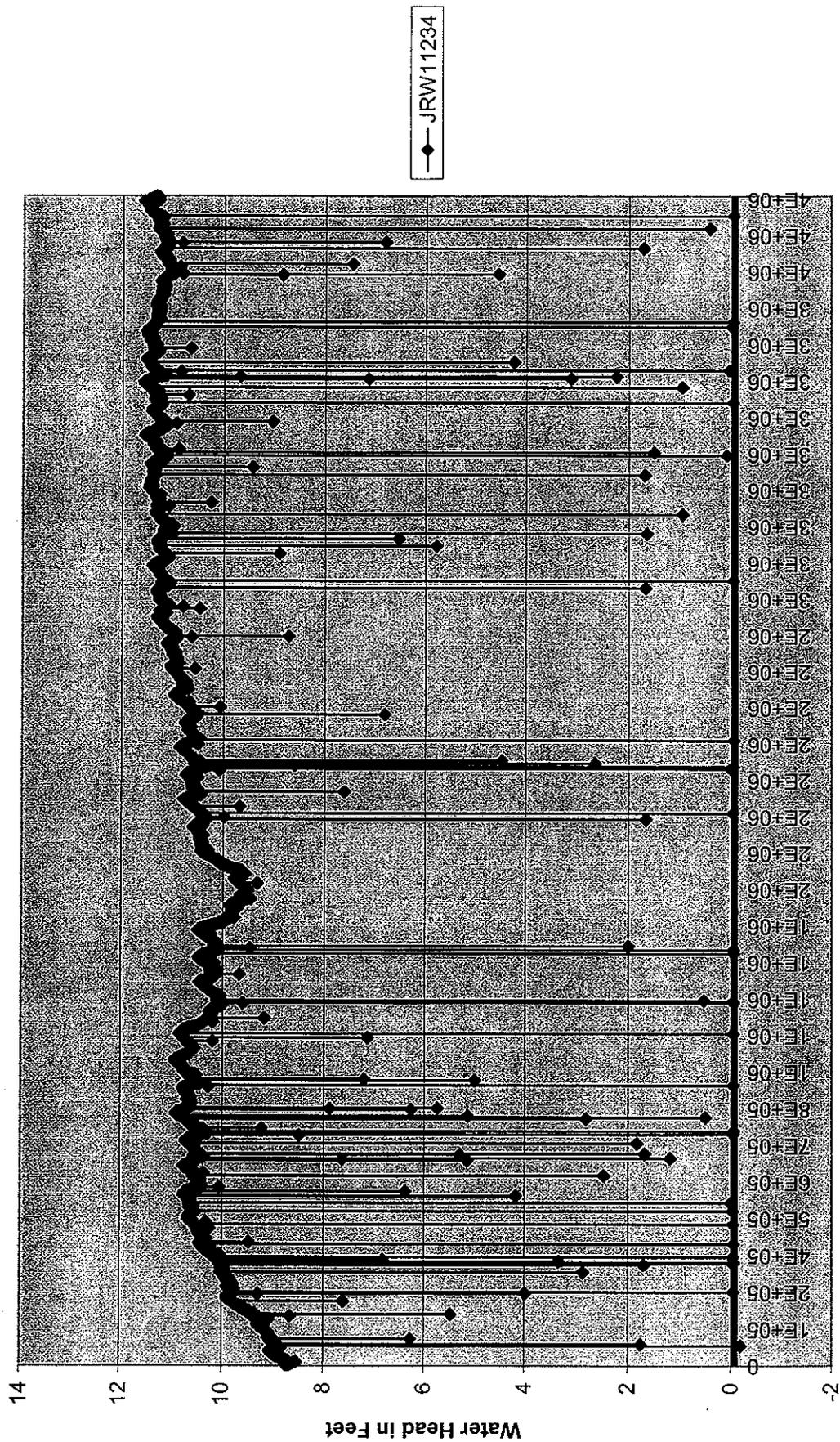
**JONES ROAD GROUNDWATER PLUME
MINITROLL DATA TABLE**

Well Location ID	Minitroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Depth to water (WP)	Depth to bottom of Drop Tube (ft)	Water Head in Feet (WP)	Minitroll Reading
JRW11234	17208	10/4/2004	1554		151.27	159.94	8.67	8.688
TC11103	17081	10/4/2004	1525		134.14	157.05	22.91	22.823
OV11634	17148	10/4/2004	1514		135.45	157.43	21.98	22.053
JR11622	16862	10/4/2004	1501		133.13	177.45	44.32	44.093
AD11619	16844					137.95		
JRW11234	17208	10/11/2004	1153		Not Gauged	159.94	#VALUE!	10.455
TC11103	17081	10/11/2004	1140		Not Gauged	157.05	#VALUE!	23.850
OV11634	17148	10/11/2004	1128		Not Gauged	157.43	#VALUE!	23.147
JR11622	16862	10/11/2004	1116		Not Gauged	177.45	#VALUE!	44.921
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	10/20/2004	1508		Not Gauged	159.94	#VALUE!	10.151
TC11103	17081	10/20/2004	1555		Not Gauged	157.05	#VALUE!	23.717
OV11634	17148	10/20/2004	1543		Not Gauged	157.43	#VALUE!	22.886
JR11622	16862	10/20/2004	1531		Not Gauged	177.45	#VALUE!	44.896
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	10/27/2004	923		Not Gauged	159.94	#VALUE!	11.132
TC11103	17081	10/27/2004	1001		132.90	157.05	24.15	24.219
OV11634	17148	10/27/2004	1017		134.07	157.43	23.36	23.500
JR11622	16862	10/27/2004	945		131.95	177.45	45.50	45.246
AD11619	16844				Not Gauged	137.95	137.95	
JRW11234	17208	11/3/2004	1200		Not Gauged	159.94	#VALUE!	11.132
TC11103	17081	11/3/2004	1235		132.58	157.05	24.47	24.219
OV11634	17148	11/3/2004	1250		133.68	157.43	23.75	23.500
JR11622	16862	11/3/2004	1220		131.71	177.45	45.74	45.246
AD11619	16844				Not Gauged	137.95	137.95	
JRW11234	17208	11/18/2004	930		Not Gauged	159.94	#VALUE!	11.340
TC11103	17081	11/18/2004	1015		132.55	157.05	24.50	24.234
OV11634	17148	11/18/2004	955		133.64	157.43	23.79	23.536
JR11622	16862	11/18/2004	1027		131.46	177.45	45.99	45.266
AD11619	16844	11/18/2004	1315		106.44	137.95	31.51	31.139
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081				Not Gauged	157.05	157.05	
OV11634	17148				Not Gauged	157.43	157.43	
JR11622	16862				Not Gauged	177.45	177.45	
AD11619	16844				Not Gauged	137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081				Not Gauged	157.05	157.05	
OV11634	17148				Not Gauged	157.43	157.43	
JR11622	16862				Not Gauged	177.45	177.45	
AD11619	16844				Not Gauged	137.95	137.95	

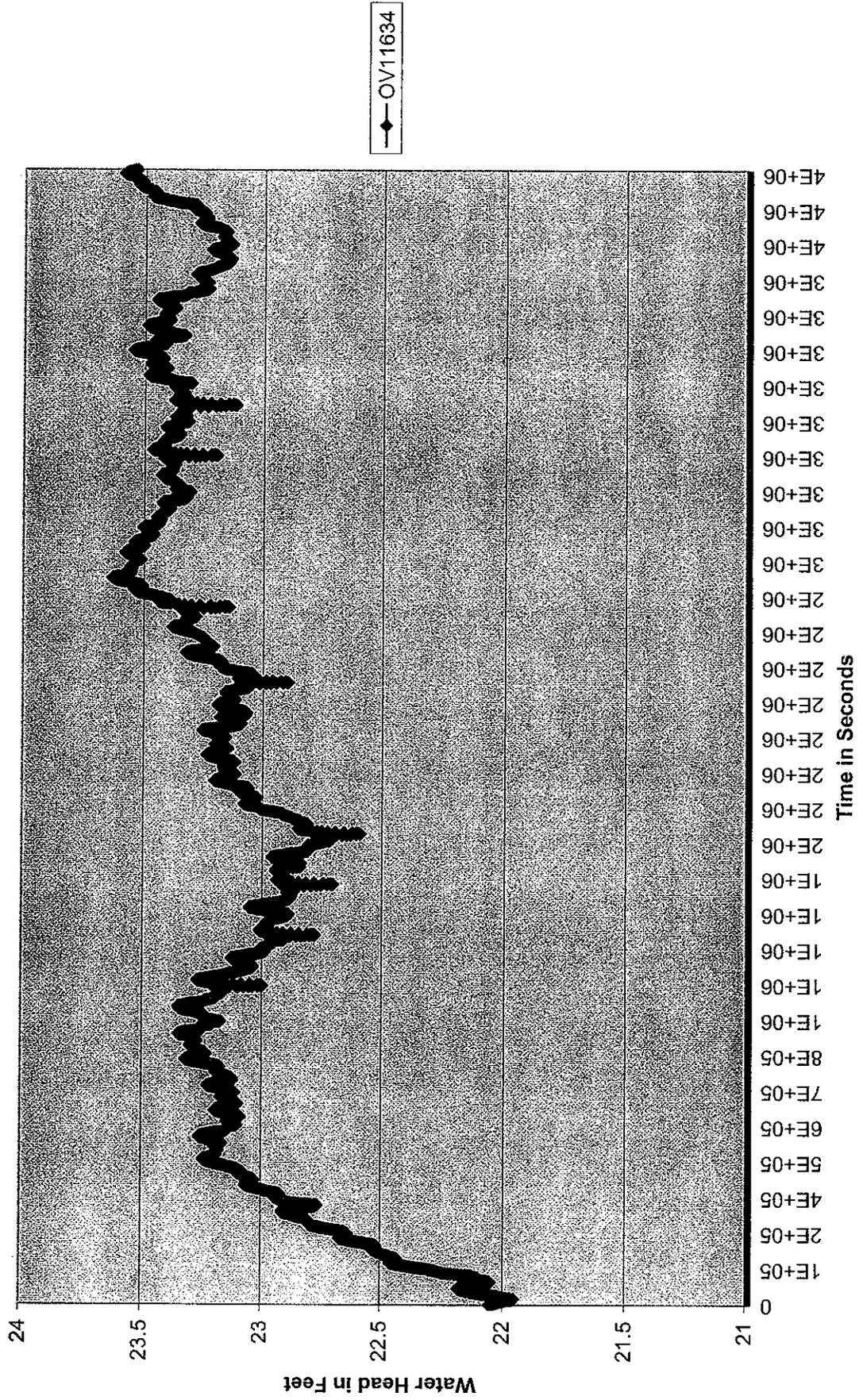
JONES ROAD GROUNDWATER PLUME
MINITROLL DATA TABLE

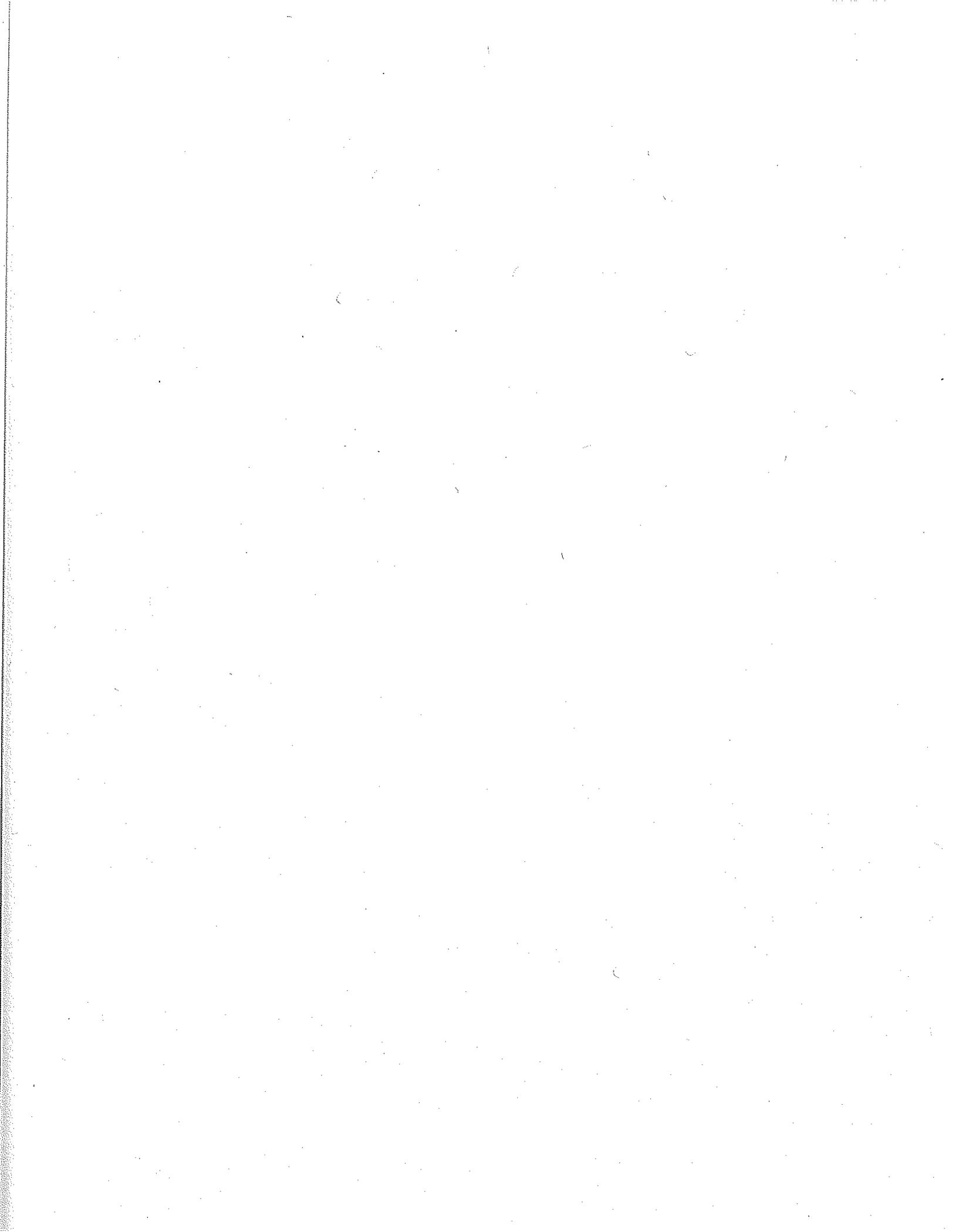
Well Location ID	Minitroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Depth to water (WP)	Depth to bottom of Drop Tube (ft)	Water Head in Feet (WP)	Minitroll Reading
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	

JRW11234 Period from 10/04/04 to 11/18/04



OV11634 Period from 10/04/04 to 11/18/04





Hardmant, William

From: Hardmant, William
Sent: Saturday, December 04, 2004 9:24 AM
To: 'Marilyn Long'; Subhash Pal
Cc: Long, Greg
Subject: Jones Road Minitroll Data Report
Attachments: Eighth Weekly Report.xls

Marilyn,

Attached please find the minitroll cumulative data report through December 3, 2004.

Thank you.

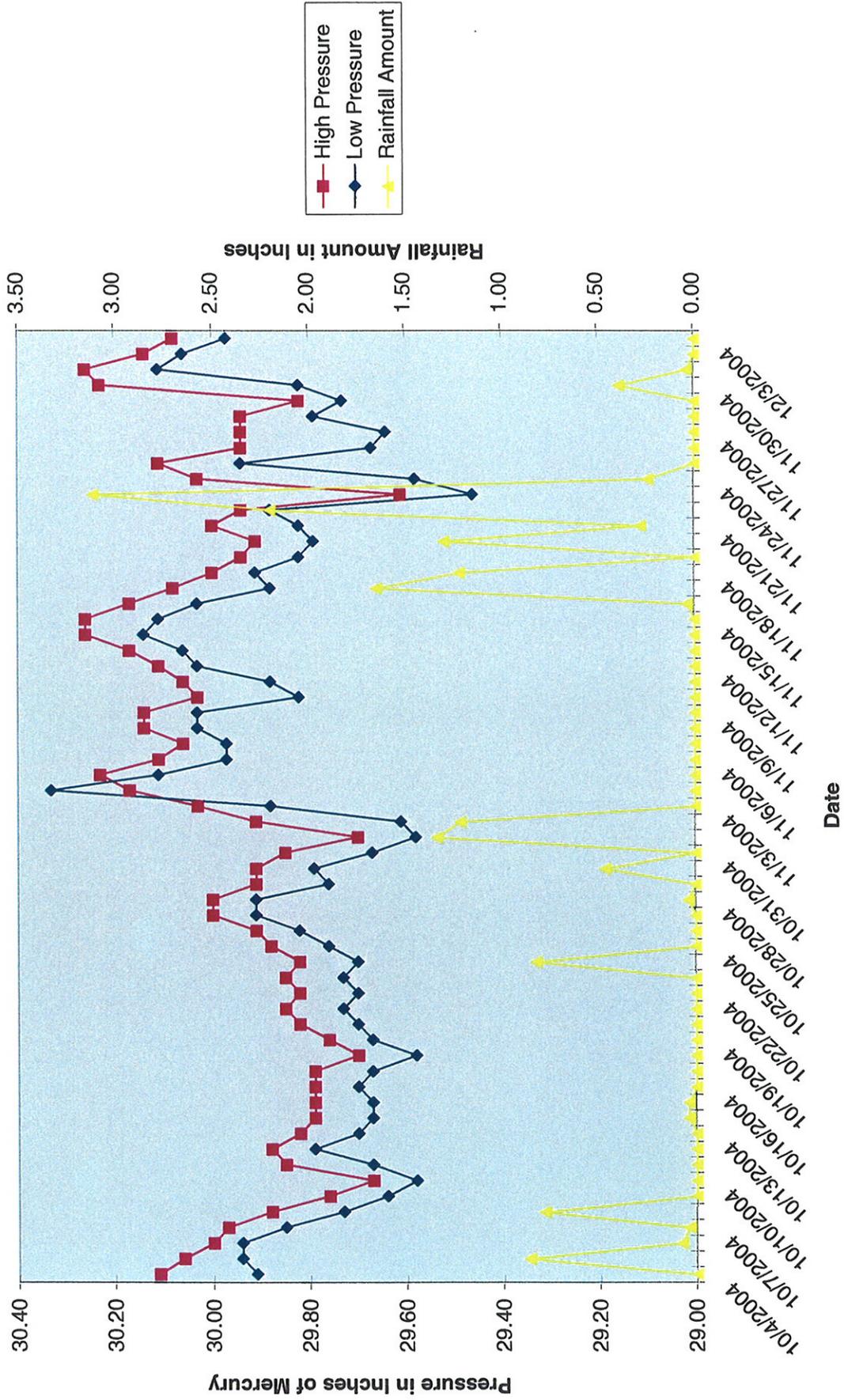
Bill

William B. Hardmant
Shaw Environmental & Infrastructure, Inc.
1430 Enclave Parkway
Houston, Texas 77077
Phone: 281-368-4599
Fax: 281-368-4401
Cell: 281-221-4036
william.hardmant@shawgrp.com

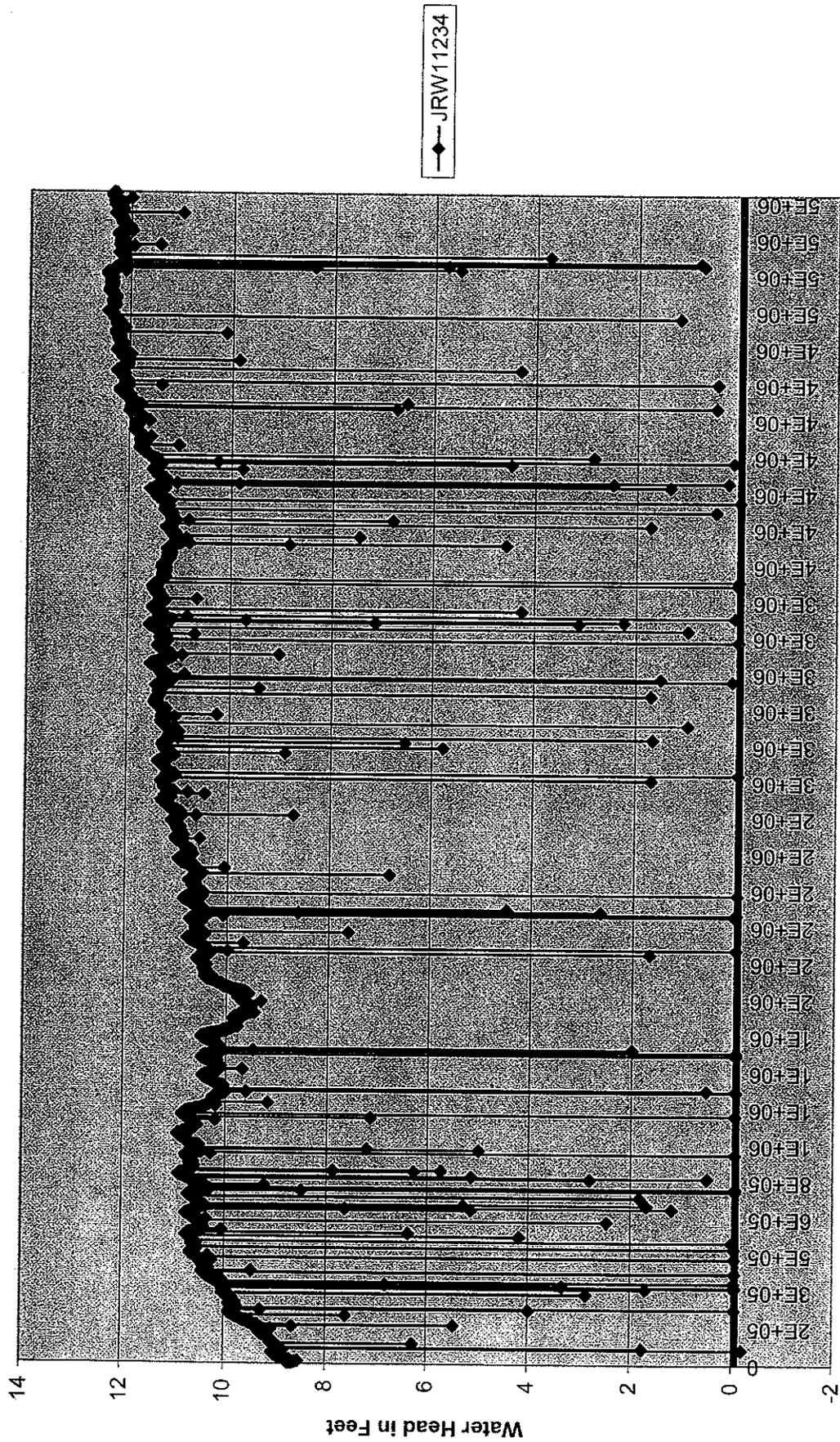
ONE-AD G-NDW-PL-LL-M
 MINTROLL DATA TABLE

Well Location ID	Mintroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Depth to water (WP)	Depth to bottom of Drop Tube (ft)	Water Head In Feet (WP)	Mintroll Reading
JRW11234	17208	10/4/2004	1554		151.27	159.94	8.67	8.688
TC11103	17081	10/4/2004	1525		134.14	157.05	22.91	22.823
OV11634	17148	10/4/2004	1514		135.45	157.43	21.98	22.053
JR11622	16862	10/4/2004	1501		133.13	177.45	44.32	44.093
AD11619	16844					137.95		
JRW11234	17208	10/11/2004	1153		Not Gauged	159.94	#VALUE!	10.455
TC11103	17081	10/11/2004	1140		Not Gauged	157.05	#VALUE!	23.850
OV11634	17148	10/11/2004	1128		Not Gauged	157.43	#VALUE!	23.147
JR11622	16862	10/11/2004	1116		Not Gauged	177.45	#VALUE!	44.921
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	10/20/2004	1508		Not Gauged	159.94	#VALUE!	10.151
TC11103	17081	10/20/2004	1555		Not Gauged	157.05	#VALUE!	23.717
OV11634	17148	10/20/2004	1543		Not Gauged	157.43	#VALUE!	22.886
JR11622	16862	10/20/2004	1531		Not Gauged	177.45	#VALUE!	44.896
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	10/27/2004	923		Not Gauged	159.94	#VALUE!	11.132
TC11103	17081	10/27/2004	1001		132.90	157.05	24.15	24.219
OV11634	17148	10/27/2004	1017		134.07	157.43	23.36	23.500
JR11622	16862	10/27/2004	945		131.95	177.45	45.50	45.246
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	11/3/2004	1200		Not Gauged	159.94	#VALUE!	11.132
TC11103	17081	11/3/2004	1235		132.58	157.05	24.47	24.219
OV11634	17148	11/3/2004	1250		133.68	157.43	23.75	23.500
JR11622	16862	11/3/2004	1220		131.71	177.45	45.74	45.246
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	11/18/2004	930		Not Gauged	159.94	#VALUE!	11.340
TC11103	17081	11/18/2004	1015		132.55	157.05	24.50	24.234
OV11634	17148	11/18/2004	955		133.64	157.43	23.79	23.536
JR11622	16862	11/18/2004	1027		131.46	177.45	45.99	45.266
AD11619	16844	11/18/2004	1315		106.44	137.95	31.51	31.139
JRW11234	17208	12/3/2004	810		Not Gauged	159.94	#VALUE!	12.341
TC11103	17081	12/3/2004	835		132.15	157.05	24.90	24.685
OV11634	17148	12/3/2004	850		133.30	157.43	24.13	23.975
JR11622	16862	12/3/2004	825		131.41	177.45	46.04	45.606
AD11619	16844	12/3/2004	905		Could not gauge	137.95	#VALUE!	30.954
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081				Not Gauged	157.05	#VALUE!	
OV11634	17148				Not Gauged	157.43	#VALUE!	
JR11622	16862				Not Gauged	177.45	#VALUE!	
AD11619	16844				Not Gauged	137.95	#VALUE!	

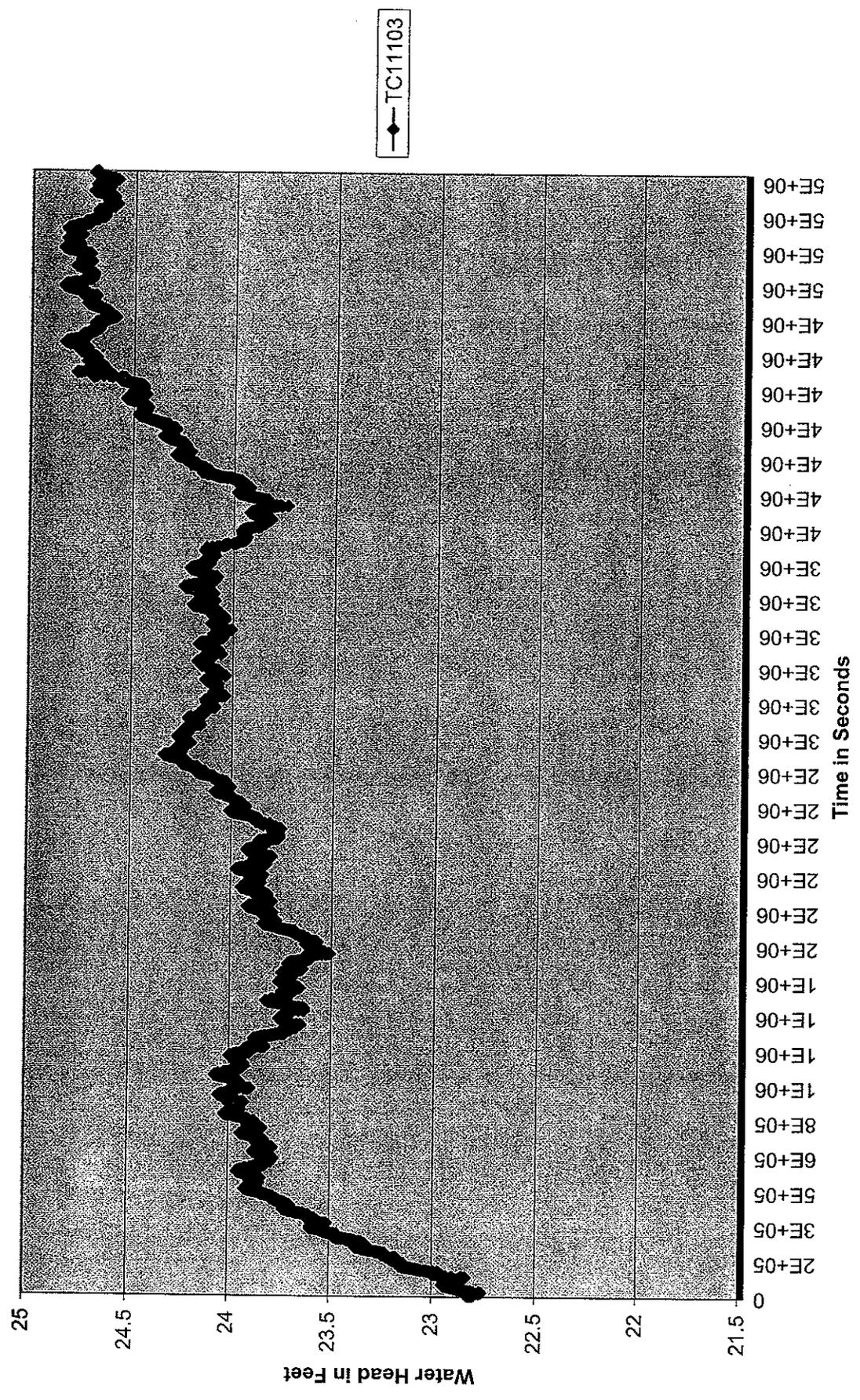
Northwest Houston Pressure Plotted with Rainfall



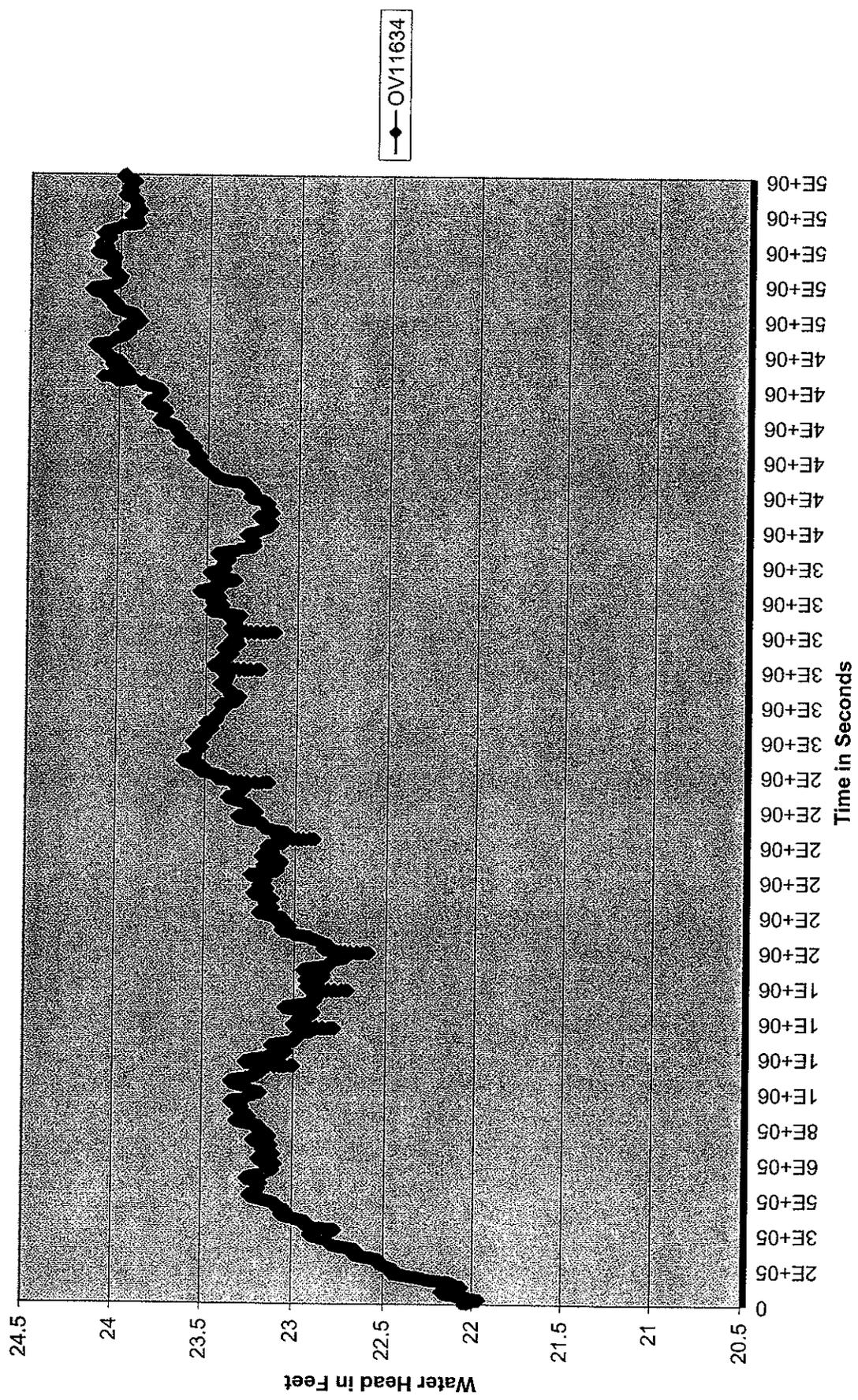
JRW11234 Period from October 4, 2004 to December 3, 2004



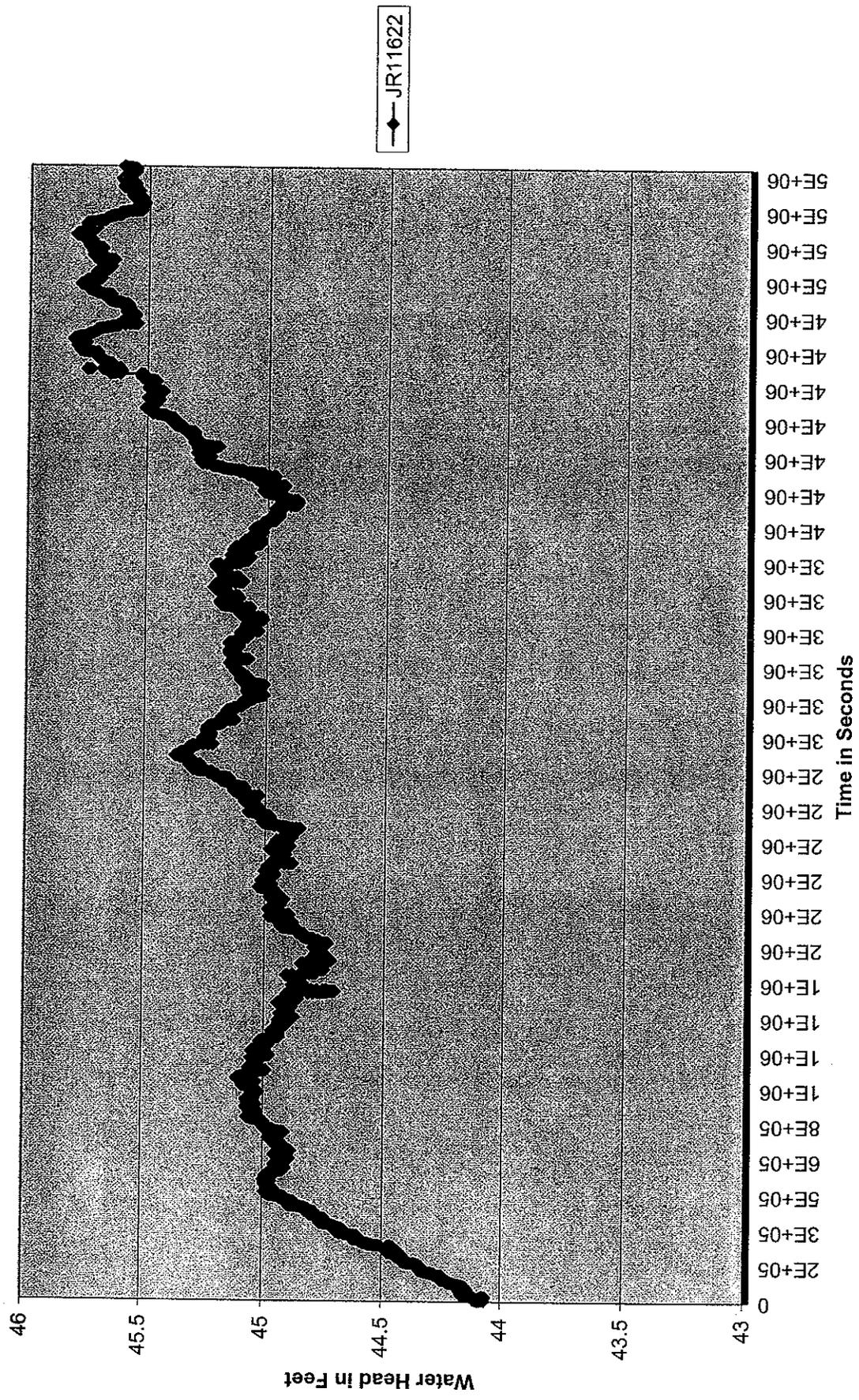
TC11103 Period from October 4, 2004 to December 3, 2004



OV11634 Period from October 4, 2004 to December 3, 2004

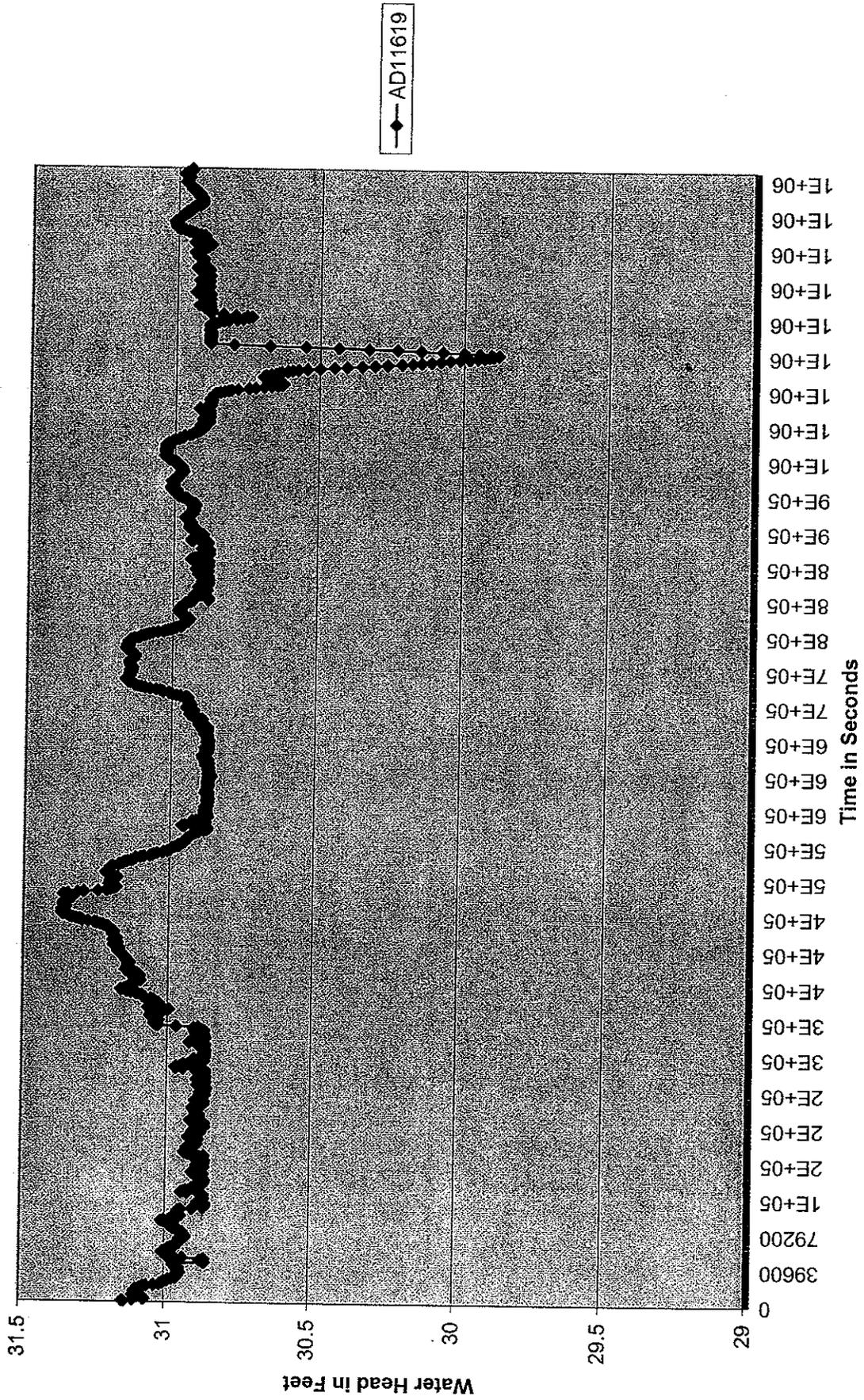


JR11622 Period from October 04, 2004 to December 3, 2004

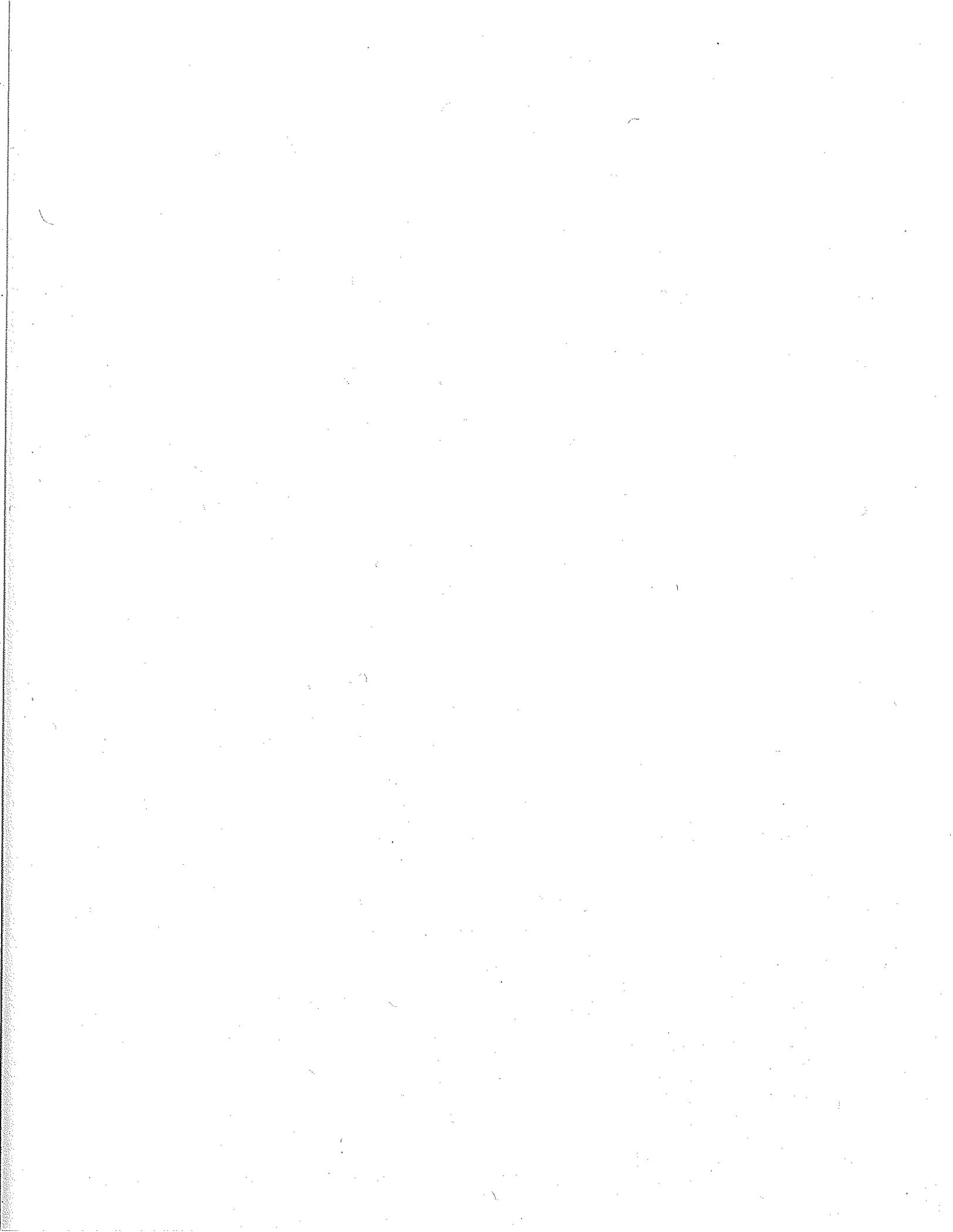


JR11622

AD11619 Period from November 18, 2004 to December 3, 2004



AD11619



Hardmant, William

From: Hardmant, William
Sent: Thursday, January 06, 2005 9:06 AM
To: 'Marilyn Long'; Subhash Pai
Cc: Long, Greg
Subject: Minitroll report ending 1/04/05
Attachments: October through to 1-04-05 Data Worksheet File.xls

Marilyn,

Attached please find the minitroll cumulative data report through January 4, 2005.

Thank you.

Bill

William B. Hardmant
Shaw Environmental & Infrastructure, Inc.
1430 Enclave Parkway
Houston, Texas 77077
Phone: 281-368-4599
Fax: 281-368-4401
Cell: 281-221-4036
william.hardmant@shawgrp.com

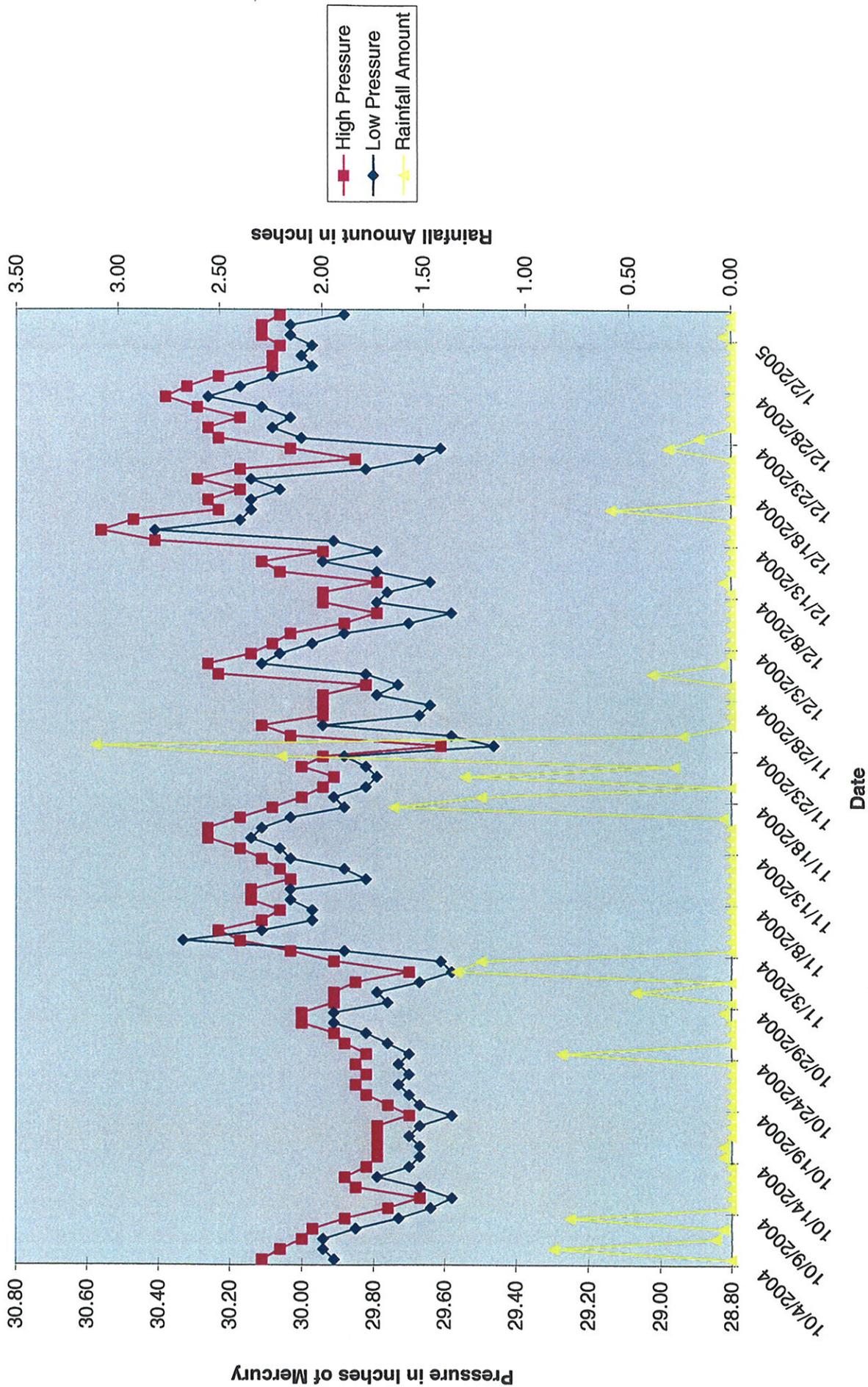
**JONES ROAD GROUNDWATER PLUME
MINITROLL DATA TABLE**

Well Location ID	Minitroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Depth to water (WP)	Depth to bottom of Drop Tube (ft)	Water Head in Feet (WP)	Minitroll Reading
JRW11234	17208	10/4/2004	1554		151.27	159.94	8.67	8.688
TC11103	17081	10/4/2004	1525		134.14	157.05	22.91	22.823
OV11634	17148	10/4/2004	1514		135.45	157.43	21.98	22.053
JR11622	16862	10/4/2004	1501		133.13	177.45	44.32	44.093
AD11619	16844					137.95		
JRW11234	17208	10/11/2004	1163		Not Gauged	159.94	#VALUE!	10.455
TC11103	17081	10/11/2004	1140		Not Gauged	157.05	#VALUE!	23.850
OV11634	17148	10/11/2004	1128		Not Gauged	157.43	#VALUE!	23.147
JR11622	16862	10/11/2004	1116		Not Gauged	177.45	#VALUE!	44.921
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	10/20/2004	1508		Not Gauged	159.94	#VALUE!	10.151
TC11103	17081	10/20/2004	1555		Not Gauged	157.05	#VALUE!	23.717
OV11634	17148	10/20/2004	1543		Not Gauged	157.43	#VALUE!	22.886
JR11622	16862	10/20/2004	1531		Not Gauged	177.45	#VALUE!	44.896
AD11619	16844				Not Gauged	137.95	#VALUE!	
JRW11234	17208	10/27/2004	923		Not Gauged	159.94	#VALUE!	11.132
TC11103	17081	10/27/2004	1001		132.90	157.05	24.15	24.219
OV11634	17148	10/27/2004	1017		134.07	157.43	23.36	23.500
JR11622	16862	10/27/2004	945		131.95	177.45	45.50	45.246
AD11619	16844					137.95	137.95	
JRW11234	17208	11/3/2004	1200		Not Gauged	159.94	#VALUE!	11.132
TC11103	17081	11/3/2004	1235		132.58	157.05	24.47	24.219
OV11634	17148	11/3/2004	1250		133.68	157.43	23.75	23.500
JR11622	16862	11/3/2004	1220		131.71	177.45	45.74	45.246
AD11619	16844					137.95	137.95	
JRW11234	17208	11/18/2004	930		Not Gauged	159.94	#VALUE!	11.340
TC11103	17081	11/18/2004	1015		132.55	157.05	24.50	24.234
OV11634	17148	11/18/2004	955		133.64	157.43	23.79	23.536
JR11622	16862	11/18/2004	1027		131.46	177.45	45.99	45.266
AD11619	16844	11/18/2004	1315		106.44	137.95	31.51	31.139
JRW11234	17208	12/3/2004	810		Not Gauged	159.94	#VALUE!	12.341
TC11103	17081	12/3/2004	835		132.15	157.05	24.90	24.685
OV11634	17148	12/3/2004	850		133.30	157.43	24.13	23.975
JR11622	16862	12/3/2004	825		131.41	177.45	46.04	45.806
AD11619	16844	12/3/2004	905		Could not gauge	137.95	#VALUE!	30.954
JRW11234	17208	1/4/2005	930		Not Gauged	159.94	#VALUE!	13.302
TC11103	17081	1/4/2005	1000		131.70	157.05	25.35	25.121
OV11634	17148	1/4/2005	1015		132.77	157.43	24.66	24.397
JR11622	16862	1/4/2005	945		130.96	177.45	46.49	46.020
AD11619	16844	1/4/2005	1035		Not Gauged	137.95	#VALUE!	31.934

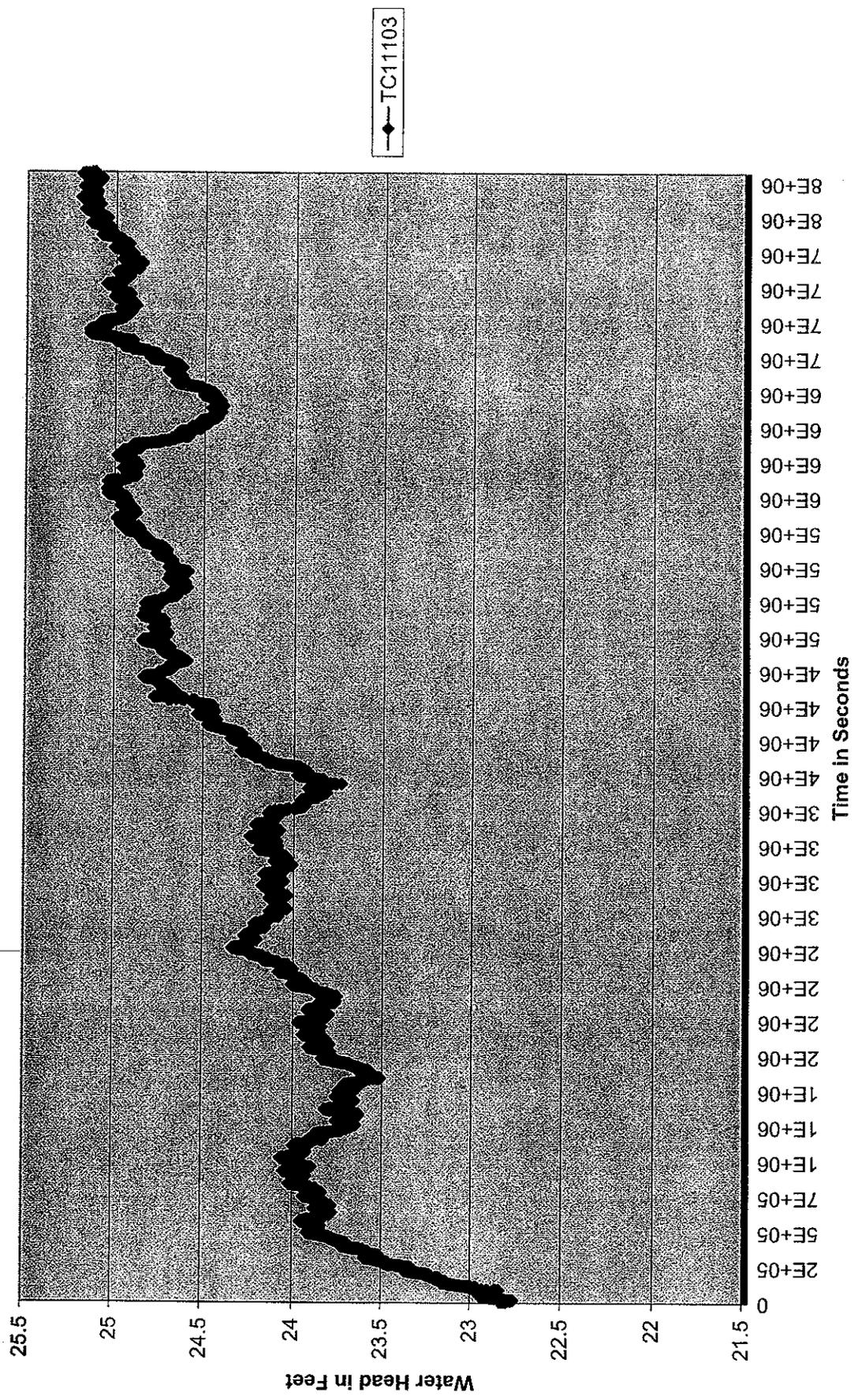
JONES ROAD GROUNDWATER PLUME
MINITROLL DATA TABLE

Well Location ID	Minitroll SN	Date	Time of Day	Top-of-Casing Elevation (MSL)	Depth to water (WP)	Depth to bottom of Drop Tube (ft)	Water Head in Feet (WP)	Minitroll Reading
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	
JRW11234	17208				Not Gauged	159.94	#VALUE!	
TC11103	17081					157.05	157.05	
OV11634	17148					157.43	157.43	
JR11622	16862					177.45	177.45	
AD11619	16844					137.95	137.95	

Northwest Houston Pressure Plotted with Rainfall

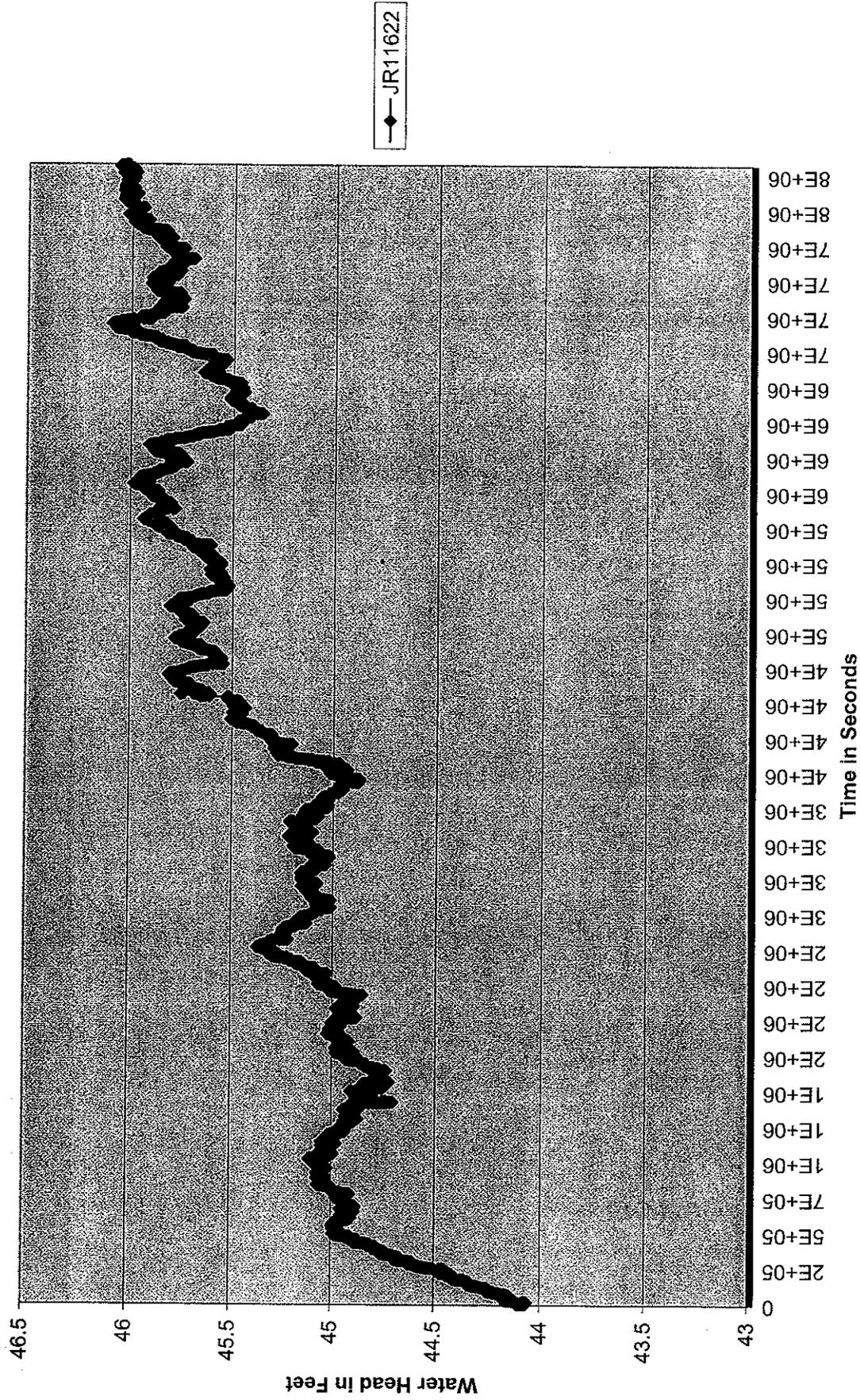


TC11103 Period from October 4, 2004 to January 4, 2005

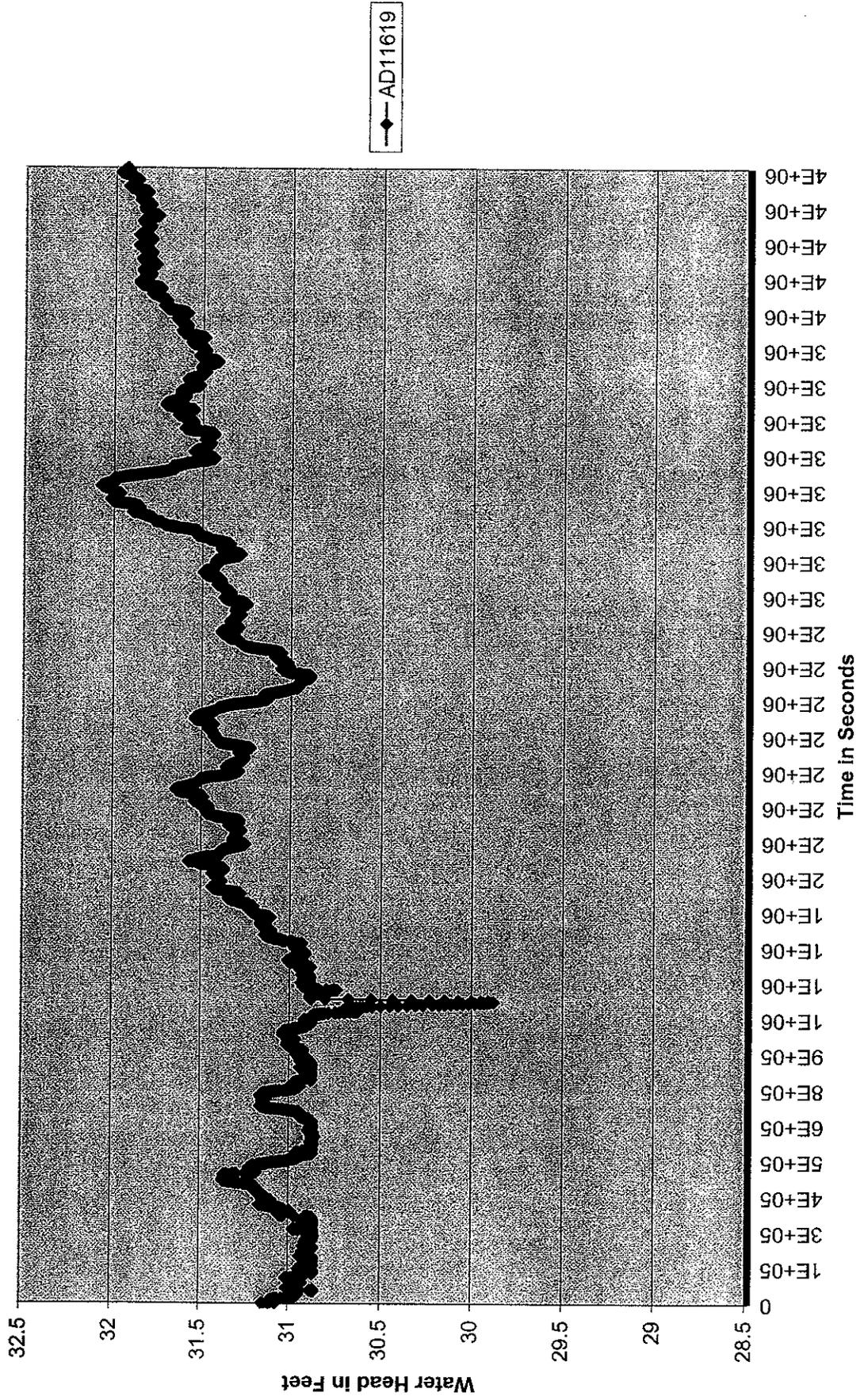


TC11103

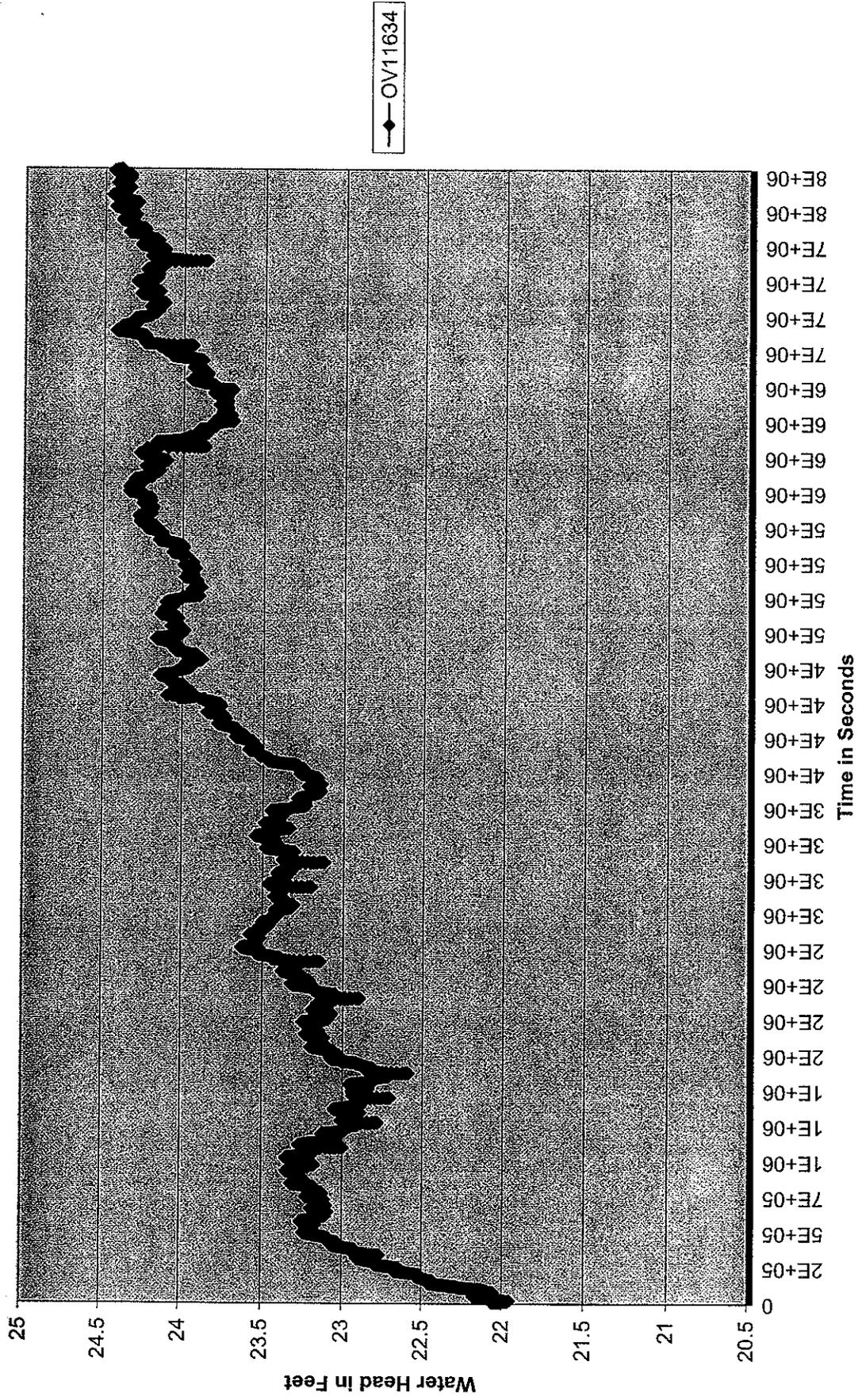
JR11622 Period from October 4, 2004 to January 4, 2005



AD11619 Period from November 18, 2004 to January 4, 2005



OV11634 Period from October 4, 2004 to January 4, 2005



JRW11234 Period from October 4, 2004 to January 4, 2005

