

Final Work Plan: Phase II Investigation of Potential Contamination at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri

Environmental Science Division



United States Department of Agriculture

Work sponsored by Commodity Credit Corporation,
United States Department of Agriculture

About Argonne National Laboratory

Argonne is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC under contract DE-AC02-06CH11357. The Laboratory's main facility is outside Chicago, at 9700 South Cass Avenue, Argonne, Illinois 60439. For information about Argonne and its pioneering science and technology programs, see www.anl.gov.

Availability of This Report

This report is available, at no cost, at <http://www.osti.gov/bridge>. It is also available on paper to the U.S. Department of Energy and its contractors, for a processing fee, from:

U.S. Department of Energy

Office of Scientific and Technical Information

P.O. Box 62

Oak Ridge, TN 37831-0062

phone (865) 576-8401

fax (865) 576-5728

reports@adonis.osti.gov

Disclaimer

This report was prepared as an account of work sponsored by an agency of the United States Government. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of document authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, Argonne National Laboratory, or UChicago Argonne, LLC.

Final Work Plan: Phase II Investigation of Potential Contamination at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri

by
Applied Geosciences and Environmental Management Section
Environmental Science Division, Argonne National Laboratory

June 2010



United States Department of Agriculture

Work sponsored by Commodity Credit Corporation,
United States Department of Agriculture

Contents

Notation.....	v
1 Introduction.....	1-1
2 Results of the Phase I Work and Continuing Monitoring Studies at Savannah.....	2-1
2.1 Summary of the Phase I Investigation Program	2-1
2.2 Ongoing Groundwater Level Monitoring at Savannah.....	2-6
3 Investigation Objectives and Tasks	3-1
3.1 Technical Objectives of the Phase II Studies.....	3-1
3.2 Phase II Investigation Tasks	3-1
3.2.1 Investigate the More Detailed Characteristics of Groundwater Flow in the Vicinity of the Former CCC/USDA Facility and the Contaminated Morgan and MoDOT Private Wells.....	3-2
3.2.2 Obtain Additional Information on the Vertical and Lateral Distribution and Concentrations of Carbon Tetrachloride Contamination in Groundwater in the Vicinity of the Former CCC/USDA Facility and the Contaminated Morgan and MoDOT Private Wells	3-6
3.2.3 Investigate Further for Possible Evidence of Carbon Tetrachloride Contamination in the Subsurface and Deeper Soils beneath the Former CCC/USDA Facility and in the Vicinity of the Contaminated MoDOT Private Well	3-7
4 Investigative Methods.....	4-1
4.1 Proposed Field Sessions and Scheduling.....	4-1
4.2 Methods for Drilling and for Collecting and Logging Soil Core Samples	4-2
4.3 Sampling and Analysis Methods for Soils.....	4-2
4.4 Methods for the Construction of Monitoring Wells	4-3
4.5 Sampling and Analysis Methods for Groundwater.....	4-3
4.6 Water Level Monitoring	4-5
5 Community Relations Plan	5-1
6 Health and Safety Plan.....	6-1
7 References.....	7-1
Appendix A: Standard Operating Procedure AGEM-35: Low-Flow Groundwater Sampling	A-1
Supplement 1: Automatically Recorded Water Level Data and Rainfall Data	on CD

Figures

1.1	Location of Savannah, Missouri	1-3
2.1	Phase I investigation locations inside the boundaries of the former CCC/USDA grain storage facility	2-11
2.2	Phase I investigation locations outside the former CCC/USDA grain storage facility	2-12
2.3	Water level contours constructed with data measured manually on October 25-29, 2007, with ground surface topography in the vicinity of the former CCC/USDA facility	2-13
2.4	Vertical distribution of carbon tetrachloride in soil cores collected at locations SB24, SB29, SB38, and SB42 during the Phase I investigation in October 2007-January 2008	2-14
2.5	Carbon tetrachloride concentrations in water samples collected from private wells and the municipal system during the Phase I investigation in October 2007-March 2008	2-15
2.6	Hydrographs for wells in the preliminary water level monitoring network, October 2007 to May 2009	2-16
2.7	Water level contours constructed with data measured manually on November 4, 2008.....	2-17
2.8	Water level contours constructed with data measured manually on February 6, 2009	2-18
3.1	Water level contours based on groundwater levels measured on October 25-29, 2007, with proposed locations for the installation of shallow and deep monitoring well pairs during Phase II of the Savannah investigation	3-8
3.2	Water level contours based on groundwater levels measured on February 6, 2009, with proposed locations for the installation of shallow and deep monitoring well pairs during Phase II of the Savannah investigation.	3-9
6.1	Emergency route from Savannah to Heartland Regional Medical Center, St. Joseph	6-3

Tables

2.1	Construction data for the preliminary water level monitoring points at Savannah.	2-9
2.2	Hand-measured water levels at Savannah, April 30, 2008, to May 8, 2009.....	2-10
5.1	Updated contact list for key officials	5-2
6.1	Updated emergency information for the Phase II investigation at Savannah.....	6-2

Notation

AGEM	Applied Geosciences and Environmental Management
AMSL	above mean sea level
BGL	below ground level
°C	degree(s) Celsius
CCC	Commodity Credit Corporation
CD	compact disc
CPT	cone penetrometer
DTL	default target level
EPA	U.S. Environmental Protection Agency
ft	foot (feet)
GC-MS	gas chromatograph-mass spectrometer
hr	hour(s)
in.	inch(es)
K_h	horizontal hydraulic conductivity
µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
MCL	maximum contaminant level
mi	mile(s)
MoDNR	Missouri Department of Natural Resources
MoDOT	Missouri Department of Transportation
MRBCA	<i>Missouri Risk-Based Corrective Action</i>
<i>PMWP</i>	<i>Provisional Master Work Plan</i>
PVC	polyvinyl chloride
SOP	standard operating procedure
USDA	U.S. Department of Agriculture
VOC	volatile organic compound

Final Work Plan: Phase II Investigation of Potential Contamination at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri

1 Introduction

From approximately 1949 until 1970, the Commodity Credit Corporation of the U.S. Department of Agriculture (CCC/USDA) operated a grain storage facility on federally owned property approximately 0.25 mi northwest of Savannah, Missouri (Figure 1.1). During this time, commercial grain fumigants containing carbon tetrachloride were commonly used by the CCC/USDA and the private grain storage industry to preserve grain in their facilities. In November 1998, carbon tetrachloride was detected in a private well (Morgan) roughly 50 ft south of the former CCC/USDA facility, as a result of statewide screening of private wells near former CCC/USDA facilities, conducted in Missouri by the U.S. Environmental Protection Agency (EPA 1999).

The 1998 and subsequent investigations by the EPA and the Missouri Department of Natural Resources (MoDNR) confirmed the presence of carbon tetrachloride in the Morgan well, as well as in a second well (on property currently occupied by the Missouri Department of Transportation [MoDOT]) described as being approximately 400 ft east of the former CCC/USDA facility. The identified concentrations in these two wells were above the EPA maximum contaminant level (MCL) and the Missouri risk-based corrective action default target level (MRBCA DTL) values of 5.0 µg/L for carbon tetrachloride in water used for domestic purposes (EPA 1999; MoDNR 2000a,b, 2006).

Because the observed contamination in the Morgan and MoDOT wells might be linked to the past use of carbon tetrachloride-based fumigants at its former grain storage facility, the CCC/USDA is conducting an investigation to (1) characterize the source(s), extent, and factors controlling the subsurface distribution and movement of carbon tetrachloride at Savannah and (2) evaluate the potential risks to human health, public welfare, and the environment posed by the contamination. This work is being performed in accord with the Intergovernmental Agreement established between the Farm Service Agency of the USDA and the MoDNR, to address carbon tetrachloride contamination potentially associated with a number of former CCC/USDA grain storage facilities in Missouri. The site characterization at Savannah is being conducted on behalf of the CCC/USDA by the Environmental Science Division of Argonne National Laboratory.

The investigation at Savannah is being conducted in phases. This approach is being used by the CCC/USDA and Argonne, with the approval of the MoDNR, so that information obtained and interpretations developed during each incremental stage of the investigation can be used most effectively to guide subsequent phases of the program. Phase I of the Savannah program was conducted in October-November 2007 and January 2008 (Argonne 2007a, 2008). This site-specific *Work Plan* provides a brief summary of the Phase I findings and the results of groundwater level monitoring that has been ongoing since completion of the Phase I study and also outlines technical objectives, investigation tasks, and investigation methods for Phase II of the site characterization at Savannah.

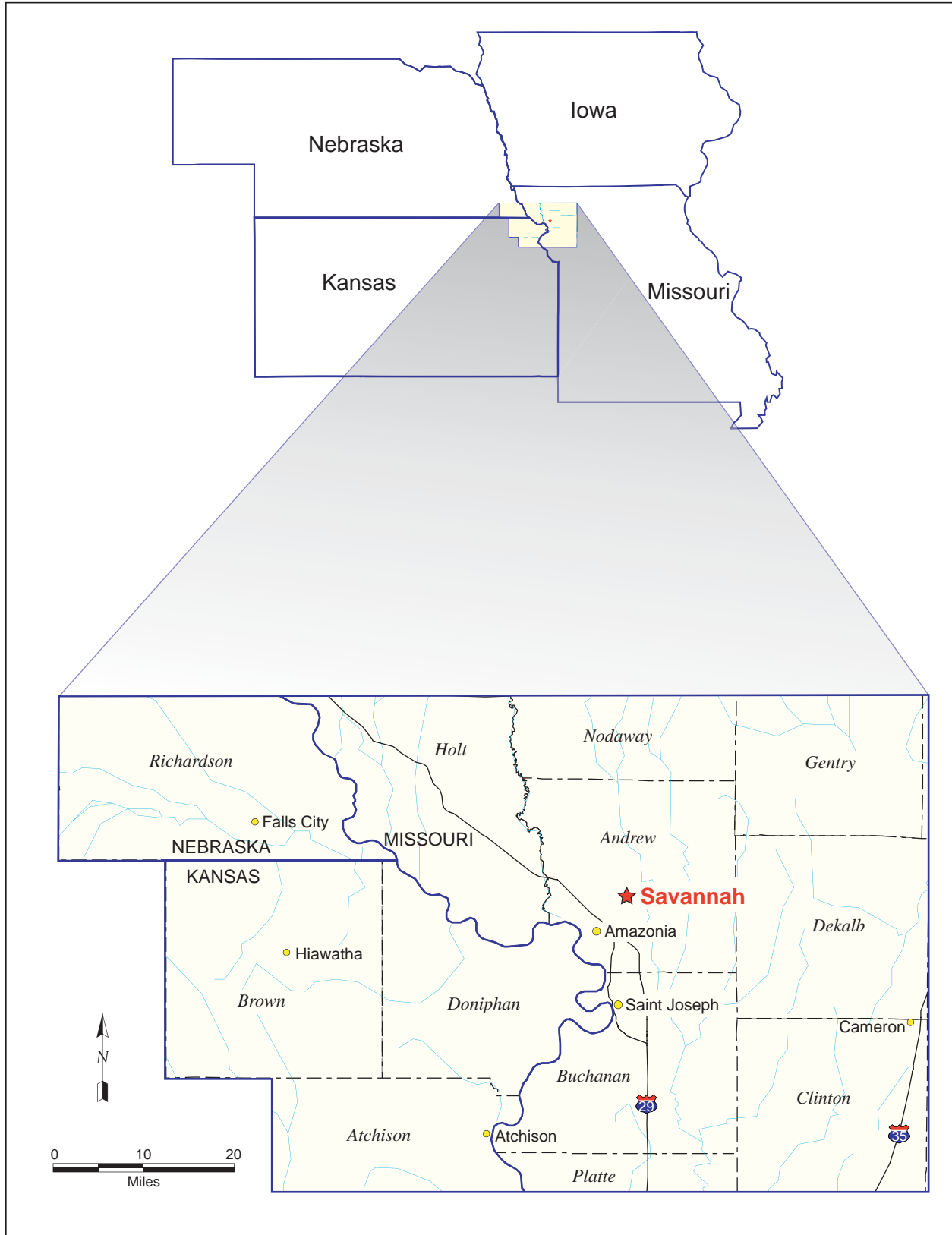


FIGURE 1.1 Location of Savannah, Missouri.

2 Results of the Phase I Work and Continuing Monitoring Studies at Savannah

2.1 Summary of the Phase I Investigation Program

With the approval of the MoDNR, Phase I of the Savannah investigation was undertaken to address four primary technical objectives (Argonne 2007a), as follows:

- Update the previous (MoDNR 2000a,b) inventory and status of private wells in the immediate vicinity of the former CCC/USDA grain storage facility, and sample the identified wells for analyses for volatile organic compounds (VOCs) and geochemical constituents.
- Investigate for possible evidence of a soil source of carbon tetrachloride contamination to groundwater beneath the former CCC/USDA facility.
- Obtain preliminary information on the site-specific lithologies and hydrostratigraphy at the former CCC/USDA grain storage location.
- Establish preliminary groundwater monitoring points, to investigate the patterns of groundwater movement affecting possible contaminant migration near the former CCC/USDA facility.

The Phase I program was conducted in two primary field sessions, on October 24-November 3, 2007, and January 28-31, 2008. The activities included the following:

- Location, identification, and sampling of private wells (plus the Savannah public water system) for VOCs and geochemical analyses.
- Collection of surficial, shallow subsurface, and deeper subsurface soils for lithologic characterization and for VOCs analyses.
- Installation of temporary and permanent piezometers to facilitate groundwater sampling and measurement of groundwater levels.

- Use of automatic data recorders to initiate groundwater level monitoring in a preliminary network of private wells and piezometers.

Soil sampling, groundwater sampling, and piezometer installation on the property formerly occupied by the CCC/USDA storage facility were conducted in Phase I primarily by using the direct-push capabilities of the Argonne 22-ton, track-mounted crawler cone penetrometer (CPT) vehicle. The Phase I locations investigated within the limits of the former CCC/USDA facility are shown in Figure 2.1. Phase I study locations lying outside the former CCC/USDA facility are shown in Figure 2.2.

The results of the Phase I studies were interpreted and integrated to develop a preliminary conceptual model of the factors controlling the distribution, possible movement, and potential risks associated with the carbon tetrachloride contamination identified at Savannah (Argonne 2008). The key findings of the Phase I investigation are summarized as follows:

- Depths to bedrock, inferred to coincide with the depths of refusal encountered during vertical probing with the Argonne CPT, ranged from 91.8 ft below ground level (BGL) to 96.3 ft BGL, suggesting a relatively consistent bedrock surface elevation beneath the former CCC/USDA facility. The observed refusal depths were comparable to depths to bedrock reported previously for the Savannah area.
- Two predominantly fine-grained lithologic units were identified at the former CCC/USDA facility. The uppermost of these units consists of approximately 58-65 ft of generally dense, stiff to slightly softer, non-plastic and non-calcareous silty clay to clayey silt, with possible traces of very fine sand. The second, deeper lithologic unit consists of approximately 26-30 ft of generally firm and dense, uniformly light gray silty clay till with some fine to medium sand.
- Thin zones (up to approximately 1.1 ft in thickness) of damp-to-dry, coarser-grained sediments were identified directly above the refusal depth at three locations on the former CCC/USDA property, in borings SB24, SB38, and SB42 (Figure 2.1). These zones appeared most extensively developed at the SB38 location. No other distinctly coarse-grained intervals were identified in

the overlying silty clay and till units at the locations investigated during Phase I.

- Groundwater levels measured in nearby private wells located immediately to the north (McPike) and south (Morgan) of the former CCC/USDA facility property (Figure 2.2) were 18.53 ft BGL and 32.71 ft BGL, respectively, at the time of the Phase I field activities. The depth to groundwater beneath the former CCC/USDA facility could not be determined with certainty, however, on the basis of the Phase I study results.
- The observed physical, textural, and water-producing characteristics of the silty clay to clayey silt and till units suggest that the ability of these deposits to transmit groundwater is limited. Occasional thin, discontinuous intervals of relatively softer and lighter-colored materials, observed most commonly at depths of 50-70 ft BGL, might suggest the presence of preferred pathways for horizontal groundwater movement in these units. Locally enhanced porosity and/or permeability might occur in association with calcareous nodules and patches observed in the till, if hydraulic communication among these features is sufficient. Basal coarse-grained deposits similar to those observed at borings SB24, SB38, and SB42 might also provide pathways for enhanced groundwater migration in the Savannah study area, if these materials are locally saturated.
- Groundwater levels measured in private wells in the vicinity of the former CCC/USDA facility indicated that the apparent patterns of groundwater flow in this area mirror the predominant local topographic trends (Figure 2.3). The data suggested groundwater flow toward the south or southeast beneath the former CCC/USDA facility during the Phase I investigation period.
- No carbon tetrachloride contamination was identified in surficial and shallow subsurface soils collected at the former CCC/USDA grain storage facility, at depths of 1 ft, 4 ft, 8 ft, and 12 ft BGL, at concentrations at or above either the MRBCA DTL of 79.6 µg/kg or the quantitation limit of 10 µg/kg for analyses according to EPA Methods 5030B and 8260B (purge-and-trap sample

- preparation with analysis on a gas chromatograph-mass spectrometer [GC-MS] system).
- With the approval of the MoDNR, four locations at the former CCC/USDA facility (SB24, SB29, SB38, SB42; Figure 2.1) were chosen for sampling of deeper subsurface soils for VOCs analyses. Traces of carbon tetrachloride contamination (below the purge-and-trap method quantitation limit of 10 µg/kg) were detected at each location; however, quantifiable levels of carbon tetrachloride were identified only at SB38 and SB42. Carbon tetrachloride concentrations of 10-42 µg/kg were identified at SB38. Concentrations of 15-171 µg/kg were identified at SB42, with the highest of these levels (126 µg/kg and 171 µg/kg) occurring in the zone of saturated soils at 48 ft and 44 ft BGL, respectively (Figure 2.4).
 - Only the two highest carbon tetrachloride concentrations in soil samples identified during the Phase I investigation, at SB42 (126 µg/kg and 171 µg/kg), were greater than the MRBCA DTL for carbon tetrachloride in soils (79.6 µg/kg). No concentrations detected in the subsurface (vadose) zone as defined by MoDNR (2006) exceeded the DTL. For carbon tetrachloride in soils, the DTL reflects risk that might be associated with the indoor inhalation pathway. Because the former CCC/USDA property has been used only for non-residential purposes since the CCC/USDA grain storage operations were terminated (by 1974), the indoor inhalation pathway is incomplete at the former facility, and no receptors have historically been, or presently are, at risk of exposure by this route.
 - Samples of groundwater recovered at two locations at the former CCC/USDA facility, SB24 and SB38 (Figure 2.1), contained carbon tetrachloride at concentrations of 3.8-6.4 µg/L. The identified concentrations are either slightly below or slightly above the EPA MCL and the MRBCA DTL values for carbon tetrachloride (5.0 µg/L) in groundwater used for domestic purposes.
 - Both the surface water samples obtained by the city of Savannah from a municipal reservoir approximately 0.75 mi southwest of the former

- CCC/USDA facility (Figure 2.2) and the water samples from the Savannah public distribution system were confirmed to be free of carbon tetrachloride contamination.
- Sixteen private wells were identified within approximately 0.5 mi of the former CCC/USDA facility (Figure 2.2). Three of these wells were confirmed to be damaged or otherwise inaccessible, and nine of the wells are not used for any purpose. Two wells (Morgan and Clizer “old”) are currently used for lawn and garden watering, and two (Moore and Clizer “new”) are used for domestic purposes. Access for sampling was denied for one well (Vanschoiack) identified as not in use.
 - Except for the Moore residence, all other occupied residential and commercial properties within approximately 0.5 mi of the former CCC/USDA facility have confirmed access to and obtain water for domestic purposes from a public water supply. (The Clizer “new” private well is used to supplement the water obtained from the public supply at this residence.)
 - Only two of the private wells tested in Phase I (Figure 2.5) contained carbon tetrachloride: the Morgan well (13 µg/L) and the MoDOT well (150 µg/L). The carbon tetrachloride levels at these locations have decreased since the wells were originally sampled in 1998 and 2000, respectively. The Moore well and the Clizer “new” well (used for domestic purposes) were confirmed to be free of carbon tetrachloride contamination.
 - The carbon tetrachloride concentration identified in the Morgan well, to the south of the former CCC/USDA facility, is generally comparable to the levels detected in the groundwater at the former facility. The identified carbon tetrachloride concentration in the MoDOT well, to the east of the former CCC/USDA facility, is greater by approximately an order of magnitude than the levels at the former facility.

2.2 Ongoing Groundwater Level Monitoring at Savannah

A groundwater monitoring network consisting of eight private wells and two permanent piezometers was established during the Phase I investigation at Savannah (Table 2.1). The private wells and piezometers are not constructed with a common depth of penetration or screened intervals, and hence the water levels measured in these wells might not reflect the hydraulic heads controlling groundwater movement (vertical, lateral, or both) at any one specific depth or horizon within the saturated zone. The identified wells and piezometers were selected to obtain preliminary information on the distribution of groundwater levels, and hence potential influences on the direction(s) of groundwater flow, in the area surrounding the former CCC/USDA facility. Automatic water level sensors and data loggers were initially installed in the McPike, Burks, Barr, Hughes, Potter, and MoDOT private wells in October 2007. These locations were supplemented in March 2008 by the addition of sensors and data loggers in the Morgan well and the Clizer “old” well, as well as at SB38 (upon accumulation of sufficient groundwater for monitoring in the piezometer) (Figures 2.1 and 2.2). The sensors and data loggers are used to measure and record water levels continuously at 4-hr intervals.

Water level data for the period October 28, 2007, to April 30, 2008, were reported for the monitored points as part of the Phase I investigation (Argonne 2008). These results suggested that groundwater flow near the former CCC/USDA facility is influenced by both the local land surface topography (Figure 2.3) and rainfall events. In accord with recommendations presented at the conclusion of the Phase I investigation (Argonne 2008), automatic monitoring has continued at the observation points noted above to document the potential effects of seasonal or longer-term influences on the local groundwater levels and apparent flow pattern(s). On April 30, 2008, a water level recording unit was also installed at location SB24 at the former CCC/USDA facility (Figure 2.1), upon accumulation of sufficient groundwater for monitoring in this piezometer.

The results of the continued monitoring program are summarized in Figures 2.6-2.8. Complete data for the period April 30, 2008, to May 8, 2009, are in Supplement 1, Table S1.1 (on the compact disc [CD] inside the back cover of this report). The hydrographs are shown in conjunction with daily rainfall data recorded at the Saint Joseph, Missouri, weather monitoring station (MU Extension 2009; Supplement 1, Table S1.2 [on CD]), approximately 7 mi south of Savannah. Water levels measured manually at Savannah in association with each retrieval of data from the water level recorders (performed approximately quarterly since completion of the

Phase I investigation) are in Table 2.2. The hand-measured levels were the primary data used to construct the water level contour maps in this report.

The hydrographs (Figure 2.6) indicate that, with one exception, groundwater levels at the monitored points on and around the former CCC/USDA facility reached a transient maximum in May 2008, in apparent response to relatively frequent rainfall events from late 2007 through spring 2008. Groundwater levels then declined slowly across the study area during the summer (June-August) of 2008, before becoming relatively stable throughout the fall and winter of 2008 and the early spring of 2009. Figure 2.6 indicates that groundwater levels rose again from early April to early May 2009, in response to spring rainfall events.

The hydrograph for monitoring point SB24 (Figure 2.6) is distinct from those outlined above, in depicting a continuous rise in water level throughout the spring and early summer of 2008, before reaching apparent stability in August 2008. The SB24 piezometer is screened at 50-60 ft below ground level (BGL), near the interpreted base of the silty-clay to clayey-silt lithologic unit, across a zone (53-58 ft BGL) that yielded small quantities of groundwater (sufficient for VOCs analysis) at this location during the Phase I field program (Argonne 2008). Very slow groundwater accumulation was observed, however, in the permanent piezometer constructed at this location (Argonne 2008), and the rising trend documented in Figure 2.6 reflects the initial influx of groundwater to the SB24 piezometer after its installation.

Table 2.1 indicates that SB24 penetrates the subsurface to a stratigraphic level (elevation above mean sea level [AMSL]) that is comparable to the levels reached in the nearby McPike, Morgan, and MoDOT private wells (Figure 2.2). In contrast to SB24, however, these wells are constructed with segmented concrete casings that allow groundwater entry into the wells from the full thickness of the saturated interval penetrated by each well. Despite these construction differences, the monitoring data obtained to date suggest that the groundwater elevations observed at SB24 are generally consistent with those in the McPike, Morgan, and MoDOT wells.

Piezometer SB38 was installed with a long screened interval (from 50 ft to 90 ft BGL) to approximate the construction approach identified in the nearby private wells. Table 2.1 indicates, however, that the screened interval at SB38 intersects a lower stratigraphic interval than is penetrated in the McPike, Morgan, and MoDOT wells and SB24. The hydrographs for these monitoring points together suggest the existence of both vertical (downward) and lateral

hydraulic gradients within the saturated zone in the vicinity of the former CCC/USDA facility that might influence the potential migration of carbon tetrachloride in this area.

Water level measurements obtained manually on November 4, 2008, and February 6, 2009 (Table 2.2), during the observed period of relatively stable winter groundwater levels, were used to generate estimates of the configuration of the potentiometric surface near the former CCC/USDA facility, as shown in Figures 2.7 and 2.8. The resulting diagrams suggest a general pattern of semi-radial lateral groundwater flow in the study area, from a relative high west-northwest of the former CCC/USDA facility. The flow pattern qualitatively mirrors the dominant local topographic trends (Argonne 2008). These observations are consistent with the preliminary interpretation of groundwater flow toward the south or southeast beneath the former CCC/USDA facility (Figure 2.3) developed during the Phase I investigation (Argonne 2008). Additional groundwater monitoring is warranted, however, to investigate the influence of both vertical and horizontal hydraulic gradients on the three-dimensional movement of groundwater (and possible carbon tetrachloride contamination) in the vicinity of the former CCC/USDA facility.

TABLE 2.1 Construction data for the preliminary water level monitoring points at Savannah.

Location	Casing Diameter ^a (in.)	Ground Surface Elevation ^b (ft AMSL)	Well Depth ^a (ft)	Screened Interval (ft BGL)	Bottom of Well Elevation ^b (ft AMSL)
Barr	30	1153.05	34.5	NA ^c	1118.6
Burks	18	1126.11	37.8	NA	1088.3
Clizer "old"	18	1153.76	35.7	NA	1118.1
Hughes	48	1149.65	56.4	NA	1093.3
McPike	18	1148.76	48.5	NA	1100.3
MoDOT	30	1151.94	44	NA	1107.9
Morgan	36/25 ^d	1158.04	60.6	NA	1097.4
Potter	30	1134.80	51.3	NA	1083.5
SB24	1	1158.65	60	50-60	1098.7
SB38	1	1158.87	90	50-90	1068.9

^a Measurements made by Argonne staff during the Phase I field program.

^b Phase I surveyed elevations.

^c Information not available.

^d Shallow and deep casing sizes provided by the well owner; shallow size (36 in.) confirmed in the field.

TABLE 2.2 Hand-measured water levels at Savannah, April 30, 2008, to May 8, 2009.

Location	Reference Elevation (ft AMSL)	Water Level on Date Indicated ^a									
		April 30, 2008		August 8, 2008		November 4, 2008		February 6, 2009		May 8, 2009	
		Depth (ft)	Elevation (ft AMSL)	Depth (ft)	Elevation (ft AMSL)	Depth (ft)	Elevation (ft AMSL)	Depth (ft)	Elevation (ft AMSL)	Depth (ft)	Elevation (ft AMSL)
McPike	1148.76	10.78	1137.98	16.67	1132.09	15.17	1133.59	17.45	1131.31	10.17	1138.59
Potter	1134.80	4.75	1130.05	6.26	1128.54	5.96	1128.84	6.01	1128.79	4.77	1130.03
Hughes	1149.65	5.18	1144.47	9.70	1139.95	7.81	1141.84	9.95	1139.70	5.86	1143.79
Barr	1153.05	20.40	1132.65	20.93	1132.12	20.93	1132.12	20.20	1132.85	17.54	1135.51
Burks	1126.11	17.74	1108.37	20.23	1105.88	20.44	1105.67	19.06	1107.05	7.11	1119.00
MoDOT	1150.29	14.66	1135.63	NA ^b		20.20	1130.09	23.13	1127.16	NA	
Clizer "old"	1149.44	5.85	1143.59	11.99	1137.45	NA		NA		5.26	1144.18
Morgan	1159.27	21.81	1137.46	30.62	1128.65	28.71	1130.56	31.09	1128.18	19.15	1140.12
SB24	1158.06	45.10	1112.96	28.02	1130.04	27.68	1130.38	28.27	1129.79	22.28	1135.78
SB38	1158.40	35.43	1122.97	35.83	1122.57	37.90	1120.50	38.78	1119.62	36.26	1122.14

^a Depths were measured in feet below the reference point for each well.

^b NA, well not accessible for hand measurement on date indicated.

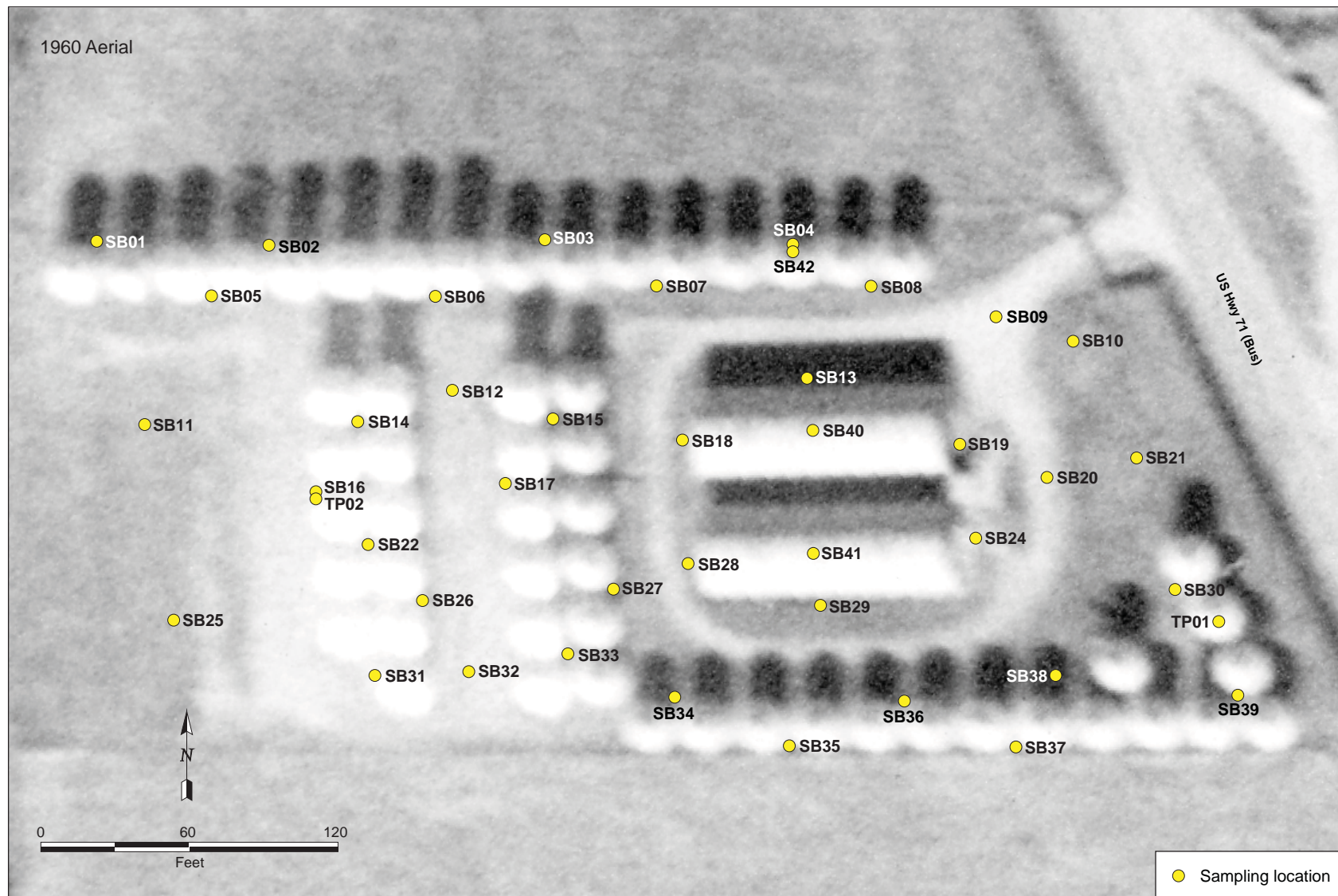


FIGURE 2.1 Phase I investigation locations inside the boundaries of the former CCC/USDA grain storage facility. Source of photograph: USDA (1960).



FIGURE 2.2 Phase I investigation locations (private wells and municipal water system sampling points) outside the former CCC/USDA grain storage facility. Source of photograph: NAIP (2007).

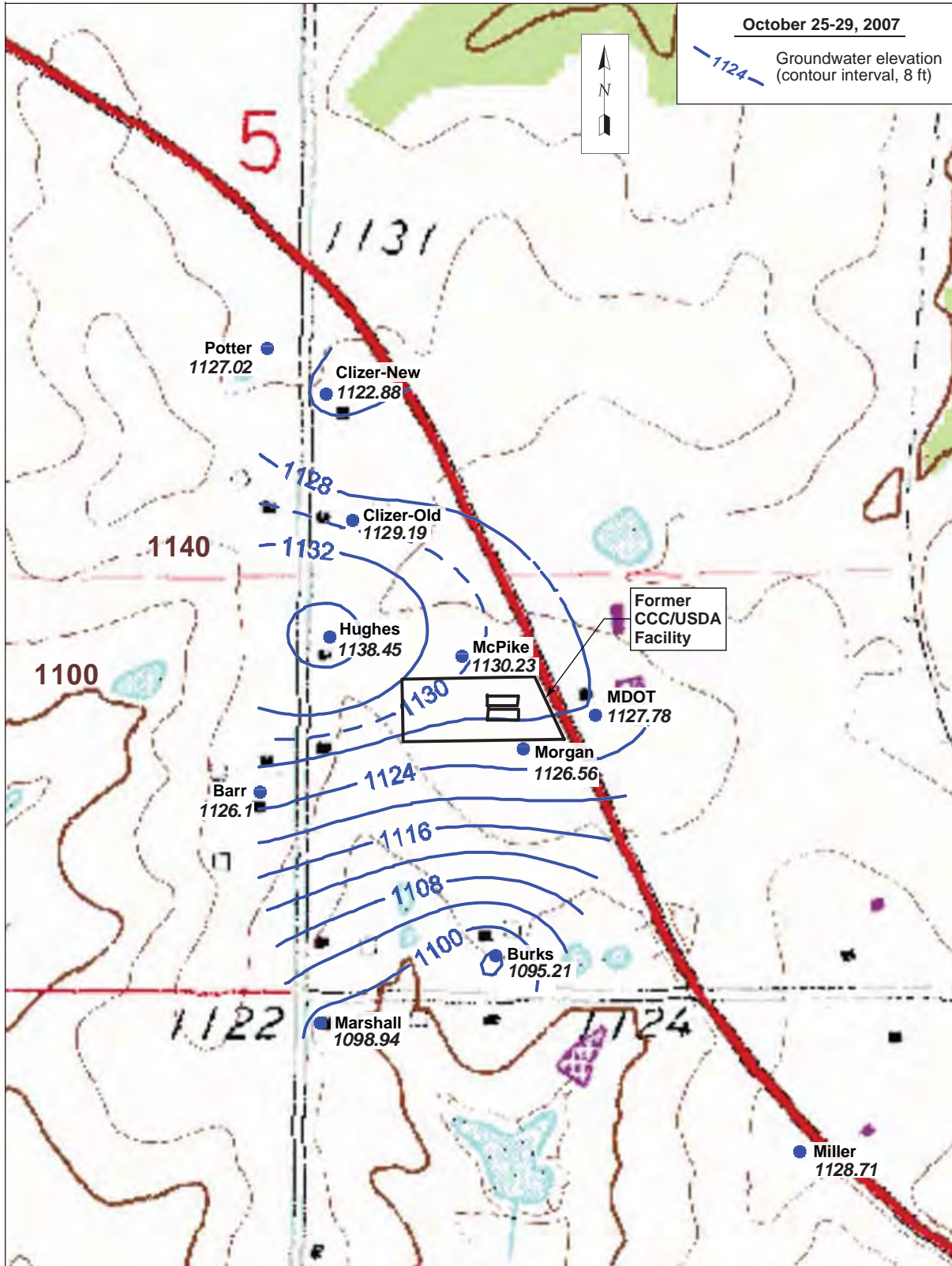


FIGURE 2.3 Water level contours constructed with data measured manually on October 25-29, 2007, with ground surface topography in the vicinity of the former CCC/USDA facility. Topographic contour interval = 20 ft. Source of topographic map: USGS (1996).

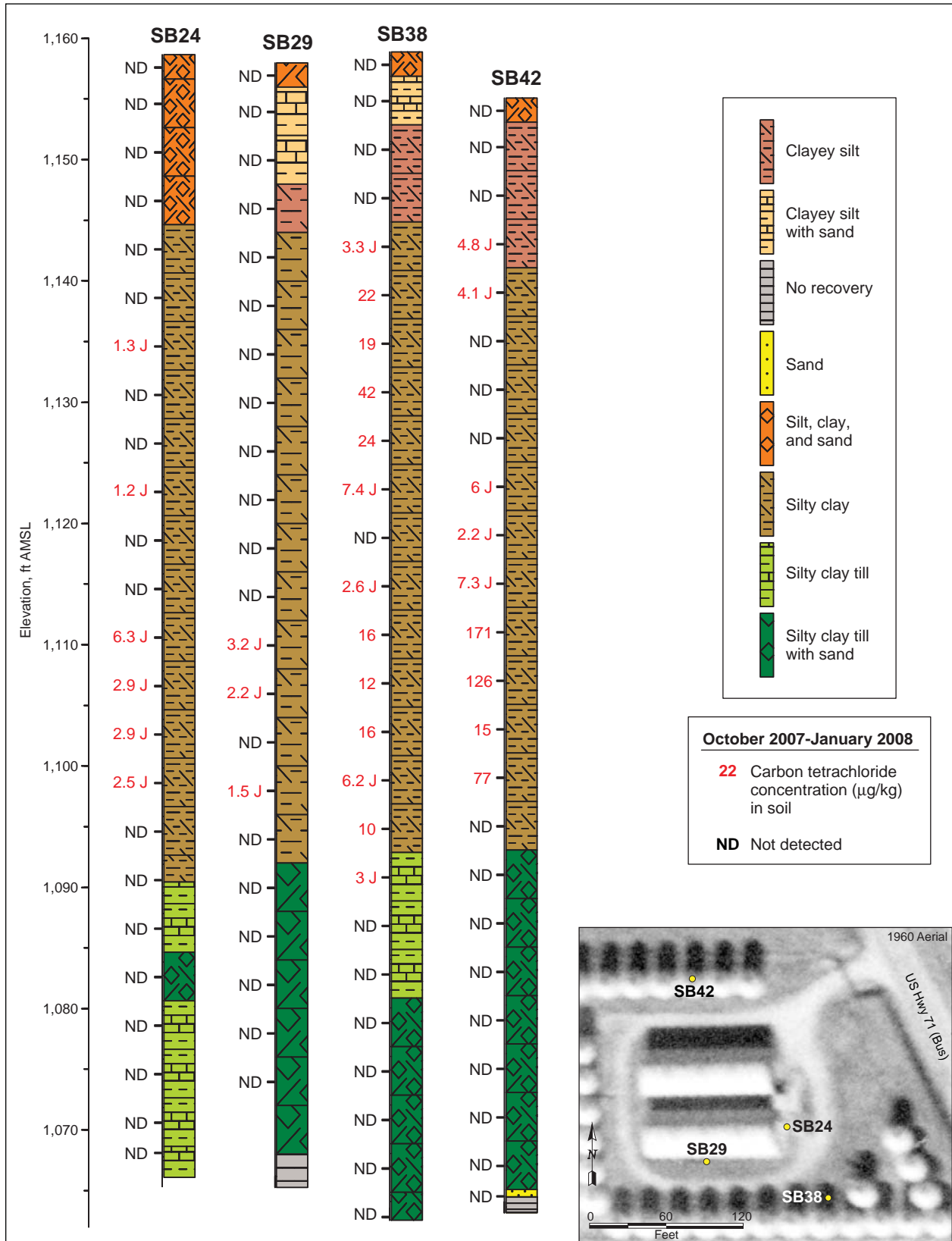


FIGURE 2.4 Vertical distribution of carbon tetrachloride in soil cores collected at locations SB24, SB29, SB38, and SB42 during the Phase I investigation in October 2007-January 2008.

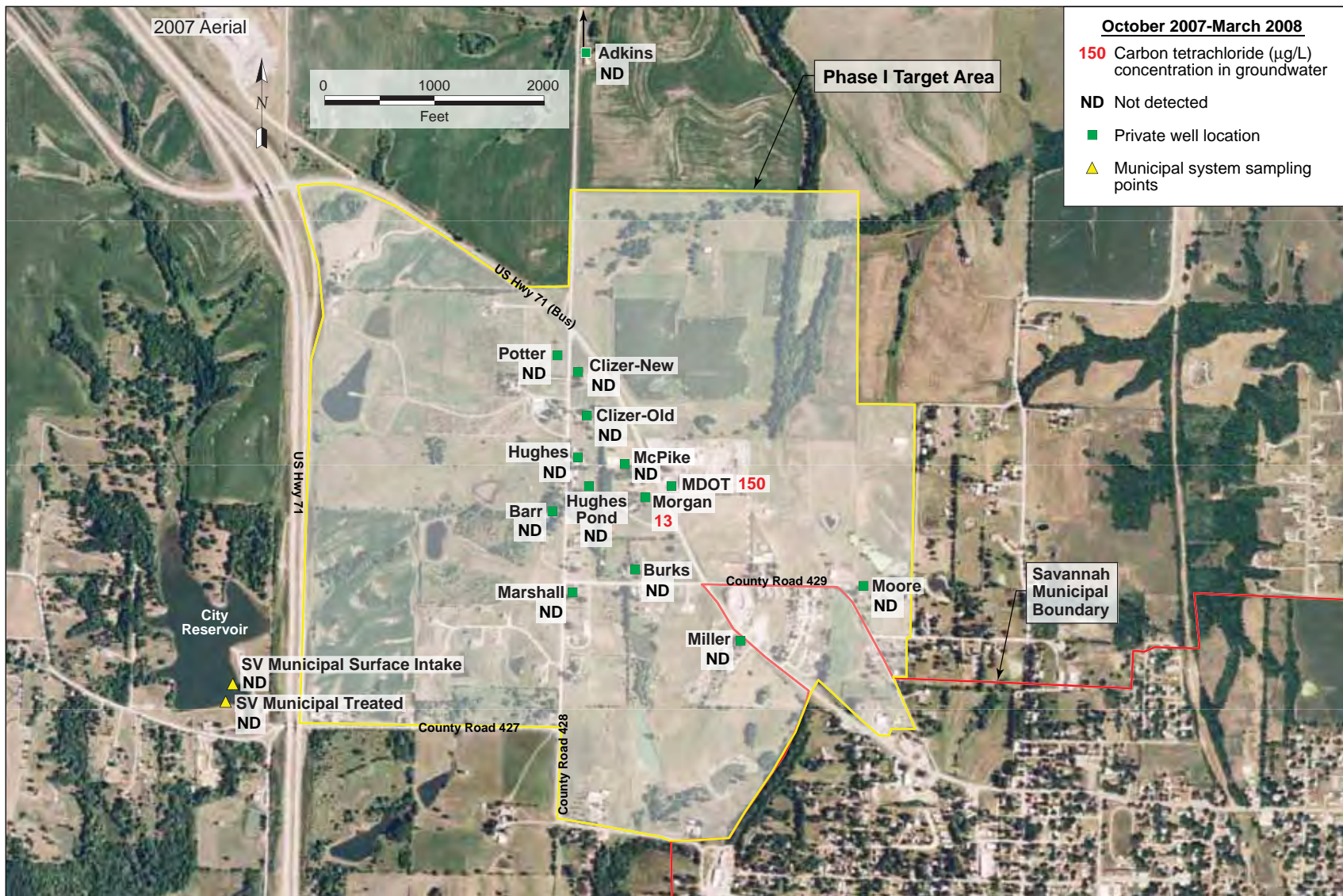


FIGURE 2.5 Carbon tetrachloride concentrations in water samples collected from private wells and the municipal system during the Phase I investigation in October 2007-March 2008. Source of photograph: NAIP (2007).

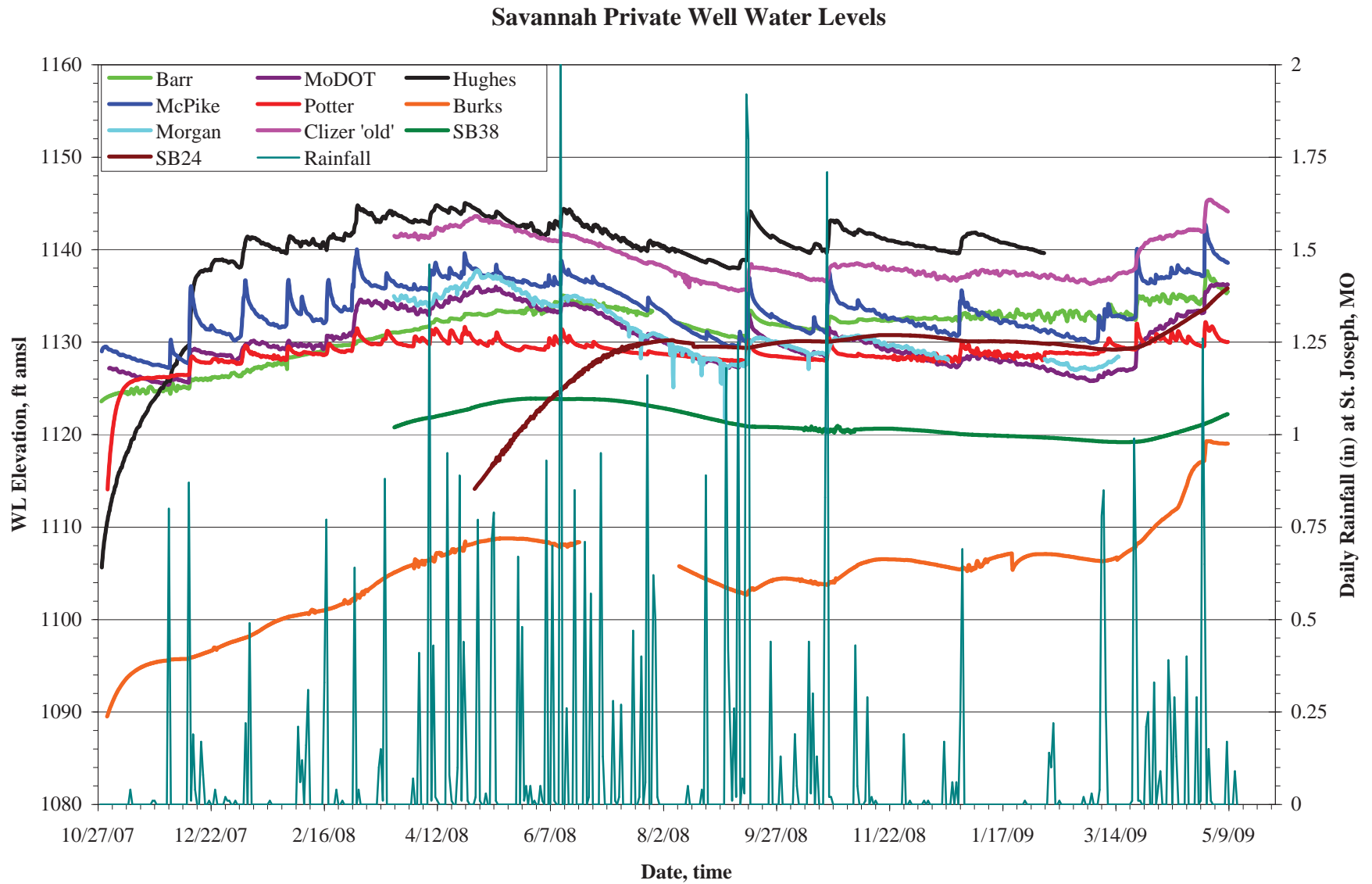


FIGURE 2.6 Hydrographs for wells in the preliminary water level monitoring network, October 2007 to May 2009.



FIGURE 2.7 Water level contours constructed with data measured manually on November 4, 2008. The level for the Clizer “old” well is from continuously recorded data; the well was not accessible for manual measurement on this date. Source of photograph: NAIP (2007).



FIGURE 2.8 Water level contours constructed with data measured manually on February 6, 2009. The level for the Clizer “old” well is from continuously recorded data; the well was not accessible for manual measurement on this date. Source of photograph: NAIP (2007).

3 Investigation Objectives and Tasks

3.1 Technical Objectives of the Phase II Studies

Phase II of the CCC/USDA investigations at Savannah will focus on three primary technical objectives that are designed to increase understanding of the local hydrogeologic system and its influence on the distribution of carbon tetrachloride contamination associated with the former CCC/USDA facility. The objectives incorporate recommendations for the Phase II program provided by the MoDNR (2008, 2009), the CCC/USDA, and Argonne. The proposed technical objectives for the Phase II program are as follows:

- Investigate the more detailed characteristics of groundwater flow in the vicinity of the former CCC/USDA facility and the contaminated Morgan and MoDOT private wells.
- Obtain additional information on the vertical and lateral distribution and concentrations of carbon tetrachloride contamination in groundwater in the vicinity of the former CCC/USDA facility and the contaminated Morgan and MoDOT private wells.
- Investigate further for possible evidence of carbon tetrachloride contamination in the subsurface (vadose zone) and deeper soils beneath the former CCC/USDA facility, as well as in the vicinity of the contaminated MoDOT private well.

3.2 Phase II Investigation Tasks

To address the technical objectives proposed in Section 3.1, the activities described below are recommended. Site-specific elements of the investigative approach and methods that will be used to implement the proposed Phase II program at Savannah are discussed in Section 4. Detailed information on the investigative technologies, field procedures, and analysis procedures that are pertinent to the CCC/USDA's planned characterization efforts at this site are in the *Provisional Master Work Plan (PMWP; Argonne 2007b)* that was reviewed by the MoDNR and approved for current use by the CCC/USDA for environmental investigations in Missouri.

3.2.1 Investigate the More Detailed Characteristics of Groundwater Flow in the Vicinity of the Former CCC/USDA Facility and the Contaminated Morgan and MoDOT Private Wells

As noted in Section 2.2 and Table 2.1, the private wells and piezometers that compose the preliminary groundwater monitoring network established at Savannah vary in method of construction, depth of penetration, and depth interval over which groundwater may enter the casing of each well (or piezometer). The water level data obtained under these conditions have therefore been used to develop an initial interpretation of the hydrologic setting at this site, in conjunction with lithologic data obtained from the Phase I investigative boreholes. This initial interpretation suggests that the local topography and predominant surface drainage features exert a significant influence on the apparent patterns of groundwater flow in the vicinity of the former CCC/USDA facility. The water level relationships observed at piezometers SB24 and SB38 (outlined in Section 2.2) further suggest, however, that both vertical and horizontal hydraulic gradients exist in the predominantly fine-grained soils of the saturated zone beneath the former CCC/USDA facility. The potential impact of these gradients on the three-dimensional movement of groundwater — and possible carbon tetrachloride migration — in the vicinity of the former facility and the contaminated Morgan and MoDOT private wells cannot be discerned from the existing monitoring points.

To obtain more detailed information on the hydrogeology of the Savannah investigation area, additional investigative borings are recommended at seven locations. The currently proposed locations, shown in Figures 3.1 and 3.2, are intended to help in further constraining the hydrostratigraphy and the apparent patterns of groundwater flow in the vicinity of the former CCC/USDA facility and the contaminated Morgan and MoDOT private wells, as interpreted from the Phase I studies (Sections 2.1 and 2.2). The recommended locations were chosen to address the multiple technical objectives of the Phase II study (see also Sections 3.2.2 and 3.2.3), subject to the logistic limitations imposed by local site conditions and to the receipt of access approvals from the indicated property owners. The actual locations to be investigated might be modified (subject to the approval of the CCC/USDA and MoDNR project managers), however, if technically warranted on the basis of the data acquired and the revised site interpretations developed as the Phase II investigation proceeds.

The recommended Phase II boring locations are as follows:

- Boring locations 1 and 2 (Figures 3.1 and 3.2) are in the inferred portion of the groundwater flow system lying generally upgradient from the former

- CCC/USDA facility. The points are sited to help define the apparent flow of groundwater toward the former CCC/USDA facility along the topographic high that extends from northwest to southeast beneath the former CCC/USDA facility and the adjacent MoDOT property (Figure 2.3). Location 1 is proposed in the northwest corner of the former CCC/USDA facility (currently owned by Reorganized School District III of Savannah); location 2 lies along the eastern edge of the McPike commercial property (currently owned by Joan Whitlock), north of the former CCC/USDA facility. These locations are presently grass covered, with no apparent physical obstructions that would impede the proposed investigative activities.
- Location 3 is expected to lie downgradient of the former CCC/USDA facility and upgradient of the contaminated MoDOT well. The proposed well location (Figures 3.1 and 3.2) is on the MoDOT property, in a parking area northwest of the MoDOT well on the east side of Business Hwy. 71. Argonne's observations during the Phase I field sessions suggest that this location should not interfere with the frequent heavy-vehicle traffic that enters and leaves the vehicle maintenance building in which the MoDOT well is located. Proposed monitoring well location 4 is also on the MoDOT property, at a position that is both topographically downslope and hydraulically downgradient from the contaminated MoDOT well.
 - Proposed boring locations 5 and 6 (Figures 3.1 and 3.2) lie downgradient from the contaminated Morgan private well and the former CCC/USDA facility, on the Charles Morgan property. This property is well maintained and landscaped, particularly in the immediate vicinity of the main house and outbuildings. The suggested well locations are in a grassed area along the southern margin of the property, slightly downslope and relatively removed from the Morgan home.
 - Boring location 7 was selected at the request of the MoDNR. This location is expected to lie downgradient of Phase I boring location SB42, which returned the highest concentrations of carbon tetrachloride in soils (126 $\mu\text{g}/\text{kg}$ at 48 ft BGL and 171 $\mu\text{g}/\text{kg}$ at 44 ft BGL) identified during the Phase I investigation

at Savannah. The proposed well location is in a grass-covered area in the northeast corner of the former CCC/USDA facility.

The two primary investigative activities described below will be conducted at the proposed locations, to address the present Phase II technical objective.

3.2.1.1 Characterization of the Hydrogeologic Section

The findings of the Phase I investigations at Savannah (Argonne 2008) identified two principal lithologic units underlying the former CCC/USDA facility, consisting of (1) approximately 58-65 ft of silty clay to clayey silt overlying (2) approximately 26-30 ft of silty clay till, which in turn rests on Pennsylvanian bedrock. A relatively consistent elevation for the bedrock surface was suggested beneath the former CCC/USDA facility, ranging from approximately 1,062.5 ft to 1,066 ft AMSL (approximately 91.8-96.3 ft BGL). Thin zones of coarser-grained sediments — locally identified directly above the bedrock surface at several locations — appeared to be dry to damp (at most). No other distinctly coarser-grained intervals were identified in the overlying silty clay and till units during Phase I.

At each of the proposed Phase II locations, conventional drilling techniques will be used to obtain continuous cores of the soil profile from the surface to the top of bedrock. The hydrogeologic sequence will be characterized in detail, to determine the range of lithologies and types of sedimentary units present and to identify potential water-bearing and confining intervals. Samples of the soil materials penetrated at each location might also be collected (at selected depths to be determined in the field) for the laboratory measurement of soil properties including particle size distribution, moisture content, porosity, bulk density, permeability, and total organic carbon. These parameters would facilitate subsequent quantitative estimation of (1) the state of saturation of the penetrated soils and (2) the potential rates of groundwater flow and contaminant migration through these soils. If the results of these analyses (see also Sections 3.2.2 and 3.2.3) suggest that further investigation of the hydraulic properties of the saturated soils is warranted, the proposed installation of monitoring wells (Section 3.2.1.2) would provide (subject to the approval of the CCC/USDA and MoDNR project managers) a basis for conducting *in situ* single-well response (“slug”) testing to obtain an estimate of the local horizontal hydraulic conductivity (K_h) at one or more of the locations and depth intervals outlined below.

3.2.1.2 Installation of Permanent Groundwater Monitoring Wells

The contaminated Morgan and MoDOT private wells penetrate to subsurface elevations of approximately 1,097 ft AMSL (60.6 ft BGL) and 1,108 ft AMSL (44 ft BGL), respectively, and are constructed to intercept groundwater from throughout the overlying saturated zone. Piezometer SB24, installed at the former CCC/USDA facility during the Phase I investigation program, is screened over the 10-ft interval at approximately 1,099-1,109 ft AMSL (50-60 ft BGL), near the base of the unit of silty clay to clayey silt, and thus corresponds roughly to the completion depths of the contaminated private wells. Piezometer SB38 is screened at approximately 1,069-1,109 ft AMSL (50-90 ft BGL), in the lower portion of the unit of silty clay to clayey silt and the underlying silty clay till unit (Table 2.1).

At each proposed Phase II location, the installation of paired shallow and deep monitoring wells is recommended. The wells will be installed by using conventional drilling methods (Section 4.2). Proposed construction of each well will employ nominal 2-in.-diameter polyvinyl chloride (PVC) casing and a standard 10-ft screen, in accord with MoDNR recommendations (MoDNR 2008, 2009) and applicable regulations for the installation of groundwater monitoring wells (MoDNR 2005). The exact depths for installation of the shallow and deep well screens at each location will be determined as part of the Phase II investigation activities. On the basis of the existing Phase I findings, however, screening of the shallow monitoring wells is tentatively recommended at an elevation of approximately 1,099-1,109 ft AMSL, to correspond with the screen interval of the SB24 piezometer and thus facilitate the determination and mapping of groundwater levels at a consistent horizon near the base of the saturated silty-clay unit (as identified beneath the former CCC/USDA facility). Because of topographic elevation differences, the 10-ft screens in the shallow wells will be set at depth intervals ranging from 32-42 ft BGL to 44-54 ft BGL. Screening of the deep monitoring wells is recommended over the 10-ft interval directly above bedrock at each proposed location (Figures 3.1 and 3.2).

The CCC/USDA-Argonne experience during the Phase I investigation and subsequent continued water level monitoring suggest that the initial infiltration of groundwater into the proposed new monitoring wells might be relatively slow. At each selected monitoring point, Argonne therefore proposes to use automatic water level sensors and data loggers to acquire continuous records of the water level fluctuations over a minimum period of one year, to

document the infiltration and possible subsequent variations in the resulting groundwater levels (Section 4.6).

3.2.2 Obtain Additional Information on the Vertical and Lateral Distribution and Concentrations of Carbon Tetrachloride Contamination in Groundwater in the Vicinity of the Former CCC/USDA Facility and the Contaminated Morgan and MoDOT Private Wells

Phase I of the site characterization studies at Savannah (Argonne 2008) identified carbon tetrachloride contamination in groundwater at only four locations in the vicinity of the former CCC/USDA facility. Carbon tetrachloride levels of 3.8-6.4 µg/L were detected at locations SB24 and SB38 at the former CCC/USDA facility, as well as at 13 µg/L in the Morgan private well and 150 µg/L in the MoDOT well, located to the south and east, respectively, of the former facility.

To obtain additional information on the possible occurrence of a soil source of carbon tetrachloride contamination to the groundwater in the vicinity of the former CCC/USDA facility, the soils penetrated at proposed boring locations 1 and 7 (on the former CCC/USDA facility property) and 3 and 4 (on the MoDOT property; Figures 3.1 and 3.2) will be sampled for VOCs analyses in a vertical profile, at 4-ft intervals, from 4 ft BGL to the top of bedrock. The VOCs in the soils will be quantified through purge-and-trap sample preparation with analysis by GC-MS (discussed in Section 4.3). Boring locations 1 and 7 (Figures 3.1 and 3.2) are interpreted to lie upgradient of the carbon tetrachloride contamination in groundwater identified beneath the former CCC/USDA facility at SB24 and SB38, the Morgan private well, and possibly the MoDOT well. Boring location 3 is inferred to lie upgradient of the contaminated MoDOT well only. Boring location 4 is inferred to lie downgradient of the MoDOT well; soil sampling for VOCs analysis at this location was specifically requested by the MoDNR.

As noted in Section 3.2.1, experience during the Phase I investigation suggests that an extended time period (days to weeks) might be required for the infiltration of sufficient groundwater into the proposed new (2-in.-diameter) monitoring wells to permit their sampling for VOCs analyses. These slow accumulation rates might preclude the use of conventional well-volume purging and sampling techniques. Because of the large-diameter well casings employed in the construction of the Morgan and MoDOT private wells (Table 2.1), the volumetric purging (and subsequent disposal) of large quantities of wastewater from these wells during the Phase I field program posed logistic difficulties. In view of these conditions, Argonne is investigating

and developing alternative sampling methodologies that are more amenable to use in low-yield wells, including low-flow and “passive” (no-purge) sampling technologies. The collection and analysis of groundwater samples during Phase II of the investigation at Savannah are discussed further in Section 4.5.

3.2.3 Investigate Further for Possible Evidence of Carbon Tetrachloride Contamination in the Subsurface (Vadose Zone) and Deeper Soils beneath the Former CCC/USDA Facility and in the Vicinity of the Contaminated MoDOT Private Well

No carbon tetrachloride contamination was identified during Phase I in surficial or shallow subsurface soils (to a depth of 12 ft BGL) collected at 41 locations across the former CCC/USDA facility (SB01-SB41; Figure 2.1), at concentrations at or above the MRBCA DTL of 79.6 µg/kg or the quantitation limit of 10 µg/kg for analyses according to EPA Methods 5030B and 8260 B (purge-and-trap sample preparation with analysis by GC-MS). Carbon tetrachloride concentrations greater than the MRBCA DTL were identified in only two samples of deeper soils (171 µg/kg and 126 µg/kg, at 44 ft and 48 ft BGL, respectively, within the saturated zone at SB42) collected from 12 ft BGL to bedrock at four Phase I investigation locations (SB24, SB29, SB38, SB42; Figures 2.1 and 2.4).

To obtain additional information on the possible occurrence of a soil source of carbon tetrachloride contamination to the groundwater in the vicinity of the former CCC/USDA facility, the soils penetrated at proposed boring locations 1 (on the former CCC/USDA facility property) and 3 (on the MoDOT property; Figures 3.1 and 3.2) will be sampled for VOCs analyses in a vertical profile, at 4-ft intervals from 4 ft BGL to the top of bedrock. The VOCs in the soils will be quantified through purge-and-trap sample preparation with analysis by GC-MS (discussed in Section 4.3). Boring location 1 (Figures 3.1 and 3.2) is interpreted to lie upgradient of the carbon tetrachloride contamination in groundwater identified beneath the former CCC/USDA facility at SB24 and SB38, the Morgan private well, and possibly the MoDOT well. Boring location 3 is inferred to lie upgradient of the contaminated MoDOT well only.



FIGURE 3.1 Water level contours based on groundwater levels measured on October 25-29, 2007, with proposed locations for the installation of shallow and deep monitoring well pairs during Phase II of the Savannah investigation. Source of photograph: NAIP (2007).



FIGURE 3.2 Water level contours based on groundwater levels measured on February 6, 2009, with proposed locations for the installation of shallow and deep monitoring well pairs during Phase II of the Savannah investigation. Source of photograph: NAIP (2007).

4 Investigative Methods

The *PMWP* (Argonne 2007b) summarizes the anticipated range of investigative technologies, field procedures, and analytical methods that might be employed by Argonne in the characterization of former CCC/USDA grain storage facilities in Missouri. During each phase of the characterization process at a site, specific technologies and methodologies are recommended (for the approval of the CCC/USDA and MoDNR project managers) to address the identified technical objectives of the investigation program. The approved elements will then be implemented in accord with the standard operating procedures, quality assurance/quality control measures, and general health and safety policies outlined in the *PMWP*.

The proposed technical objectives and investigation tasks for Phase II of the site characterization at Savannah are in Section 3. Section 4 summarizes the site-specific approach, technologies, and methods recommended for the Phase II program. Detailed, site-specific community relations procedures and site-specific health and safety information for use throughout the CCC/USDA-Argonne program at Savannah were provided in the Phase I *Work Plan* (Argonne 2007a) approved by the MoDNR. Brief updates to these procedures and information are in Sections 5 and 6.

4.1 Proposed Field Sessions and Scheduling

The Phase II investigation will be conducted in one primary field session. The activities to be performed in this session will include drilling and coring of sediments for hydrogeologic characterization, installation of permanent monitoring wells, installation of automated groundwater level monitoring units at six locations, and collection of soil samples for VOCs analyses at two locations, as outlined in Sections 3.2.1 and 3.2.3. Field work during this session will be conducted on a 10-days-on, 4-days-off cycle, until the required tasks are completed.

Efforts will also be made during the field session to recover groundwater samples for VOCs analyses from the investigative borings, the proposed new monitoring wells, existing piezometers SB24 and SB34, and the Morgan and MoDOT private wells (Section 3.2.2). If the identified conditions at the investigation site preclude groundwater sampling at these points in a timely manner, however, alternative groundwater sampling technologies might be implemented (subject to the approval of the CCC/USDA and MoDOT project managers). In that case, one or more additional field sessions might be needed to complete the groundwater sampling tasks.

Groundwater level data accumulated by the automatic water level sensors and data loggers installed during both the Phase I and Phase II investigations at Savannah will be retrieved quarterly.

4.2 Methods for Drilling and for Collecting and Logging Soil Core Samples

At each boring location identified in Section 3.2.1.1, core samples will be obtained (to the extent possible) for determination of the lithologies present and their stratigraphic distribution, identification of potential hydrostratigraphic zones, and possible sampling for VOCs or physical property analyses. The soil boring and coring tasks will be performed by using a sonic drilling rig and a crew licensed for operation in Missouri per state requirements (*PMWP*, Argonne 2007b, Section 6.4.1.3). All cores will be logged in accord with the *PMWP* (Argonne 2007b, Sections 4.3.1.3 and 6.4.1.5) and will be archived upon completion of the Phase II field program at an Argonne facility for future reference.

4.3 Sampling and Analysis Methods for Soils

At proposed boring locations 1 and 3 (Section 3.2.1), soils will be sampled for VOCs analyses at 4-ft depth intervals, in a vertical profile from an initial depth of 4 ft BGL to the top of bedrock. Samples from additional depths within the cored interval at each boring location will be collected, if necessary, to adequately represent any significant variations observed in the lithologies penetrated.

Soil samples for the determination of VOCs will be placed immediately in jars, sealed, preserved on dry ice, and shipped by overnight service to the Applied Geosciences and Environmental Management (AGEM) Laboratory at Argonne National Laboratory for analysis by the purge-and-trap sample preparation method with analysis by GC-MS (EPA Methods 5030B and 8260B; *PMWP*, Argonne 2007b, Sections 6.1.1, 6.2, and 6.3.1). At selected locations and depth intervals to be determined in the field, soil materials will also be collected from the cores for the laboratory measurement of soil properties including particle size distribution, moisture content, porosity, bulk density, permeability, and total organic carbon (*PMWP*, Argonne 2007b, Sections 6.1.1 and 6.3.1).

If the results of these analyses (see also Sections 3.2.2 and 3.2.3) suggest that further investigation of the hydraulic properties of the saturated soils is warranted, *in situ* single-well response (slug) tests might be performed (subject to the approval of the CCC/USDA and MoDNR project managers) at one or more of the proposed new monitoring wells to obtain an estimate of the local K_h value. If required, well response testing will be conducted in accord with the *PMWP* (Argonne 2007b, Section 6.7.3) by using either the casing air pressurization method or a physical slug of appropriate size to perturb the initial static groundwater level within each well under investigation.

4.4 Methods for the Construction of Monitoring Wells

Monitoring wells will be installed and developed in accord with the procedures in the *PMWP* (Argonne 2007b, Sections 6.4.3 and 6.4.5) and MoDNR regulatory requirements (MoDNR 2005). Each well will be constructed by using 2-in.-diameter, Schedule 40 PVC casing with a maximum screened interval of 10 ft. The installation of the monitoring wells as nested pairs of shallow and deep wells is anticipated. The wells will be constructed as either flush-mount or aboveground completions, as requested by individual property owners.

Any boreholes advanced during the Phase II investigation that are not completed as monitoring points will be abandoned in accord with MoDNR requirements (MoDNR 2005; *PMWP*, Argonne 2007b, Section 6.4.7).

4.5 Sampling and Analysis Methods for Groundwater

Groundwater samples collected from the Morgan and MoDOT private wells (and other private wells at Savannah) during the Phase I investigation were obtained by the use of a conventional, well-volume purge technique in accord with the *PMWP* (Argonne 2007b, Section 6.1.2). This approach generated very large quantities of wastewater (several thousand gallons) because of the large-diameter construction employed for private wells in the Savannah area. Furthermore, the recovery to static groundwater levels in several of the wells was very slow, taking days to weeks (Argonne 2008). The conventional well-volume purge technique could not be used effectively for sampling of piezometers SB24 and SB38 because of the very slow rates of groundwater accumulation observed in the (1-in.-diameter) casings at these locations. In responding to these Phase I findings, the MoDNR has therefore recommended that

alternative purging and sampling techniques be considered for the (existing and potential) low-yielding wells at this site during the Phase II study (MoDNR 2008).

Since completion of the Savannah Phase I program, Argonne has developed a standard operating procedure (SOP) for the collection of groundwater samples for geochemical and VOCs analyses through use of a low-flow purging and sampling technique. The SOP (attached as Appendix A) was developed in accord with guidance for the use of this approach promulgated by the EPA and the Kansas Department of Health and Environment and is now the required method for use by the CCC/USDA and Argonne for routine groundwater sampling in Kansas. Argonne's analytical results for groundwater samples collected with this approach have met applicable Argonne and Kansas quality assurance/quality control standards (*PMWP*; Argonne 2007b, Section 4.2), while greatly reducing purge volume requirements in comparison to the traditional well-volume purge technique.

The CCC/USDA and Argonne therefore recommend that the low-flow purging and sampling technique be considered for the collection of groundwater samples in Phase II of the investigation at Savannah. To provide a quantitative basis for evaluation of this technique, we propose to sample the Morgan and MoDOT wells and piezometer SB38 initially by using both the low-flow and well-volume purge methods. The results of these comparative tests will be discussed with the CCC/USDA and MoDNR project managers; if the results of the analyses prove acceptable on the basis of the existing quality criteria established for Argonne's investigations (*PMWP*; Argonne 2007b, Section 4.2), Argonne will attempt to use the low-flow methodology for the remainder of the proposed groundwater sampling effort at Savannah.

If groundwater accumulation rates in the proposed new Phase II monitoring wells are insufficient to facilitate use of either the well-volume purge or low-flow sampling techniques in an effective and timely manner, Argonne will present a supplemental recommendation to the CCC/USDA and MoDNR project managers for the possible use of an alternative, passive (no-purge) sampling methodology to address the identified Phase II sampling objectives. Argonne is presently conducting an internal technical review of passive technologies that are suited for use in low-yield wells (ITRC 2006, 2007).

Measurements of pH, temperature, specific conductivity, dissolved oxygen, oxidation-reduction potential, and reduced iron (Fe^{2+}) will be made for all groundwater samples collected during the Phase II investigation by using calibrated field instruments and appropriate field test

kits in accord with the manufacturers' instructions. Water samples collected for the determination of VOCs will be preserved and shipped (on ice at 4°C) by overnight service to the AGEM Laboratory for quantitation by the purge-and-trap sample preparation method and analysis by GC-MS (EPA Methods 5030B and 8260B; *PMWP*, Argonne 2007b, Section 6.3.2). To ensure reproducibility, a minimum of 10% of the water samples will also be selected for verification analysis by a second laboratory (TestAmerica Laboratories, South Burlington, Vermont) with the EPA's Contract Laboratory Program methods. An index of the EPA methods is online (<http://www.epa.gov/epahome/index/>).

4.6 Water Level Monitoring

Groundwater levels will be monitored continuously in the proposed new monitoring wells by using programmable downhole pressure sensor and data logging units (Instrumentation Northwest PT2XTM devices). The new data loggers will be programmed to record one measurement every 4 hr, to coincide with the measurements currently being collected in the Phase I water level monitoring network (Section 2.2). The data loggers in the new wells will initially be downloaded after approximately one month to verify their operation; data will then be retrieved quarterly from the complete network of Phase I and Phase II monitoring points. Automated monitoring is recommended for a minimum of one year in the combined Phase I and Phase II well network, to document the initial accumulation of groundwater at each new (Phase II) monitoring point and any subsequent seasonal or longer-term variations in the water levels (*PMWP*, Argonne 2007b, Section 6.4.6.3).

5 Community Relations Plan

The detailed community relations plan in the MoDNR-approved Phase I *Work Plan* (Argonne 2007a) describes the background of the Savannah community and outlines the site-specific community relations objectives and activities to be implemented by the CCC/USDA and Argonne throughout all phases of the site investigation program at Savannah.

An updated contact list of key officials for use during execution of this work plan for the Phase II investigation at Savannah is in Table 5.1.

TABLE 5.1 Updated contact list for key officials.

Federal Elected Officials

Senator Kit Bond
Washington, D.C., Office
274 Russell Senate Office Building
Washington, DC 20510
(202) 224-5721

Senator Kit Bond
Kansas City Office
911 Main Street, Suite 2224
Kansas City, MO 64105
(816) 471-7141

Senator Claire McCaskill
Washington, D.C., Office
717 Senate Hart Office Building
Washington, DC 20510
(202) 224-6154

Senator Claire McCaskill
Kansas City Office
Whitaker Federal Office Building
400 E. 9th Street, Suite 400
Kansas City, MO 64106
(816) 421-1639

Congressman Sam Graves
Washington, D.C., Office
1415 Longworth House Office Building
Washington, DC 20515
(202) 225-7041
(202) 225-8221 (fax)

Congressman Sam Graves
St. Joseph District Office
201 S. 8th Street
Room 330
St. Joseph, MO 64501
(816) 233-9818
(816) 233-9848 (fax)

State Elected Officials

Governor Jay Nixon
Office of the Governor
Room 216, State Capitol Building
Jefferson City, MO 65101
(573) 751-3222

State Senator Brad Lager
State Senate, District 12
Room 429, State Capitol Building
Jefferson City, MO 65101
(573) 751-1415

State Representative Robert Schaaf
State House of Representatives, District 28
201 West Capitol Avenue
Room 304B
Jefferson City, MO 65101
(573) 751-2183 (capitol phone)

Local Officials

City of Savannah, City Hall
402 Court Street
Savannah, MO 64485
(816) 324-3315
(816) 324-5997 (fax)
<http://www.savannahmo.net/>
Monday-Thursday, 8 a.m. to 5 p.m.
Friday 8 a.m. to 4 p.m.
City Clerk/Administrator: Janice Hatcher
jhatcher@savannahmo.net
(816) 324-7503
Deputy City Clerk/Treasurer: Beth Kar
savannah@ponyexpress.net
(816) 324-7501
Water Department:
Superintendent: Dale Watson
(816) 324-7529

Mayor: Bob Wilson
Email: bksav@savannahmo.net
Phone: (816) 324-3315
West Ward Alderman: Curtis Wandfluh
West Ward Alderman: Ron Steele
East Ward Alderman: Kenny Carter
East Ward Alderman: Connie George

Utility/Tax Clerk: Pam Hoyt
pamhoyt@stjoe.live.com
(816) 324-7500
Street Department:
Director of Public Works: Kenny Lance
(816) 324-7528
Wastewater Department
Superintendent: Jason Long
wasteh2o@ponyexpress.net
(816) 324-7530

TABLE 5.1 (Cont.)

Andrew County Clerk: (816) 324-3624
Andrew County Commissioner: (816) 324-5716
Andrew County Health Department: (816) 324-3139

Federal Officials

Conservation and Environmental Protection Division
Farm Service Agency
Commodity Credit Corporation
U.S. Department of Agriculture
Room 4725, Stop 0513, South Agriculture Building
1400 Independence Avenue, SW
Washington, DC 20250-0513
Steve Gilmore
(202) 720-5104
Steve.Gilmore@usda.gov
Don Steck
(202) 690-0224
don.steck@wdc.usda.gov

Drinking Water Branch
U.S. Environmental Protection Agency, Region VII
901 North Fifth Street
Mail Code WWPD/DWGW
Kansas City, KS 66101
Jeff Field
(913) 551-7548

State Officials

Hazardous Waste Program
Federal Facilities Section
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176
Branden Doster, Remediation and Radiological
Assessment Unit Chief
(573) 751-3907
(573) 526-5268 (fax)
branden.doster@dnr.mo.gov
Shawn Muenks, Environmental Engineer
(573) 751-3107 or (573) 751-3907
(573) 526-5268 (fax)
shawn.muenks@dnr.mo.gov
Ramona J. Huckstep, M.S., Community Involvement
Coordinator
(573) 522-1540
(573) 526-5268 (fax)
ramona.huckstep@dnr.mo.gov

Citizens and Other Interested Parties

Savannah R-3 School District
408 West Market Street
Savannah, Missouri 64485
(816) 324-3144
Superintendent: Dr. Don Lawrence
Curriculum and Personnel Director:
Dr. Tim Mattson
mattsot@mail.savannah.k12.mo.us

Minnie Cline Elementary School
808 W. Price
Savannah, Missouri 64485
(816) 324-3915
Principal: Vickey Rainey

Savannah Middle School
701 W. Chestnut
Savannah, Missouri 64485
(816) 324-3126
Principal: Leisa Blair

Savannah High School
701 W. William
Savannah, Missouri 64485
(816) 324-3128
Principal: Steve Kellepouris

TABLE 5.1 (Cont.)

Andrew County Farm Service Agency
105 W. US Highway 71
Savannah, MO 64485
Robert L. Caldwell, County Executive Director
(816) 324-3196
(816) 324-5879 (fax)

Savannah Area Chamber of Commerce
411 Court Street, P.O. Box 101
Savannah, MO 64485
(816) 324-3976
(816) 324-5728 (fax)
<http://www.savannahmochamber.com>
schamber@ccp.com

Newspapers

Savannah Reporter
(816) 324-3149
www.readthereporter.com

St. Joseph News-Press
(800) 779-6397
www.stjoelive.com

6 Health and Safety Plan

The general health and safety plan for use at Savannah is in Section 3 of the *PMWP* (Argonne 2007b). The general plan addresses all anticipated safety issues for the activities to be conducted. Specific emergency information for use at Savannah is in Figure 6.1 and Table 6.1.

Andrew County has 911 service for all emergency responses. The Andrew County Ambulance District office, which responds to 911 calls, is located in Savannah. Major medical services are provided by the Heartland Regional Medical Center in St. Joseph, Missouri, approximately 16 mi south of Savannah (Figure 6.1).

Savannah has a local medical clinic, located within 2 mi of the former CCC/USDA grain storage facility, that is open from 8 a.m. to 5 p.m. on weekdays. The city is also served by municipal police and fire departments and is the site of the Andrew County Sheriff's Office.

TABLE 6.1 Updated emergency information for the Phase II investigation at Savannah.^a

Resource	Telephone Number	Name
All Emergencies	911	Andrew County 911
Hospital, Poison Control	816-271-6000	Heartland Regional Medical Center ^b 5325 Faraon Street St. Joseph, MO 64506
Medical Services	816-324-3121	Savannah Medical Clinic 803 West Hwy. 71 Savannah, MO 64485
Police (nonemergency)	816-324-7541	Savannah Police Department 402 Court Street Savannah, MO 64485
Sheriff (nonemergency)	816-324-4114	Andrew County Sheriff
Industrial Hygiene	630-252-3310	Argonne-Industrial Hygiene
Safety	630-988-9706	EVS Division ^c Field Safety Coordinator (Monte Brandner)
	630-252-4878	EVS Division ^c Environmental, Safety, and Health Coordinator (Bill Gasper)
Management	630-252-7969	AGEM Program Manager (Lorraine LaFreniere)
	630-252-1275 630-408-7114	AGEM Field Project Manager (David Surgnier) (cellular)
	630-252-9609	AGEM Technical Project Manager (Robert Sedivy)
Security	630-252-5737	Argonne-Operations Security Workdays
	630-252-5731	After hours and weekends
Utilities Survey	800-344-7483 800-DIG RITE	Missouri Location Service

^a Post this table in the field operations base.

^b The route from Savannah to the Heartland Regional Medical Center in St. Joseph is shown in Figure 6.1.

^c Environmental Science Division at Argonne.

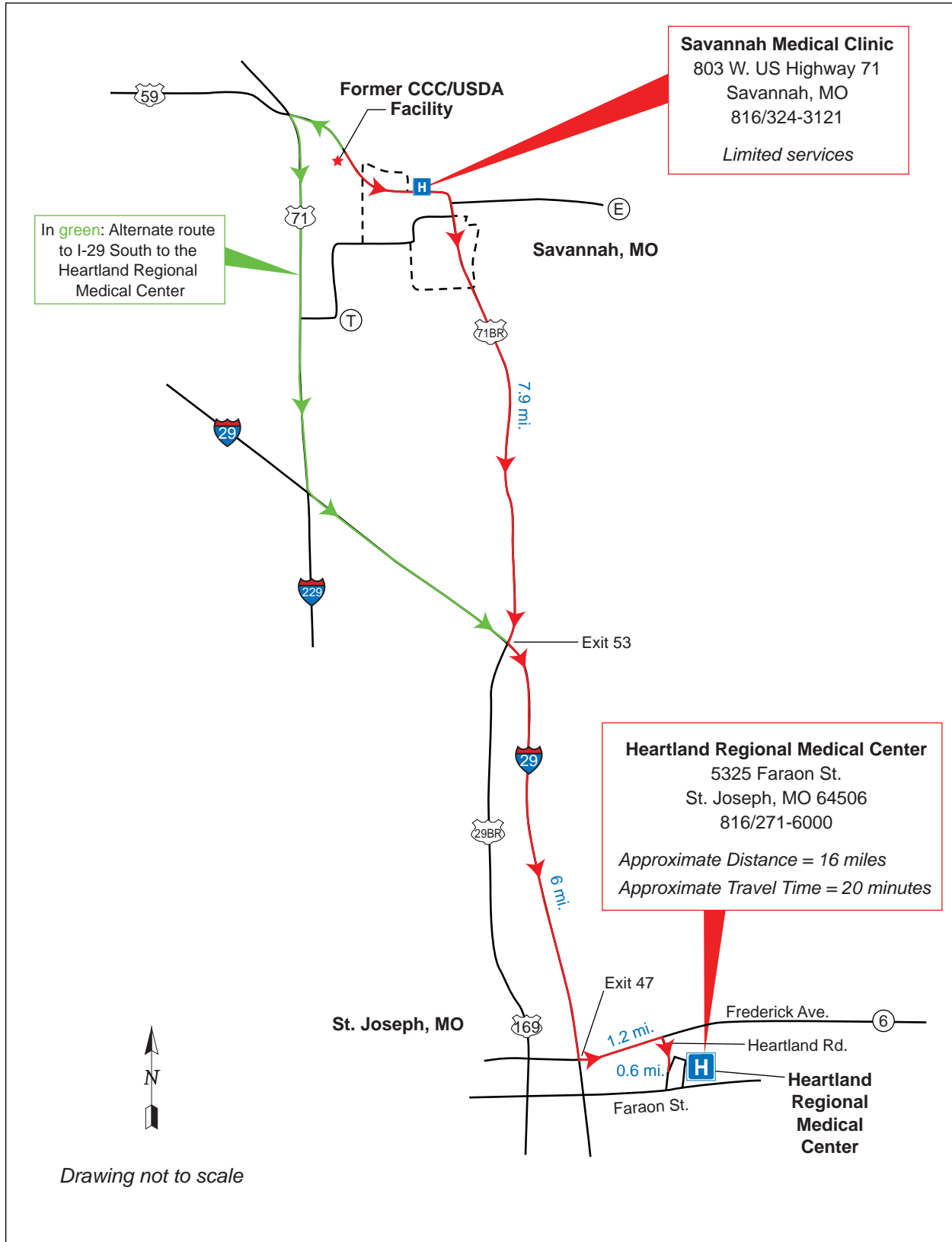


FIGURE 6.1 Emergency route from Savannah to Heartland Regional Medical Center, St. Joseph.

7 References

Argonne, 2007a, *Final Work Plan: Phase I Investigation of Potential Contamination at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri*, ANL/EVS/AGEM/TR-07-09, prepared for the Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C., by Argonne National Laboratory, Argonne, Illinois, September.

Argonne, 2007b, provisional master work plan for environmental investigations in Missouri, unpublished information based on *Final Master Work Plan: Environmental Investigations at Former CCC/USDA Facilities in Kansas, 2002 Revision*, ANL/ER/TR-02/004, prepared for Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C., by Argonne National Laboratory, Argonne, Illinois, December 2002.

Argonne, 2008, *Draft Report: Phase I Investigation at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri*, ANL/EVS/AGEM/TR-08-012, prepared for the Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C., by Argonne National Laboratory, Argonne, Illinois, September.

EPA, 1999, private well sampling data pages for Savannah, Missouri, U.S. Environmental Protection Agency, Washington, D.C.

ITRC, 2006, *Technology Overview of Passive Sampler Technologies*, DSP-4, Interstate Technology and Regulatory Council, Diffusion Sampler Team, Washington, D.C., March.

ITRC, 2007, *Protocol for Use of Five Passive Samplers to Sample for a Variety of Contaminants in Groundwater*, DSP-5, Interstate Technology and Regulatory Council, Diffusion/Passive Sampler Team, Washington, D.C., February.

MoDNR, 2000a, *Preliminary Assessment Report, Savannah Former CCC/USDA Grain Bins Andrew County, Missouri MOSFN0703496*, Hazardous Waste Program, Division of Environmental Quality, Missouri Department of Natural Resources, Jefferson City, Missouri, March 31.

MoDNR, 2000b, *Site Inspection Report, Savannah Former CCC/USDA Grain Bins Andrew County, Missouri MOSFN0703496*, Hazardous Waste Program, Division of Environmental Quality, Missouri Department of Natural Resources, Jefferson City, Missouri, September 28.

MoDNR, 2005, *Missouri Well Construction Rules - Private Water Wells, Heat Pump Systems, Pump Installations and Monitoring Wells*, Division of Environmental Quality, Missouri Department of Natural Resources, Jefferson City, Missouri, November.

MoDNR, 2006, *Missouri Risk-Based Corrective Action (MRBCA): Departmental Technical Guidance*, Division of Environmental Quality, Missouri Department of Natural Resources, Jefferson City, Missouri, final draft with updates (<http://www.dnr.mo.gov/env/hwp/mrbca/mrbca.htm>).

MoDNR, 2008, *Comments on the Draft Report: Phase I Investigation at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri*, letter from S. Muenks (Hazardous Waste Program, Federal Facilities Section, Missouri Department of Natural Resources, Jefferson City, Missouri) to S. Gilmore (Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C.), October 1.

MoDNR, 2009, *Responses to Missouri Department of Natural Resources Comments of October 1, 2008, on Draft Report: Phase I Investigation at the Former CCC/USDA Grain Storage Facility in Savannah, Missouri*, letter from S. Muenks (Hazardous Waste Program, Federal Facilities Section, Missouri Department of Natural Resources, Jefferson City, Missouri) to S. Gilmore (Commodity Credit Corporation, U.S. Department of Agriculture, Washington, D.C.), May 6.

MU Extension, 2009, Missouri Historical Agricultural Weather Database, University of Missouri Extension, University of Missouri, Columbia, Missouri (<http://agebb.missouri.edu/weather/history/index.asp>).

NAIP, 2007, *Compressed County Mosaic, Andrew County, Missouri*, ortho_1-1_1n_s_mo003_2007_1, National Agriculture Imagery Program, Aerial Photography Field Office, Farm Service Agency, U.S. Department of Agriculture, Salt Lake City, Utah, August 21.

USDA, 1960, aerial photograph CCC-YAA-1960C, U.S. Department of Agriculture, Washington, D.C., November 17.

USGS, 1996, *Savannah*, digital raster graphic of 7.5-minute topographic map dated 1978, U.S. Geological Survey, Reston, Virginia, processed December 19.

Appendix A:

Standard Operating Procedure AGEM-35: Low-Flow Groundwater Sampling

**Master Work Plan: Environmental Investigations at
Former CCC/USDA Facilities**

Volume 2: Standard Operating Procedures

**SOP AGEM-35:
Low-Flow Groundwater Sampling**

Prepared by
Field Project Manager

Date:

Approved by
AGEM Program Manager

Date:

Contents

1.0	Scope and Application	3
2.0	Responsibilities	3
3.0	Health and Safety.....	4
4.0	Method Summary.....	4
5.0	Procedure.....	4
6.0	References.....	7
7.0	Related Procedures	8
8.0	Revision History	8

1.0 Scope and Applicability

The purpose of this SOP is to establish a method for low-flow groundwater purging and sampling of monitoring wells. The objective of groundwater sampling is to generate reproducible, representative, verifiable, legally defensible data for concentrations of chemicals in groundwater. Monitoring wells are purged before sampling because water in the well casing is not considered representative of formation water in the aquifer (Puls and Barcelona 1996; Yeskis and Zavala 2002).

Purging a large volume or an arbitrary number of “well volumes” increases the pumping radius of influence in the aquifer and leads to analytical results for a sample that represents an average value in a large volume of water. Purging at rates in excess of site hydrogeologic conditions (1) causes excessive drawdown in the well; (2) pulls stagnant water into the screened interval; (3) mixes chemically distinct waters; and (4) causes aeration, turbulence, and redevelopment of the well. In thin or narrow contaminant plumes (which are common), the mixing of chemically distinct waters can result in dilution and yield misleading data concerning contaminant concentrations and concentration gradients. High-volume purging is time-consuming and costly, and it results in the generation of large volumes of potentially contaminated water that must be managed as investigation-derived waste.

Low-flow (also called low-stress) purging and sampling addresses the problems associated with historical large-volume well purging practices. “Low-flow” refers to the velocity at which water enters the pump intake from the formation water in the immediate vicinity of the well screen. The major objective of low-flow purging is to minimize stress by keeping the pumping rate consistent with the natural flow rate of groundwater in the aquifer or water-bearing zone.

2.0 Responsibilities

The field project manager, or another designee of the AGEM program manager, is responsible for

- Verifying that the personnel implementing this SOP understand the procedure and are capable of implementing it correctly and
- Overseeing all groundwater sampling and ensuring that it is performed in accordance with the *Master Work Plan*, the project-specific sampling plan, and this and other SOPs.

Personnel conducting the field sampling are responsible for

- Implementing this SOP as directed;
- Collecting, handling, and shipping samples in accordance with applicable SOPs; and
- Recording all pertinent data on the AGEM Low-Flow Groundwater Purging and Sampling Record (Attachment 1).

3.0 Health and Safety

General health and safety guidelines are in the *Master Work Plan*, Section 3. Site-specific health and safety information is issued in a site-specific health and safety plan for each field project.

Low-flow groundwater sampling requires Level D personal protection. Specific health and safety hazards include the following:

- Slips, trips, and falls at well locations.
- Dermal exposure to potentially contaminated groundwater.
- Possible injuries to arms, shoulders, and back resulting from transport of equipment to and from well locations with insufficient attention to good ergonomic practice.
- Weather-related heat or cold stress.

4.0 Method Summary

Before sampling, measure the groundwater level in each well and the well depth.

Implement low-flow groundwater sampling techniques according to U.S. Environmental Protection Agency guidelines (Puls and Barcelona 1996; Yeskis and Zavala 2002) by using a bladder pump and appropriate field equipment to determine when representative formation water is entering the well casing during pumping.

Periodically measure static water levels and monitor the levels of pH, temperature, specific conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO), in order to determine when a sample representative of formation water can be collected.

5.0 Procedure

5.1 Supplies Needed

- Electronic water level indicator and weighted tape with marked intervals of 0.01 ft for measuring the depth to water.
- Submersible or bladder pump with adjustable rate control.
- Generator and extension cord.
- Polyethylene tubing.

- Multi-parameter meter with flow-through cell, graduated container, stop watch, and calculator for measuring flow.
- AGEM Low-Flow Groundwater Purging and Sampling Record (Attachment 1) and indelible pen.
- Sample containers, sample labels, and chain-of-custody forms.
- Decontamination equipment and supplies.
- Disposable gloves, resealable bags, and garbage bags.
- Shipping container and ice packs.
- Drum or container for purged water.
- Well keys.
- Map of well locations and summary of well construction details.

5.2 Preparations before Sampling

1. Assemble all equipment and supplies; ensure that they are clean and in working order. Calibrate field meters. Load vehicle with equipment and supplies needed for the planned sampling event.
2. Prepare and organize sample containers for each well site. Prepare waterproof sample labels containing the following information:
 - a. Site identifier
 - b. Well location identifier
 - c. Date and time of collection
 - d. Type of analysis
 - e. Unique sample identification number
3. If necessary, place plastic sheeting on the ground around the well to keep the sampling equipment clean.
4. Position sampling equipment and field instruments.

5. Check the condition of the well for damage or evidence of tampering. Unlock the wellhead. Record location, time, date, and other appropriate information on the AGEM Low-Flow Groundwater Purging and Sampling Record (Attachment 1).
6. Check the known well construction data to determine the screen interval and to calculate the volume of water in the well casing.

5.3 Step-by-Step Implementation

1. Measure the static water level in the well with an electronic water level meter.
2. Measure the total depth of the well.
3. Slowly insert the bladder pump into the well to a depth midway between the top and bottom of the screen. Keep the pump above the bottom of the casing to minimize disturbance of the solids that are typically present at the bottom of a well. If the water depth in a well is inadequate to cover the screen interval, then the AGEM program manager will determine a suitable depth for the bladder pump intake.
4. Set the pumping rate for the bladder pump to minimize drawdown during pumping. Monitor the rate by measuring the static water level periodically throughout pumping.
5. Use polyethylene tubing to connect the bladder pump to an in-line flow cell that continuously measures formation parameters including pH, temperature, specific conductivity, ORP, and DO in the in-line flow cell during pumping. Record measurements every 4 min, until three successive measurements for each parameter are within a range indicating that the formation water is stable. The ranges for formation stabilization for the specific parameters are as follows:
 - a. pH, within 0.1
 - b. Temperature, within 3%
 - c. Specific conductivity, within 3%
 - d. ORP, within ± 10 mV
 - e. DO, within ± 0.3 mg/L
6. After stabilization of the formation water parameters occurs, disconnect the polyethylene tubing from the in-line flow cell, and pump the representative groundwater sample through the tubing and into laboratory-approved containers.

7. Keep the polyethylene tubing for each well and dedicate it for reuse at that well. Record pumping rate data for each well as a reference for subsequent sampling events.

5.4 Field Quality Control

1. Begin sampling at well locations with the least contamination; proceed systematically to the wells with the most contamination.
2. Fill the sample containers for volatile organic compounds (VOCs) analysis first. Visually check these containers to ensure that no bubbles are present.
3. Fill sample containers for additional analytes, as required by the site-specific sampling plan, in the following order:
 - a. Methane
 - b. Semivolatile organic compounds
 - c. Inorganics and water quality parameters
4. Temporarily place all samples in a cooler with ice immediately after collection. Verify that all sample types required for the well are present.
5. Verify that all information required on sample labels and field forms is complete and that the well is locked and secured, before proceeding to the next well location.
6. Decontaminate sampling equipment between wells.
7. Collect quality control samples as appropriate, including field blank, equipment rinsates, trip blanks, replicates, and verification samples.
8. Document adherence to this SOP by completing the AGEM Low-Flow Groundwater Purging and Sampling Record (Attachment 1).

6.0 References

Puls, R.W., and M.J. Barcelona, 1996, "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures," EPA/540/S-95/504, in *Ground Water Issue*, Superfund Technology Support Center for Ground Water, National Risk Management Research Laboratory, U.S. Environmental Protection Agency, Ada, Oklahoma, April (www.epa.gov/tio/tsp/download/lwflw2a.pdf).

Yeskis, D., and B. Zavala, 2002, *Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers: Ground Water Forum Issue Paper*, EPA 542-S-02-001, Technology Innovative Office, Office of Solid Waste and Emergency Response, U.S. Environmental

Protection Agency, Washington, D.C., May (http://www.epa.gov/tio/tsp/download/gw_sampling_guide.pdf).

7.0 Related Procedures

- SOP AGEM-02, Sample and Document Management
- SOP AGEM-08, Measuring Water Levels in Wells
- SOP AGEM-10, Groundwater Sampling
- SOP AGEM-16, Equipment Decontamination
- SOP AGEM-17, Field Sample Handling, Packing, and Shipping
- SOP AGEM-18, Investigation-Derived Waste Handling and Disposal
- SOP AGEM-28, Field Measurements and Photoionization Detector Operation

8.0 Revision History

Rev. No.	Date	Section	Changes	Previous Rev. Date
0	07/08/2009	All	New SOP	None

ATTACHMENT 1: AGEM LOW-FLOW GROUNDWATER PURGING AND SAMPLING RECORD Sampler's Initials: _____

Site	Date	Sample Time	Well -- ID #	Casing Size	Pump Type	Pump Intake Ft.	Water Level Ft.	Well Depth Ft.

Screen Interval	Amount Of Water In Well	Well Volume	Start Pump Time	1 – Volume Purge Time	Start Meter Recording	Seconds Per Cycle	1-Vol. Purged Per Cycle	Total Amount Purged
To Feet	Feet	Liters 3x					mL	Liters

Conversion Table	Casing Size	0.5"	1.0"	2.0"	4.0"	6.0"
1-Gallon = 3.7854 liters	Liters Of Volume Per Foot	0.039	0.154	0.618	2.470	5.565

Time	Water Level	PSI Setting	Discharge Setting	Fill Setting	Fill Rate	Temp. Deg. C	S. Cond µS/cm	DO Mg/L	pH	ORP mV
						-----	+/- 3%	+/- 0.3	+/- 0.1	+/- 10MV

Iron Sample: _____ mg/L CO2 _____ mg/L 4 X 20mL for VOC's to ANL 2 X 40mL for VOC's to Test America
 Notes: _____ X _____ mL for _____ to _____
 _____ X _____ mL for _____ to _____

Supplement 1:

Automatically Recorded Water Level Data and Rainfall Data

TABLE S1.1 Automatically recorded groundwater level data for wells and piezometers at Savannah, April 30, 2008, to May 8, 2009.

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
4/30/08 12:00	10.788	4.674	5.179	20.053	17.851	14.487	5.833	21.769	43.931	35.408
4/30/08 16:00	10.767	4.697	5.188	20.042	17.840	14.405	5.795	21.731	43.872	35.399
4/30/08 20:00	10.786	4.739	5.207	20.039	17.826	14.398	5.813	21.644	43.822	35.389
5/1/08 0:00	10.821	4.779	5.235	20.037	17.816	14.402	5.815	21.642	43.775	35.378
5/1/08 4:00	10.828	4.805	5.259	20.037	17.802	14.357	5.798	21.579	43.721	35.368
5/1/08 8:00	10.849	4.828	5.287	20.035	17.793	14.364	5.812	21.562	43.670	35.361
5/1/08 12:00	10.871	4.852	5.315	20.030	17.779	14.360	5.803	21.534	43.621	35.352
5/1/08 16:00	10.890	4.880	5.341	20.025	17.769	14.355	5.815	21.515	43.571	35.340
5/1/08 20:00	10.948	4.924	5.376	20.030	17.760	14.419	5.883	21.673	43.526	35.331
5/2/08 0:00	11.003	4.962	5.416	20.035	17.751	14.440	5.894	21.616	43.477	35.321
5/2/08 4:00	11.017	4.980	5.423	20.002	17.723	14.383	5.855	21.565	43.424	35.309
5/2/08 8:00	10.993	4.882	5.385	19.962	17.709	14.270	5.845	21.537	43.375	35.300
5/2/08 12:00	11.045	4.763	5.397	19.953	17.702	14.374	5.915	21.598	43.332	35.291
5/2/08 16:00	11.099	4.683	5.432	19.953	17.695	14.438	5.956	21.736	43.291	35.281
5/2/08 20:00	11.151	4.648	5.465	19.955	17.685	14.494	6.003	21.726	43.247	35.272
5/3/08 0:00	11.206	4.646	5.505	19.964	17.681	14.558	6.040	21.790	43.208	35.262
5/3/08 4:00	11.260	4.655	5.543	19.976	17.673	14.615	6.091	21.884	43.161	35.250
5/3/08 8:00	11.354	4.686	5.597	19.995	17.669	14.765	6.194	22.034	43.126	35.241
5/3/08 12:00	11.437	4.723	5.648	20.014	17.666	14.862	6.242	22.184	43.087	35.239
5/3/08 16:00	11.474	4.756	5.688	20.030	17.659	14.874	6.242	22.270	43.040	35.229
5/3/08 20:00	11.493	4.793	5.716	20.046	17.655	14.865	6.251	22.301	42.995	35.217
5/4/08 0:00	11.528	4.835	5.752	20.063	17.650	14.902	6.271	22.273	42.952	35.210
5/4/08 4:00	11.536	4.863	5.777	20.075	17.645	14.883	6.261	22.320	42.905	35.201
5/4/08 8:00	11.552	4.889	5.808	20.089	17.641	14.902	6.291	22.287	42.861	35.196
5/4/08 12:00	11.566	4.913	5.838	20.100	17.636	14.905	6.275	22.341	42.812	35.189
5/4/08 16:00	11.545	4.936	5.857	20.103	17.629	14.843	6.236	22.224	42.763	35.177
5/4/08 20:00	11.536	4.964	5.874	20.110	17.622	14.815	6.240	22.259	42.712	35.170
5/5/08 0:00	11.561	4.997	5.904	20.117	17.620	14.846	6.273	22.238	42.668	35.161
5/5/08 4:00	11.571	5.018	5.930	20.121	17.613	14.841	6.274	22.228	42.618	35.154
5/5/08 8:00	11.587	5.039	5.956	20.131	17.610	14.867	6.297	22.247	42.575	35.147
5/5/08 12:00	11.599	5.060	5.984	20.131	17.606	14.879	6.301	22.292	42.528	35.142
5/5/08 16:00	11.590	5.079	6.003	20.136	17.599	14.841	6.277	22.226	42.476	35.133
5/5/08 20:00	11.576	5.097	6.019	20.136	17.594	14.789	6.271	22.214	42.426	35.123
5/6/08 0:00	11.599	5.121	6.047	20.138	17.592	14.813	6.287	22.216	42.376	35.116
5/6/08 4:00	11.587	5.133	6.066	20.138	17.585	14.780	6.278	22.174	42.326	35.109
5/6/08 8:00	11.580	5.144	6.087	20.136	17.582	14.765	6.284	22.158	42.277	35.102

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
5/6/08 12:00	11.585	5.154	6.111	20.131	17.575	14.773	6.320	22.134	42.227	35.095
5/6/08 16:00	11.557	5.163	6.125	20.124	17.568	14.695	6.245	22.064	42.172	35.088
5/6/08 20:00	11.531	5.179	6.134	20.117	17.561	14.631	6.233	21.996	42.120	35.079
5/7/08 0:00	11.526	5.194	6.116	20.084	17.524	14.624	6.222	21.998	42.071	35.069
5/7/08 4:00	11.394	5.034	6.031	20.039	17.514	14.537	6.215	21.947	42.018	35.057
5/7/08 8:00	11.425	4.861	6.019	20.028	17.512	14.633	6.250	21.991	41.974	35.053
5/7/08 12:00	11.441	4.758	6.022	20.018	17.507	14.643	6.282	22.017	41.928	35.046
5/7/08 16:00	11.467	4.714	6.033	20.014	17.503	14.645	6.532	22.020	41.876	35.038
5/7/08 20:00	11.491	4.700	6.052	20.009	17.498	14.657	6.332	22.113	41.829	35.029
5/8/08 0:00	11.521	4.709	6.080	20.007	17.496	14.690	6.353	22.111	41.786	35.022
5/8/08 4:00	11.536	4.721	6.101	20.004	17.491	14.681	6.343	22.106	41.736	35.015
5/8/08 8:00	11.566	4.744	6.132	20.004	17.491	14.730	6.375	22.144	41.692	35.010
5/8/08 12:00	11.592	4.775	6.158	20.002	17.489	14.758	6.386	22.167	41.648	35.003
5/8/08 16:00	11.594	4.803	6.177	19.999	17.484	14.730	6.369	22.191	41.625	34.996
5/8/08 20:00	11.599	4.840	6.198	20.000	17.482	14.718	6.395	22.249	41.532	34.987
5/9/08 0:00	11.625	4.880	6.226	19.999	17.477	14.754	6.415	22.247	41.389	34.980
5/9/08 4:00	11.625	4.903	6.245	19.997	17.472	14.744	6.417	22.193	41.321	34.968
5/9/08 8:00	11.632	4.915	6.226	19.932	17.454	14.671	6.449	22.315	41.216	34.956
5/9/08 12:00	11.361	4.735	6.141	19.875	17.449	14.626	6.460	22.308	41.315	34.954
5/9/08 16:00	11.382	4.576	6.094	19.854	17.446	14.666	6.462	22.430	41.409	34.949
5/9/08 20:00	11.441	4.510	6.078	19.847	17.442	14.704	6.482	22.378	41.231	34.940
5/10/08 0:00	11.498	4.492	6.078	19.847	17.442	14.735	6.482	22.397	41.079	34.932
5/10/08 4:00	11.510	4.494	6.080	19.845	17.439	14.704	6.467	22.357	41.081	34.925
5/10/08 8:00	11.521	4.513	6.087	19.845	17.435	14.695	6.464	22.329	41.089	34.921
5/10/08 12:00	11.512	4.534	6.092	19.838	17.432	14.636	6.402	22.270	41.197	34.916
5/10/08 16:00	11.474	4.548	6.085	19.826	17.425	14.548	6.353	22.149	41.175	34.909
5/10/08 20:00	11.269	4.529	5.937	19.753	17.383	14.379	6.302	22.078	41.069	34.900
5/11/08 0:00	10.633	4.221	5.686	19.662	17.360	14.284	6.346	22.167	40.760	34.883
5/11/08 4:00	10.357	3.881	5.559	19.615	17.362	14.357	6.377	22.224	40.641	34.874
5/11/08 8:00	10.593	3.750	5.533	19.608	17.358	14.527	6.467	22.341	40.505	34.871
5/11/08 12:00	10.814	3.748	5.543	19.608	17.360	14.629	6.511	22.418	40.718	34.869
5/11/08 16:00	10.958	3.820	5.566	19.612	17.362	14.659	6.504	22.430	40.931	34.864
5/11/08 20:00	11.050	3.926	5.590	19.619	17.360	14.645	6.496	22.418	40.757	34.852
5/12/08 0:00	11.132	4.036	5.620	19.626	17.360	14.673	6.509	22.430	40.535	34.845
5/12/08 4:00	11.180	4.129	5.648	19.631	17.358	14.650	6.495	22.404	40.491	34.841
5/12/08 8:00	11.227	4.213	5.679	19.638	17.358	14.664	6.497	22.392	40.460	34.838
5/12/08 12:00	11.246	4.291	5.702	19.638	17.351	14.619	6.452	22.334	40.686	34.834

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
5/12/08 16:00	11.229	4.363	5.717	19.634	17.351	14.530	6.396	22.228	40.853	34.824
5/12/08 20:00	11.227	4.443	5.733	19.631	17.346	14.487	6.408	22.214	40.607	34.817
5/13/08 0:00	11.286	4.532	5.768	19.636	17.348	14.567	6.461	22.231	40.305	34.810
5/13/08 4:00	11.321	4.599	5.806	19.638	17.346	14.589	6.476	22.235	40.216	34.803
5/13/08 8:00	11.352	4.656	5.839	19.645	17.344	14.605	6.495	22.249	40.230	34.798
5/13/08 12:00	11.382	4.702	5.874	19.650	17.344	14.638	6.516	22.268	40.238	34.791
5/13/08 16:00	11.422	4.752	5.911	19.657	17.341	14.685	6.553	22.639	40.177	34.786
5/13/08 20:00	11.472	4.796	5.951	19.666	17.341	14.751	6.610	22.535	40.077	34.779
5/14/08 0:00	11.547	4.847	5.996	19.683	17.344	14.865	6.678	22.571	39.866	34.775
5/14/08 4:00	11.590	4.883	6.036	19.695	17.344	14.895	6.687	22.596	39.810	34.768
5/14/08 8:00	11.637	4.915	6.078	19.711	17.346	14.968	6.750	22.678	39.726	34.763
5/14/08 12:00	11.668	4.946	6.116	19.718	17.346	14.978	6.730	22.690	40.012	34.761
5/14/08 16:00	11.675	4.974	6.141	19.725	17.346	14.968	6.718	22.678	40.186	34.753
5/14/08 20:00	11.682	5.004	6.167	19.732	17.344	14.954	6.736	22.685	39.955	34.746
5/15/08 0:00	11.715	5.035	6.200	19.744	17.344	14.999	6.757	22.723	39.709	34.742
5/15/08 4:00	11.715	5.051	6.221	19.751	17.344	14.973	6.756	22.716	39.642	34.735
5/15/08 8:00	11.738	5.074	6.252	19.758	17.344	15.023	6.788	22.756	39.592	34.732
5/15/08 12:00	11.769	5.095	6.282	19.765	17.344	15.065	6.812	22.798	39.740	34.728
5/15/08 16:00	11.778	5.119	6.308	19.770	17.344	15.065	6.801	22.796	39.882	34.723
5/15/08 20:00	11.795	5.147	6.336	19.777	17.344	15.074	6.829	22.819	39.628	34.716
5/16/08 0:00	11.821	5.173	6.367	19.784	17.346	15.112	6.852	22.861	39.387	34.711
5/16/08 4:00	11.833	5.191	6.390	19.791	17.346	15.117	6.854	22.871	39.367	34.706
5/16/08 8:00	11.849	5.205	6.416	19.798	17.346	15.145	6.876	22.899	39.289	34.704
5/16/08 12:00	11.856	5.219	6.442	19.798	17.346	15.145	6.864	22.894	39.508	34.699
5/16/08 16:00	11.842	5.236	6.461	19.795	17.346	15.105	6.840	22.852	39.654	34.695
5/16/08 20:00	11.835	5.255	6.479	19.793	17.344	15.082	6.840	22.831	39.422	34.688
5/17/08 0:00	11.835	5.271	6.501	19.793	17.344	15.077	6.843	22.821	39.176	34.683
5/17/08 4:00	11.823	5.278	6.515	19.791	17.344	15.037	6.824	22.779	39.141	34.678
5/17/08 8:00	11.833	5.292	6.536	19.788	17.344	15.074	6.866	22.805	39.057	34.673
5/17/08 12:00	11.851	5.308	6.559	19.784	17.344	15.108	6.871	22.819	39.246	34.673
5/17/08 16:00	11.842	5.325	6.578	19.779	17.341	15.072	6.850	23.114	39.391	34.666
5/17/08 20:00	11.837	5.344	6.597	19.774	17.341	15.053	6.875	22.892	39.128	34.662
5/18/08 0:00	11.875	5.369	6.627	19.774	17.341	15.124	6.920	22.971	38.831	34.657
5/18/08 4:00	11.887	5.386	6.651	19.772	17.344	15.136	6.932	22.960	38.754	34.655
5/18/08 8:00	11.920	5.402	6.679	19.777	17.344	15.214	6.981	22.986	38.654	34.650
5/18/08 12:00	11.948	5.418	6.710	19.777	17.346	15.258	6.995	23.021	38.856	34.647
5/18/08 16:00	11.948	5.432	6.728	19.777	17.346	15.242	6.983	23.072	39.020	34.640

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
5/18/08 20:00	11.939	5.449	6.747	19.774	17.346	15.204	6.977	23.126	38.822	34.638
5/19/08 0:00	11.946	5.461	6.766	19.770	17.346	15.214	6.984	23.023	38.592	34.633
5/19/08 4:00	11.939	5.465	6.782	19.767	17.344	15.192	6.953	22.932	38.575	34.629
5/19/08 8:00	11.896	5.461	6.789	19.758	17.344	15.110	6.940	22.894	38.576	34.624
5/19/08 12:00	11.924	5.475	6.810	19.753	17.346	15.197	7.005	23.450	38.623	34.622
5/19/08 16:00	11.960	5.500	6.839	19.751	17.346	15.261	7.038	23.063	38.688	34.617
5/19/08 20:00	11.979	5.521	6.864	19.751	17.346	15.275	7.066	23.096	38.476	34.614
5/20/08 0:00	12.026	5.545	6.895	19.758	17.351	15.376	7.135	23.154	38.223	34.610
5/20/08 4:00	12.064	5.559	6.926	19.763	17.355	15.435	7.172	23.218	38.137	34.605
5/20/08 8:00	12.125	5.580	6.963	19.774	17.358	15.579	7.263	23.358	38.011	34.603
5/20/08 12:00	12.179	5.596	7.001	19.786	17.365	15.657	7.289	23.447	38.191	34.600
5/20/08 16:00	12.188	5.608	7.024	19.791	17.365	15.652	7.478	23.497	38.359	34.596
5/20/08 20:00	12.177	5.617	7.043	19.795	17.369	15.610	7.287	23.672	38.197	34.591
5/21/08 0:00	12.186	5.627	7.064	19.800	17.369	15.626	7.284	23.616	37.994	34.589
5/21/08 4:00	12.188	5.629	7.080	19.802	17.374	15.631	7.293	23.511	37.935	34.584
5/21/08 8:00	12.203	5.634	7.104	19.805	17.376	15.669	7.313	23.525	37.898	34.584
5/21/08 12:00	12.207	5.638	7.125	19.805	17.379	15.674	7.306	23.640	38.070	34.582
5/21/08 16:00	12.207	5.643	7.144	19.805	17.383	15.664	7.296	23.520	38.077	34.579
5/21/08 20:00	12.191	5.650	7.156	19.800	17.383	15.631	7.295	23.536	37.990	34.574
5/22/08 0:00	12.210	5.662	7.177	19.800	17.386	15.667	7.320	23.529	37.844	34.574
5/22/08 4:00	12.219	5.664	7.195	19.798	17.390	15.692	7.310	23.525	37.787	34.567
5/22/08 8:00	12.224	5.669	7.214	19.795	17.393	15.711	7.385	23.612	37.677	34.565
5/22/08 12:00	12.243	5.676	7.205	19.732	17.358	15.544	7.360	23.612	37.612	34.558
5/22/08 16:00	12.226	5.669	7.156	19.699	17.360	15.532	7.344	23.642	37.723	34.558
5/22/08 20:00	12.200	5.667	7.120	19.683	17.362	15.520	7.327	23.569	37.693	34.553
5/23/08 0:00	12.228	5.669	7.116	19.678	17.367	15.615	7.385	23.668	37.536	34.551
5/23/08 4:00	12.226	5.662	7.113	19.673	17.369	15.603	7.400	23.647	37.534	34.546
5/23/08 8:00	12.247	5.648	7.071	19.662	17.358	15.718	7.445	23.773	37.424	34.544
5/23/08 12:00	12.254	5.580	7.045	19.856	17.365	15.777	7.477	23.923	37.460	34.546
5/23/08 16:00	12.262	5.536	7.038	19.941	17.369	15.796	7.473	23.984	37.593	34.541
5/23/08 20:00	12.269	5.512	7.041	19.636	17.374	15.806	7.501	24.043	37.397	34.539
5/24/08 0:00	12.292	5.507	7.055	19.669	17.379	15.846	7.534	23.982	37.289	34.534
5/24/08 4:00	12.316	5.505	7.078	19.673	17.386	15.898	7.550	24.003	37.222	34.532
5/24/08 8:00	12.332	5.507	7.059	19.664	17.369	15.858	7.513	24.022	37.147	34.530
5/24/08 12:00	12.057	5.421	6.930	19.802	17.365	15.650	7.492	24.001	37.222	34.532
5/24/08 16:00	12.035	5.339	6.972	19.953	17.372	15.681	7.475	24.010	37.322	34.530
5/24/08 20:00	12.049	5.290	7.059	19.814	17.376	15.681	7.468	23.961	37.242	34.525

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
5/25/08 0:00	12.078	5.267	7.001	19.697	17.383	15.714	7.483	23.975	37.108	34.523
5/25/08 4:00	12.094	5.250	6.984	19.687	17.388	15.711	7.466	23.928	37.077	34.520
5/25/08 8:00	12.113	5.245	6.968	19.720	17.390	15.730	7.473	23.916	37.044	34.520
5/25/08 12:00	12.127	5.243	7.031	19.901	17.395	15.742	7.472	23.900	37.110	34.520
5/25/08 16:00	12.134	5.252	7.212	19.737	17.402	15.723	7.459	23.853	37.214	34.518
5/25/08 20:00	12.134	5.262	7.332	19.570	17.404	15.700	7.487	23.886	37.033	34.513
5/26/08 0:00	12.165	5.283	7.188	19.469	17.397	15.773	7.515	23.879	36.806	34.506
5/26/08 4:00	12.158	5.292	7.095	19.422	17.400	15.770	7.549	23.900	36.729	34.504
5/26/08 8:00	12.191	5.306	6.987	19.354	17.404	15.848	7.607	23.973	36.642	34.501
5/26/08 12:00	12.231	5.316	6.954	19.474	17.409	15.909	7.628	24.029	36.665	34.504
5/26/08 16:00	12.248	5.318	7.064	19.551	17.414	15.921	7.628	24.268	36.763	34.504
5/26/08 20:00	12.257	5.323	7.191	19.474	17.418	15.912	7.638	24.102	36.690	34.499
5/27/08 0:00	12.292	5.332	7.123	19.422	17.425	15.978	7.666	24.139	36.546	34.499
5/27/08 4:00	12.297	5.332	7.142	19.373	17.430	15.968	7.675	24.125	36.522	34.497
5/27/08 8:00	12.330	5.339	7.038	19.284	17.435	16.039	7.721	24.205	36.427	34.494
5/27/08 12:00	12.382	5.355	7.005	19.404	17.444	16.155	7.774	24.280	36.434	34.494
5/27/08 16:00	12.410	5.367	7.064	19.399	17.451	16.188	7.800	24.472	36.491	34.494
5/27/08 20:00	12.443	5.381	7.031	19.228	17.458	16.242	7.844	24.477	36.320	34.492
5/28/08 0:00	12.488	5.398	6.923	19.160	17.465	16.327	7.880	24.507	36.208	34.492
5/28/08 4:00	12.509	5.405	6.853	19.197	17.472	16.355	7.896	24.617	36.177	34.490
5/28/08 8:00	12.544	5.416	6.768	19.221	17.482	16.431	7.941	24.627	36.103	34.485
5/28/08 12:00	12.563	5.423	6.778	19.385	17.486	16.450	7.933	24.685	36.195	34.490
5/28/08 16:00	12.558	5.419	6.928	19.608	17.491	16.417	7.904	24.721	36.306	34.492
5/28/08 20:00	12.549	5.416	7.029	19.629	17.498	16.386	7.884	24.657	36.245	34.490
5/29/08 0:00	12.552	5.419	7.045	19.622	17.500	16.393	7.886	24.631	36.163	34.490
5/29/08 4:00	12.542	5.416	7.092	19.655	17.507	16.369	7.872	24.596	36.138	34.487
5/29/08 8:00	12.540	5.414	7.132	19.702	17.512	16.360	7.857	24.573	36.105	34.490
5/29/08 12:00	12.530	5.414	7.242	19.913	17.517	16.346	7.847	24.847	36.176	34.492
5/29/08 16:00	12.502	5.412	7.437	20.101	17.519	16.263	7.807	25.236	36.296	34.490
5/29/08 20:00	12.479	5.412	7.611	19.960	17.524	16.207	7.791	24.671	36.153	34.487
5/30/08 0:00	12.483	5.423	7.606	19.817	17.528	16.233	7.821	24.512	35.970	34.487
5/30/08 4:00	12.488	5.428	7.639	19.786	17.535	16.233	7.816	24.451	35.948	34.487
5/30/08 8:00	12.490	5.435	7.590	19.685	17.538	16.266	7.851	24.514	35.826	34.487
5/30/08 12:00	12.495	5.437	7.656	19.807	17.540	16.270	7.854	24.470	35.871	34.490
5/30/08 16:00	12.504	5.447	7.752	19.967	17.547	16.296	7.882	24.444	35.953	34.487
5/30/08 20:00	12.535	5.468	7.806	19.666	17.557	16.355	7.945	24.519	35.738	34.485
5/31/08 0:00	12.575	5.487	7.724	19.504	17.561	16.438	7.992	24.660	35.565	34.487

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
5/31/08 4:00	12.596	5.498	7.663	19.432	17.568	16.476	8.024	24.638	35.502	34.487
5/31/08 8:00	12.629	5.510	7.573	19.446	17.575	16.553	8.058	24.702	35.474	34.487
5/31/08 12:00	12.655	5.519	7.571	19.629	17.582	16.615	8.086	24.753	35.561	34.490
5/31/08 16:00	12.667	5.526	7.684	19.666	17.589	16.612	8.091	24.866	35.597	34.490
5/31/08 20:00	12.674	5.533	7.759	19.615	17.594	16.615	8.101	24.803	35.532	34.487
6/1/08 0:00	12.693	5.543	7.719	19.619	17.601	16.664	8.127	24.866	35.391	34.490
6/1/08 4:00	12.702	5.545	7.698	19.624	17.608	16.671	8.138	24.913	35.344	34.490
6/1/08 8:00	12.721	5.552	7.667	19.629	17.615	16.716	8.162	24.908	35.331	34.492
6/1/08 12:00	12.743	5.561	7.672	19.631	17.622	16.775	8.181	25.035	35.418	34.494
6/1/08 16:00	12.747	5.568	7.841	19.634	17.631	16.761	8.183	24.955	35.535	34.494
6/1/08 20:00	12.754	5.578	7.940	19.636	17.638	16.759	8.201	24.960	35.320	34.492
6/2/08 0:00	12.773	5.587	7.902	19.641	17.643	16.806	8.228	24.997	35.170	34.497
6/2/08 4:00	12.778	5.587	7.923	19.643	17.650	16.789	8.218	24.995	35.155	34.497
6/2/08 8:00	12.785	5.592	7.869	19.645	17.657	16.832	8.220	25.007	35.108	34.499
6/2/08 12:00	12.780	5.587	7.956	19.753	17.659	16.787	8.201	24.983	35.169	34.499
6/2/08 16:00	12.757	5.583	8.057	20.021	17.664	16.744	8.174	24.931	35.292	34.504
6/2/08 20:00	12.745	5.583	8.163	19.859	17.669	16.721	8.181	25.398	35.184	34.501
6/3/08 0:00	12.745	5.587	8.196	19.824	17.676	16.704	8.169	24.957	35.107	34.504
6/3/08 4:00	12.714	5.576	8.282	19.840	17.678	16.608	8.127	24.821	35.101	34.501
6/3/08 8:00	12.724	5.583	8.200	19.723	17.685	16.690	8.181	24.868	34.969	34.504
6/3/08 12:00	12.733	5.590	8.252	19.903	17.695	16.700	8.178	24.981	35.033	34.508
6/3/08 16:00	12.733	5.599	8.379	19.594	17.702	16.700	8.194	24.913	35.090	34.506
6/3/08 20:00	12.740	5.608	8.282	19.589	17.711	16.700	8.224	24.861	34.940	34.506
6/4/08 0:00	12.759	5.620	8.273	19.587	17.718	16.740	8.249	24.875	34.816	34.506
6/4/08 4:00	12.776	5.627	8.243	19.528	17.723	16.770	8.282	24.931	34.737	34.506
6/4/08 8:00	12.396	5.501	7.989	19.516	17.688	16.740	8.267	25.030	34.669	34.508
6/4/08 12:00	12.356	5.325	7.968	19.739	17.699	16.730	8.254	24.934	34.792	34.513
6/4/08 16:00	12.410	5.260	8.020	19.777	17.718	16.740	8.263	24.922	34.815	34.511
6/4/08 20:00	12.448	5.246	8.027	19.589	17.741	16.721	8.279	24.939	34.700	34.511
6/5/08 0:00	12.502	5.262	7.982	19.516	17.758	16.768	8.299	24.946	34.596	34.513
6/5/08 4:00	12.552	5.286	7.926	19.331	17.772	16.827	8.339	25.039	34.488	34.511
6/5/08 8:00	12.608	5.314	7.822	19.411	17.788	16.917	8.376	25.105	34.402	34.511
6/5/08 12:00	12.636	5.330	7.851	19.502	17.805	16.917	8.378	25.119	34.482	34.516
6/5/08 16:00	12.658	5.349	7.930	19.511	17.814	16.919	8.362	25.117	34.479	34.518
6/5/08 20:00	12.667	5.360	7.973	19.460	17.828	16.900	8.364	25.117	34.443	34.518
6/6/08 0:00	12.384	5.304	7.686	19.350	17.753	16.827	8.470	25.103	34.319	34.513
6/6/08 4:00	11.517	4.733	7.236	19.087	17.753	16.490	8.293	25.091	34.298	34.506

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
6/6/08 8:00	11.677	4.441	6.909	18.904	17.777	16.653	8.351	25.168	34.155	34.506
6/6/08 12:00	11.899	4.373	6.782	19.014	17.798	16.794	8.409	25.248	34.193	34.516
6/6/08 16:00	12.054	4.425	6.832	19.148	17.833	16.858	8.425	25.283	34.318	34.516
6/6/08 20:00	12.163	4.516	6.935	19.021	17.837	16.879	8.444	25.302	34.231	34.516
6/7/08 0:00	12.259	4.607	6.900	18.981	17.863	16.928	8.459	25.335	34.124	34.520
6/7/08 4:00	12.314	4.677	6.942	19.105	17.891	16.903	8.428	25.307	34.167	34.523
6/7/08 8:00	12.361	4.738	6.951	19.174	17.903	16.921	8.437	25.314	34.155	34.523
6/7/08 12:00	12.405	4.801	7.022	19.260	17.915	16.943	8.450	25.321	34.188	34.525
6/7/08 16:00	12.446	4.860	7.130	19.321	17.922	16.945	8.452	25.309	34.172	34.527
6/7/08 20:00	12.476	4.914	7.257	19.244	17.931	16.931	8.451	25.295	34.123	34.527
6/8/08 0:00	12.514	4.960	7.245	19.239	17.945	16.964	8.465	25.307	34.020	34.530
6/8/08 4:00	12.526	4.998	7.304	19.251	17.961	16.931	8.445	25.279	34.021	34.532
6/8/08 8:00	12.559	5.038	7.273	19.218	17.975	16.985	8.489	25.318	33.953	34.534
6/8/08 12:00	12.592	5.075	7.290	19.293	18.001	17.025	8.510	25.344	33.989	34.537
6/8/08 16:00	12.613	5.108	7.405	19.232	18.013	17.011	8.479	25.337	33.968	34.537
6/8/08 20:00	11.828	4.748	7.038	18.965	17.894	16.862	8.395	25.339	33.813	34.530
6/9/08 0:00	11.701	4.291	6.736	18.836	17.898	16.893	8.423	25.361	33.718	34.525
6/9/08 4:00	11.852	4.158	6.635	18.777	17.917	16.926	8.425	25.356	33.716	34.525
6/9/08 8:00	11.965	4.153	6.564	18.695	17.943	16.938	8.447	25.363	33.683	34.525
6/9/08 12:00	12.073	4.207	6.534	18.742	17.954	16.995	8.461	25.379	33.703	34.532
6/9/08 16:00	12.141	4.280	6.632	18.887	18.060	16.976	8.447	25.351	33.771	34.537
6/9/08 20:00	12.193	4.369	6.726	18.817	18.064	16.952	8.446	25.325	33.708	34.537
6/10/08 0:00	12.257	4.457	6.689	18.763	18.081	16.992	8.478	25.356	33.601	34.539
6/10/08 4:00	12.309	4.530	6.663	18.728	18.097	17.006	8.489	25.363	33.565	34.539
6/10/08 8:00	12.365	4.598	6.621	18.723	18.104	17.070	8.529	25.412	33.494	34.544
6/10/08 12:00	12.417	4.661	6.663	18.988	18.118	17.101	8.545	25.438	33.594	34.546
6/10/08 16:00	12.441	4.722	6.822	19.148	18.146	17.063	8.513	25.391	33.714	34.549
6/10/08 20:00	12.450	4.780	6.975	18.991	18.181	17.004	8.506	25.346	33.598	34.549
6/11/08 0:00	12.476	4.837	6.970	18.944	18.184	17.016	8.522	25.349	33.483	34.551
6/11/08 4:00	12.483	4.876	7.034	18.995	18.198	16.973	8.489	25.297	33.507	34.553
6/11/08 8:00	12.504	4.921	6.987	19.002	18.235	17.009	8.515	25.316	33.435	34.556
6/11/08 12:00	12.469	4.954	6.968	19.054	18.210	17.044	8.522	25.328	33.397	34.558
6/11/08 16:00	12.469	4.975	7.120	19.267	18.245	16.995	8.501	25.286	33.515	34.560
6/11/08 20:00	12.483	5.005	7.268	19.164	18.256	16.954	8.502	25.239	33.445	34.560
6/12/08 0:00	12.530	5.045	7.170	19.012	18.242	17.046	8.576	25.375	33.276	34.563
6/12/08 4:00	11.696	4.837	6.667	18.606	17.975	16.799	7.965	25.309	33.167	34.553
6/12/08 8:00	10.011	3.971	5.987	18.341	17.957	16.360	7.794	25.145	33.097	34.549

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
6/12/08 12:00	9.964	3.566	5.705	18.249	17.957	16.242	7.748	24.971	33.132	34.549
6/12/08 16:00	10.089	3.398	5.607	18.268	17.952	16.171	7.698	24.803	33.210	34.551
6/12/08 20:00	10.256	3.410	5.538	18.160	17.961	16.152	7.705	24.695	33.142	34.551
6/13/08 0:00	10.447	3.491	5.416	18.090	17.973	16.178	7.709	24.641	33.045	34.551
6/13/08 4:00	10.598	3.592	5.325	18.050	17.999	16.178	7.705	24.584	32.984	34.551
6/13/08 8:00	10.730	3.695	5.297	17.993	18.011	16.188	7.731	24.563	32.946	34.551
6/13/08 12:00	10.866	3.807	5.236	18.153	17.994	16.254	7.759	24.568	32.968	34.556
6/13/08 16:00	10.961	3.938	5.313	18.261	17.978	16.247	7.762	24.526	33.025	34.553
6/13/08 20:00	11.031	4.081	5.400	18.146	18.015	16.221	7.780	24.495	32.919	34.553
6/14/08 0:00	11.116	4.203	5.381	18.066	17.987	16.240	7.794	24.491	32.800	34.553
6/14/08 4:00	11.163	4.294	5.367	18.085	18.034	16.218	7.782	24.456	32.779	34.553
6/14/08 8:00	11.220	4.371	5.316	18.073	18.015	16.237	7.804	24.458	32.740	34.556
6/14/08 12:00	11.279	4.451	5.351	18.390	18.050	16.261	7.813	24.449	32.825	34.556
6/14/08 16:00	11.298	4.528	5.522	18.559	18.022	16.207	7.789	24.406	32.923	34.556
6/14/08 20:00	11.319	4.607	5.693	18.430	18.123	16.164	7.794	24.327	32.812	34.553
6/15/08 0:00	11.357	4.671	5.715	18.357	18.107	16.162	7.802	24.322	32.694	34.553
6/15/08 4:00	11.373	4.720	5.729	18.345	18.093	16.131	7.787	24.268	32.659	34.553
6/15/08 8:00	11.408	4.766	5.705	18.416	18.259	16.160	7.794	24.254	32.623	34.556
6/15/08 12:00	11.472	4.813	5.625	18.467	18.163	16.270	7.821	24.317	32.489	34.551
6/15/08 16:00	11.199	4.652	5.546	18.439	18.163	15.992	7.778	24.835	32.578	34.549
6/15/08 20:00	10.897	4.345	5.459	18.376	18.055	15.961	7.783	24.404	32.518	34.549
6/16/08 0:00	11.010	4.172	5.402	18.331	17.947	16.006	7.796	24.327	32.424	34.544
6/16/08 4:00	11.121	4.114	5.369	18.312	18.020	16.030	7.802	24.331	32.400	34.541
6/16/08 8:00	11.227	4.121	5.276	18.216	17.964	16.098	7.865	24.348	32.294	34.546
6/16/08 12:00	11.326	4.175	5.280	18.456	18.114	16.157	7.888	24.364	32.348	34.549
6/16/08 16:00	11.383	4.256	5.409	18.538	18.018	16.157	7.885	24.362	32.424	34.546
6/16/08 20:00	11.432	4.350	5.543	18.395	18.055	16.157	7.910	24.350	32.330	34.546
6/17/08 0:00	11.491	4.432	5.522	18.327	17.910	16.197	7.933	24.369	32.220	34.546
6/17/08 4:00	11.531	4.498	5.508	18.338	17.875	16.204	7.933	24.369	32.191	34.546
6/17/08 8:00	11.557	4.549	5.494	18.352	17.933	16.204	7.954	24.390	32.177	34.546
6/17/08 12:00	11.611	4.605	5.513	18.629	17.938	16.275	7.959	24.402	32.241	34.549
6/17/08 16:00	11.616	4.654	5.715	18.887	18.060	16.218	7.928	24.388	32.325	34.546
6/17/08 20:00	11.616	4.706	5.884	18.718	17.945	16.171	7.935	24.308	32.208	34.546
6/18/08 0:00	11.647	4.757	5.895	18.634	17.999	16.190	7.950	24.301	32.092	34.546
6/18/08 4:00	11.637	4.788	5.963	18.657	18.004	16.129	7.912	24.275	32.113	34.544
6/18/08 8:00	11.663	4.823	5.909	18.603	17.931	16.176	7.957	24.291	32.014	34.546
6/18/08 12:00	11.696	4.860	5.942	18.897	17.910	16.211	7.975	24.303	32.121	34.549

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
6/18/08 16:00	11.698	4.893	6.104	19.037	17.915	16.171	7.952	24.252	32.243	34.546
6/18/08 20:00	11.703	4.930	6.264	18.854	17.983	16.150	7.969	24.228	32.068	34.546
6/19/08 0:00	11.731	4.963	6.261	18.770	17.915	16.178	7.994	24.247	31.864	34.546
6/19/08 4:00	11.748	4.989	6.269	18.786	17.842	16.185	7.998	24.245	31.815	34.546
6/19/08 8:00	11.776	5.012	6.224	18.805	17.859	16.230	8.028	24.280	31.785	34.546
6/19/08 12:00	11.797	5.033	6.290	18.815	17.837	16.242	8.032	24.355	31.961	34.549
6/19/08 16:00	11.786	5.050	6.405	18.796	17.805	16.190	8.029	24.263	31.865	34.541
6/19/08 20:00	11.786	5.071	6.327	18.667	17.800	16.247	8.070	24.294	31.690	34.537
6/20/08 0:00	11.807	5.082	6.299	18.711	17.779	16.252	8.051	24.289	31.652	34.534
6/20/08 4:00	11.826	5.094	6.240	18.688	17.767	16.266	8.091	24.327	31.608	34.530
6/20/08 8:00	11.861	5.106	6.208	18.667	17.732	16.332	8.123	24.378	31.562	34.530
6/20/08 12:00	11.892	5.115	6.240	18.866	17.751	16.362	8.143	24.409	31.719	34.539
6/20/08 16:00	11.910	5.129	6.348	18.991	17.770	16.374	8.147	24.411	31.812	34.537
6/20/08 20:00	11.922	5.146	6.492	18.838	17.734	16.360	8.173	24.451	31.650	34.537
6/21/08 0:00	11.962	5.164	6.463	18.714	17.739	16.419	8.205	24.477	31.434	34.537
6/21/08 4:00	11.981	5.171	6.452	18.678	17.744	16.433	8.218	24.495	31.386	34.537
6/21/08 8:00	12.007	5.183	6.438	18.667	17.732	16.476	8.248	24.538	31.381	34.539
6/21/08 12:00	12.040	5.195	6.456	18.979	NA ^a	16.516	8.271	24.575	31.529	34.539
6/21/08 16:00	12.054	5.209	6.571	19.157		16.516	8.272	24.568	31.624	34.539
6/21/08 20:00	12.057	5.218	6.745	18.969		16.478	8.279	24.549	31.459	34.539
6/22/08 0:00	12.073	5.232	6.766	18.859		16.490	8.290	24.559	31.301	34.539
6/22/08 4:00	12.078	5.239	6.773	18.815		16.490	8.292	24.554	31.268	34.539
6/22/08 8:00	12.094	5.248	6.733	18.969		16.520	8.315	24.582	31.235	34.541
6/22/08 12:00	12.104	5.256	6.794	18.981		16.520	8.314	24.575	31.426	34.544
6/22/08 16:00	12.108	5.267	6.926	18.991		16.509	8.319	24.552	31.499	34.541
6/22/08 20:00	12.116	5.279	7.085	19.005		16.497	8.342	24.547	31.300	34.541
6/23/08 0:00	12.151	5.295	7.022	19.014		16.572	8.385	24.608	31.057	34.544
6/23/08 4:00	12.163	5.305	7.015	19.023		16.575	8.387	24.615	31.024	34.544
6/23/08 8:00	12.189	5.314	6.952	19.037		16.627	8.434	24.674	31.004	34.546
6/23/08 12:00	12.222	5.328	6.963	19.049		16.686	8.457	24.807	31.166	34.546
6/23/08 16:00	12.241	5.340	7.081	19.061		16.693	8.474	24.894	31.259	34.546
6/23/08 20:00	12.262	5.354	7.212	19.077		16.704	8.500	24.803	31.091	34.549
6/24/08 0:00	12.288	5.368	7.175	19.094		16.752	8.539	24.847	30.904	34.549
6/24/08 4:00	12.302	5.373	7.170	19.106		16.752	8.529	24.821	30.885	34.549
6/24/08 8:00	12.297	5.377	7.100	19.108		16.730	8.528	24.868	30.851	34.549
6/24/08 12:00	11.944	5.223	6.973	19.129		16.527	8.483	24.821	30.959	34.553
6/24/08 16:00	11.937	5.106	6.961	19.134		16.513	8.457	24.817	30.971	34.551

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
6/24/08 20:00	11.972	5.066	6.985	19.089		16.506	8.435	24.765	30.943	34.551
6/25/08 0:00	12.003	5.059	6.996	19.023		16.492	8.427	24.739	30.882	34.549
6/25/08 4:00	12.038	5.071	6.970	18.930		16.523	8.464	24.763	30.822	34.551
6/25/08 8:00	12.085	5.090	6.947	18.946		16.568	8.478	24.781	30.794	34.553
6/25/08 12:00	12.111	5.108	7.010	19.155		16.572	8.489	24.777	30.942	34.556
6/25/08 16:00	12.135	5.129	7.144	19.293		16.584	8.502	24.760	31.028	34.556
6/25/08 20:00	12.153	5.150	7.308	19.094		16.572	8.526	24.864	30.852	34.556
6/26/08 0:00	12.184	5.171	7.318	18.946		16.598	8.559	24.784	30.666	34.556
6/26/08 4:00	12.210	5.188	7.313	18.939		16.617	8.559	24.800	30.620	34.556
6/26/08 8:00	12.238	5.204	7.273	18.948		16.676	8.596	24.826	30.585	34.558
6/26/08 12:00	12.260	5.218	7.301	18.955		16.681	8.594	24.819	30.722	34.560
6/26/08 16:00	12.283	5.232	7.315	18.967		16.711	8.595	24.831	30.539	34.560
6/26/08 20:00	12.260	5.232	7.445	18.972		16.619	8.554	24.777	30.638	34.560
6/27/08 0:00	12.248	5.235	7.484	18.969		16.591	8.533	24.713	30.613	34.563
6/27/08 4:00	12.283	5.249	7.421	18.976		16.669	8.570	24.772	30.505	34.563
6/27/08 8:00	12.293	5.258	7.400	18.979		16.690	8.597	24.770	30.442	34.563
6/27/08 12:00	12.316	5.272	7.409	18.984		16.730	8.636	24.849	30.548	34.565
6/27/08 16:00	12.344	5.288	7.506	18.988		16.773	8.657	24.854	30.649	34.565
6/27/08 20:00	12.356	5.300	7.661	18.960		16.768	8.664	24.873	30.484	34.563
6/28/08 0:00	11.677	5.010	7.309	18.725		16.761	8.684	24.924	30.221	34.560
6/28/08 4:00	11.736	4.809	7.154	18.639		16.754	8.681	24.931	30.205	34.563
6/28/08 8:00	11.852	4.753	7.017	18.596		16.799	8.699	24.964	30.215	34.565
6/28/08 12:00	11.941	4.755	6.989	18.815		16.827	8.698	24.976	30.339	34.570
6/28/08 16:00	12.005	4.783	7.060	18.901		16.841	8.702	24.976	30.461	34.567
6/28/08 20:00	12.052	4.825	7.186	18.688		16.825	8.716	24.971	30.298	34.567
6/29/08 0:00	12.118	4.877	7.095	18.575		16.895	8.756	25.028	30.120	34.570
6/29/08 4:00	12.161	4.916	7.060	18.772		16.895	8.754	25.037	30.101	34.570
6/29/08 8:00	12.212	4.956	6.961	18.803		16.959	8.794	25.096	30.072	34.572
6/29/08 12:00	12.269	5.001	6.926	18.817		17.039	8.834	25.161	30.191	34.574
6/29/08 16:00	12.309	5.038	7.024	18.838		17.044	8.840	25.173	30.291	34.574
6/29/08 20:00	12.340	5.071	7.156	18.855		17.049	8.860	25.286	30.145	34.574
6/30/08 0:00	12.382	5.104	7.118	18.883		17.096	8.888	25.243	29.981	34.577
6/30/08 4:00	12.417	5.130	7.069	18.908		17.131	8.904	25.271	29.952	34.577
6/30/08 8:00	12.450	5.155	7.027	18.930		17.171	8.924	25.490	29.942	34.581
6/30/08 12:00	12.483	5.179	7.048	18.948		17.212	8.938	25.377	30.109	34.584
6/30/08 16:00	12.502	5.200	7.158	18.965		17.197	8.930	25.386	30.203	34.586
6/30/08 20:00	12.514	5.221	7.325	18.981		17.169	8.897	25.356	30.060	34.586

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
7/1/08 0:00	12.535	5.239	7.327	18.998		17.188	9.076	25.375	29.907	34.589
7/1/08 4:00	12.549	5.256	7.320	19.012		17.193	8.790	25.379	29.874	34.591
7/1/08 8:00	12.561	5.270	7.294	19.023		17.204	8.735	25.389	29.883	34.591
7/1/08 12:00	12.575	5.284	7.355	19.033		17.207	8.829	25.379	30.065	34.596
7/1/08 16:00	12.573	5.296	7.524	19.040		17.169	8.877	25.337	30.161	34.596
7/1/08 20:00	12.571	5.307	7.719	19.049		17.120	8.898	25.302	30.030	34.598
7/2/08 0:00	12.585	5.326	7.738	19.056		17.127	8.921	25.300	29.855	34.600
7/2/08 4:00	12.589	5.338	7.747	19.063		17.120	8.931	25.295	29.812	34.600
7/2/08 8:00	12.599	5.349	7.724	19.068		17.141	8.947	25.311	29.770	34.603
7/2/08 12:00	12.622	5.366	7.689	19.077		17.193	8.975	25.346	29.806	34.607
7/2/08 16:00	12.639	5.380	7.752	19.082		17.223	8.991	25.363	29.910	34.607
7/2/08 20:00	12.653	5.394	7.893	19.089		17.219	9.020	25.384	29.814	34.610
7/3/08 0:00	12.542	5.410	7.689	18.958		17.278	9.072	25.480	29.587	34.603
7/3/08 4:00	12.564	5.415	7.527	18.855		17.351	9.104	25.543	29.505	34.605
7/3/08 8:00	12.616	5.420	7.407	18.824		17.407	9.134	25.611	29.487	34.610
7/3/08 12:00	12.663	5.424	7.402	19.096		17.450	9.147	25.651	29.665	34.614
7/3/08 16:00	12.696	5.431	7.442	19.103		17.488	9.166	25.693	29.670	34.617
7/3/08 20:00	12.724	5.438	7.546	19.113		17.488	9.172	25.708	29.631	34.617
7/4/08 0:00	12.754	5.445	7.487	19.127		17.532	9.198	25.761	29.486	34.619
7/4/08 4:00	12.780	5.452	7.463	19.141		17.558	9.206	25.792	29.475	34.622
7/4/08 8:00	12.806	5.457	7.435	19.155		17.591	9.222	25.923	29.477	34.626
7/4/08 12:00	12.830	5.464	7.461	19.164		17.620	9.233	25.865	29.625	34.629
7/4/08 16:00	12.846	5.471	7.583	19.171		17.615	9.230	25.879	29.732	34.631
7/4/08 20:00	12.856	5.476	7.740	19.204		17.596	9.234	25.853	29.582	34.633
7/5/08 0:00	12.880	5.485	7.715	19.218		17.636	9.259	25.888	29.406	34.636
7/5/08 4:00	12.896	5.490	7.726	19.225		17.631	9.254	25.914	29.404	34.638
7/5/08 8:00	12.905	5.497	7.689	19.232		17.650	9.265	26.052	29.395	34.643
7/5/08 12:00	12.927	5.504	7.733	19.237		17.679	9.276	25.984	29.478	34.645
7/5/08 16:00	12.924	5.506	7.893	19.237		17.634	9.257	25.916	29.635	34.647
7/5/08 20:00	12.931	5.513	8.020	19.242		17.624	9.261	25.900	29.506	34.650
7/6/08 0:00	12.946	5.520	8.008	19.251		17.648	9.276	25.914	29.373	34.652
7/6/08 4:00	12.952	5.523	8.024	19.258		17.643	9.276	25.907	29.359	34.655
7/6/08 8:00	12.962	5.527	8.022	19.256		17.660	9.283	25.921	29.350	34.659
7/6/08 12:00	12.979	5.539	8.048	19.260		17.700	9.305	25.972	29.466	34.662
7/6/08 16:00	13.007	5.553	8.076	19.270		17.763	9.335	26.005	29.417	34.666
7/6/08 20:00	13.021	5.562	8.191	19.275		17.754	9.351	26.012	29.351	34.669
7/7/08 0:00	13.049	5.574	8.161	19.282		17.815	9.384	26.066	29.204	34.671

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
7/7/08 4:00	13.071	5.581	8.149	19.289		17.848	9.401	26.101	29.167	34.673
7/7/08 8:00	13.082	5.586	8.151	19.293		17.858	9.410	26.172	29.189	34.678
7/7/08 12:00	13.104	5.593	8.172	19.303		17.900	9.426	26.186	29.323	34.683
7/7/08 16:00	13.118	5.602	8.306	19.307		17.896	9.433	26.188	29.423	34.683
7/7/08 20:00	13.132	5.609	8.447	19.312		17.886	9.444	26.172	29.260	34.687
7/8/08 0:00	13.151	5.619	8.431	19.319		17.914	9.469	26.242	29.127	34.692
7/8/08 4:00	13.181	5.630	8.365	19.333		17.983	9.494	26.259	29.044	34.692
7/8/08 8:00	13.205	5.640	8.285	19.324		18.011	9.514	26.296	29.001	34.692
7/8/08 12:00	13.224	5.644	8.247	19.345		17.997	9.528	26.324	29.067	34.699
7/8/08 16:00	13.235	5.649	8.264	19.340		18.018	9.535	26.343	29.098	34.702
7/8/08 20:00	13.252	5.654	8.247	19.279		18.049	9.544	26.402	29.037	34.704
7/9/08 0:00	13.273	5.661	8.177	19.232		18.106	9.566	26.437	28.964	34.706
7/9/08 4:00	13.292	5.663	8.144	19.223		18.134	9.577	26.465	28.961	34.713
7/9/08 8:00	13.316	5.672	8.067	19.195		18.200	9.605	26.528	28.937	34.718
7/9/08 12:00	13.337	5.677	8.095	19.413		18.233	9.621	26.699	29.078	34.723
7/9/08 16:00	13.353	5.684	8.182	19.509		18.249	9.627	26.591	29.154	34.725
7/9/08 20:00	13.365	5.686	8.297	19.415		18.240	9.629	26.577	29.072	34.728
7/10/08 0:00	13.379	5.689	8.301	19.298		18.261	9.643	26.636	28.963	34.732
7/10/08 4:00	13.391	5.689	8.316	19.291		18.261	9.645	26.631	28.949	34.737
7/10/08 8:00	13.408	5.696	8.257	19.267		18.308	9.660	26.671	28.918	34.742
7/10/08 12:00	13.424	5.698	8.294	19.551		18.332	9.671	26.685	29.069	34.746
7/10/08 16:00	13.433	5.703	8.424	19.375		18.315	9.671	26.791	29.175	34.749
7/10/08 20:00	13.443	5.705	8.578	19.382		18.297	9.677	26.699	29.027	34.753
7/11/08 0:00	13.464	5.715	8.543	19.397		18.337	9.697	26.734	28.852	34.758
7/11/08 4:00	13.478	5.717	8.541	19.397		18.344	9.704	26.725	28.843	34.763
7/11/08 8:00	13.490	5.719	8.527	19.399		18.358	9.711	26.751	28.854	34.768
7/11/08 12:00	13.502	5.724	8.560	19.364		18.379	9.719	26.751	28.973	34.770
7/11/08 16:00	13.511	5.729	8.689	19.411		18.363	9.723	26.737	29.076	34.775
7/11/08 20:00	13.525	5.736	8.783	19.415		18.372	9.737	26.751	28.917	34.779
7/12/08 0:00	13.551	5.747	8.710	19.422		18.440	9.774	26.819	28.742	34.784
7/12/08 4:00	13.582	5.757	8.668	19.399		18.483	9.803	26.859	28.704	34.786
7/12/08 8:00	13.620	5.771	8.527	19.427		18.584	9.855	26.957	28.632	34.793
7/12/08 12:00	13.669	5.787	8.372	19.556		18.740	9.911	27.053	28.534	34.793
7/12/08 16:00	13.686	5.785	8.395	19.570		18.620	9.914	27.046	28.712	34.801
7/12/08 20:00	13.702	5.785	8.494	19.568		18.624	9.911	27.037	28.760	34.805
7/13/08 0:00	13.719	5.792	8.440	19.443		18.655	9.918	27.067	28.652	34.808
7/13/08 4:00	13.733	5.790	8.395	19.415		18.667	9.920	27.079	28.651	34.812

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
7/13/08 8:00	13.747	5.794	8.360	19.378		18.698	9.928	27.110	28.662	34.822
7/13/08 12:00	13.763	5.799	8.381	19.671		18.726	9.939	27.131	28.843	34.826
7/13/08 16:00	13.775	5.804	8.508	19.500		18.709	9.934	27.112	28.980	34.829
7/13/08 20:00	13.782	5.806	8.708	19.509		18.676	9.934	27.112	28.835	34.836
7/14/08 0:00	13.801	5.813	8.701	19.512		18.714	9.954	27.131	28.640	34.841
7/14/08 4:00	13.818	5.815	8.691	19.514		18.728	9.968	27.149	28.601	34.848
7/14/08 8:00	13.839	5.822	8.616	19.512		18.787	9.993	27.210	28.575	34.850
7/14/08 12:00	13.860	5.829	8.651	19.530		18.813	10.004	27.210	28.757	34.857
7/14/08 16:00	13.877	5.834	8.769	19.476		18.815	10.015	27.217	28.858	34.859
7/14/08 20:00	13.898	5.839	8.928	19.549		18.815	10.031	27.225	28.703	34.867
7/15/08 0:00	13.926	5.850	8.870	19.530		18.879	10.073	27.290	28.502	34.871
7/15/08 4:00	13.947	5.855	8.874	19.540		18.886	10.083	27.292	28.519	34.878
7/15/08 8:00	13.978	5.860	8.785	19.561		18.955	10.111	27.353	28.498	34.883
7/15/08 12:00	14.002	5.867	8.797	19.871		18.988	10.132	27.447	28.637	34.890
7/15/08 16:00	14.027	5.876	8.891	19.612		19.014	10.291	27.647	28.757	34.895
7/15/08 20:00	14.051	5.883	9.031	19.622		19.021	10.224	28.188	28.607	34.899
7/16/08 0:00	14.086	5.892	8.966	19.634		19.089	10.245	28.659	28.429	34.904
7/16/08 4:00	14.115	5.895	8.956	19.655		19.103	10.247	27.944	28.432	34.911
7/16/08 8:00	14.143	5.899	8.900	19.673		19.150	10.249	28.026	28.440	34.916
7/16/08 12:00	14.162	5.902	8.905	19.687		19.183	10.262	27.813	28.536	34.892
7/16/08 16:00	14.188	5.911	9.008	19.697		19.202	10.278	27.736	28.653	34.899
7/16/08 20:00	14.211	5.916	9.175	19.711		19.186	10.284	27.719	28.567	34.907
7/17/08 0:00	14.244	5.925	9.130	19.655		19.238	10.316	27.733	28.408	34.911
7/17/08 4:00	14.268	5.925	9.111	19.741		19.247	10.320	27.757	28.401	34.918
7/17/08 8:00	14.287	5.928	9.064	19.748		19.271	10.329	27.764	28.411	34.925
7/17/08 12:00	14.308	5.932	9.090	19.739		19.297	10.334	27.768	28.547	34.930
7/17/08 16:00	14.327	5.937	9.226	19.741		19.290	10.332	27.750	28.661	34.935
7/17/08 20:00	14.339	5.939	9.384	19.753		19.240	10.337	27.740	28.565	34.942
7/18/08 0:00	14.362	5.946	9.344	19.758		19.285	10.365	27.771	28.393	34.949
7/18/08 4:00	14.388	5.951	9.297	19.760		19.320	10.376	27.787	28.359	34.954
7/18/08 8:00	14.402	5.953	9.250	19.788		19.339	10.379	27.801	28.340	34.961
7/18/08 12:00	14.419	5.953	9.222	19.795		19.304	10.388	27.820	28.373	34.970
7/18/08 16:00	14.433	5.953	9.238	19.777		19.316	10.386	27.825	28.400	34.975
7/18/08 20:00	14.440	5.951	9.276	19.793		19.316	10.375	27.818	28.400	34.980
7/19/08 0:00	14.454	5.956	9.224	19.739		19.358	10.398	27.853	28.320	34.984
7/19/08 4:00	14.466	5.956	9.224	19.767		19.363	10.393	27.850	28.345	34.991
7/19/08 8:00	14.480	5.956	9.189	19.760		19.393	10.409	27.876	28.335	35.001

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
7/19/08 12:00	14.497	5.960	9.212	19.964		19.433	10.422	28.062	28.440	35.006
7/19/08 16:00	14.511	5.965	9.351	20.117		19.419	10.417	27.909	28.545	35.010
7/19/08 20:00	14.525	5.967	9.482	19.941		19.417	10.433	27.926	28.454	35.017
7/20/08 0:00	14.553	5.977	9.426	19.770		19.478	10.482	27.956	28.258	35.024
7/20/08 4:00	14.582	5.981	9.400	19.727		19.500	10.499	27.970	28.234	35.029
7/20/08 8:00	14.610	5.988	9.337	19.831		19.549	10.532	28.101	28.222	35.036
7/20/08 12:00	14.645	5.998	9.323	19.838		19.601	10.564	28.144	28.348	35.043
7/20/08 16:00	14.678	6.010	9.424	19.845		19.617	10.581	28.059	28.467	35.048
7/20/08 20:00	14.706	6.014	9.592	19.873		19.606	10.589	28.129	28.382	35.055
7/21/08 0:00	14.732	6.017	9.600	19.873		19.613	10.607	28.073	28.227	35.062
7/21/08 4:00	14.763	6.021	9.548	19.892		19.660	10.630	28.092	28.180	35.069
7/21/08 8:00	14.789	6.023	9.506	19.920		19.688	10.643	28.132	28.272	35.076
7/21/08 12:00	14.808	6.026	9.550	19.901		19.691	10.640	28.155	28.263	35.083
7/21/08 16:00	14.831	6.033	9.630	19.908		19.712	10.656	28.151	28.256	35.090
7/21/08 20:00	14.857	6.037	9.783	19.917		19.698	10.665	31.030	28.248	35.095
7/22/08 0:00	14.890	6.047	9.708	19.932		19.750	10.718	29.393	28.243	35.102
7/22/08 4:00	14.923	6.052	9.649	19.941		19.783	10.734	28.753	28.237	35.109
7/22/08 8:00	14.959	6.059	9.539	19.960		19.856	10.757	28.554	28.232	35.114
7/22/08 12:00	14.985	6.059	9.473	19.981		19.877	10.783	28.535	28.227	35.123
7/22/08 16:00	15.010	6.063	9.534	19.990		19.898	10.786	28.481	28.219	35.130
7/22/08 20:00	15.036	6.070	9.614	19.995		19.912	10.805	28.807	28.214	35.137
7/23/08 0:00	15.074	6.077	9.534	20.014		19.978	10.854	28.598	28.210	35.144
7/23/08 4:00	15.109	6.082	9.478	20.049		20.007	10.866	28.547	28.204	35.152
7/23/08 8:00	15.142	6.084	9.426	20.054		20.044	10.887	28.587	28.199	35.161
7/23/08 12:00	15.171	6.087	9.449	20.077		20.063	10.894	28.676	28.194	35.166
7/23/08 16:00	15.194	6.089	9.564	20.082		20.054	10.882	28.627	28.186	35.175
7/23/08 20:00	15.213	6.094	9.621	20.096		20.056	10.901	28.702	28.179	35.180
7/24/08 0:00	15.244	6.098	9.604	20.112		20.082	10.906	28.608	28.175	35.189
7/24/08 4:00	15.246	6.091	9.670	20.119		20.033	10.903	28.580	28.168	35.194
7/24/08 8:00	15.274	6.098	9.600	20.126		20.103	10.926	28.603	28.163	35.203
7/24/08 12:00	15.298	6.101	9.593	20.131		20.136	10.946	28.622	28.160	35.210
7/24/08 16:00	15.315	6.101	9.726	20.145		20.106	10.920	28.683	28.153	35.217
7/24/08 20:00	15.324	6.103	9.806	20.154		20.096	10.936	28.699	28.146	35.227
7/25/08 0:00	15.348	6.108	9.790	20.159		20.134	10.963	28.648	28.142	35.232
7/25/08 4:00	15.157	6.080	9.656	19.993		19.842	10.824	28.711	28.140	35.239
7/25/08 8:00	13.940	5.874	9.144	19.781		19.400	10.793	28.594	28.134	35.246
7/25/08 12:00	13.936	5.806	8.905	19.765		19.474	10.783	28.549	28.129	35.250

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
7/25/08 16:00	14.028	5.792	8.853	19.774		19.495	10.775	28.507	28.124	35.255
7/25/08 20:00	14.115	5.797	8.839	19.681		19.514	10.782	28.479	28.118	35.265
7/26/08 0:00	14.202	5.813	8.748	19.589		19.568	10.812	28.481	28.114	35.269
7/26/08 4:00	14.277	5.827	8.719	19.568		19.582	10.804	28.460	28.109	35.276
7/26/08 8:00	14.346	5.841	8.661	19.596		19.613	10.815	28.493	28.105	35.283
7/26/08 12:00	14.407	5.855	8.668	19.772		19.641	10.826	28.462	28.098	35.291
7/26/08 16:00	14.459	5.869	8.799	19.887		19.613	10.800	28.418	28.090	35.295
7/26/08 20:00	14.497	5.876	8.893	19.760		19.577	10.795	28.383	28.085	35.302
7/27/08 0:00	14.539	5.890	8.874	19.683		19.601	10.812	28.378	28.078	35.309
7/27/08 4:00	14.570	5.893	8.891	19.652		19.582	10.803	28.352	28.070	35.316
7/27/08 8:00	14.605	5.902	8.841	19.673		19.603	10.809	28.345	28.065	35.323
7/27/08 12:00	14.636	5.907	8.877	19.720		19.617	10.808	28.333	28.058	35.328
7/27/08 16:00	14.659	5.916	9.010			19.592	10.791	28.296	28.049	35.335
7/27/08 20:00	14.671	5.921	9.194	20.928		19.537	10.793	28.324	28.040	35.342
7/28/08 0:00	14.706	5.932	9.144	20.940		19.596	10.830	28.301	28.033	35.347
7/28/08 4:00	14.739	5.946	9.057	20.952		19.653	10.888	28.331	28.029	35.354
7/28/08 8:00	14.796	5.963	8.919	20.961		19.745	10.939	28.380	28.027	35.361
7/28/08 12:00	14.831	5.965	9.006	20.973		19.717	10.901	28.348	28.021	35.368
7/28/08 16:00	14.853	5.972	9.022	20.982		19.735	10.922	28.352	28.014	35.375
7/28/08 20:00	14.883	5.979	9.095	20.994		19.740	10.930	28.352	28.005	35.380
7/29/08 0:00	14.919	5.991	9.010	21.001		19.804	10.974	28.392	28.003	35.387
7/29/08 4:00	14.947	5.993	9.032	21.015		19.801	10.972	28.392	27.996	35.394
7/29/08 8:00	14.975	6.000	9.010	21.026		19.837	10.996	28.455	27.989	35.399
7/29/08 12:00	15.013	6.010	8.994	21.036		19.898	11.043	28.460	27.988	35.406
7/29/08 16:00	15.048	6.014	9.027	21.047		19.915	11.031	28.453	27.981	35.413
7/29/08 20:00	15.063	6.012	9.050	21.059		19.891	11.033	28.523	27.975	35.420
7/30/08 0:00	15.091	6.017	9.017	21.071		19.912	11.024	28.460	27.970	35.425
7/30/08 4:00	15.100	6.014	9.008	21.087		19.872	11.019	28.516	27.965	35.429
7/30/08 8:00	15.110	6.014	8.992	21.099		19.896	11.028	28.472	27.959	35.437
7/30/08 12:00	15.126	6.017	9.006	21.110		19.931	11.035	28.530	27.955	35.444
7/30/08 16:00	15.140	6.021	9.076	21.122		19.943	11.038	28.502	27.950	35.448
7/30/08 20:00	15.152	6.024	9.198	21.129		19.924	11.040	28.491	27.944	35.455
7/31/08 0:00	15.176	6.031	9.156	21.140		19.981	11.080	28.523	27.939	35.462
7/31/08 4:00	15.199	6.033	9.158	21.150		19.983	11.075	28.528	27.935	35.467
7/31/08 8:00	15.218	6.038	9.100	21.159		20.023	11.111	28.561	27.933	35.477
7/31/08 12:00	15.249	6.042	9.093	21.168		20.073	11.125	28.622	27.928	35.484
7/31/08 16:00	15.265	6.045	9.266	21.175		20.044	11.096	28.577	27.922	35.488

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
7/31/08 20:00	15.277	6.047	9.374	21.182		20.049	11.121	28.587	27.918	35.495
8/1/08 0:00	15.312	6.056	9.318	21.192		20.113	11.165	28.629	27.915	35.503
8/1/08 4:00	15.341	6.059	9.294	21.201		20.134	11.179	28.648	27.912	35.507
8/1/08 8:00	15.369	6.064	9.255	21.213		20.169	11.204	28.676	27.909	35.514
8/1/08 12:00	15.407	6.071	9.210	21.224		20.235	11.240	28.720	27.907	35.521
8/1/08 16:00	15.437	6.073	9.280	21.234		20.247	11.235	28.730	27.903	35.528
8/1/08 20:00	15.458	6.075	9.384	21.243		20.247	11.245	28.739	27.896	35.533
8/2/08 0:00	15.494	6.082	9.327	21.255		20.299	11.289	28.784	27.895	35.543
8/2/08 4:00	15.527	6.082	9.301	21.269		20.313	11.294	28.802	27.895	35.547
8/2/08 8:00	15.555	6.085	9.252	21.280		20.344	11.308	28.826	27.890	35.554
8/2/08 12:00	15.581	6.089	9.292	21.292		20.351	11.306	28.833	27.887	35.561
8/2/08 16:00	15.600	6.089	9.431	21.304		20.335	11.288	28.823	27.879	35.568
8/2/08 20:00	15.619	6.094	9.553	21.315		20.325	11.309	29.112	27.877	35.576
8/3/08 0:00	15.647	6.099	9.529	21.329		20.356	11.336	28.894	27.876	35.583
8/3/08 4:00	15.675	6.101	9.513	21.343		20.372	11.338	28.884	27.871	35.590
8/3/08 8:00	15.699	6.103	9.456	21.359		20.415	11.368	28.901	27.870	35.597
8/3/08 12:00	15.730	6.108	9.468	21.373		20.443	11.381	28.924	27.867	35.604
8/3/08 16:00	15.758	6.113	9.590	21.387		20.450	11.390	28.997	27.863	35.609
8/3/08 20:00	15.788	6.117	9.736	21.399		20.443	11.411	28.941	27.859	35.618
8/4/08 0:00	15.826	6.127	9.696	21.418		20.490	11.454	29.037	27.859	35.625
8/4/08 4:00	15.864	6.129	9.672	21.436		20.511	11.466	29.002	27.857	35.630
8/4/08 8:00	15.890	6.134	9.651	21.453		20.528	11.482	29.016	27.853	35.639
8/4/08 12:00	15.928	6.141	9.618	21.467		20.580	11.513	29.098	27.853	35.646
8/4/08 16:00	15.963	6.145	9.719	21.481		20.592	11.532	29.105	27.851	35.653
8/4/08 20:00	15.996	6.152	9.844	21.490		20.577	11.543	29.616	27.847	35.658
8/5/08 0:00	16.034	6.159	9.769	21.502		20.639	11.595	29.250	27.847	35.667
8/5/08 4:00	16.076	6.162	9.731	21.513		20.667	11.612	29.210	27.846	35.674
8/5/08 8:00	16.114	6.169	9.658	21.527		20.712	11.645	30.652	27.846	35.682
8/5/08 12:00	16.156	6.178	9.588	21.539		20.773	11.691	29.567	27.846	35.689
8/5/08 16:00	16.206	6.188	9.607	21.550		20.820	11.710	29.515	27.844	35.698
8/5/08 20:00	16.243	6.190	9.679	21.560		20.816	11.718	29.517	27.837	35.703
8/6/08 0:00	16.281	6.197	9.604	21.569		20.868	11.764	29.635	27.840	35.712
8/6/08 4:00	16.316	6.199	9.553	21.578		20.891	11.766	29.513	27.838	35.722
8/6/08 8:00	16.347	6.199	9.501	21.590		20.915	11.785	29.682	27.838	35.729
8/6/08 12:00	16.373	6.199	9.534	21.599		20.924	11.786	29.510	27.839	35.736
8/6/08 16:00	16.394	6.202	9.625	21.609		20.922	11.778	32.676	27.839	35.743
8/6/08 20:00	16.418	6.206	9.670	21.618		20.941	11.804	34.169	27.846	35.750

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
8/7/08 0:00	16.448	6.211	9.630	21.630		20.976	11.824	30.767	27.861	35.757
8/7/08 4:00	16.472	6.206	9.616	21.641		20.981	11.826	30.218	27.899	35.766
8/7/08 8:00	16.493	6.209	9.567	21.655		21.023	11.851	30.045	27.920	35.773
8/7/08 12:00	16.521	6.211	9.581	21.667		21.054	11.856	30.830	27.935	35.783
8/7/08 16:00	16.545	6.216	9.703	21.681		21.061	11.840	30.026	27.947	35.790
8/7/08 20:00	16.564	6.216	9.870	21.693		21.047	12.253	29.928	27.957	35.797
8/8/08 0:00	16.590	6.220	9.837	21.704		21.082	11.924	29.846	27.967	35.806
8/8/08 4:00	16.616	6.220	9.790	21.716		21.104	11.924	29.843	27.976	35.816
8/8/08 8:00	16.642	6.223	9.731	21.728		21.139	11.936	30.211	27.986	35.823
8/8/08 12:00	16.665	6.230	9.759	21.742		21.158	11.941	30.256	27.989	35.825
8/8/08 16:00	16.682	6.230	9.696	21.751		21.134		29.911	27.992	35.835
8/8/08 20:00	16.694	6.230	9.715	21.763		21.108	12.021	29.869	27.998	35.842
8/9/08 0:00	16.715	6.234	9.731	21.774		21.144	11.976	29.820	28.001	35.851
8/9/08 4:00	16.731	6.232	9.743	21.786		21.139	11.959	29.834	28.009	35.861
8/9/08 8:00	16.745	6.232	9.752	21.793		21.158	11.969	30.169	28.015	35.868
8/9/08 12:00	16.767	6.237	9.766	21.800		21.184	11.974	30.040	28.022	35.875
8/9/08 16:00	16.785	6.241	9.783	21.807	20.337	21.193	11.978	29.939	28.025	35.882
8/9/08 20:00	16.807	6.246	9.804	21.814	20.353	21.198	11.990	29.935	28.033	35.891
8/10/08 0:00	16.837	6.255	9.823	21.818	20.370	21.243	12.025	29.876	28.037	35.903
8/10/08 4:00	16.863	6.255	9.837	21.828	20.386	21.247	12.025	29.900	28.045	35.910
8/10/08 8:00	16.887	6.258	9.851	21.835	20.400	21.283	12.051	29.900	28.050	35.917
8/10/08 12:00	16.917	6.263	9.865	21.844	20.419	21.313	12.063	29.907	28.057	35.924
8/10/08 16:00	16.941	6.269	9.888	21.849	20.440	21.316	12.068	29.904	28.061	35.934
8/10/08 20:00	16.967	6.274	9.910	21.856	20.459	21.321	12.084	29.914	28.064	35.941
8/11/08 0:00	17.005	6.284	9.931	21.865	20.478	21.379	12.126	29.951	28.070	35.950
8/11/08 4:00	17.031	6.283	9.942	21.879	20.495	21.375	12.126	29.951	28.075	35.959
8/11/08 8:00	17.052	6.286	9.956	21.888	20.511	21.412	12.147	30.697	28.081	35.967
8/11/08 12:00	17.075	6.290	9.973	21.786	20.528	21.420	12.145	30.258	28.086	35.976
8/11/08 16:00	17.090	6.290	9.989	21.765	20.546	21.403	12.479	30.378	28.087	35.983
8/11/08 20:00	17.099	6.290	10.003	21.765	20.565	21.389	12.169	30.263	28.088	35.990
8/12/08 0:00	17.118	6.297	10.017	21.774	20.582	21.427	12.171	30.104	28.093	36.000
8/12/08 4:00	17.132	6.295	10.029	21.786	20.598	21.415	12.140	30.038	28.097	36.007
8/12/08 8:00	17.134	6.290	10.039	21.797	20.615	21.431	12.161	30.057	28.102	36.016
8/12/08 12:00	17.160	6.298	10.055	21.814	20.631	21.467	12.161	30.148	28.107	36.025
8/12/08 16:00	17.177	6.302	10.067	21.825	20.650	21.467	12.962	30.054	28.108	36.033
8/12/08 20:00	17.191	6.307	10.083	21.839	20.669	21.471	12.262	30.090	28.112	36.040
8/13/08 0:00	17.219	6.316	10.102	21.849	20.688	21.507	12.246	30.080	28.117	36.049

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
8/13/08 4:00	17.248	6.319	10.116	21.860	20.702	21.528	12.246	30.120	28.123	36.056
8/13/08 8:00	17.266	6.323	10.132	21.872	20.719	21.554	12.248	30.125	28.129	36.065
8/13/08 12:00	17.292	6.328	10.147	21.881	20.735	21.578	12.554	30.132	28.131	36.075
8/13/08 16:00	17.314	6.333	10.168	21.893	20.754	21.585	13.207	30.134	28.134	36.082
8/13/08 20:00	17.337	6.342	10.194	21.902	20.775	21.589	12.443	30.158	28.135	36.091
8/14/08 0:00	17.375	6.349	10.212	21.909	20.794	21.625	12.406	30.169	28.141	36.098
8/14/08 4:00	17.391	6.347	10.226	21.921	20.808	21.608	12.382	30.183	28.142	36.108
8/14/08 8:00	17.415	6.351	10.240	21.930	20.825	21.655	12.392	30.256	28.145	36.117
8/14/08 12:00	17.439	6.358	10.255	21.940	20.841	21.686	12.843	30.228	28.152	36.124
8/14/08 16:00	17.464	6.363	10.269	21.949	20.858	21.714	13.519	30.315	28.156	36.134
8/14/08 20:00	17.488	6.368	10.283	21.958	20.877	21.726	12.589	30.608	28.159	36.141
8/15/08 0:00	17.518	6.377	10.299	21.968	20.895	21.776	12.549	30.383	28.162	36.150
8/15/08 4:00	17.549	6.382	10.316	21.977	20.912	21.797	12.535	30.441	28.168	36.160
8/15/08 8:00	17.573	6.387	10.330	21.984	20.926	21.832	12.554	30.397	28.173	36.169
8/15/08 12:00	17.608	6.394	10.348	21.993	20.945	21.880	12.768	30.415	28.178	36.176
8/15/08 16:00	17.637	6.398	10.365	22.005	20.964	21.887	12.601	30.437	28.179	36.183
8/15/08 20:00	17.653	6.403	10.381	22.014	20.983	21.898	12.603	30.437	28.183	36.193
8/16/08 0:00	17.688	6.410	10.398	22.019	21.002	21.946	12.629	30.490	28.188	36.204
8/16/08 4:00	17.712	6.412	10.412	22.026	21.018	21.960	12.629	30.486	28.192	36.212
8/16/08 8:00	17.731	6.415	10.426	22.033	21.037	21.979	12.643	30.537	28.194	36.221
8/16/08 12:00	17.754	6.417	10.442	22.035	21.056	22.000	12.645	31.367	28.198	36.230
8/16/08 16:00	17.764	6.417	10.459	22.044	21.075	21.976	12.620	30.734	28.199	36.235
8/16/08 20:00	17.776	6.417	10.478	22.051	21.094	21.962	12.620	30.615	28.481	36.245
8/17/08 0:00	17.797	6.422	10.492	22.063	21.112	21.990	12.641	30.601	28.557	36.254
8/17/08 4:00	17.811	6.422	10.506	22.077	21.131	22.000	12.645	30.629	28.558	36.263
8/17/08 8:00	17.827	6.424	10.517	22.091	21.148	22.019	12.660	30.596	28.556	36.273
8/17/08 12:00	17.849	6.426	10.529	22.105	21.164	22.026	12.655	30.622	28.557	36.280
8/17/08 16:00	17.856	6.429	10.546	22.117	21.183	22.005	12.850	30.587	28.555	36.289
8/17/08 20:00	17.865	6.429	10.564	22.131	21.202	21.997	12.681	30.580	28.554	36.296
8/18/08 0:00	17.884	6.433	10.579	22.145	21.219	22.016	12.676	30.591	28.553	36.306
8/18/08 4:00	17.903	6.433	10.593	22.161	21.235	22.038	12.685	30.603	28.554	36.315
8/18/08 8:00	17.922	6.433	10.604	22.173	21.252	22.052	12.697	30.619	28.551	36.325
8/18/08 12:00	17.943	6.438	10.618	22.187	21.266	22.075	12.709	30.692	28.550	36.332
8/18/08 16:00	17.962	6.445	10.639	22.203	21.287	22.080	12.709	30.645	28.549	36.341
8/18/08 20:00	17.981	6.450	10.661	22.212	21.306	22.078	12.721	30.650	28.550	36.351
8/19/08 0:00	18.007	6.457	10.677	22.224	21.322	22.106	12.749	30.673	28.548	36.358
8/19/08 4:00	18.032	6.459	10.693	22.238	21.339	22.120	12.760	30.687	28.549	36.367

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
8/19/08 8:00	18.054	6.464	10.708	22.247	21.358	22.148	12.784	30.711	28.549	36.376
8/19/08 12:00	18.082	6.468	10.724	22.256	21.374	22.174	12.946	30.997	28.548	36.383
8/19/08 16:00	18.103	6.475	10.745	22.268	21.395	22.177	12.826	31.072	28.547	36.393
8/19/08 20:00	18.122	6.485	10.769	22.277	21.417	22.172	12.824	31.553	28.545	36.402
8/20/08 0:00	18.146	6.489	10.785	22.284	21.433	22.198	12.843	31.032	28.546	36.412
8/20/08 4:00	18.164	6.489	10.799	22.296	21.450	22.203	12.845	30.901	28.547	36.419
8/20/08 8:00	18.181	6.492	10.813	22.308	21.466	22.231	12.864	30.901	28.545	36.428
8/20/08 12:00	18.200	6.494	10.825	22.317	21.483	22.243	13.153	31.248	28.546	36.438
8/20/08 16:00	18.214	6.496	10.841	22.326	21.502	22.238	12.911	31.346	28.545	36.445
8/20/08 20:00	18.226	6.501	10.858	22.336	21.520	22.240	12.885	32.868	28.543	36.454
8/21/08 0:00	18.240	6.506	10.872	22.345	21.537	22.259	12.894	31.520	28.544	36.464
8/21/08 4:00	18.247	6.504	10.881	22.354	21.553	22.248	12.873	31.170	28.543	36.471
8/21/08 8:00	18.249	6.501	10.893	22.364	21.565	22.264	12.880	31.142	28.543	36.482
8/21/08 12:00	18.259	6.504	10.902	22.375	21.582	22.285	12.979	31.032	28.544	36.489
8/21/08 16:00	18.263	6.504	10.912	22.387	21.598	22.285	12.899	31.011	28.545	36.499
8/21/08 20:00	18.271	6.508	10.926	22.399	21.617	22.290	12.904	31.700	28.543	36.508
8/22/08 0:00	18.292	6.515	10.940	22.413	21.634	22.321	12.925	31.173	28.544	36.518
8/22/08 4:00	18.311	6.518	10.954	22.424	21.650	22.339	12.934	31.102	28.543	36.525
8/22/08 8:00	18.329	6.522	10.966	22.438	21.664	22.368	12.953	31.070	28.543	36.537
8/22/08 12:00	18.351	6.529	10.980	22.448	21.681	22.391	12.967	31.060	28.546	36.544
8/22/08 16:00	18.374	6.536	10.996	22.461	21.700	22.396	12.970	31.067	28.543	36.551
8/22/08 20:00	18.398	6.550	11.020	22.471	21.721	22.417	13.005	31.056	28.544	36.560
8/23/08 0:00	18.438	6.562	11.041	22.468	21.740	22.465	13.045	31.095	28.545	36.570
8/23/08 4:00	18.469	6.569	11.055	22.450	21.754	22.486	13.078	31.163	28.543	36.577
8/23/08 8:00	17.787	6.574	10.963	22.429	21.735	22.238	13.085	31.102	28.546	36.579
8/23/08 12:00	17.632	6.569	10.867	22.392	21.749	22.262	13.059	31.091	28.547	36.591
8/23/08 16:00	17.700	6.571	10.806	22.382	21.766	22.269	13.054	31.058	28.545	36.600
8/23/08 20:00	17.778	6.574	10.776	22.382	21.782	22.243	13.052	31.058	28.544	36.607
8/24/08 0:00	17.851	6.578	10.757	22.385	21.799	22.257	13.068	31.102	28.545	36.617
8/24/08 4:00	17.905	6.576	10.745	22.392	21.813	22.243	13.059	31.070	28.543	36.624
8/24/08 8:00	17.962	6.581	10.740	22.399	21.829	22.288	13.099	31.091	28.546	36.636
8/24/08 12:00	18.009	6.581	10.743	22.408	21.843	22.295	13.092	31.084	28.547	36.645
8/24/08 16:00	18.037	6.578	10.743	22.420	21.860	22.276	13.071	31.065	28.546	36.652
8/24/08 20:00	18.054	6.576	10.748	22.431	21.877	22.257	13.061	31.051	28.544	36.659
8/25/08 0:00	18.082	6.581	10.755	22.441	21.893	22.276	13.082	31.060	28.548	36.671
8/25/08 4:00	18.113	6.583	10.764	22.450	21.907	22.283	13.087	31.060	28.545	36.680
8/25/08 8:00	18.136	6.583	10.771	22.459	21.924	22.297	13.096	31.067	28.546	36.685

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
8/25/08 12:00	18.162	6.585	10.778	22.468	21.940	22.311	13.096	31.206	28.547	36.692
8/25/08 16:00	18.179	6.588	10.792	22.480	21.957	22.288	13.075	31.128	28.544	36.699
8/25/08 20:00	18.193	6.590	10.809	22.489	21.973	22.271	13.080	31.079	28.542	36.706
8/26/08 0:00	18.223	6.597	10.825	22.499	21.990	22.309	13.106	31.126	28.543	36.716
8/26/08 4:00	18.245	6.597	10.837	22.508	22.006	22.306	13.101	31.058	28.543	36.727
8/26/08 8:00	18.263	6.597	10.846	22.520	22.018	22.318	13.111	31.079	28.544	36.732
8/26/08 12:00	18.287	6.600	10.860	22.529	22.035	22.337	13.118	31.060	28.545	36.739
8/26/08 16:00	18.301	6.602	10.874	22.541	22.051	22.321	13.101	31.053	28.542	36.746
8/26/08 20:00	18.313	6.607	10.891	22.550	22.070	22.311	13.106	31.140	28.540	36.756
8/27/08 0:00	18.341	6.611	10.907	22.562	22.084	22.351	13.129	31.077	28.544	36.765
8/27/08 4:00	18.362	6.611	10.921	22.573	22.098	22.356	13.134	31.070	28.541	36.770
8/27/08 8:00	18.379	6.611	10.938	22.583	22.112	22.370	13.150	31.091	28.545	36.779
8/27/08 12:00	18.407	6.618	10.952	22.573	22.129	22.417	13.181	31.166	28.546	36.789
8/27/08 16:00	18.419	6.614	10.961	22.450	22.141	22.380	13.134	31.161	28.544	36.798
8/27/08 20:00	18.417	6.614	10.978	22.392	22.157	22.365	13.132	31.091	28.543	36.807
8/28/08 0:00	18.428	6.616	10.992	22.336	22.174	22.373	13.146	31.133	28.542	36.812
8/28/08 4:00	18.438	6.614	11.003	22.322	22.188	22.375	13.136	31.088	28.542	36.822
8/28/08 8:00	18.447	6.614	11.013	22.319	22.202	22.394	13.155	31.093	28.543	36.829
8/28/08 12:00	18.473	6.623	11.032	22.324	22.218	22.436	13.183	31.114	28.544	36.838
8/28/08 16:00	18.504	6.635	11.053	22.333	22.235	22.460	13.212	31.177	28.542	36.843
8/28/08 20:00	18.535	6.646	11.069	22.336	22.249	22.488	13.249	31.201	28.541	36.855
8/29/08 0:00	18.572	6.658	11.093	22.340	22.263	22.549	13.301	31.201	28.544	36.862
8/29/08 4:00	18.610	6.670	11.111	22.347	22.280	22.587	13.320	31.241	28.544	36.871
8/29/08 8:00	18.636	6.674	11.128	22.354	22.294	22.613	13.352	31.252	28.548	36.878
8/29/08 12:00	18.669	6.681	11.149	22.361	22.310	22.646	13.376	31.334	28.549	36.888
8/29/08 16:00	18.692	6.688	11.172	22.366	22.332	22.651	13.371	31.330	28.547	36.895
8/29/08 20:00	18.709	6.693	11.194	22.371	22.348	22.653	13.388	31.304	28.548	36.902
8/30/08 0:00	18.740	6.700	11.217	22.373	22.365	22.686	13.416	31.367	28.549	36.911
8/30/08 4:00	18.758	6.698	11.231	22.380	22.379	22.691	13.421	31.335	28.549	36.921
8/30/08 8:00	18.785	6.700	11.247	22.382	22.395	22.726	13.453	33.651	28.550	36.928
8/30/08 12:00	18.813	6.705	11.266	22.387	22.412	22.743	13.458	33.628	28.554	36.939
8/30/08 16:00	18.827	6.710	11.285	22.394	22.428	22.736	13.444	32.826	28.552	36.944
8/30/08 20:00	18.839	6.714	11.309	22.399	22.445	22.736	13.456	33.787	28.551	36.954
8/31/08 0:00	18.862	6.714	11.325	22.401	22.461	22.759	13.472	32.179	28.552	36.963
8/31/08 4:00	18.881	6.714	11.341	22.406	22.476	22.776	13.482	31.860	28.554	36.970
8/31/08 8:00	18.897	6.714	11.353	22.382	22.490	22.797	13.498	31.794	28.555	36.979
8/31/08 12:00	18.916	6.717	11.367	22.347	22.506	22.811	13.491	31.672	28.559	36.989

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
8/31/08 16:00	18.928	6.719	11.386	22.224	22.523	22.804	13.477	31.660	28.557	36.998
8/31/08 20:00	18.938	6.724	11.407	21.583	22.542	22.799	13.486	31.592	28.556	37.005
9/1/08 0:00	18.959	6.731	11.424	21.026	22.556	22.830	13.512	31.604	28.556	37.015
9/1/08 4:00	18.980	6.731	11.435	20.709	22.570	22.842	13.519	31.644	28.559	37.024
9/1/08 8:00	18.999	6.731	11.449	20.400	22.584	22.863	13.540	34.207	28.563	37.034
9/1/08 12:00	19.018	6.735	11.463	19.989	22.600	22.875	13.540	37.536	28.564	37.041
9/1/08 16:00	19.034	6.740	11.480	19.775	22.617	22.875	13.533	35.163	28.565	37.050
9/1/08 20:00	19.049	6.745	11.501	19.677	22.636	22.880	13.538	32.966	28.563	37.057
9/2/08 0:00	19.067	6.749	11.520	19.635	22.652	22.908	13.559	32.310	28.563	37.067
9/2/08 4:00	19.091	6.752	11.536	19.628	22.666	22.936	13.583	32.115	28.567	37.078
9/2/08 8:00	19.112	6.752	11.550	19.642	22.683	22.965	13.604	32.068	28.570	37.088
9/2/08 12:00	19.143	6.761	11.564	19.668	22.700	23.007	13.639	31.963	28.571	37.097
9/2/08 16:00	19.164	6.768	11.578	19.714	22.714	23.000	13.651	32.038	28.572	37.102
9/2/08 20:00	19.178	6.775	11.595	19.766	22.730	22.988	13.684	31.914	28.575	37.111
9/3/08 0:00	19.192	6.782	11.609	19.819	22.744	23.031	13.707	31.897	28.578	37.121
9/3/08 4:00	19.202	6.782	11.623	19.880	22.761	23.033	13.719	31.911	28.581	37.130
9/3/08 8:00	19.209	6.784	11.635	19.938	22.775	23.052	13.731	31.864	28.584	37.142
9/3/08 12:00	19.216	6.782	11.644	19.994	22.792	23.059	13.724	31.881	28.588	37.147
9/3/08 16:00	19.209	6.775	11.654	20.050	22.803	23.028	13.702	31.846	28.589	37.158
9/3/08 20:00	19.192	6.766	11.658	20.099	22.817	22.927	13.684	31.818	28.592	37.166
9/4/08 0:00	19.171	6.759	11.658	20.146	22.829	22.854	13.674	31.792	28.592	37.166
9/4/08 4:00	19.143	6.749	11.651	20.192	22.836	22.759	13.644	31.759	28.595	37.175
9/4/08 8:00	19.107	6.745	11.632	20.236	22.839	22.660	13.625	31.726	28.596	37.180
9/4/08 12:00	19.079	6.742	11.604	20.278	22.848	22.677	13.620	31.707	28.597	37.184
9/4/08 16:00	19.056	6.742	11.583	20.318	22.862	22.689	13.616	31.686	28.598	37.191
9/4/08 20:00	19.049	6.749	11.571	20.351	22.876	22.707	13.641	31.684	28.602	37.201
9/5/08 0:00	19.053	6.759	11.564	20.383	22.893	22.745	13.674	31.691	28.602	37.206
9/5/08 4:00	19.060	6.766	11.560	20.420	22.905	22.766	13.693	31.689	28.605	37.206
9/5/08 8:00	19.072	6.773	11.560	20.453	22.917	22.799	13.726	31.717	28.604	37.215
9/5/08 12:00	19.093	6.784	11.564	20.483	22.933	22.840	13.752	31.700	28.607	37.220
9/5/08 16:00	19.100	6.784	11.564	20.514	22.947	22.837	13.740	31.714	28.608	37.224
9/5/08 20:00	19.107	6.787	11.567	20.539	22.961	22.861	13.759	31.712	28.611	37.234
9/6/08 0:00	19.122	6.791	11.571	20.565	22.975	22.882	13.778	31.717	28.614	37.241
9/6/08 4:00	19.131	6.791	11.576	20.595	22.990	22.894	13.766	31.712	28.612	37.246
9/6/08 8:00	19.136	6.791	11.578	20.621	23.006	22.908	13.794	31.747	28.616	37.250
9/6/08 12:00	19.157	6.798	11.586	20.649	23.020	22.934	13.799	31.721	28.619	37.257
9/6/08 16:00	19.164	6.796	11.593	20.672	23.037	22.924	13.787	31.735	28.620	37.262

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
9/6/08 20:00	19.173	6.801	11.600	20.693	23.051	22.941	13.811	31.740	28.621	37.269
9/7/08 0:00	19.185	6.803	11.609	20.714	23.065	22.946	13.832	31.754	28.626	37.274
9/7/08 4:00	19.188	6.805	11.614	20.735	23.079	22.957	13.834	31.752	28.627	37.279
9/7/08 8:00	19.197	6.808	11.621	20.754	23.091	22.986	13.855	31.794	28.628	37.293
9/7/08 12:00	19.211	6.812	11.628	20.775	23.105	23.007	13.862	31.768	28.631	37.297
9/7/08 16:00	19.216	6.817	11.637	20.793	23.122	23.007	13.846	31.850	28.630	37.305
9/7/08 20:00	19.223	6.819	11.649	20.807	23.138	23.014	13.872	31.785	28.633	37.309
9/8/08 0:00	19.242	6.826	11.661	20.821	23.152	23.045	13.886	31.808	28.636	37.319
9/8/08 4:00	19.249	6.822	11.668	20.840	23.166	23.031	13.860	31.827	28.639	37.328
9/8/08 8:00	19.251	6.819	11.661	20.854	23.171	22.988	13.893	31.792	28.640	37.330
9/8/08 12:00	18.254	6.782	11.600	20.870	23.145	22.689	13.865	31.841	28.643	37.337
9/8/08 16:00	17.950	6.749	11.466	20.884	23.143	22.582	13.841	31.745	28.647	37.345
9/8/08 20:00	17.613	6.728	11.295	20.896	23.148	22.557	13.829	31.757	28.648	37.352
9/9/08 0:00	17.792	6.724	11.142	20.910	23.157	22.592	13.825	31.672	28.648	37.356
9/9/08 4:00	17.986	6.728	11.027	20.928	23.169	22.599	13.815	31.672	28.649	37.363
9/9/08 8:00	18.129	6.738	10.938	20.945	23.181	22.618	13.822	31.719	28.647	37.366
9/9/08 12:00	18.235	6.749	10.872	20.961	23.192	22.627	13.803	31.635	28.648	37.373
9/9/08 16:00	18.301	6.754	10.825	20.977	23.209	22.592	13.764	31.815	28.649	37.378
9/9/08 20:00	18.351	6.761	10.795	20.984	23.223	22.592	13.766	31.764	28.647	37.385
9/10/08 0:00	18.405	6.770	10.773	20.996	23.235	22.599	13.766	31.642	28.650	37.389
9/10/08 4:00	18.450	6.780	10.757	21.010	23.249	22.601	13.761	31.630	28.654	37.399
9/10/08 8:00	18.490	6.785	10.750	21.024	23.261	22.615	13.768	31.578	28.657	37.406
9/10/08 12:00	18.525	6.789	10.745	21.036	23.273	22.611	13.752	31.574	28.660	37.413
9/10/08 16:00	18.546	6.789	10.745	21.047	23.287	22.590	13.728	31.900	28.659	37.420
9/10/08 20:00	18.570	6.794	10.750	21.054	23.299	22.592	13.733	31.677	28.659	37.425
9/11/08 0:00	18.598	6.801	10.757	21.064	23.308	22.606	13.745	31.569	28.660	37.432
9/11/08 4:00	18.624	6.803	10.762	21.073	23.320	22.611	13.745	31.557	28.661	37.441
9/11/08 8:00	18.648	6.808	10.769	21.084	23.329	22.632	13.756	31.538	28.664	37.448
9/11/08 12:00	18.678	6.813	10.780	21.094	23.341	22.658	13.773	31.550	28.665	37.455
9/11/08 16:00	18.700	6.815	10.790	21.103	23.353	22.656	13.766	31.550	28.669	37.462
9/11/08 20:00	18.719	6.817	10.799	21.108	23.365	22.665	13.775	31.606	28.669	37.469
9/12/08 0:00	18.744	6.822	10.811	21.117	23.374	22.696	13.794	31.546	28.670	37.476
9/12/08 4:00	18.749	6.824	10.799	21.126	23.433	22.608	13.778	31.546	28.673	37.484
9/12/08 8:00	18.740	6.824	10.759	21.126	23.426	22.542	13.764	31.585	28.674	37.491
9/12/08 12:00	18.348	6.796	10.621	21.061	23.395	22.134	13.627	31.517	28.675	37.495
9/12/08 16:00	15.386	6.249	9.468	21.050	23.225	19.842	13.010	31.262	28.676	37.502
9/12/08 20:00	13.460	5.657	8.245	21.047	23.098	18.688	12.530	30.952	28.671	37.505

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
9/13/08 0:00	13.029	5.348	7.558	21.057	23.065	18.745	12.399	30.711	28.670	37.514
9/13/08 4:00	13.005	5.173	6.837	21.064	23.053	18.273	12.072	30.488	28.664	37.517
9/13/08 8:00	11.907	4.712	5.959	21.075	22.961	17.285	11.654	30.202	28.660	37.521
9/13/08 12:00	11.787	4.546	5.624	21.084	22.935	17.466	11.487	30.007	28.654	37.528
9/13/08 16:00	12.089	4.583	5.509	21.094	22.959	17.646	11.398	29.829	28.648	37.524
9/13/08 20:00	12.393	4.691	5.494	21.096	22.942	17.804	11.285	29.621	28.641	37.526
9/14/08 0:00	12.657	4.820	5.516	21.103	22.938	17.933	11.208	29.471	28.633	37.528
9/14/08 4:00	12.890	4.941	5.556	21.110	22.891	18.035	11.128	29.342	28.624	37.528
9/14/08 8:00	13.100	5.060	5.612	21.115	22.787	18.179	10.994	29.288	28.621	37.533
9/14/08 12:00	13.298	5.175	5.689	21.122	22.751	18.351	10.992	29.196	28.617	37.535
9/14/08 16:00	13.472	5.278	5.769	21.129	22.742	18.485	10.980	29.159	28.609	37.538
9/14/08 20:00	13.623	5.372	5.851	21.129	22.735	18.598	11.328	29.152	28.602	37.540
9/15/08 0:00	13.760	5.451	5.924	21.133	22.716	18.705	11.351	29.081	28.595	37.542
9/15/08 4:00	13.878	5.514	5.985	21.140	22.716	18.778	11.368	29.058	28.592	37.545
9/15/08 8:00	13.988	5.570	6.051	21.145	22.711	18.863	11.393	29.065	28.583	37.542
9/15/08 12:00	14.092	5.620	6.117	21.152	22.794	18.938	11.398	29.009	28.575	37.540
9/15/08 16:00	14.172	5.657	6.187	21.159	22.895	18.933	11.361	28.966	28.567	37.540
9/15/08 20:00	14.243	5.699	6.253	21.164	22.867	18.957	11.375	28.945	28.560	37.540
9/16/08 0:00	14.321	5.737	6.314	21.173	22.808	19.014	11.384	28.971	28.554	37.540
9/16/08 4:00	14.387	5.765	6.363	21.182	22.803	19.044	11.379	28.889	28.545	37.547
9/16/08 8:00	14.450	5.795	6.415	21.189	22.832	19.094	11.393	28.894	28.539	37.545
9/16/08 12:00	14.512	5.818	6.471	21.201	22.813	19.134	11.384	28.927	28.531	37.542
9/16/08 16:00	14.559	5.837	6.534	21.210	22.794	19.106	11.344	28.880	28.522	37.545
9/16/08 20:00	14.606	5.863	6.595	21.215	22.777	19.117	11.356	28.823	28.513	37.545
9/17/08 0:00	14.662	5.886	6.649	21.220	22.756	19.174	11.377	28.814	28.507	37.547
9/17/08 4:00	14.714	5.907	6.696	21.227	22.733	19.214	11.377	28.802	28.501	37.545
9/17/08 8:00	14.761	5.926	6.741	21.234	22.711	19.261	11.396	28.805	28.493	37.545
9/17/08 12:00	14.818	5.947	6.797	21.215	22.690	19.320	11.403	28.821	28.487	37.545
9/17/08 16:00	14.860	5.961	6.863	21.220	22.669	19.316	11.379	28.882	28.477	37.547
9/17/08 20:00	14.905	5.980	6.926	21.224	22.648	19.330	11.391	28.781	28.469	37.545
9/18/08 0:00	14.952	5.996	6.973	21.234	22.629	19.370	11.403	28.805	28.463	37.545
9/18/08 4:00	14.995	6.010	7.020	21.241	22.605	19.410	11.415	28.793	28.457	37.547
9/18/08 8:00	15.037	6.024	7.062	21.252	22.582	19.455	11.431	28.802	28.451	37.549
9/18/08 12:00	15.082	6.038	7.114	21.259	22.563	19.500	11.431	28.849	28.445	37.549
9/18/08 16:00	15.117	6.048	7.170	21.271	22.539	19.483	11.398	28.774	28.435	37.552
9/18/08 20:00	15.148	6.057	7.224	21.276	22.518	19.483	11.405	28.781	28.427	37.552
9/19/08 0:00	15.183	6.071	7.264	21.280	22.497	19.518	11.415	28.800	28.421	37.552

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
9/19/08 4:00	15.216	6.083	7.304	21.285	22.473	19.551	11.417	28.788	28.415	37.554
9/19/08 8:00	15.247	6.090	7.342	21.287	22.450	19.582	11.429	28.807	28.406	37.554
9/19/08 12:00	15.280	6.099	7.382	21.292	22.431	19.610	11.417	28.821	28.400	37.554
9/19/08 16:00	15.299	6.104	7.429	21.299	22.407	19.584	11.389	28.887	28.393	37.554
9/19/08 20:00	15.322	6.113	7.473	21.306	22.386	19.599	11.400	28.884	28.385	37.554
9/20/08 0:00	15.360	6.125	7.513	21.315	22.365	19.648	11.422	28.821	28.379	37.554
9/20/08 4:00	15.393	6.134	7.546	21.324	22.343	19.667	11.426	28.814	28.373	37.554
9/20/08 8:00	15.426	6.146	7.584	21.331	22.320	19.724	11.452	28.838	28.367	37.557
9/20/08 12:00	15.464	6.155	7.626	21.338	22.301	19.768	11.459	28.924	28.361	37.559
9/20/08 16:00	15.492	6.160	7.675	21.343	22.280	19.752	11.431	28.906	28.354	37.559
9/20/08 20:00	15.523	6.172	7.724	21.343	22.261	19.776	11.459	28.908	28.345	37.559
9/21/08 0:00	15.565	6.183	7.767	21.345	22.242	19.832	11.487	28.896	28.342	37.559
9/21/08 4:00	15.605	6.190	7.804	21.348	22.221	19.863	11.492	28.920	28.336	37.559
9/21/08 8:00	15.636	6.197	7.835	21.352	22.202	19.905	11.516	28.920	28.330	37.561
9/21/08 12:00	15.669	6.204	7.865	21.357	22.181	19.943	11.518	28.941	28.324	37.564
9/21/08 16:00	15.688	6.207	7.893	21.364	22.162	19.926	11.485	28.945	28.317	37.561
9/21/08 20:00	15.707	6.214	7.929	21.369	22.143	19.934	11.501	28.934	28.311	37.561
9/22/08 0:00	15.742	6.225	7.966	21.376	22.127	19.993	11.525	28.976	28.304	37.564
9/22/08 4:00	15.768	6.228	7.992	21.385	22.105	20.004	11.518	29.044	28.298	37.566
9/22/08 8:00	15.791	6.235	8.020	21.392	22.089	20.042	11.539	29.067	28.292	37.566
9/22/08 12:00	15.824	6.242	8.051	21.401	22.070	20.087	11.544	29.039	28.289	37.568
9/22/08 16:00	15.843	6.242	8.086	21.411	22.053	20.054	11.513	29.002	28.279	37.568
9/22/08 20:00	15.862	6.249	8.121	21.415	22.039	20.068	11.532	29.009	28.273	37.568
9/23/08 0:00	15.895	6.258	8.152	21.420	22.025	20.115	11.558	29.049	28.267	37.568
9/23/08 4:00	15.926	6.263	8.182	21.427	22.009	20.139	11.565	29.046	28.264	37.568
9/23/08 8:00	15.956	6.270	8.210	21.434	21.994	20.181	11.586	29.074	28.258	37.571
9/23/08 12:00	15.982	6.272	8.238	21.439	21.978	20.198	11.577	29.138	28.254	37.573
9/23/08 16:00	15.996	6.277	8.274	21.443	21.966	20.179	11.556	29.292	28.244	37.573
9/23/08 20:00	16.015	6.282	8.306	21.448	21.952	20.193	11.579	29.135	28.241	37.575
9/24/08 0:00	16.058	6.293	8.342	21.455	21.940	20.264	11.610	29.154	28.235	37.575
9/24/08 4:00	16.093	6.303	8.363	21.462	21.921	20.330	11.647	29.234	28.229	37.575
9/24/08 8:00	15.740	6.305	8.248	21.469	21.886	20.177	11.659	29.180	28.225	37.575
9/24/08 12:00	15.709	6.305	8.152	21.471	21.914	20.238	11.652	29.201	28.221	37.578
9/24/08 16:00	15.761	6.303	8.121	21.478	21.961	20.226	11.619	29.236	28.214	37.578
9/24/08 20:00	15.820	6.303	8.123	21.478	21.895	20.228	11.626	29.208	28.208	37.578
9/25/08 0:00	15.876	6.307	8.137	21.476	21.818	20.264	11.645	29.222	28.205	37.580
9/25/08 4:00	15.921	6.310	8.152	21.478	21.844	20.271	11.635	29.222	28.201	37.582

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
9/25/08 8:00	15.954	6.312	8.173	21.481	21.834	20.292	11.647	29.234	28.197	37.582
9/25/08 12:00	15.987	6.314	8.196	21.485	21.822	20.306	11.638	29.257	28.191	37.585
9/25/08 16:00	15.999	6.310	8.227	21.471	21.813	20.259	11.595	29.241	28.184	37.585
9/25/08 20:00	16.011	6.310	8.260	21.471	21.806	20.250	11.605	29.285	28.178	37.585
9/26/08 0:00	16.036	6.312	8.285	21.476	21.796	20.266	11.610	29.224	28.172	37.590
9/26/08 4:00	16.055	6.310	8.309	21.481	21.787	20.271	11.605	29.227	28.166	37.590
9/26/08 8:00	16.069	6.310	8.332	21.485	21.778	20.292	11.621	29.210	28.162	37.590
9/26/08 12:00	16.095	6.314	8.358	21.488	21.768	20.313	11.617	29.257	28.158	37.592
9/26/08 16:00	16.102	6.312	8.393	21.495	21.763	20.276	11.584	29.222	28.152	37.592
9/26/08 20:00	16.114	6.314	8.426	21.497	21.756	20.276	11.598	29.189	28.143	37.594
9/27/08 0:00	16.140	6.321	8.452	21.502	21.749	20.309	11.612	29.210	28.139	37.594
9/27/08 4:00	16.164	6.324	8.478	21.509	21.742	20.330	11.626	29.278	28.136	37.597
9/27/08 8:00	16.190	6.329	8.504	21.516	21.735	20.363	11.647	29.337	28.130	37.597
9/27/08 12:00	16.220	6.333	8.532	21.527	21.728	20.396	11.659	29.271	28.125	37.599
9/27/08 16:00	16.239	6.338	8.569	21.539	21.723	20.394	11.649	29.295	28.119	37.599
9/27/08 20:00	16.267	6.345	8.607	21.543	21.719	20.427	11.685	29.267	28.115	37.601
9/28/08 0:00	16.308	6.356	8.640	21.550	21.716	20.471	11.713	29.323	28.109	37.604
9/28/08 4:00	16.338	6.359	8.663	21.557	21.711	20.493	11.722	29.320	28.103	37.604
9/28/08 8:00	16.366	6.363	8.689	21.564	21.707	20.535	11.750	29.344	28.102	37.606
9/28/08 12:00	16.397	6.370	8.713	21.569	21.702	20.573	11.762	29.358	28.097	37.606
9/28/08 16:00	16.411	6.370	8.741	21.576	21.700	20.547	11.732	29.344	28.089	37.608
9/28/08 20:00	16.423	6.370	8.764	21.581	21.695	20.540	11.732	29.346	28.085	37.611
9/29/08 0:00	16.435	6.368	8.783	21.585	21.693	20.547	11.722	29.391	28.079	37.611
9/29/08 4:00	16.456	6.375	8.806	21.592	21.690	20.622	11.765	29.365	28.075	37.613
9/29/08 8:00	16.458	6.370	8.776	21.602	21.678	20.530	11.772	29.381	28.072	37.615
9/29/08 12:00	16.491	6.382	8.776	21.611	21.674	20.620	11.812	29.471	28.067	37.615
9/29/08 16:00	16.515	6.389	8.790	21.625	21.674	20.636	11.807	29.419	28.063	37.615
9/29/08 20:00	16.536	6.396	8.816	21.632	21.671	20.662	11.830	29.454	28.060	37.618
9/30/08 0:00	16.562	6.403	8.837	21.641	21.671	20.686	11.842	29.517	28.056	37.618
9/30/08 4:00	16.586	6.410	8.856	21.653	21.669	20.710	11.854	29.475	28.055	37.625
9/30/08 8:00	16.602	6.413	8.875	21.660	21.669	20.728	11.866	29.503	28.051	37.625
9/30/08 12:00	16.621	6.417	8.896	21.669	21.667	20.757	11.868	29.560	28.049	37.625
9/30/08 16:00	16.621	6.415	8.912	21.681	21.667	20.707	11.826	29.475	28.043	37.627
9/30/08 20:00	16.616	6.413	8.929	21.688	21.667	20.691	11.821	29.485	28.037	37.627
10/1/08 0:00	16.630	6.415	8.945	21.695	21.667	20.705	11.823	29.532	28.035	37.634
10/1/08 4:00	16.628	6.408	8.957	21.704	21.667	20.679	11.804	29.473	28.031	37.627
10/1/08 8:00	16.630	6.410	8.968	21.711	21.667	20.710	11.842	29.592	28.025	37.632

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
10/1/08 12:00	16.673	6.422	8.994	21.721	21.667	20.799	11.896	29.663	28.025	37.634
10/1/08 16:00	16.704	6.434	9.020	21.721	21.669	20.816	11.898	29.825	28.022	37.637
10/1/08 20:00	16.727	6.441	9.046	21.697	21.671	20.830	11.917	29.653	28.018	37.639
10/2/08 0:00	16.753	6.448	9.065	21.623	21.674	20.858	11.929	29.618	28.014	37.637
10/2/08 4:00	16.772	6.450	9.081	21.599	21.674	20.863	11.929	29.653	28.013	37.644
10/2/08 8:00	16.784	6.452	9.095	21.599	21.676	20.879	11.936	29.632	28.009	37.639
10/2/08 12:00	16.798	6.455	9.109	21.604	21.678	20.898	11.936	29.630	28.005	37.644
10/2/08 16:00	16.788	6.448	9.123	21.616	21.681	20.839	11.887	29.590	28.001	37.646
10/2/08 20:00	16.779	6.445	9.135	21.618	21.681	20.825	11.884	29.621	27.997	37.648
10/3/08 0:00	16.793	6.450	9.149	21.613	21.686	20.856	11.906	29.618	27.996	37.651
10/3/08 4:00	16.810	6.453	9.163	21.616	21.688	20.879	11.922	29.656	27.992	37.648
10/3/08 8:00	16.831	6.462	9.180	21.613	21.688	20.927	11.960	29.651	27.989	37.653
10/3/08 12:00	16.864	6.469	9.203	21.550	21.693	20.978	11.990	29.693	27.989	37.655
10/3/08 16:00	16.887	6.476	9.229	21.471	21.697	20.981	11.981	29.740	27.983	37.658
10/3/08 20:00	16.909	6.483	9.252	21.450	21.702	21.004	12.009	29.700	27.981	37.658
10/4/08 0:00	16.942	6.492	9.276	21.450	21.707	21.049	12.042	29.743	27.980	37.660
10/4/08 4:00	16.977	6.497	9.295	21.460	21.711	21.085	12.061	29.799	27.978	37.663
10/4/08 8:00	16.998	6.499	9.309	21.474	21.714	21.104	12.079	29.766	27.976	37.665
10/4/08 12:00	17.022	6.504	9.321	21.485	21.721	21.122	12.077	29.785	27.972	37.667
10/4/08 16:00	17.015	6.499	9.335	21.502	21.723	21.080	12.042	29.801	27.971	37.670
10/4/08 20:00	17.019	6.502	9.351	21.511	21.728	21.085	12.054	29.813	27.967	37.672
10/5/08 0:00	17.041	6.509	9.367	21.520	21.733	21.127	12.084	29.794	27.966	37.674
10/5/08 4:00	17.062	6.513	9.382	21.534	21.740	21.139	12.089	29.813	27.965	37.677
10/5/08 8:00	17.078	6.516	9.396	21.543	21.744	21.165	12.108	29.864	27.962	37.679
10/5/08 12:00	17.097	6.520	9.410	21.550	21.749	21.186	12.117	29.853	27.961	37.684
10/5/08 16:00	17.104	6.520	9.429	21.560	21.756	21.172	12.105	29.841	27.960	37.681
10/5/08 20:00	17.118	6.527	9.447	21.564	21.761	21.193	12.124	29.862	27.958	37.688
10/6/08 0:00	17.142	6.532	9.466	21.574	21.766	21.221	12.143	29.879	27.957	37.688
10/6/08 4:00	17.163	6.539	9.480	21.583	21.773	21.238	12.150	29.918	27.956	37.691
10/6/08 8:00	17.180	6.541	9.492	21.595	21.778	21.262	12.173	29.904	27.953	37.693
10/6/08 12:00	17.198	6.541	9.506	21.606	21.782	21.276	12.171	29.916	27.952	37.696
10/6/08 16:00	17.191	6.539	9.515	21.620	21.789	21.240	12.150	29.914	27.951	37.698
10/6/08 20:00	17.189	6.539	9.520	21.627	21.808	21.224	12.176	29.998	27.947	37.698
10/7/08 0:00	17.196	6.544	9.527	21.632	21.778	21.271	12.169	29.937	27.948	37.703
10/7/08 4:00	17.196	6.544	9.532	21.637	21.820	21.264	12.190	29.956	27.949	37.705
10/7/08 8:00	17.194	6.544	9.539	21.641	21.803	21.287	12.115	29.949	27.947	37.705
10/7/08 12:00	17.203	6.553	9.513	21.646	21.759	21.254	12.054	29.977	27.945	37.705

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
10/7/08 16:00	17.213	6.558	9.483	21.648	21.761	21.285	12.091	30.003	27.944	37.710
10/7/08 20:00	17.222	6.565	9.475	21.646	21.749	21.321	12.072	30.078	27.945	37.712
10/8/08 0:00	17.236	6.569	9.478	21.648	21.761	21.330	12.096	30.014	27.944	37.712
10/8/08 4:00	17.236	6.567	9.480	21.653	21.782	21.330	12.093	30.033	27.942	37.719
10/8/08 8:00	17.243	6.572	9.485	21.660	21.756	21.356	12.131	30.101	27.940	37.717
10/8/08 12:00	17.258	6.572	9.497	21.667	21.851	21.370	12.291	30.047	27.938	37.721
10/8/08 16:00	17.250	6.569	9.511	21.679	21.959	21.335	12.335	30.045	27.937	37.721
10/8/08 20:00	17.258	6.574	9.529	21.690	21.881	21.361	12.270	30.047	27.936	37.726
10/9/08 0:00	17.288	6.581	9.546	21.702	21.808	21.408	12.183	30.085	27.937	37.726
10/9/08 4:00	17.324	6.591	9.567	21.714	21.775	21.450	12.143	30.141	27.938	37.729
10/9/08 8:00	17.364	6.600	9.586	21.725	21.742	21.497	12.176	30.146	27.935	37.731
10/9/08 12:00	17.397	6.607	9.605	21.734	21.888	21.521	12.368	30.155	27.936	37.736
10/9/08 16:00	17.401	6.605	9.626	21.744	21.895	21.483	12.342	30.141	27.935	37.738
10/9/08 20:00	17.399	6.602	9.642	21.741	21.905	21.471	12.342	30.172	27.934	37.738
10/10/08 0:00	17.413	6.607	9.656	21.655	21.912	21.495	12.361	30.153	27.932	37.743
10/10/08 4:00	17.429	6.607	9.670	21.543	21.919	21.512	12.373	30.190	27.933	37.747
10/10/08 8:00	17.446	6.609	9.687	21.399	21.928	21.530	12.389	30.200	27.933	37.750
10/10/08 12:00	17.460	6.614	9.698	21.345	21.936	21.533	12.385	30.200	27.934	37.896
10/10/08 16:00	17.460	6.612	9.717	21.243	21.945	21.514	12.368	30.188	27.933	37.938
10/10/08 20:00	17.470	6.619	9.738	21.117	21.957	21.540	12.396	30.209	27.934	37.816
10/11/08 0:00	17.503	6.628	9.757	20.819	21.964	21.589	12.441	30.247	27.935	37.714
10/11/08 4:00	17.543	6.640	9.778	20.521	21.973	21.634	12.476	30.310	27.936	37.672
10/11/08 8:00	17.580	6.647	9.799	20.367	21.980	21.684	12.521	30.298	27.936	37.623
10/11/08 12:00	17.613	6.654	9.821	20.297	21.990	21.705	12.530	30.319	27.937	37.794
10/11/08 16:00	17.628	6.656	9.839	20.278	21.999	21.705	12.521	30.383	27.938	37.858
10/11/08 20:00	17.644	6.663	9.858	20.274	22.009	21.721	12.544	30.345	27.937	37.754
10/12/08 0:00	17.665	6.665	9.877	20.283	22.020	21.736	12.552	30.361	27.938	37.757
10/12/08 4:00	17.679	6.668	9.889	20.299	22.030	21.750	12.566	30.406	27.939	37.743
10/12/08 8:00	17.703	6.670	9.905	20.313	22.039	21.780	12.594	30.392	27.939	37.717
10/12/08 12:00	17.729	6.677	9.921	20.327	22.046	21.806	12.603	30.413	27.940	37.809
10/12/08 16:00	17.733	6.677	9.933	20.346	22.058	21.780	12.577	30.427	27.941	37.896
10/12/08 20:00	17.738	6.679	9.952	20.362	22.068	21.806	12.603	32.186	27.942	37.794
10/13/08 0:00	17.762	6.684	9.968	20.383	22.077	21.830	12.624	30.896	27.943	37.759
10/13/08 4:00	17.786	6.686	9.982	20.409	22.086	21.844	12.636	30.629	27.943	37.771
10/13/08 8:00	17.802	6.689	9.999	20.427	22.096	21.870	12.657	30.598	27.946	37.759
10/13/08 12:00	17.823	6.693	10.011	20.446	22.105	21.896	12.674	30.626	27.945	37.752
10/13/08 16:00	17.823	6.696	10.001	20.465	22.009	21.792	12.692	30.582	27.948	37.851

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
10/13/08 20:00	17.795	6.705	9.921	20.474	21.945	21.691	12.716	30.580	27.951	37.900
10/14/08 0:00	17.741	6.715	9.818	20.486	21.931	21.728	12.732	30.591	27.952	37.889
10/14/08 4:00	17.710	6.717	9.743	20.502	21.980	21.726	12.725	30.603	27.955	37.495
10/14/08 8:00	17.694	6.717	9.696	20.521	22.131	21.731	12.735	30.575	27.956	37.559
10/14/08 12:00	17.691	6.719	9.666	20.546	22.138	21.721	12.716	30.575	27.957	37.630
10/14/08 16:00	17.668	6.707	9.637	20.577	22.178	21.639	12.660	30.601	27.955	37.726
10/14/08 20:00	17.635	6.700	9.586	20.602	22.190	21.608	12.634	30.502	27.956	37.806
10/15/08 0:00	17.616	6.693	9.551	20.642	22.216	21.585	12.608	30.493	27.955	37.837
10/15/08 4:00	17.597	6.689	9.527	20.677	22.237	21.563	12.589	30.519	27.957	37.879
10/15/08 8:00	16.928	6.668	9.466	20.707	22.160	21.387	12.601	30.476	27.956	37.889
10/15/08 12:00	16.077	6.628	9.311	20.735	22.084	21.339	12.622	30.474	27.959	37.818
10/15/08 16:00	16.044	6.616	9.170	20.765	22.124	21.356	12.610	30.458	27.960	37.891
10/15/08 20:00	16.218	6.626	9.083	20.791	22.042	21.391	12.641	30.467	27.961	37.752
10/16/08 0:00	16.433	6.647	9.039	20.814	22.018	21.446	12.671	30.481	27.962	37.684
10/16/08 4:00	16.609	6.658	9.015	20.833	22.053	21.455	12.678	30.481	27.962	37.672
10/16/08 8:00	16.744	6.670	9.008	20.851	22.053	21.479	12.695	30.507	27.966	37.658
10/16/08 12:00	16.855	6.682	9.013	20.868	22.127	21.504	12.692	30.495	27.967	37.827
10/16/08 16:00	16.921	6.684	9.022	20.886	22.263	21.453	12.648	30.460	27.965	37.922
10/16/08 20:00	16.968	6.686	9.034	20.891	22.216	21.446	12.645	30.451	27.966	37.844
10/17/08 0:00	17.022	6.691	9.051	20.896	22.174	21.464	12.653	30.451	27.970	37.823
10/17/08 4:00	17.071	6.694	9.069	20.900	22.214	21.457	12.641	30.439	27.970	37.853
10/17/08 8:00	17.097	6.691	9.083	20.903	22.218	21.436	12.638	30.434	27.968	37.872
10/17/08 12:00	17.133	6.693	9.100	20.900	22.254	21.441	12.624	30.418	27.972	37.924
10/17/08 16:00	17.147	6.691	9.156	20.905	22.336	21.417	12.603	30.401	27.970	38.035
10/17/08 20:00	17.187	6.700	9.145	20.905	22.221	21.481	12.653	30.429	27.971	37.875
10/18/08 0:00	17.241	6.712	9.147	20.905	22.226	21.533	12.688	30.455	27.975	37.797
10/18/08 4:00	17.286	6.722	9.168	20.907	22.233	21.556	12.707	30.469	27.975	37.771
10/18/08 8:00	17.326	6.729	9.177	20.907	22.237	21.589	12.732	30.488	27.978	37.740
10/18/08 12:00	17.366	6.736	9.227	20.907	22.242	21.613	12.732	30.495	27.979	37.891
10/18/08 16:00	17.373	6.731	9.403	20.912	22.247	21.571	12.690	30.467	27.978	37.992
10/18/08 20:00	17.378	6.726	9.478	20.907	22.249	21.554	12.674	30.453	27.979	37.955
10/19/08 0:00	17.385	6.724	9.515	20.907	22.254	21.547	12.667	30.448	27.982	37.943
10/19/08 4:00	17.394	6.719	9.562	20.910	22.259	21.542	12.653	30.437	27.982	37.966
10/19/08 8:00	17.401	6.717	9.588	20.912	22.261	21.542	12.653	30.432	27.983	37.957
10/19/08 12:00	17.411	6.717	9.654	20.919	22.263	21.540	12.641	30.422	27.986	38.091
10/19/08 16:00	17.406	6.712	9.795	20.926	22.268	21.504	12.613	30.401	27.983	38.153
10/19/08 20:00	17.423	6.719	9.759	20.926	22.273	21.552	12.648	30.425	27.984	38.002

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
10/20/08 0:00	17.463	6.729	9.743	20.933	22.277	21.596	12.676	30.446	27.987	37.976
10/20/08 4:00	17.496	6.736	9.736	20.940	22.282	21.630	12.702	30.467	27.987	37.903
10/20/08 8:00	17.536	6.745	9.682	20.945	22.287	21.677	12.749	30.502	27.990	37.813
10/20/08 12:00	17.592	6.759	9.616	20.947	22.292	21.750	12.798	30.544	27.994	37.851
10/20/08 16:00	17.635	6.768	9.684	20.949	22.301	21.776	12.810	30.561	27.997	37.896
10/20/08 20:00	17.668	6.775	9.691	20.949	22.306	21.804	12.831	30.582	27.998	37.797
10/21/08 0:00	17.701	6.782	9.696	20.947	22.310	21.821	12.845	30.598	28.000	37.776
10/21/08 4:00	17.727	6.785	9.713	20.947	22.315	21.837	12.850	30.608	28.001	37.780
10/21/08 8:00	17.743	6.785	9.731	20.945	22.320	21.846	12.852	30.617	28.002	37.802
10/21/08 12:00	17.753	6.783	9.813	20.940	22.327	21.835	12.819	30.605	28.003	37.962
10/21/08 16:00	17.729	6.768	9.992	20.938	22.329	21.759	12.770	30.565	28.004	38.070
10/21/08 20:00	17.265	6.719	9.959	20.928	22.287	21.427	12.721	30.535	28.008	38.122
10/22/08 0:00	15.813	6.404	9.781	20.919	22.285	21.349	12.655	30.483	28.005	38.089
10/22/08 4:00	14.733	6.052	9.520	20.914	22.339	21.101	12.566	30.425	28.006	38.075
10/22/08 8:00	14.410	5.816	9.302	20.910	22.343	21.101	12.516	30.376	28.005	38.070
10/22/08 12:00	14.033	5.625	9.011	20.905	22.310	20.891	12.443	30.326	28.006	38.004
10/22/08 16:00	13.654	5.414	8.666	20.900	22.301	20.542	12.272	30.258	28.005	37.997
10/22/08 20:00	12.692	4.988	7.971	20.891	22.167	19.443	11.931	30.122	28.006	38.035
10/23/08 0:00	11.471	4.518	7.213	20.889	22.060	18.714	11.652	30.010	28.001	38.075
10/23/08 4:00	11.198	4.389	6.863	20.889	22.056	18.863	11.497	29.857	27.997	38.103
10/23/08 8:00	11.412	4.459	6.635	20.889	22.030	18.990	11.426	29.757	27.994	37.856
10/23/08 12:00	11.705	4.591	6.520	20.886	22.032	19.089	11.365	29.665	27.990	37.896
10/23/08 16:00	11.966	4.729	6.502	20.879	22.051	19.129	11.309	29.574	27.986	37.969
10/23/08 20:00	12.211	4.864	6.473	20.870	22.049	19.172	11.269	29.494	27.983	37.879
10/24/08 0:00	12.419	4.983	6.499	20.858	22.068	19.186	11.220	29.412	27.976	37.893
10/24/08 4:00	12.584	5.091	6.520	20.851	22.091	19.183	11.175	29.328	27.972	37.933
10/24/08 8:00	12.730	5.189	6.520	20.840	22.082	19.176	11.147	29.255	27.966	37.948
10/24/08 12:00	12.869	5.278	6.518	20.828	22.053	19.202	11.128	29.194	27.962	37.877
10/24/08 16:00	12.987	5.358	6.537	20.819	22.070	19.212	11.116	29.138	27.956	37.983
10/24/08 20:00	13.107	5.435	6.499	20.805	21.978	19.273	11.142	29.109	27.952	38.054
10/25/08 0:00	13.220	5.501	6.506	20.796	21.950	19.308	11.126	29.065	27.948	38.077
10/25/08 4:00	13.303	5.552	6.560	20.733	21.990	19.292	11.100	29.011	27.942	37.931
10/25/08 8:00	13.378	5.596	6.586	20.651	21.966	19.290	11.086	28.964	27.936	37.830
10/25/08 12:00	13.449	5.641	6.619	20.609	22.002	19.308	11.060	28.917	27.930	38.011
10/25/08 16:00	13.496	5.669	6.689	20.584	22.131	19.231	10.987	29.079	27.924	38.176
10/25/08 20:00	13.550	5.706	6.682	20.574	22.006	19.240	11.004	28.830	27.918	38.037
10/26/08 0:00	13.616	5.744	6.722	20.577	21.940	19.268	10.989	28.788	27.911	38.023

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
10/26/08 4:00	13.689	5.788	6.626	20.577	21.768	19.370	11.076	28.793	27.907	37.853
10/26/08 8:00	13.788	5.835	6.534	20.579	21.622	19.506	11.177	28.852	27.903	37.665
10/26/08 12:00	13.904	5.882	6.494	20.579	21.829	19.636	11.234	28.913	27.900	37.712
10/26/08 16:00	13.993	5.912	6.567	20.579	21.803	19.674	11.243	28.894	27.896	37.691
10/26/08 20:00	14.090	5.954	6.511	20.581	21.782	19.797	11.323	28.981	27.894	37.505
10/27/08 0:00	14.182	5.987	6.523	20.588	21.761	19.860	11.337	28.992	27.890	37.479
10/27/08 4:00	14.248	6.001	6.570	20.591	21.735	19.858	11.321	28.985	27.886	37.495
10/27/08 8:00	14.304	6.018	6.563	20.595	21.711	19.900	11.351	29.006	27.880	37.441
10/27/08 12:00	14.373	6.039	6.586	20.600	21.688	19.952	11.356	29.018	27.879	37.594
10/27/08 16:00	14.410	6.046	6.711	20.607	21.662	19.917	11.316	28.992	27.873	37.679
10/27/08 20:00	14.448	6.055	6.736	20.614	21.638	19.917	11.309	28.983	27.869	37.625
10/28/08 0:00	14.486	6.069	6.739	20.623	21.612	19.943	11.316	28.990	27.862	37.594
10/28/08 4:00	14.521	6.081	6.776	20.632	21.586	19.936	11.297	28.978	27.858	37.620
10/28/08 8:00	14.552	6.085	6.790	20.639	21.561	19.943	11.299	28.978	27.855	37.597
10/28/08 12:00	14.583	6.095	6.842	20.646	21.535	19.957	11.276	28.966	27.851	37.802
10/28/08 16:00	14.582	6.095	6.948	20.656	21.506	19.856	11.194	28.901	27.842	37.957
10/28/08 20:00	14.580	6.097	7.018	20.660	21.478	19.813	11.159	28.863	27.839	37.924
10/29/08 0:00	14.585	6.099	7.077	20.665	21.450	19.787	11.135	28.835	27.834	37.910
10/29/08 4:00	14.585	6.099	7.152	20.672	21.419	19.750	11.102	28.800	27.828	37.943
10/29/08 8:00	14.589	6.104	7.206	20.679	21.393	19.721	11.090	28.777	27.822	37.929
10/29/08 12:00	14.608	6.116	7.227	20.684	21.365	19.761	11.102	28.896	27.818	38.037
10/29/08 16:00	14.618	6.120	7.379	20.686	21.337	19.726	11.069	28.868	27.812	38.127
10/29/08 20:00	14.632	6.132	7.417	20.688	21.311	19.740	11.079	28.770	27.805	38.018
10/30/08 0:00	14.655	6.144	7.445	20.688	21.282	19.754	11.083	28.751	27.799	37.973
10/30/08 4:00	14.677	6.151	7.480	20.686	21.254	19.766	11.076	28.737	27.796	37.959
10/30/08 8:00	14.693	6.158	7.511	20.681	21.226	19.771	11.083	28.732	27.792	37.926
10/30/08 12:00	14.719	6.167	7.556	20.663	21.197	19.794	11.079	28.725	27.788	38.065
10/30/08 16:00	14.724	6.167	7.506	20.658	21.171	19.752	11.041	28.690	27.784	38.160
10/30/08 20:00	14.743	6.177	7.516	20.651	21.141	19.780	11.072	28.702	27.777	38.030
10/31/08 0:00	14.776	6.191	7.464	20.644	21.115	19.837	11.095	28.720	27.774	37.985
10/31/08 4:00	14.804	6.200	7.490	20.642	21.087	19.851	11.097	28.723	27.770	37.957
10/31/08 8:00	14.832	6.212	7.509	20.642	21.061	19.886	11.130	28.748	27.764	37.870
10/31/08 12:00	14.870	6.223	7.539	20.639	21.035	19.940	11.149	28.770	27.763	37.962
10/31/08 16:00	14.896	6.230	7.588	20.642	21.009	19.943	11.137	28.767	27.757	38.009
10/31/08 20:00	14.924	6.240	7.619	20.639	20.983	19.971	11.154	28.784	27.752	37.900
11/1/08 0:00	14.952	6.247	7.647	20.635	20.957	19.995	11.159	28.798	27.748	37.870
11/1/08 4:00	14.974	6.251	7.673	20.630	20.933	19.999	11.147	28.779	27.745	37.860

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
11/1/08 8:00	14.990	6.251	7.687	20.623	20.907	20.004	11.159	28.795	27.739	37.820
11/1/08 12:00	15.014	6.259	7.713	20.614	20.881	20.035	11.156	28.835	27.737	37.938
11/1/08 16:00	15.016	6.254	7.748	20.600	20.858	19.988	11.112	28.863	27.733	38.051
11/1/08 20:00	15.021	6.256	7.757	20.584	20.832	19.992	11.114	28.772	27.726	37.964
11/2/08 0:00	15.033	6.261	7.786	20.574	20.808	19.990	11.100	28.772	27.720	37.955
11/2/08 4:00	15.033	6.259	7.797	20.565	20.785	19.964	11.079	28.816	27.717	37.971
11/2/08 8:00	15.033	6.261	7.809	20.560	20.759	19.964	11.081	28.741	27.713	37.933
11/2/08 12:00	15.042	6.263	7.835	20.558	20.735	19.971	11.065	28.720	27.709	38.072
11/2/08 16:00	15.028	6.261	7.849	20.563	20.709	19.912	11.020	28.694	27.703	38.178
11/2/08 20:00	15.026	6.261	7.865	20.572	20.688	19.910	11.022	28.678	27.696	38.094
11/3/08 0:00	15.033	6.266	7.882	20.581	20.664	19.917	11.025	28.734	27.693	38.044
11/3/08 4:00	15.042	6.270	7.898	20.593	20.641	19.931	11.029	28.673	27.687	38.032
11/3/08 8:00	15.056	6.277	7.915	20.604	20.620	19.952	11.048	28.706	27.683	37.988
11/3/08 12:00	15.073	6.284	7.943	20.618	20.596	19.978	11.046	28.680	27.679	38.089
11/3/08 16:00	15.075	6.284	7.962	20.632	20.572	19.952	11.029	28.671	27.673	38.138
11/3/08 20:00	15.092	6.294	7.969	20.639	20.554	19.997	11.062	28.720	27.666	38.006
11/4/08 0:00	15.120	6.305	7.997	20.646	20.532	20.040	11.086	28.713	27.662	37.950
11/4/08 4:00	15.141	6.310	8.032	20.653	20.511	20.054	11.083	28.727	27.656	37.931
11/4/08 8:00	15.155	6.312	8.051	20.653	20.490	20.049	11.072	28.753	27.653	37.938
11/4/08 12:00	15.158	6.312	8.074	20.651	20.471	20.028	11.036	28.690	27.649	38.096
11/4/08 16:00	15.132	6.298	7.776	20.646	20.483	19.952	10.985	28.652	27.628	37.832
11/4/08 20:00	15.120	6.298	7.783	20.649	20.426	19.945	10.975	28.680	27.618	37.832
11/5/08 0:00	15.118	6.303	7.800	20.653	20.405	19.938	10.973	28.624	27.609	37.830
11/5/08 4:00	15.106	6.298	7.800	20.660	20.386	19.898	10.938	28.617	27.602	37.832
11/5/08 8:00	15.089	6.294	7.807	20.667	20.365	19.872	10.926	28.568	27.595	37.832
11/5/08 12:00	15.089	6.298	7.818	20.681	20.346	19.889	10.931	28.573	27.588	37.830
11/5/08 16:00	15.078	6.301	7.828	20.693	20.327	19.856	10.917	28.587	27.581	37.830
11/5/08 20:00	15.082	6.301	7.837	20.705	20.306	19.875	10.933	28.551	27.576	37.830
11/6/08 0:00	14.978	6.296	7.795	20.716	20.238	19.801	10.926	28.559	27.567	37.827
11/6/08 4:00	14.269	6.146	7.640	20.726	20.214	19.740	10.905	28.568	27.562	37.823
11/6/08 8:00	14.203	6.071	7.539	20.737	20.195	19.761	10.921	28.547	27.555	37.818
11/6/08 12:00	14.276	6.050	7.494	20.749	20.179	19.801	10.928	28.603	27.550	37.823
11/6/08 16:00	14.363	6.064	7.478	20.756	20.164	19.841	10.964	28.575	27.546	37.823
11/6/08 20:00	14.462	6.095	7.485	20.754	20.150	19.924	11.013	28.631	27.541	37.823
11/7/08 0:00	14.557	6.123	7.502	20.742	20.134	19.971	11.039	28.699	27.539	37.816
11/7/08 4:00	14.625	6.137	7.516	20.730	20.120	19.955	11.006	28.634	27.532	37.820
11/7/08 8:00	14.670	6.149	7.523	20.714	20.103	19.936	10.987	28.631	27.527	37.818

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
11/7/08 12:00	14.717	6.163	7.534	20.700	20.087	19.959	10.999	28.678	27.522	37.813
11/7/08 16:00	14.755	6.174	7.551	20.691	20.075	19.966	11.011	28.636	27.518	37.811
11/7/08 20:00	14.804	6.198	7.574	20.681	20.061	20.023	11.041	28.676	27.513	37.816
11/8/08 0:00	14.849	6.212	7.595	20.681	20.047	20.042	11.046	28.720	27.506	37.809
11/8/08 4:00	14.887	6.221	7.617	20.688	20.033	20.056	11.055	28.694	27.501	37.804
11/8/08 8:00	14.924	6.233	7.633	20.695	20.018	20.082	11.079	28.748	27.497	37.802
11/8/08 12:00	14.974	6.249	7.663	20.707	20.006	20.146	11.116	28.746	27.489	37.799
11/8/08 16:00	15.014	6.261	7.687	20.716	19.995	20.172	11.130	28.774	27.487	37.794
11/8/08 20:00	15.056	6.273	7.715	20.726	19.983	20.214	11.154	28.828	27.485	37.797
11/9/08 0:00	15.099	6.282	7.739	20.735	19.973	20.247	11.168	28.821	27.478	37.794
11/9/08 4:00	15.132	6.289	7.760	20.744	19.962	20.266	11.173	28.859	27.475	37.794
11/9/08 8:00	15.165	6.296	7.783	20.754	19.950	20.292	11.196	28.873	27.468	37.787
11/9/08 12:00	15.200	6.305	7.809	20.761	19.943	20.332	11.206	28.891	27.466	37.785
11/9/08 16:00	15.219	6.305	7.821	20.765	19.929	20.306	11.175	28.877	27.464	37.783
11/9/08 20:00	15.233	6.308	7.837	20.763	19.919	20.316	11.184	28.901	27.459	37.783
11/10/08 0:00	15.259	6.317	7.858	20.756	19.907	20.356	11.215	28.976	27.454	37.780
11/10/08 4:00	15.290	6.326	7.879	20.751	19.898	20.393	11.227	28.938	27.452	37.778
11/10/08 8:00	15.313	6.329	7.896	20.744	19.889	20.396	11.229	28.978	27.447	37.776
11/10/08 12:00	15.327	6.329	7.910	20.735	19.879	20.379	11.206	28.955	27.445	37.771
11/10/08 16:00	15.327	6.326	7.917	20.726	19.867	20.353	11.182	28.941	27.440	37.771
11/10/08 20:00	15.332	6.326	7.926	20.714	19.858	20.358	11.168	28.936	27.438	37.769
11/11/08 0:00	15.332	6.324	7.933	20.705	19.848	20.332	11.137	28.913	27.436	37.771
11/11/08 4:00	15.322	6.319	7.940	20.698	19.837	20.316	11.107	28.891	27.429	37.771
11/11/08 8:00	15.301	6.315	7.912	20.688	19.815	20.257	11.109	28.908	27.424	37.769
11/11/08 12:00	15.292	6.312	7.891	20.679	19.806	20.268	11.093	28.861	27.421	37.769
11/11/08 16:00	15.271	6.308	7.875	20.670	19.792	20.231	11.069	28.847	27.414	37.773
11/11/08 20:00	15.266	6.310	7.865	20.653	19.780	20.242	11.083	28.887	27.412	37.776
11/12/08 0:00	15.280	6.317	7.872	20.642	19.773	20.280	11.107	28.873	27.407	37.778
11/12/08 4:00	15.297	6.324	7.884	20.632	19.764	20.306	11.116	28.906	27.405	37.773
11/12/08 8:00	15.311	6.329	7.901	20.628	19.757	20.320	11.137	28.898	27.400	37.771
11/12/08 12:00	15.334	6.336	7.917	20.628	19.747	20.360	11.147	28.922	27.398	37.769
11/12/08 16:00	15.337	6.331	7.926	20.630	19.738	20.318	11.112	28.922	27.396	37.769
11/12/08 20:00	15.334	6.331	7.936	20.623	19.728	20.320	11.109	28.896	27.391	37.764
11/13/08 0:00	15.334	6.329	7.943	20.621	19.721	20.299	11.081	28.927	27.386	37.766
11/13/08 4:00	15.313	6.317	7.940	20.618	19.712	20.245	11.039	28.833	27.382	37.761
11/13/08 8:00	15.285	6.308	7.938	20.618	19.702	20.195	11.004	28.807	27.377	37.761
11/13/08 12:00	15.261	6.303	7.938	20.616	19.693	20.167	10.980	28.793	27.370	37.761

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
11/13/08 16:00	15.226	6.289	7.931	20.616	19.683	20.089	10.947	28.748	27.363	37.761
11/13/08 20:00	15.226	6.298	7.940	20.609	19.674	20.148	10.985	28.788	27.360	37.761
11/14/08 0:00	15.243	6.310	7.955	20.602	19.667	20.181	11.008	28.758	27.358	37.757
11/14/08 4:00	15.266	6.322	7.973	20.595	19.660	20.231	11.041	28.791	27.353	37.754
11/14/08 8:00	15.297	6.331	7.994	20.588	19.653	20.280	11.102	28.877	27.351	37.754
11/14/08 12:00	15.358	6.357	8.032	20.581	19.648	20.419	11.191	29.274	27.349	37.757
11/14/08 16:00	15.417	6.373	8.060	20.576	19.643	20.488	11.243	29.023	27.346	37.757
11/14/08 20:00	15.476	6.390	8.095	20.569	19.639	20.566	11.295	29.058	27.346	37.757
11/15/08 0:00	15.532	6.399	8.126	20.565	19.636	20.625	11.325	29.154	27.344	37.752
11/15/08 4:00	15.580	6.408	8.152	20.560	19.632	20.676	11.358	29.117	27.339	37.750
11/15/08 8:00	15.624	6.411	8.180	20.556	19.624	20.714	11.386	29.166	27.332	37.747
11/15/08 12:00	15.667	6.418	8.203	20.556	19.625	20.757	11.396	29.234	27.330	37.747
11/15/08 16:00	15.686	6.411	8.217	20.551	19.617	20.742	11.375	29.182	27.328	37.750
11/15/08 20:00	15.702	6.408	8.232	20.551	19.613	20.766	11.389	29.215	27.323	37.752
11/16/08 0:00	15.712	6.404	8.241	20.551	19.613	20.735	11.351	29.241	27.318	37.747
11/16/08 4:00	15.697	6.390	8.243	20.551	19.606	20.693	11.304	29.168	27.311	37.752
11/16/08 8:00	15.664	6.375	8.239	20.551	19.601	20.625	11.262	29.154	27.309	37.750
11/16/08 12:00	15.662	6.378	8.248	20.549	19.599	20.667	11.297	29.243	27.304	37.733
11/16/08 16:00	15.683	6.383	8.262	20.546	19.596	20.707	11.332	29.194	27.302	37.733
11/16/08 20:00	15.721	6.397	8.281	20.539	19.594	20.776	11.384	29.255	27.302	37.733
11/17/08 0:00	15.766	6.413	8.307	20.532	19.594	20.839	11.431	29.339	27.302	37.733
11/17/08 4:00	15.808	6.425	8.330	20.525	19.591	20.886	11.469	29.323	27.302	37.738
11/17/08 8:00	15.858	6.439	8.358	20.518	19.594	20.952	11.523	29.384	27.302	37.738
11/17/08 12:00	15.914	6.450	8.389	20.511	19.591	21.021	11.553	29.468	27.302	37.740
11/17/08 16:00	15.947	6.448	8.403	20.500	19.591	21.014	11.544	29.522	27.302	37.738
11/17/08 20:00	15.973	6.453	8.419	20.481	19.591	21.049	11.567	29.492	27.302	37.740
11/18/08 0:00	16.006	6.457	8.440	20.453	19.591	21.080	11.588	29.510	27.302	37.743
11/18/08 4:00	16.034	6.457	8.457	20.434	19.591	21.106	11.595	29.539	27.304	37.743
11/18/08 8:00	16.053	6.455	8.471	20.416	19.591	21.096	11.591	29.541	27.302	37.745
11/18/08 12:00	16.065	6.450	8.483	20.402	19.591	21.096	11.560	29.532	27.302	37.740
11/18/08 16:00	16.030	6.429	8.473	20.392	19.589	20.978	11.452	29.508	27.300	37.740
11/18/08 20:00	15.966	6.408	8.452	20.381	19.587	20.882	11.370	29.396	27.297	37.743
11/19/08 0:00	15.907	6.390	8.436	20.376	19.584	20.801	11.295	29.351	27.295	37.743
11/19/08 4:00	15.844	6.371	8.417	20.376	19.582	20.738	11.250	29.292	27.290	37.743
11/19/08 8:00	15.813	6.369	8.412	20.378	19.580	20.733	11.271	29.292	27.290	37.743
11/19/08 12:00	15.822	6.378	8.424	20.383	19.580	20.797	11.314	29.335	27.290	37.745
11/19/08 16:00	15.839	6.387	8.436	20.392	19.577	20.823	11.344	29.515	27.288	37.745

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
11/19/08 20:00	15.893	6.413	8.464	20.402	19.582	20.936	11.454	29.440	27.290	37.747
11/20/08 0:00	15.968	6.441	8.497	20.411	19.582	21.037	11.527	29.517	27.292	37.750
11/20/08 4:00	16.030	6.455	8.527	20.416	19.582	21.089	11.563	29.529	27.292	37.750
11/20/08 8:00	16.084	6.469	8.555	20.420	19.584	21.148	11.607	29.564	27.295	37.743
11/20/08 12:00	16.136	6.481	8.584	20.418	19.589	21.212	11.645	29.632	27.295	37.736
11/20/08 16:00	16.169	6.483	8.600	20.416	19.589	21.214	11.647	29.623	27.297	37.738
11/20/08 20:00	16.204	6.490	8.621	20.406	19.591	21.264	11.678	29.707	27.297	37.733
11/21/08 0:00	16.235	6.492	8.640	20.402	19.594	21.278	11.678	29.682	27.300	37.736
11/21/08 4:00	16.249	6.490	8.652	20.397	19.596	21.287	11.680	29.689	27.300	37.736
11/21/08 8:00	16.261	6.485	8.663	20.392	19.596	21.285	11.675	29.757	27.300	37.736
11/21/08 12:00	16.270	6.481	8.675	20.395	19.599	21.292	11.649	29.693	27.302	37.738
11/21/08 16:00	16.247	6.465	8.670	20.411	19.599	21.210	11.581	29.665	27.300	37.743
11/21/08 20:00	16.216	6.455	8.666	20.425	19.601	21.186	11.560	29.635	27.297	37.745
11/22/08 0:00	16.202	6.448	8.668	20.439	19.601	21.176	11.551	29.637	27.297	37.747
11/22/08 4:00	16.185	6.441	8.668	20.455	19.601	21.127	11.511	29.632	27.297	37.745
11/22/08 8:00	16.164	6.436	8.668	20.472	19.601	21.120	11.490	29.588	27.297	37.750
11/22/08 12:00	16.143	6.429	8.668	20.486	19.603	21.085	11.464	29.571	27.292	37.750
11/22/08 16:00	16.122	6.425	8.663	20.504	19.601	21.068	11.452	29.583	27.295	37.750
11/22/08 20:00	16.129	6.434	8.673	20.523	19.603	21.118	11.487	29.583	27.295	37.752
11/23/08 0:00	16.138	6.439	8.680	20.542	19.603	21.115	11.485	29.616	27.295	37.752
11/23/08 4:00	16.143	6.441	8.687	20.558	19.606	21.120	11.478	29.600	27.292	37.754
11/23/08 8:00	16.141	6.439	8.692	20.569	19.606	21.103	11.459	29.583	27.292	37.757
11/23/08 12:00	16.129	6.436	8.694	20.574	19.606	21.092	11.424	29.557	27.292	37.759
11/23/08 16:00	16.086	6.670	8.685	20.576	19.606	21.007	11.377	29.515	27.290	37.759
11/23/08 20:00	16.077	6.446	8.687	20.567	19.606	21.051	11.412	29.534	27.288	37.764
11/24/08 0:00	16.098	6.284	8.701	20.553	19.606	21.115	11.473	29.571	27.292	37.766
11/24/08 4:00	16.141	6.238	8.720	20.537	19.608	21.167	11.516	29.607	27.292	37.769
11/24/08 8:00	16.190	6.224	8.743	20.523	19.610	21.243	11.581	29.656	27.295	37.766
11/24/08 12:00	16.240	6.436	8.767	20.516	19.613	21.287	11.586	29.675	27.292	37.771
11/24/08 16:00	16.244	6.619	8.771	20.514	19.613	21.243	11.546	29.653	27.292	37.773
11/24/08 20:00	16.244	6.497	8.781	20.516	19.615	21.259	11.563	29.672	27.292	37.776
11/25/08 0:00	16.261	6.406	8.792	20.523	19.617	21.292	11.588	29.696	27.295	37.776
11/25/08 4:00	16.282	6.406	8.807	20.530	19.620	21.316	11.605	29.714	27.295	37.778
11/25/08 8:00	16.303	6.408	8.818	20.537	19.622	21.339	11.621	29.731	27.297	37.783
11/25/08 12:00	16.320	6.511	8.832	20.537	19.624	21.349	11.605	29.789	27.295	37.783
11/25/08 16:00	16.303	6.734	8.832	20.535	19.624	21.292	11.551	29.691	27.295	37.785
11/25/08 20:00	16.289	6.551	8.832	20.523	19.624	21.290	11.555	29.717	27.295	37.787

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
11/26/08 0:00	16.289	6.488	8.837	20.514	19.627	21.294	11.548	29.684	27.295	37.790
11/26/08 4:00	16.287	6.436	8.842	20.502	19.629	21.290	11.544	29.693	27.297	37.787
11/26/08 8:00	16.289	6.434	8.849	20.490	19.629	21.299	11.558	29.752	27.295	37.792
11/26/08 12:00	16.310	6.551	8.863	20.479	19.634	21.349	11.574	29.724	27.297	37.794
11/26/08 16:00	16.310	6.722	8.868	20.465	19.634	21.323	11.560	29.707	27.297	37.797
11/26/08 20:00	16.320	6.486	8.877	20.446	19.636	21.353	11.584	29.733	27.297	37.799
11/27/08 0:00	16.336	6.415	8.886	20.430	19.639	21.379	11.605	29.775	27.300	37.802
11/27/08 4:00	16.353	6.408	8.896	20.418	19.641	21.396	11.610	29.752	27.300	37.804
11/27/08 8:00	16.372	6.411	8.910	20.411	19.646	21.417	11.628	29.775	27.300	37.804
11/27/08 12:00	16.393	6.532	8.922	20.413	19.648	21.450	11.659	29.822	27.302	37.806
11/27/08 16:00	16.416	6.567	8.936	20.420	19.650	21.469	11.675	29.808	27.304	37.811
11/27/08 20:00	16.442	6.467	8.950	20.432	19.655	21.502	11.687	29.832	27.304	37.813
11/28/08 0:00	16.461	6.434	8.959	20.448	19.660	21.519	11.701	29.876	27.307	37.816
11/28/08 4:00	16.478	6.453	8.971	20.465	19.660	21.516	11.689	29.857	27.307	37.818
11/28/08 8:00	16.478	6.460	8.976	20.479	19.662	21.514	11.687	29.928	27.309	37.818
11/28/08 12:00	16.489	6.530	8.985	20.490	19.667	21.526	11.678	29.860	27.311	37.820
11/28/08 16:00	16.473	6.666	8.985	20.502	19.669	21.474	11.635	29.848	27.311	37.823
11/28/08 20:00	16.461	6.546	8.990	20.509	19.672	21.476	11.635	29.829	27.311	37.827
11/29/08 0:00	16.461	6.525	8.992	20.514	19.674	21.481	11.628	29.834	27.314	37.825
11/29/08 4:00	16.454	6.542	8.994	20.516	19.676	21.462	11.605	29.841	27.314	37.830
11/29/08 8:00	16.438	6.542	8.994	20.516	19.679	21.443	11.591	29.801	27.316	37.832
11/29/08 12:00	16.426	6.556	8.997	20.514	19.679	21.434	11.565	29.792	27.316	37.835
11/29/08 16:00	16.390	6.635	8.983	20.514	19.672	21.365	11.516	29.771	27.314	37.839
11/29/08 20:00	16.362	6.572	8.971	20.509	19.669	21.320	11.509	29.820	27.316	37.842
11/30/08 0:00	16.339	6.537	8.959	20.511	19.667	21.297	11.490	29.731	27.314	37.839
11/30/08 4:00	16.313	6.483	8.945	20.518	19.662	21.273	11.471	29.703	27.314	37.849
11/30/08 8:00	16.296	6.453	8.940	20.523	19.667	21.266	11.483	29.738	27.316	37.846
11/30/08 12:00	16.306	6.425	8.943	20.528	19.667	21.297	11.513	29.710	27.316	37.849
11/30/08 16:00	16.315	6.432	8.947	20.535	19.667	21.297	11.537	29.736	27.316	37.851
11/30/08 20:00	16.341	6.425	8.945	20.532	19.669	21.339	11.579	29.801	27.318	37.856
12/1/08 0:00	16.372	6.429	8.950	20.525	19.674	21.372	11.621	29.792	27.318	37.856
12/1/08 4:00	16.412	6.401	8.961	20.518	19.679	21.427	11.673	29.909	27.321	37.856
12/1/08 8:00	16.461	6.383	8.980	20.502	19.683	21.485	11.736	29.874	27.323	37.863
12/1/08 12:00	16.522	6.376	9.004	20.483	19.688	21.559	11.800	29.942	27.325	37.860
12/1/08 16:00	16.565	6.504	9.023	20.469	19.683	21.568	11.811	30.017	27.328	37.865
12/1/08 20:00	16.593	6.455	9.034	20.446	19.688	21.601	11.826	29.965	27.328	37.860
12/2/08 0:00	16.610	6.488	9.044	20.432	19.693	21.601	11.819	30.005	27.330	37.872

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
12/2/08 4:00	16.614	6.528	9.051	20.416	19.698	21.592	11.790	29.984	27.332	37.870
12/2/08 8:00	16.593	6.551	9.051	20.402	19.700	21.537	11.741	29.951	27.332	37.872
12/2/08 12:00	16.572	6.584	9.053	20.388	19.702	21.516	11.713	29.930	27.330	37.875
12/2/08 16:00	16.532	6.745	9.041	20.320	19.707	21.457	11.675	29.907	27.332	37.877
12/2/08 20:00	16.504	6.614	9.039	20.332	19.712	21.476	11.685	29.911	27.332	37.877
12/3/08 0:00	16.487	6.567	9.037	20.332	19.714	21.476	11.687	29.914	27.335	37.879
12/3/08 4:00	16.487	6.493	9.041	20.371	19.719	21.516	11.717	29.942	27.337	37.884
12/3/08 8:00	16.527	6.324	9.060	20.448	19.728	21.613	11.823	30.017	27.337	37.884
12/3/08 12:00	16.610	6.247	9.086	20.476	19.735	21.731	11.920	30.087	27.344	37.889
12/3/08 16:00	16.678	6.289	9.109	20.504	19.742	21.778	11.962	30.190	27.346	37.891
12/3/08 20:00	16.742	6.329	9.133	20.532	19.752	21.849	12.025	30.179	27.351	37.893
12/4/08 0:00	16.798	6.373	9.154	20.556	19.761	21.886	12.051	30.228	27.353	37.896
12/4/08 4:00	16.836	6.422	9.170	20.574	19.768	21.905	12.070	30.242	27.358	37.900
12/4/08 8:00	16.878	6.439	9.189	20.588	19.775	21.955	12.107	30.319	27.360	37.900
12/4/08 12:00	16.932	6.455	9.215	20.593	19.785	22.021	12.161	30.326	27.358	37.903
12/4/08 16:00	16.973	6.528	9.231	20.595	19.794	22.021	12.159	30.352	27.356	37.908
12/4/08 20:00	17.001	6.488	9.246	20.586	19.804	22.042	12.178	30.406	27.358	37.905
12/5/08 0:00	17.024	6.476	9.260	20.581	19.811	22.056	12.176	30.387	27.360	37.910
12/5/08 4:00	17.022	6.551	9.264	20.579	19.818	22.019	12.131	30.387	27.363	37.915
12/5/08 8:00	17.006	6.556	9.264	20.576	19.827	21.986	12.089	30.441	27.365	37.915
12/5/08 12:00	16.975	6.584	9.262	20.579	19.832	21.941	12.020	30.322	27.368	37.919
12/5/08 16:00	16.907	6.785	9.241	20.586	19.834	21.825	11.901	30.265	27.365	37.919
12/5/08 20:00	16.836	6.759	9.220	20.586	19.839	21.761	11.844	30.204	27.365	37.919
12/6/08 0:00	16.782	6.738	9.201	20.586	19.844	21.717	11.811	30.186	27.365	37.924
12/6/08 4:00	16.756	6.684	9.196	20.588	19.851	21.719	11.816	30.214	27.368	37.922
12/6/08 8:00	16.758	6.591	9.199	20.588	19.856	21.754	11.861	30.216	27.370	37.929
12/6/08 12:00	16.810	6.483	9.215	20.588	19.867	21.851	11.948	30.272	27.375	37.931
12/6/08 16:00	16.862	6.502	9.238	20.588	19.875	21.891	11.995	30.324	27.379	37.931
12/6/08 20:00	16.918	6.385	9.260	20.581	19.882	21.962	12.063	30.348	27.384	37.938
12/7/08 0:00	16.970	6.369	9.278	20.570	19.891	22.002	12.086	30.380	27.386	37.941
12/7/08 4:00	16.996	6.429	9.293	20.549	19.898	22.012	12.074	30.401	27.391	37.943
12/7/08 8:00	16.996	6.474	9.295	20.521	19.903	21.988	12.051	30.373	27.393	37.945
12/7/08 12:00	16.980	6.579	9.295	20.511	19.910	21.948	11.990	30.350	27.396	37.948
12/7/08 16:00	16.930	6.818	9.285	20.518	19.912	21.868	11.915	30.350	27.396	37.950
12/7/08 20:00	16.890	6.717	9.274	20.558	19.919	21.842	11.896	30.275	27.398	37.955
12/8/08 0:00	16.874	6.701	9.271	20.544	19.924	21.837	11.880	30.291	27.398	37.957
12/8/08 4:00	16.852	6.720	9.269	20.544	19.929	21.816	11.856	30.258	27.400	37.959

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
12/8/08 8:00	16.833	6.727	9.264	20.577	19.933	21.799	11.835	30.240	27.403	37.962
12/8/08 12:00	16.812	6.766	9.260	20.488	19.936	21.783	11.802	30.214	27.405	37.964
12/8/08 16:00	16.775	6.839	9.250	20.472	19.938	21.733	11.762	30.179	27.405	37.966
12/8/08 20:00	16.753	6.745	9.246	20.451	19.943	21.733	11.772	30.176	27.407	37.969
12/9/08 0:00	16.756	6.659	9.248	20.448	19.948	21.757	11.793	30.242	27.410	37.969
12/9/08 4:00	16.789	6.460	9.262	20.455	19.955	21.835	11.873	30.228	27.412	37.973
12/9/08 8:00	16.857	6.312	9.283	20.467	19.959	21.929	11.973	30.326	27.417	37.973
12/9/08 12:00	16.949	6.198	9.316	20.500	19.969	22.047	12.077	30.376	27.424	37.978
12/9/08 16:00	17.022	6.254	9.342	20.530	19.973	22.096	12.131	30.416	27.429	37.983
12/9/08 20:00	17.095	6.205	9.365	20.490	19.983	22.179	12.211	30.479	27.433	37.985
12/10/08 0:00	17.161	6.291	9.386	20.525	19.990	22.221	12.251	30.535	27.438	37.988
12/10/08 4:00	17.201	6.359	9.408	20.518	19.999	22.243	12.260	30.528	27.440	37.985
12/10/08 8:00	17.230	6.418	9.424	20.525	20.007	22.259	12.272	30.556	27.445	37.990
12/10/08 12:00	17.253	6.567	9.438	20.563	20.011	22.276	12.269	30.587	27.450	37.995
12/10/08 16:00	17.251	6.628	9.445	20.577	20.018	22.238	12.232	30.547	27.452	37.997
12/10/08 20:00	17.241	6.581	9.447	20.681	20.025	22.229	12.218	30.554	27.454	38.002
12/11/08 0:00	17.234	6.581	9.454	20.719	20.032	22.221	12.197	30.570	27.457	38.002
12/11/08 4:00	17.220	6.593	9.457	20.747	20.040	22.203	12.168	30.530	27.459	38.011
12/11/08 8:00	17.204	6.549	9.457	20.621	20.044	22.200	12.171	30.568	27.464	38.016
12/11/08 12:00	17.215	6.600	9.466	20.665	20.051	22.229	12.176	30.575	27.466	38.016
12/11/08 16:00	17.213	6.745	9.468	20.628	20.058	22.205	12.168	30.573	27.464	38.018
12/11/08 20:00	17.232	6.579	9.480	20.653	20.066	22.257	12.220	30.608	27.468	38.023
12/12/08 0:00	17.270	6.530	9.492	20.630	20.073	22.304	12.258	30.636	27.473	38.023
12/12/08 4:00	17.298	6.516	9.504	20.567	20.082	22.328	12.284	30.659	27.478	38.030
12/12/08 8:00	17.324	6.504	9.516	20.528	20.089	22.342	12.293	30.678	27.480	38.030
12/12/08 12:00	17.345	6.567	9.527	20.388	20.096	22.358	12.295	30.688	27.485	38.035
12/12/08 16:00	17.324	6.736	9.527	20.367	20.103	22.295	12.225	30.643	27.489	38.037
12/12/08 20:00	17.293	6.666	9.525	20.327	20.108	22.262	12.185	30.624	27.494	38.039
12/13/08 0:00	17.263	6.698	9.520	20.346	20.113	22.224	12.129	30.596	27.494	38.047
12/13/08 4:00	17.213	6.776	9.506	20.323	20.117	22.165	12.053	30.547	27.497	38.049
12/13/08 8:00	17.152	6.843	9.492	20.330	20.120	22.113	12.004	30.512	27.499	38.051
12/13/08 12:00	17.116	6.829	9.490	20.413	20.124	22.096	11.978	30.488	27.501	38.054
12/13/08 16:00	17.076	6.932	9.473	20.495	20.131	22.056	11.936	30.458	27.501	38.056
12/13/08 20:00	17.060	6.766	9.469	20.702	20.134	22.073	11.962	30.474	27.504	38.058
12/14/08 0:00	17.062	6.727	9.476	20.770	20.136	22.075	11.957	30.446	27.508	38.063
12/14/08 4:00	17.053	6.745	9.471	20.740	20.143	22.068	11.950	30.451	27.511	38.065
12/14/08 8:00	17.048	6.680	9.471	20.756	20.146	22.089	11.981	30.521	27.513	38.068

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
12/14/08 12:00	17.114	6.252	9.492	20.735	20.153	22.221	12.117	30.561	27.520	38.070
12/14/08 16:00	17.194	6.151	9.518	20.758	20.165	22.290	12.204	30.620	27.527	38.075
12/14/08 20:00	17.293	5.997	9.544	20.639	20.169	22.398	12.321	30.697	27.532	38.077
12/15/08 0:00	17.397	6.027	9.577	20.663	20.181	22.497	12.439	30.781	27.539	38.077
12/15/08 4:00	17.496	6.064	9.607	20.644	20.193	22.582	12.521	30.847	27.543	38.084
12/15/08 8:00	17.578	6.130	9.637	20.400	20.205	22.644	12.591	30.974	27.550	38.091
12/15/08 12:00	17.654	6.240	9.668	20.374	20.214	22.703	12.638	30.952	27.560	38.096
12/15/08 16:00	17.703	6.429	9.687	20.253	20.224	22.714	12.643	31.016	27.565	38.098
12/15/08 20:00	17.732	6.467	9.706	20.194	20.235	22.724	12.641	31.016	27.569	38.091
12/16/08 0:00	17.743	6.563	9.720	20.062	20.242	22.724	12.619	31.018	27.576	38.103
12/16/08 4:00	17.732	6.586	9.727	20.001	20.252	22.686	12.570	31.002	27.581	38.112
12/16/08 8:00	17.696	6.605	9.724	19.980	20.256	22.632	12.497	30.962	27.583	38.112
12/16/08 12:00	17.656	6.656	9.722	19.973	20.264	22.596	12.424	30.922	27.588	38.112
12/16/08 16:00	17.590	6.883	9.710	19.931	20.268	22.519	12.352	30.880	27.590	38.117
12/16/08 20:00	17.555	6.736	9.706	19.994	20.275	22.523	12.366	30.891	27.595	38.122
12/17/08 0:00	17.557	6.652	9.710	19.989	20.282	22.545	12.382	30.908	27.600	38.124
12/17/08 4:00	17.569	6.530	9.717	20.001	20.290	22.563	12.415	30.931	27.604	38.127
12/17/08 8:00	17.602	6.535	9.727	20.017	20.297	22.604	12.448	30.959	27.609	38.131
12/17/08 12:00	17.635	6.579	9.738	19.973	20.304	22.637	12.481	30.990	27.616	38.134
12/17/08 16:00	17.651	6.652	9.748	19.880	20.313	22.632	12.467	30.988	27.618	38.138
12/17/08 20:00	17.652	6.596	9.752	19.948	20.320	22.622	12.474	30.999	27.623	38.141
12/18/08 0:00	17.670	6.563	9.762	19.952	20.327	22.655	12.493	31.018	27.628	38.145
12/18/08 4:00	17.680	6.579	9.769	20.064	20.334	22.644	12.490	31.023	27.633	38.148
12/18/08 8:00	17.682	6.591	9.776	20.218	20.341	22.646	12.483	31.025	27.637	38.153
12/18/08 12:00	17.689	6.619	9.781	20.369	20.349	22.660	12.478	31.027	27.642	38.155
12/18/08 16:00	17.666	6.682	9.781	20.318	20.356	22.599	12.408	30.985	27.647	38.157
12/18/08 20:00	17.628	6.731	9.773	20.241	20.360	22.556	12.338	30.941	27.649	38.157
12/19/08 0:00	17.564	6.846	9.757	19.980	20.363	22.488	12.258	30.884	27.654	38.164
12/19/08 4:00	17.498	6.895	9.743	20.208	20.365	22.436	12.234	30.863	27.654	38.167
12/19/08 8:00	17.536	6.502	9.755	20.115	20.374	22.566	12.385	30.962	27.661	38.167
12/19/08 12:00	17.632	6.390	9.783	20.106	20.384	22.663	12.486	31.027	27.668	38.167
12/19/08 16:00	17.680	6.535	9.795	20.201	20.391	22.670	12.493	31.042	27.675	38.167
12/19/08 20:00	17.708	6.567	9.806	20.374	20.398	22.686	12.507	31.056	27.679	38.169
12/20/08 0:00	17.725	6.593	9.816	20.474	20.405	22.691	12.493	31.135	27.684	38.171
12/20/08 4:00	17.706	6.600	9.816	20.567	20.410	22.637	12.427	31.009	27.689	38.178
12/20/08 8:00	17.687	6.626	9.818	20.572	20.414	22.646	12.448	31.070	27.694	38.183
12/20/08 12:00	17.706	6.584	9.825	20.469	20.419	22.674	12.476	31.042	27.698	38.185

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
12/20/08 16:00	17.734	6.492	9.834	20.425	20.429	22.714	12.530	31.112	27.705	38.188
12/20/08 20:00	17.786	6.347	9.853	20.425	20.438	22.771	12.603	31.124	27.710	38.193
12/21/08 0:00	17.840	6.336	9.870	20.348	20.447	22.813	12.650	31.187	27.717	38.197
12/21/08 4:00	17.880	6.364	9.884	20.330	20.457	22.844	12.683	NA	27.722	38.202
12/21/08 8:00	17.916	6.413	9.898	20.306	20.466	22.865	12.695		27.729	38.207
12/21/08 12:00	17.939	6.474	9.912	20.313	20.478	22.889	12.720		27.736	38.207
12/21/08 16:00	17.970	6.537	9.926	20.292	20.485	22.910	12.742		27.743	38.211
12/21/08 20:00	18.005	6.476	9.940	20.453	20.492	22.936	12.770		27.750	38.216
12/22/08 0:00	18.029	6.513	9.952	20.430	20.504	22.948	12.781		27.755	38.218
12/22/08 4:00	18.043	6.511	9.964	20.458	20.511	22.955	12.779		27.762	38.226
12/22/08 8:00	18.047	6.600	9.971	20.504	20.521	22.953	12.772		27.766	38.228
12/22/08 12:00	18.050	6.736	9.978	20.514	20.528	22.948	12.739		27.773	38.233
12/22/08 16:00	18.017	6.911	9.973	20.509	20.535	22.889	12.659		27.776	38.237
12/22/08 20:00	17.972	6.834	9.968	20.507	20.540	22.844	12.601		27.783	38.242
12/23/08 0:00	17.930	6.815	9.961	20.171	20.547	22.806	12.537		27.785	38.242
12/23/08 4:00	17.878	6.864	9.952	19.980	20.549	22.757	12.469		27.787	38.244
12/23/08 8:00	17.828	6.857	9.938	19.868	20.554	22.719	12.436		27.792	38.249
12/23/08 12:00	17.809	6.766	9.933	19.773	20.561	22.721	12.434		27.799	38.254
12/23/08 16:00	17.786	6.806	9.928	19.770	20.565	22.703	12.413		27.799	38.256
12/23/08 20:00	17.781	6.726	9.928	19.829	20.570	22.714	12.441		27.806	38.259
12/24/08 0:00	17.795	6.625	9.935	19.857	20.577	22.747	12.483		27.811	38.263
12/24/08 4:00	17.826	6.518	9.942	19.922	20.584	22.780	12.518		27.816	38.266
12/24/08 8:00	17.868	6.380	9.956	19.989	20.591	22.842	12.601		27.823	38.270
12/24/08 12:00	17.934	6.359	9.975	20.101	20.601	22.917	12.680		27.830	38.273
12/24/08 16:00	17.986	6.459	9.989	20.211	20.610	22.953	12.723		27.837	38.277
12/24/08 20:00	18.038	6.473	10.008	20.448	20.620	22.988	12.763		27.844	38.282
12/25/08 0:00	18.073	6.487	10.020	20.518	20.629	23.012	12.789		27.848	38.284
12/25/08 4:00	18.099	6.553	10.032	20.532	20.636	23.026	12.798		27.855	38.289
12/25/08 8:00	18.104	6.623	10.039	20.567	20.643	23.012	12.770		27.860	38.291
12/25/08 12:00	18.092	6.679	10.043	20.535	20.650	23.000	12.732		27.865	38.296
12/25/08 16:00	18.055	6.848	10.039	20.511	20.655	22.936	12.643		27.869	38.301
12/25/08 20:00	18.007	6.920	10.031	20.551	20.662	22.891	12.582		27.874	38.303
12/26/08 0:00	17.974	6.876	10.025	20.476	20.665	22.868	12.568		27.879	38.308
12/26/08 4:00	17.953	6.857	10.025	20.451	20.667	22.795	12.547		27.881	38.310
12/26/08 8:00	17.920	6.866	10.017	20.400	20.672	22.792	12.540		27.886	38.315
12/26/08 12:00	16.874	6.705	9.940	20.346	20.674	22.686	12.516		27.893	38.327
12/26/08 16:00	15.068	6.433	9.780	20.255	20.679	22.535	12.469		27.895	38.339

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
12/26/08 20:00	14.324	6.080	9.630	20.318	20.683	22.500	12.464		27.898	38.346
12/27/08 0:00	14.385	5.944	9.534	20.190	20.690	22.502	12.464		27.902	38.353
12/27/08 4:00	14.604	5.598	9.452	20.062	20.681	22.523	12.493		27.907	38.355
12/27/08 8:00	14.258	5.381	9.294	19.957	20.667	22.382	12.495		27.914	38.353
12/27/08 12:00	13.334	5.051	8.926	19.899	20.662	22.054	12.436		27.916	38.353
12/27/08 16:00	13.164	4.911	8.691	19.852	20.683	22.080	12.403		27.916	38.350
12/27/08 20:00	13.355	4.803	8.546	20.008	20.572	22.122	12.436		27.923	38.350
12/28/08 0:00	13.600	4.854	8.449	20.062	20.523	22.137	12.446		27.926	38.353
12/28/08 4:00	13.824	4.920	8.381	20.146	20.504	22.148	12.448		27.930	38.350
12/28/08 8:00	14.034	5.023	8.337	20.230	20.506	22.144	12.453		27.933	38.350
12/28/08 12:00	14.229	5.130	8.311	20.236	20.478	22.165	12.464		27.935	38.348
12/28/08 16:00	14.387	5.367	8.285	20.215	20.598	22.101	12.427		27.937	38.355
12/28/08 20:00	14.519	5.371	8.266	20.264	20.608	22.054	12.403		27.942	38.353
12/29/08 0:00	14.630	5.418	8.250	20.004	20.622	22.047	12.377		27.945	38.355
12/29/08 4:00	14.727	5.463	8.236	19.871	20.632	22.033	12.347		27.947	38.355
12/29/08 8:00	14.816	5.470	8.226	19.819	20.598	22.047	12.363		27.949	38.355
12/29/08 12:00	14.932	5.498	8.229	19.773	20.577	22.099	12.396		27.952	38.362
12/29/08 16:00	14.960	5.551	8.215	19.745	20.620	22.040	12.389		27.954	38.365
12/29/08 20:00	14.637	5.357	8.151	19.857	20.570	22.033	12.359		27.956	38.367
12/30/08 0:00	14.505	5.289	8.083	19.878	20.646	21.971	12.288		27.956	38.369
12/30/08 4:00	14.481	5.357	8.025	19.971	20.738	21.894	12.199		27.959	38.374
12/30/08 8:00	14.472	5.481	7.968	20.059	20.867	21.802	12.103		27.956	38.376
12/30/08 12:00	14.510	5.502	7.933	20.057	20.837	21.799	12.098		27.956	38.376
12/30/08 16:00	14.618	5.469	7.914	19.992	20.733	21.851	12.154		27.959	38.381
12/30/08 20:00	14.760	5.254	7.905	20.085	20.466	21.962	12.251		27.963	38.383
12/31/08 0:00	14.917	5.069	7.921	20.059	20.226	22.085	12.356		27.968	38.388
12/31/08 4:00	15.052	5.116	7.935	20.108	20.200	22.129	12.380		27.970	38.390
12/31/08 8:00	15.153	5.198	7.945	20.188	20.209	22.148	12.392		27.975	38.388
12/31/08 12:00	15.238	5.355	7.954	20.318	20.290	22.165	12.377		27.977	38.390
12/31/08 16:00	15.273	5.628	7.942	20.311	20.511	22.068	12.276		27.977	38.393
12/31/08 20:00	15.264	5.666	7.921	20.344	20.556	21.990	12.187		27.977	38.395
1/1/09 0:00	15.240	5.748	7.898	20.024	20.660	21.910	12.098		27.975	38.400
1/1/09 4:00	15.191	5.820	7.870	19.887	20.773	21.823	12.009		27.975	38.400
1/1/09 8:00	15.141	5.846	7.844	19.836	20.832	21.761	11.955		27.975	38.397
1/1/09 12:00	15.132	5.837	7.832	19.892	20.792	21.754	11.941		27.975	38.402
1/1/09 16:00	15.141	5.876	7.823	19.892	20.766	21.745	11.941		27.975	38.405
1/1/09 20:00	15.179	5.729	7.823	20.146	20.638	21.778	11.952		27.975	38.407

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
1/2/09 0:00	15.212	5.715	7.825	20.313	20.584	21.780	11.948		27.975	38.409
1/2/09 4:00	15.243	5.727	7.827	20.439	20.537	21.792	11.945		27.975	38.407
1/2/09 8:00	15.266	5.750	7.830	20.400	20.509	21.785	11.926		27.975	38.409
1/2/09 12:00	15.287	5.808	7.834	20.150	20.499	21.797	11.922		27.975	38.414
1/2/09 16:00	15.287	6.021	7.827	19.857	20.648	21.724	11.870		27.975	38.416
1/2/09 20:00	15.285	5.848	7.825	19.799	20.565	21.724	11.851		27.973	38.416
1/3/09 0:00	15.285	5.881	7.820	19.696	20.565	21.700	11.821		27.973	38.419
1/3/09 4:00	15.278	5.886	7.813	19.642	20.580	21.662	11.781		27.970	38.416
1/3/09 8:00	15.264	5.930	7.806	19.666	20.577	21.636	11.762		27.970	38.421
1/3/09 12:00	15.271	6.010	7.808	19.684	20.573	21.641	11.736		27.970	38.421
1/3/09 16:00	15.266	6.070	7.801	19.705	20.565	21.625	11.746		27.968	38.421
1/3/09 20:00	15.330	5.673	7.827	19.859	20.160	21.761	11.877		27.970	38.423
1/4/09 0:00	15.431	5.525	7.862	19.901	19.959	21.872	11.969		27.973	38.423
1/4/09 4:00	15.533	5.481	7.898	19.959	19.844	21.948	12.037		27.973	38.428
1/4/09 8:00	15.629	5.448	7.933	20.078	19.757	22.030	12.105		27.975	38.428
1/4/09 12:00	15.716	5.539	7.970	20.199	19.775	22.092	12.147		27.977	38.430
1/4/09 16:00	15.775	5.738	7.999	20.306	19.889	22.094	12.147		27.980	38.433
1/4/09 20:00	15.815	5.783	8.022	20.437	19.941	22.108	12.143		27.982	38.438
1/5/09 0:00	15.839	5.848	8.036	20.495	20.014	22.087	12.107		27.982	38.435
1/5/09 4:00	15.839	5.914	8.048	20.588	20.042	22.066	12.072		27.982	38.435
1/5/09 8:00	15.830	5.977	8.053	20.700	20.124	22.019	12.002		27.982	38.438
1/5/09 12:00	15.794	6.042	8.053	20.679	20.224	21.962	11.931		27.982	38.442
1/5/09 16:00	15.733	6.262	8.036	20.579	20.422	21.851	11.823		27.980	38.442
1/5/09 20:00	15.669	6.159	8.024	20.551	20.384	21.787	11.762		27.977	38.442
1/6/09 0:00	15.629	6.122	8.013	20.486	20.377	21.745	11.727		27.977	38.447
1/6/09 4:00	15.594	6.138	8.003	20.484	20.377	21.698	11.677		27.975	38.445
1/6/09 8:00	15.566	6.073	7.999	20.486	20.358	21.674	11.668		27.973	38.445
1/6/09 12:00	15.559	6.094	8.003	20.411	20.306	21.665	11.647		27.973	38.447
1/6/09 16:00	15.547	6.178	8.001	20.409	20.332	21.634	11.621		27.970	38.449
1/6/09 20:00	15.549	6.049	8.008	20.588	20.219	21.646	11.633		27.970	38.449
1/7/09 0:00	15.559	6.042	8.017	20.560	20.190	21.644	11.626		27.968	38.449
1/7/09 4:00	15.568	6.014	8.024	20.409	20.124	21.653	11.633		27.966	38.452
1/7/09 8:00	15.584	5.991	8.036	20.272	20.066	21.665	11.649		27.966	38.452
1/7/09 12:00	15.622	5.974	8.057	20.202	19.976	21.721	11.673		27.966	38.454
1/7/09 16:00	15.641	6.067	8.067	20.199	20.030	21.703	11.668		27.963	38.454
1/7/09 20:00	15.676	5.969	8.088	20.276	19.896	21.769	11.729		27.963	38.456
1/8/09 0:00	15.733	5.904	8.113	20.241	19.742	21.835	11.785		27.963	38.452

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
1/8/09 4:00	15.792	5.808	8.139	20.157	19.648	21.891	11.832		27.966	38.456
1/8/09 8:00	15.846	5.822	8.165	20.099	19.615	21.934	11.879		27.963	38.456
1/8/09 12:00	15.903	5.887	8.196	20.004	19.589	21.986	11.891		27.966	38.461
1/8/09 16:00	15.919	6.070	8.207	19.957	19.733	21.941	11.851		27.966	38.461
1/8/09 20:00	15.917	6.049	8.219	20.104	19.750	21.922	11.818		27.966	38.463
1/9/09 0:00	15.898	6.077	8.224	20.167	19.813	21.882	11.767		27.963	38.463
1/9/09 4:00	15.863	6.135	8.226	20.227	19.903	21.835	11.720		27.961	38.463
1/9/09 8:00	15.848	6.147	8.233	20.265	19.891	21.823	11.708		27.961	38.461
1/9/09 12:00	15.860	6.196	8.245	20.269	19.889	21.856	11.722		27.958	38.463
1/9/09 16:00	15.867	6.282	8.257	20.213	19.639	21.858	11.727		27.954	38.466
1/9/09 20:00	15.931	5.843	8.285	20.297	19.627	21.978	11.849		27.949	38.466
1/10/09 0:00	16.013	5.780	8.315	20.290	19.615	22.054	11.908		27.952	38.468
1/10/09 4:00	16.072	5.801	8.341	20.285	19.601	22.082	11.940		27.954	38.471
1/10/09 8:00	16.124	5.815	8.367	20.297	19.589	22.120	11.973		27.954	38.473
1/10/09 12:00	16.174	5.875	8.393	20.318	19.575	22.160	11.997		27.956	38.471
1/10/09 16:00	16.207	6.056	8.414	20.295	19.563	22.153	11.973		27.954	38.473
1/10/09 20:00	16.211	6.030	8.426	20.437	19.549	22.155	11.969		27.951	38.475
1/11/09 0:00	16.214	6.102	8.437	20.397	19.535	22.129	11.931		27.952	38.475
1/11/09 4:00	16.190	6.116	8.442	20.309	19.521	22.085	11.884		27.952	38.478
1/11/09 8:00	16.174	6.102	8.449	20.185	19.507	22.082	11.889		27.952	38.480
1/11/09 12:00	16.204	6.102	8.470	20.001	19.495	22.132	11.922		27.954	38.482
1/11/09 16:00	16.221	6.184	8.484	19.794	19.483	22.118	11.912		27.954	38.480
1/11/09 20:00	16.235	6.093	8.498	19.743	19.471	22.139	11.924		27.954	38.482
1/12/09 0:00	16.240	6.114	8.508	19.600	19.457	22.127	11.893		27.954	38.482
1/12/09 4:00	16.221	6.147	8.510	19.496	19.445	22.087	11.847		27.954	38.482
1/12/09 8:00	16.193	6.214	8.515	19.489	19.429	22.028	11.783		27.952	38.485
1/12/09 12:00	16.162	6.221	8.519	19.540	19.415	22.014	11.776		27.952	38.487
1/12/09 16:00	16.148	6.280	8.524	19.594	19.403	22.004	11.802		27.949	38.487
1/12/09 20:00	16.209	5.938	8.555	19.785	19.393	22.134	11.915		27.952	38.489
1/13/09 0:00	16.289	5.810	8.581	19.899	19.384	22.210	11.992		27.954	38.492
1/13/09 4:00	16.348	5.828	8.602	19.957	19.377	22.245	12.025		27.956	38.494
1/13/09 8:00	16.381	5.950	8.618	19.945	19.365	22.240	12.013		27.959	38.489
1/13/09 12:00	16.395	6.100	8.635	20.013	19.356	22.257	11.999		27.961	38.496
1/13/09 16:00	16.376	6.320	8.642	19.994	19.344	22.162	11.879		27.961	38.499
1/13/09 20:00	16.310	6.313	8.635	20.090	19.330	22.082	11.797		27.956	38.499
1/14/09 0:00	16.244	6.374	8.625	20.071	19.316	22.009	11.720		27.954	38.499
1/14/09 4:00	16.197	6.294	8.627	20.057	19.301	22.009	11.736		27.956	38.499

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
1/14/09 8:00	16.221	6.069	8.644	20.050	19.294	22.096	11.863		27.959	38.501
1/14/09 12:00	16.332	5.756	8.681	20.029	19.287	22.252	12.006		27.966	38.503
1/14/09 16:00	16.419	5.852	8.707	19.999	19.280	22.304	12.063		27.963	38.508
1/14/09 20:00	16.501	5.819	8.735	20.048	19.273	22.370	12.133		27.968	38.503
1/15/09 0:00	16.567	5.826	8.761	20.022	19.266	22.415	12.175		27.970	38.501
1/15/09 4:00	16.619	5.873	8.785	20.027	19.259	22.446	12.192		27.973	38.506
1/15/09 8:00	16.652	5.910	8.803	20.032	19.254	22.467	12.208		27.975	38.508
1/15/09 12:00	16.683	6.029	8.829	20.080	19.247	22.490	12.225		27.980	38.513
1/15/09 16:00	16.716	6.235	8.848	20.104	19.240	22.460	12.192		27.980	38.513
1/15/09 20:00	16.702	6.163	8.860	20.244	19.233	22.471	12.185		27.982	38.515
1/16/09 0:00	16.695	6.195	8.872	20.281	19.228	22.462	12.164		27.984	38.518
1/16/09 4:00	16.685	6.231	8.879	20.304	19.221	22.427	12.117		27.987	38.520
1/16/09 8:00	16.678	6.294	8.883	20.341	19.212	22.384	12.060		27.987	38.520
1/16/09 12:00	16.647	6.340	8.890	20.418	19.202	22.337	12.009		27.987	38.520
1/16/09 16:00	16.600	6.448	8.890	20.376	19.193	22.285	11.945		27.987	38.522
1/16/09 20:00	16.556	6.422	8.890	20.416	19.181	22.252	11.908		27.987	38.522
1/17/09 0:00	16.508	6.394	8.888	20.355	19.169	22.205	11.837		27.987	38.527
1/17/09 4:00	16.442	6.443	8.876	20.297	19.158	22.132	11.755		27.987	38.527
1/17/09 8:00	16.383	6.376	8.869	20.260	19.146	22.115	11.748		27.987	38.525
1/17/09 12:00	16.374	6.277	8.876	20.169	19.141	22.137	11.776		27.987	38.529
1/17/09 16:00	16.376	6.350	8.886	20.071	19.127	22.148	11.797		27.987	38.529
1/17/09 20:00	16.405	6.254	8.895	20.090	19.120	22.184	11.821		27.977	38.532
1/18/09 0:00	16.416	6.235	8.902	20.078	19.110	22.179	11.811		27.977	38.532
1/18/09 4:00	16.421	6.287	8.909	20.076	19.101	22.165	11.797		27.977	38.532
1/18/09 8:00	16.424	6.219	8.918	20.122	19.094	22.191	11.823		27.977	38.536
1/18/09 12:00	16.445	6.289	8.930	20.132	19.085	22.198	11.797		27.977	38.536
1/18/09 16:00	16.414	6.504	8.928	20.122	19.075	22.132	11.745		27.975	38.536
1/18/09 20:00	16.391	6.378	8.930	20.129	19.063	22.129	11.748		27.973	38.536
1/19/09 0:00	16.405	6.195	8.940	20.088	19.054	22.177	11.797		27.973	38.536
1/19/09 4:00	16.445	6.109	8.958	20.101	19.049	22.231	11.849		27.975	38.541
1/19/09 8:00	16.485	6.104	8.972	20.185	19.040	22.269	11.882		27.975	38.544
1/19/09 12:00	16.508	6.188	8.984	20.258	19.033	22.278	11.870		27.977	38.541
1/19/09 16:00	16.511	6.289	8.989	20.353	19.023	22.238	11.839		27.975	38.544
1/19/09 20:00	16.520	6.242	9.001	20.623	19.014	22.264	11.863		27.977	38.544
1/20/09 0:00	16.546	6.186	9.015	20.581	19.009	22.306	11.900		27.977	38.546
1/20/09 4:00	16.572	6.160	9.031	20.414	19.002	22.337	11.936		27.980	38.546
1/20/09 8:00	16.610	6.107	9.050	20.276	19.000	22.384	11.990		27.982	38.546

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
1/20/09 12:00	16.664	6.137	9.069	20.139	18.993	22.429	12.020		27.984	38.548
1/20/09 16:00	16.685	6.282	9.080	20.013	18.985	22.391	11.969		27.984	38.551
1/20/09 20:00	16.664	6.291	9.085	20.062	18.978	22.365	11.931		27.984	38.551
1/21/09 0:00	16.633	6.296	9.087	19.983	18.971	22.342	11.896		27.984	38.555
1/21/09 4:00	16.600	6.291	9.085	19.941	18.967	22.313	11.863		27.984	38.551
1/21/09 8:00	16.584	6.280	9.087	19.943	18.957	22.306	11.861		27.987	38.555
1/21/09 12:00	16.593	6.301	9.097	19.929	18.952	22.332	11.872		27.987	38.555
1/21/09 16:00	16.610	6.481	9.106	19.922	19.992	22.316	11.858		27.987	38.558
1/21/09 20:00	16.610	6.298	9.113	20.104	20.738	22.325	11.863		27.989	38.558
1/22/09 0:00	16.603	6.258	9.123	20.095	20.646	22.325	11.861		27.989	38.560
1/22/09 4:00	16.596	6.287	9.127	19.990	20.565	22.318	11.842		27.989	38.560
1/22/09 8:00	16.581	6.310	9.130	19.822	20.490	22.302	11.825		27.991	38.560
1/22/09 12:00	16.586	6.380	9.137	19.757	20.422	22.306	11.825		27.989	38.562
1/22/09 16:00	16.581	6.635	9.141	19.668	20.353	22.276	11.797		27.989	38.562
1/22/09 20:00	16.579	6.350	9.148	19.731	20.292	22.299	11.818		27.991	38.565
1/23/09 0:00	16.591	6.214	9.160	19.712	20.235	22.330	11.846		27.989	38.565
1/23/09 4:00	16.622	6.174	9.172	19.670	20.181	22.377	11.900		27.991	38.567
1/23/09 8:00	16.681	6.048	9.193	19.663	20.132	22.450	11.997		27.996	38.572
1/23/09 12:00	16.765	5.961	9.221	19.656	20.087	22.538	12.084		27.998	38.572
1/23/09 16:00	16.841	6.013	9.245	19.677	20.040	22.573	12.140		28.001	38.572
1/23/09 20:00	16.907	5.975	9.270	19.857	20.000	22.634	12.203		28.003	38.577
1/24/09 0:00	16.975	5.908	9.292	19.936	19.962	22.684	12.258		28.005	38.574
1/24/09 4:00	17.022	5.989	9.313	20.011	19.924	22.707	12.265		28.010	38.579
1/24/09 8:00	17.043	6.109	9.322	20.125	19.889	22.707	12.265		28.013	38.574
1/24/09 12:00	17.055	6.235	9.339	20.206	19.853	22.717	12.255		28.015	38.579
1/24/09 16:00	17.065	6.422	9.343	20.232	19.816	22.665	12.192		28.017	38.581
1/24/09 20:00	17.041	6.338	9.348	20.381	19.780	22.644	12.159		28.020	38.584
1/25/09 0:00	17.006	6.284	9.353	20.360	19.749	22.632	12.140		28.022	38.584
1/25/09 4:00	16.987	6.228	9.357	20.334	19.721	22.641	12.138		28.022	38.588
1/25/09 8:00	16.999	6.284	9.364	20.365	19.688	22.632	12.131		28.027	38.588
1/25/09 12:00	17.025	6.228	9.378	20.411	19.662	22.655	12.145		28.029	38.591
1/25/09 16:00	17.022	6.328	9.381	20.458	19.632	22.625	12.112		28.031	38.591
1/25/09 20:00	17.025	6.286	9.390	20.686	19.606	22.644	12.126		28.031	38.593
1/26/09 0:00	17.034	6.265	9.400	20.717	19.580	22.660	12.147		28.036	38.598
1/26/09 4:00	17.053	6.249	9.409	20.616	19.559	22.681	12.156		28.038	38.595
1/26/09 8:00	17.058	6.251	9.416	20.537	19.535	22.686	12.166		28.041	38.598
1/26/09 12:00	17.081	6.233	9.430	20.432	19.514	22.714	12.182		28.043	38.600

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
1/26/09 16:00	17.083	6.314	9.439	20.279	19.493	22.698	12.168		28.048	38.600
1/26/09 20:00	17.088	6.279	9.449	20.309	19.471	22.721	12.182		28.050	38.602
1/27/09 0:00	17.098	6.270	9.456	20.195	19.452	22.729	12.194		28.052	38.605
1/27/09 4:00	17.107	6.263	9.465	20.013	19.433	22.740	12.187		28.055	38.607
1/27/09 8:00	17.102	6.324	9.470	19.971	19.417	22.721	12.173		28.057	38.607
1/27/09 12:00	17.105	6.349	9.477	19.929	19.398	22.726	12.156		28.059	38.609
1/27/09 16:00	17.086	6.466	9.477	19.948	19.379	22.665	12.095		28.059	38.612
1/27/09 20:00	17.062	6.445	9.479	20.141	19.363	22.648	12.070		28.062	38.614
1/28/09 0:00	17.036	6.405	9.479	20.213	19.344	22.637	12.048		28.064	38.617
1/28/09 4:00	17.001	6.377	9.477	20.297	19.327	22.613	12.020		28.066	38.619
1/28/09 8:00	16.963	6.429	9.470	20.414	19.311	22.582	11.985		28.066	38.614
1/28/09 12:00	16.949	6.436	9.475	20.612	19.297	22.582	11.983		28.069	38.619
1/28/09 16:00	16.959	6.490	9.479	20.756	19.280	22.561	11.957		28.069	38.621
1/28/09 20:00	16.966	6.398	9.486	20.924	19.266	22.582	11.980		28.071	38.624
1/29/09 0:00	16.973	6.340	9.496	20.833	19.252	22.606	12.006		28.073	38.624
1/29/09 4:00	16.989	6.314	9.507	20.763	19.240	22.630	12.025		28.076	38.628
1/29/09 8:00	17.010	6.272	9.519	20.644	19.228	22.665	12.072		28.081	38.626
1/29/09 12:00	17.065	6.286	9.536	20.488	19.221	22.712	12.119		28.083	38.628
1/29/09 16:00	17.100	6.347	9.550	20.444	19.205	22.721	12.128		28.085	38.631
1/29/09 20:00	17.119	6.310	9.561	20.579	19.193	22.740	12.145		28.088	38.631
1/30/09 0:00	17.135	6.303	9.571	20.595	19.184	22.750	12.147		28.090	38.631
1/30/09 4:00	17.128	6.324	9.576	20.532	19.174	22.738	12.124		28.092	38.631
1/30/09 8:00	17.124	6.331	9.580	20.570	19.165	22.738	12.121		28.095	38.635
1/30/09 12:00	17.138	6.347	9.590	20.449	19.155	22.752	12.128		28.097	38.635
1/30/09 16:00	17.161	6.377	9.601	20.313	19.146	22.762	12.145		28.097	38.638
1/30/09 20:00	17.187	6.326	9.611	20.197	19.139	22.785	12.173		28.102	38.638
1/31/09 0:00	17.197	6.328	9.620	20.078	19.129	22.785	12.161		28.104	38.638
1/31/09 4:00	17.178	6.377	9.622	19.992	19.122	22.752	12.112		28.106	38.642
1/31/09 8:00	17.147	6.434	9.622	19.971	19.113	22.719	12.070		28.109	38.645
1/31/09 12:00	17.124	6.579	9.625	19.885	19.101	22.688	12.016		28.111	38.650
1/31/09 16:00	17.076	6.838	9.613	19.815	19.094	22.630	11.945		28.106	38.647
1/31/09 20:00	17.041	6.623	9.611	19.934	19.085	22.632	11.971		28.109	38.647
2/1/09 0:00	17.060	6.303	9.620	19.955	19.077	22.684	12.032		28.111	38.650
2/1/09 4:00	17.102	6.211	9.634	19.903	19.070	22.731	12.081		28.113	38.652
2/1/09 8:00	17.147	6.176	9.651	19.922	19.066	22.778	12.142		28.118	38.657
2/1/09 12:00	17.208	6.188	9.672	19.945	19.061	22.835	12.211		28.120	38.657
2/1/09 16:00	17.253	6.335	9.688	20.027	19.059	22.847	12.227		28.123	38.659

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
2/1/09 20:00	17.289	6.244	9.705	20.022	19.054	22.877	12.262		28.127	38.659
2/2/09 0:00	17.322	6.223	9.723	19.934	19.052	22.896	12.281		28.130	38.661
2/2/09 4:00	17.343	6.258	9.737	19.843	19.049	22.903	12.281		28.134	38.661
2/2/09 8:00	17.350	6.256	9.754	19.778	19.044	22.913	12.288		28.137	38.664
2/2/09 12:00	17.364	6.352	9.766	19.752	19.042	22.924	12.286		28.141	38.668
2/2/09 16:00	17.355	6.546	9.770	19.726	19.037	22.872	12.227		28.139	38.668
2/2/09 20:00	17.347	6.403	9.780	19.806	19.035	22.880	12.234		28.139	38.671
2/3/09 0:00	17.359	6.253	9.794	19.801	19.033	22.915	12.276		28.141	38.675
2/3/09 4:00	17.402	6.066	9.810	19.754	19.033	22.967	12.344		28.148	38.680
2/3/09 8:00	17.439	6.115	9.827	19.705	19.033	22.993	12.380		28.151	38.675
2/3/09 12:00	17.472	6.188	9.848	19.659	19.035	23.026	12.417		28.156	38.678
2/3/09 16:00	17.520	6.349	9.864	19.608	19.033	23.021	12.410		28.158	38.680
2/3/09 20:00	17.531	6.293	9.878	19.717	19.035	23.045	12.436		28.163	38.685
2/4/09 0:00	17.548	6.263	9.892	19.703	19.037	23.066	12.457		28.167	38.680
2/4/09 4:00	17.567	6.272	9.906	19.701	19.037	23.075	12.462		28.170	38.687
2/4/09 8:00	17.586	6.230	9.920	19.738	19.040	23.089	12.478		28.177	38.685
2/4/09 12:00	17.609	6.359	9.939	19.747	19.044	23.101	12.483		28.181	38.692
2/4/09 16:00	17.642	6.504	9.951	19.757	19.042	23.061	12.427		28.184	38.694
2/4/09 20:00	17.619	6.457	9.958	20.027	19.042	23.042	12.401		28.186	38.697
2/5/09 0:00	17.578	6.431	9.967	20.136	19.044	23.031	12.375		28.191	38.697
2/5/09 4:00	17.538	6.468	9.972	20.162	19.044	23.002	12.321		28.193	38.701
2/5/09 8:00	17.494	6.485	9.972	20.269	19.044	22.969	12.281		28.195	38.701
2/5/09 12:00	17.484	6.550	9.979	20.341	19.044	22.955	12.250		28.198	38.704
2/5/09 16:00	17.479	6.775	9.982	20.500	19.042	22.931	12.218		28.198	38.706
2/5/09 20:00	17.465	6.513	9.989	20.707	19.042	22.941	12.236		28.198	38.708
2/6/09 0:00	17.460	6.424	10.000	20.793	19.042	22.948	12.241		28.200	38.711
2/6/09 4:00	17.454	6.454	10.012	20.777	19.042	22.939	12.218		28.202	38.713
2/6/09 8:00	17.442	6.487	10.019	20.528	19.040	22.922	12.199		28.205	38.715
2/6/09 12:00	17.432	6.597	10.024	20.309	19.040		12.178		28.205	38.718
2/6/09 16:00	17.412	5.985	NA	20.099	19.023	23.091	12.126	31.078	28.210	38.706
2/6/09 20:00	17.393	5.915		19.987	19.023	23.101	12.124	31.088	28.212	38.706
2/7/09 0:00	17.410	5.901		19.871	19.023	23.141	12.166	31.182	28.216	38.708
2/7/09 4:00	17.440	5.899		19.768	19.023	23.170	12.199	31.123	28.220	38.711
2/7/09 8:00	17.478	5.908		19.726	19.023	23.217	12.250	31.194	28.222	38.711
2/7/09 12:00	17.532	5.922		19.668	19.025	23.264	12.312	31.196	28.227	38.715
2/7/09 16:00	17.570	5.932		19.633	19.025	23.293	12.342	31.289	28.230	38.718
2/7/09 20:00	17.627	5.948		19.768	19.030	23.353	12.415	31.270	28.233	38.718

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
2/8/09 0:00	17.693	5.962		19.850	19.035	23.400	12.485	31.374	28.240	38.723
2/8/09 4:00	17.728	5.965		19.901	19.037	23.410	12.495	31.327	28.242	38.727
2/8/09 8:00	17.752	5.964		19.980	19.040	23.427	12.509	31.377	28.248	38.727
2/8/09 12:00	17.770	5.962		20.034	19.044	23.424	12.504	31.348	28.250	38.727
2/8/09 16:00	17.740	5.946		20.092	19.044	23.375	12.429	31.327	28.255	38.730
2/8/09 20:00	17.714	5.934		20.302	19.047	23.362	12.394	31.286	28.256	38.732
2/9/09 0:00	17.688	5.922		20.358	19.047	23.340	12.354	31.279	28.256	38.734
2/9/09 4:00	17.650	5.908		20.139	19.047	23.305	12.293	31.265	28.258	38.737
2/9/09 8:00	17.594	5.890		19.929	19.047	23.257	12.215	31.192	28.254	38.737
2/9/09 12:00	17.532	5.871		19.829	19.047	23.223	12.157	31.187	28.243	38.744
2/9/09 16:00	17.471	5.864		19.752	19.044	23.198	12.105	31.147	28.231	38.741
2/9/09 20:00	17.454	5.864		19.796	19.042	23.205	12.117	31.147	28.225	38.744
2/10/09 0:00	17.457	5.871		19.759	19.047	23.219	12.133	31.149	28.220	38.744
2/10/09 4:00	17.485	5.890		19.717	19.047	23.262	12.182	31.175	28.218	38.746
2/10/09 8:00	17.535	5.911		19.689	19.049	23.317	12.248	31.218	28.221	38.748
2/10/09 12:00	17.572	5.922		19.659	19.052	23.334	12.274	31.235	28.221	38.751
2/10/09 16:00	17.580	5.920		19.631	19.054	23.325	12.251	31.220	28.219	38.751
2/10/09 20:00	17.584	5.925		19.757	19.054	23.328	12.251	31.223	28.214	38.756
2/11/09 0:00	17.594	5.927		19.834	19.056	23.346	12.267	31.232	28.215	38.758
2/11/09 4:00	17.582	5.925		19.787	19.056	23.349	12.251	31.227	28.215	38.758
2/11/09 8:00	17.603	5.934		19.815	19.056	23.378	12.283	31.306	28.215	38.758
2/11/09 12:00	17.638	5.943		19.838	19.056	23.397	12.328	31.275	28.221	38.758
2/11/09 16:00	17.685	5.960		19.924	19.059	23.451	12.394	31.334	28.223	38.763
2/11/09 20:00	17.745	5.976		20.155	19.066	23.504	12.462	31.358	28.230	38.765
2/12/09 0:00	17.794	5.983		20.244	19.068	23.525	12.495	31.393	28.234	38.767
2/12/09 4:00	17.824	5.986		20.286	19.073	23.544	12.511	31.440	28.236	38.770
2/12/09 8:00	17.860	5.990		20.355	19.080	23.580	12.549	31.440	28.243	38.772
2/12/09 12:00	17.900	5.997		20.383	19.085	23.606	12.584	31.488	28.249	38.774
2/12/09 16:00	17.912	5.990		20.404	19.087	23.602	12.568	31.474	28.251	38.777
2/12/09 20:00	17.924	5.983		20.568	19.092	23.612	12.572	31.497	28.253	38.781
2/13/09 0:00	17.935	5.981		20.551	19.096	23.623	12.582	31.547	28.258	38.781
2/13/09 4:00	17.942	5.976		20.498	19.101	23.615	12.568	31.514	28.261	38.784
2/13/09 8:00	17.940	5.971		20.439	19.108	23.627	12.563	31.557	28.266	38.789
2/13/09 12:00	17.926	5.957		20.453	19.110	23.584	12.509	31.495	28.268	38.789
2/13/09 16:00	17.909	5.953		20.365	19.113	23.606	12.511	31.526	28.274	38.791
2/13/09 20:00	17.935	5.960		20.472	19.120	23.649	12.556	31.552	28.279	38.791
2/14/09 0:00	17.971	5.969		20.474	19.127	23.677	12.603	31.613	28.283	38.798

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
2/14/09 4:00	17.999	5.971		20.442	19.132	23.692	12.626	31.602	28.289	38.800
2/14/09 8:00	18.020	5.976		20.493	19.136	23.709	12.638	31.625	28.294	38.803
2/14/09 12:00	18.041	5.976		20.623	19.143	23.721	12.650	31.684	28.299	38.803
2/14/09 16:00	18.044	5.971		20.721	19.151	23.714	12.636	31.637	28.304	38.805
2/14/09 20:00	18.053	5.971		20.752	19.155	23.731	12.647	31.637	28.309	38.810
2/15/09 0:00	18.070	5.974		20.435	19.160	23.745	12.659	31.642	28.314	38.812
2/15/09 4:00	18.091	5.978		20.230	19.169	23.765	12.683	31.639	28.319	38.814
2/15/09 8:00	18.114	5.985		20.113	19.174	23.791	12.711	31.644	28.326	38.817
2/15/09 12:00	18.140	5.988		20.085	19.184	23.807	12.734	31.647	28.331	38.819
2/15/09 16:00	18.150	5.985		19.992	19.188	23.808	12.723	31.625	28.336	38.821
2/15/09 20:00	18.164	5.985		20.083	19.195	23.818	12.732	31.621	28.341	38.824
2/16/09 0:00	18.173	5.981		20.055	19.202	23.825	12.734	31.708	28.346	38.826
2/16/09 4:00	18.176	5.978		19.952	19.210	23.818	12.716	31.675	28.351	38.831
2/16/09 8:00	18.178	5.976		19.964	19.214	23.835	12.723	31.687	28.357	38.831
2/16/09 12:00	18.183	5.974		19.910	19.221	23.826	12.713	31.684	28.361	38.836
2/16/09 16:00	18.140	5.955		19.831	19.228	23.763	12.617	31.630	28.363	38.838
2/16/09 20:00	18.100	5.943		19.808	19.231	23.749	12.575	31.692	28.369	38.840
2/17/09 0:00	18.074	5.936		19.780	19.235	23.728	12.542	31.599	28.372	38.843
2/17/09 4:00	18.039	5.924		19.778	19.240	23.702	12.490	31.613	28.376	38.845
2/17/09 8:00	18.004	5.917		19.824	19.243	23.677	12.448	31.563	28.380	38.845
2/17/09 12:00	17.964	5.906		19.841	19.245	23.646	12.394	31.545	28.382	38.847
2/17/09 16:00	17.909	5.889		19.820	19.245	23.602	12.316	31.528	28.382	38.850
2/17/09 20:00	17.865	5.882		19.941	19.247	23.581	12.274	31.545	28.382	38.854
2/18/09 0:00	17.836	5.882		20.034	19.250	23.583	12.272	31.535	28.385	38.857
2/18/09 4:00	17.872	5.908		20.081	19.254	23.652	12.359	31.613	28.388	38.859
2/18/09 8:00	17.938	5.938		20.153	19.259	23.719	12.460	31.741	28.392	38.859
2/18/09 12:00	18.008	5.964		20.153	19.266	23.775	12.542	31.871	28.398	38.864
2/18/09 16:00	18.065	5.985		20.153	19.271	23.821	12.598	31.897	28.403	38.866
2/18/09 20:00	18.124	6.002		20.234	19.280	23.866	12.659	31.964	28.407	38.866
2/19/09 0:00	18.173	6.015		20.258	19.287	23.901	12.706	31.988	28.415	38.873
2/19/09 4:00	18.211	6.020		20.218	19.292	23.921	12.732	32.023	28.420	38.873
2/19/09 8:00	18.246	6.027		20.267	19.299	23.952	12.763	32.061	28.425	38.878
2/19/09 12:00	18.275	6.030		20.300	19.304	23.966	12.786	32.137	28.433	38.880
2/19/09 16:00	18.279	6.020		20.311	19.311	23.957	12.763	32.106	28.435	38.883
2/19/09 20:00	18.279	6.013		20.465	19.316	23.955	12.748	32.151	28.440	38.885
2/20/09 0:00	18.275	6.004		20.451	19.323	23.950	12.730	32.215	28.446	38.887
2/20/09 4:00	18.261	5.997		20.460	19.327	23.934	12.701	32.113	28.450	38.890

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
2/20/09 8:00	18.249	5.990		20.449	19.332	23.937	12.683	32.127	28.453	38.892
2/20/09 12:00	18.237	5.983		20.425	19.337	23.923	12.662	32.099	28.457	38.897
2/20/09 16:00	18.202	5.969		20.437	19.339	23.883	12.596	32.118	28.461	38.897
2/20/09 20:00	18.173	5.964		20.586	19.344	23.882	12.577	32.151	28.461	38.899
2/21/09 0:00	18.202	5.980		20.635	19.349	23.950	12.657	32.163	28.463	38.904
2/21/09 4:00	18.261	6.001		20.623	19.358	24.000	12.732	32.217	28.471	38.904
2/21/09 8:00	18.308	6.015		20.740	19.365	24.033	12.784	32.307	28.478	38.909
2/21/09 12:00	18.343	6.027		20.768	19.372	24.054	12.817	32.241	28.478	38.913
2/21/09 16:00	18.367	6.030		20.817	19.377	24.064	12.821	32.269	28.472	38.913
2/21/09 20:00	18.390	6.037		20.952	19.386	24.086	12.847	32.219	28.477	38.916
2/22/09 0:00	18.416	6.041		20.866	19.393	24.107	12.871	32.227	28.481	38.916
2/22/09 4:00	18.440	6.046		20.773	19.401	24.124	12.892	32.276	28.487	38.920
2/22/09 8:00	18.466	6.053		20.598	19.410	24.156	12.927	32.222	28.492	38.925
2/22/09 12:00	18.503	6.057		20.439	19.417	24.172	12.953	32.276	28.499	38.930
2/22/09 16:00	18.515	6.053		20.367	19.424	24.168	12.941	32.210	28.503	38.935
2/22/09 20:00	18.522	6.051		20.544	19.431	24.180	12.941	32.212	28.507	38.935
2/23/09 0:00	18.536	6.053		20.591	19.441	24.194	12.957	32.229	28.514	38.937
2/23/09 4:00	18.548	6.053		20.593	19.448	24.197	12.957	32.203	28.519	38.942
2/23/09 8:00	18.555	6.053		20.696	19.455	24.212	12.962	32.208	28.527	38.944
2/23/09 12:00	18.562	6.046		20.658	19.462	24.192	12.936	32.219	28.531	38.946
2/23/09 16:00	18.529	6.030		20.605	19.469	24.141	12.857	32.137	28.534	38.949
2/23/09 20:00	18.494	6.018		20.658	19.474	24.128	12.819	32.141	28.537	38.953
2/24/09 0:00	18.468	6.011		20.623	19.478	24.116	12.788	32.092	28.539	38.956
2/24/09 4:00	18.444	6.004		20.619	19.483	24.102	12.758	32.080	28.544	38.958
2/24/09 8:00	18.421	5.999		20.623	19.490	24.100	12.739	32.115	28.550	38.960
2/24/09 12:00	18.411	5.999		20.479	19.495	24.098	12.730	32.049	28.554	38.963
2/24/09 16:00	18.393	5.994		20.118	19.500	24.084	12.697	32.016	28.554	38.965
2/24/09 20:00	18.383	5.997		19.983	19.504	24.089	12.699	32.028	28.552	38.970
2/25/09 0:00	18.388	6.004		19.887	19.509	24.101	12.708	32.013	28.555	38.970
2/25/09 4:00	18.397	6.011		19.810	19.514	24.113	12.723	32.028	28.560	38.975
2/25/09 8:00	18.400	6.015		19.857	19.518	24.130	12.730	32.080	28.562	38.977
2/25/09 12:00	18.428	6.027		19.880	19.526	24.163	12.767	32.061	28.568	38.979
2/25/09 16:00	18.442	6.032		19.945	19.530	24.171	12.770	32.051	28.570	38.982
2/25/09 20:00	18.454	6.037		20.048	19.535	24.181	12.779	32.051	28.570	38.986
2/26/09 0:00	18.463	6.039		20.116	19.540	24.190	12.784	32.063	28.574	38.989
2/26/09 4:00	18.454	6.032		20.067	19.544	24.155	12.739	32.009	28.576	38.991
2/26/09 8:00	18.423	6.020		20.083	19.547	24.125	12.683	31.978	28.578	38.993

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
2/26/09 12:00	18.393	6.008		20.013	19.549	24.106	12.640	31.969	28.580	38.998
2/26/09 16:00	18.376	6.006		19.876	19.554	24.128	12.650	31.938	28.579	38.998
2/26/09 20:00	18.426	6.032		19.682	19.561	24.199	12.746	32.002	28.582	39.001
2/27/09 0:00	18.477	6.053		19.417	19.566	24.241	12.819	32.080	28.590	39.003
2/27/09 4:00	18.525	6.069		19.237	19.570	24.275	12.871	32.070	28.595	39.008
2/27/09 8:00	18.557	6.076		19.179	19.577	24.299	12.899	32.082	28.602	39.010
2/27/09 12:00	18.593	6.085		19.072	19.584	24.318	12.934	32.099	28.606	39.012
2/27/09 16:00	18.605	6.083		18.983	19.589	24.328	12.934	32.132	28.612	39.017
2/27/09 20:00	18.621	6.083		19.114	19.596	24.343	12.953	32.120	28.619	39.019
2/28/09 0:00	18.652	6.092		19.207	19.601	24.368	12.990	32.139	28.624	39.022
2/28/09 4:00	18.668	6.090		19.256	19.608	24.374	12.993	32.137	28.632	39.026
2/28/09 8:00	18.685	6.095		19.298	19.615	24.395	13.016	32.153	28.636	39.026
2/28/09 12:00	18.715	6.102		19.375	19.622	24.423	13.056	32.177	28.643	39.029
2/28/09 16:00	18.739	6.102		19.447	19.627	24.438	13.077	32.187	28.651	39.031
2/28/09 20:00	18.760	6.107		19.647	19.632	24.453	13.098	32.196	28.656	39.033
3/1/09 0:00	18.786	6.109		19.722	19.639	24.467	13.115	32.205	28.663	39.033
3/1/09 4:00	18.803	6.109		19.722	19.643	24.472	13.120	32.243	28.669	39.033
3/1/09 8:00	18.817	6.109		19.750	19.651	24.487	13.134	32.205	28.676	39.036
3/1/09 12:00	18.840	6.114		19.775	19.658	24.508	13.159	32.250	28.683	39.036
3/1/09 16:00	18.836	6.104		19.820	19.662	24.483	13.120	32.203	28.688	39.045
3/1/09 20:00	18.814	6.095		20.027	19.667	24.476	13.096	32.186	28.693	39.048
3/2/09 0:00	18.807	6.090		20.057	19.672	24.466	13.084	32.212	28.698	39.052
3/2/09 4:00	18.796	6.083		20.008	19.679	24.453	13.056	32.160	28.703	39.052
3/2/09 8:00	18.796	6.081		19.997	19.684	24.465	13.061	32.191	28.711	39.057
3/2/09 12:00	18.802	6.083		20.011	19.691	24.472	13.073	32.264	28.715	39.059
3/2/09 16:00	18.793	6.078		20.034	19.695	24.454	13.042	32.174	28.720	39.064
3/2/09 20:00	18.781	6.076		20.234	19.700	24.459	13.040	32.196	28.726	39.069
3/3/09 0:00	18.786	6.081		20.276	19.707	24.466	13.049	32.177	28.733	39.069
3/3/09 4:00	18.788	6.076		20.192	19.712	24.459	13.035	32.203	28.738	39.071
3/3/09 8:00	18.784	6.076		20.171	19.719	24.455	13.023	32.184	28.743	39.076
3/3/09 12:00	18.781	6.074		20.134	19.724	24.448	13.012	32.182	28.748	39.078
3/3/09 16:00	18.753	6.062		20.118	19.724	24.418	12.948	32.137	28.753	39.083
3/3/09 20:00	18.736	6.062		20.227	19.731	24.423	12.948	32.137	28.758	39.088
3/4/09 0:00	18.725	6.059		20.209	19.735	24.413	12.934	32.125	28.765	39.088
3/4/09 4:00	18.718	6.057		20.118	19.740	24.409	12.925	32.118	28.768	39.090
3/4/09 8:00	18.718	6.062		20.074	19.745	24.419	12.929	32.122	28.773	39.092
3/4/09 12:00	18.718	6.064		20.008	19.750	24.414	12.922	32.118	28.778	39.095

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
3/4/09 16:00	18.692	6.057		19.999	19.745	24.396	12.880	32.087	28.783	39.099
3/4/09 20:00	18.637	6.050		20.234	19.750	24.368	12.852	32.065	28.785	39.102
3/5/09 0:00	18.501	6.043		20.237	19.752	24.337	12.833	32.039	28.791	39.104
3/5/09 4:00	18.159	6.027		20.185	19.754	24.218	12.781	31.997	28.793	39.111
3/5/09 8:00	17.327	5.994		20.171	19.754	24.070	12.734	31.971	28.798	39.116
3/5/09 12:00	16.309	5.919		20.141	19.757	23.933	12.671	31.947	28.801	39.114
3/5/09 16:00	15.885	5.854		20.202	19.759	23.860	12.659	31.921	28.804	39.116
3/5/09 20:00	15.972	5.828		20.451	19.764	23.894	12.701	31.919	28.801	39.118
3/6/09 0:00	16.182	5.819		20.444	19.768	23.931	12.734	31.921	28.802	39.118
3/6/09 4:00	16.422	5.823		20.295	19.773	23.991	12.800	31.945	28.805	39.123
3/6/09 8:00	16.646	5.828		20.181	19.778	24.041	12.859	31.966	28.807	39.125
3/6/09 12:00	16.846	5.833		20.092	19.783	24.069	12.892	31.976	28.814	39.128
3/6/09 16:00	16.976	5.823		19.987	19.785	24.062	12.866	31.950	28.810	39.130
3/6/09 20:00	17.082	5.816		20.043	19.787	24.070	12.861	31.935	28.806	39.132
3/7/09 0:00	17.164	5.807		19.983	19.790	24.051	12.838	31.912	28.803	39.135
3/7/09 4:00	17.207	5.793		19.913	19.792	24.016	12.781	31.933	28.804	39.137
3/7/09 8:00	17.263	5.793		19.845	19.794	24.050	12.798	31.879	28.804	39.139
3/7/09 12:00	17.334	5.795		19.752	19.797	24.071	12.817	31.926	28.809	39.142
3/7/09 16:00	17.381	5.788		19.771	19.799	24.064	12.800	31.860	28.810	39.144
3/7/09 20:00	17.428	5.786		19.994	19.804	24.070	12.800	31.871	28.810	39.147
3/8/09 0:00	17.322	5.772		20.050	19.787	23.970	12.763	31.819	28.810	39.147
3/8/09 4:00	16.401	5.741		19.980	19.757	23.669	12.701	31.777	28.813	39.149
3/8/09 8:00	15.423	5.594		19.957	19.740	23.578	12.694	31.786	28.813	39.149
3/8/09 12:00	15.187	5.393		19.945	19.740	23.679	12.741	31.746	28.818	39.149
3/8/09 16:00	15.267	5.231		19.990	19.742	23.717	12.753	31.722	28.821	39.151
3/8/09 20:00	15.429	5.131		20.139	19.747	23.751	12.772	31.717	28.824	39.154
3/9/09 0:00	15.604	5.072		20.162	19.750	23.753	12.767	31.698	28.826	39.156
3/9/09 4:00	15.741	5.033		20.136	19.747	23.732	12.727	31.708	28.826	39.158
3/9/09 8:00	15.844	5.019		20.106	19.750	23.723	12.699	31.639	28.829	39.158
3/9/09 12:00	15.927	5.012		20.043	19.745	23.699	12.659	31.620	28.832	39.158
3/9/09 16:00	15.981	5.005		20.046	19.740	23.665	12.608	31.556	28.832	39.161
3/9/09 20:00	16.007	5.002		20.255	19.733	23.606	12.570	31.530	28.835	39.165
3/10/09 0:00	14.979	4.829		20.279	19.698	23.441	12.518	31.507	28.833	39.170
3/10/09 4:00	14.612	4.583		20.204	19.688	23.423	12.462	31.414	28.833	39.175
3/10/09 8:00	14.607	4.438		20.185	19.684	23.430	12.441	31.395	28.834	39.175
3/10/09 12:00	14.729	4.382		20.167	19.679	23.449	12.445	31.443	28.834	39.175
3/10/09 16:00	14.887	4.387		20.248	19.669	23.506	12.495	31.391	28.836	39.172

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
3/10/09 20:00	15.088	4.436		20.484	19.667	23.580	12.575	31.414	28.837	39.177
3/11/09 0:00	15.286	4.506		20.505	19.660	23.631	12.631	31.431	28.842	39.175
3/11/09 4:00	15.444	4.576		20.502	19.655	23.644	12.638	31.431	28.844	39.180
3/11/09 8:00	15.585	4.658		20.547	19.646	23.699	12.685	31.433	28.844	39.177
3/11/09 12:00	15.731	4.735		20.547	19.639	23.736	12.730	31.457	28.850	39.180
3/11/09 16:00	15.828	4.794		20.586	19.632	23.723	12.701	31.459	28.850	39.180
3/11/09 20:00	15.884	4.840		20.658	19.622	23.707	12.673	31.402	28.850	39.182
3/12/09 0:00	15.924	4.883		20.635	19.613	23.692	12.645	31.391	28.853	39.184
3/12/09 4:00	15.955	4.920		20.353	19.601	23.681	12.622	31.357	28.853	39.180
3/12/09 8:00	15.967	4.955		19.817	19.592	23.653	12.582	31.338	28.855	39.187
3/12/09 12:00	15.976	4.990		19.186	19.580	23.634	12.546	31.300	28.857	39.187
3/12/09 16:00	15.957	5.014		18.860	19.566	23.590	12.483	31.267	28.856	39.187
3/12/09 20:00	15.946	5.039		18.718	19.554	23.562	12.443	31.269	28.854	39.187
3/13/09 0:00	15.948	5.067		18.436	19.537	23.543	12.415	31.208	28.857	39.189
3/13/09 4:00	15.946	5.093		18.296	19.526	23.522	12.382	31.243	28.857	39.189
3/13/09 8:00	15.948	5.116		18.193	19.507	23.514	12.361	31.151	28.855	39.189
3/13/09 12:00	15.955	5.140		18.112	19.492	23.494	12.337	31.144	28.857	39.189
3/13/09 16:00	15.929	5.145		18.068	19.476	23.448	12.272	31.068	28.856	39.191
3/13/09 20:00	15.920	5.156		18.238	19.457	23.434	12.246	31.056	28.854	39.189
3/14/09 0:00	15.917	5.168		18.196	19.438	23.413	12.220	31.061	28.854	39.189
3/14/09 4:00	15.915	5.175		18.191	19.422	23.390	12.187	30.990	28.852	39.189
3/14/09 8:00	15.905	5.184		18.226	19.401	23.369	12.154	30.978	28.852	39.194
3/14/09 12:00	15.905	5.198		18.175	19.382	23.352	12.128	30.924	28.852	39.194
3/14/09 16:00	15.882	5.201		18.184	19.653	23.313	12.074	30.890	28.849	39.194
3/14/09 20:00	15.868	5.210		18.361	19.617	23.295	12.048	30.895	28.846	39.194
3/15/09 0:00	15.877	5.224		18.294	19.582	23.285	12.039	30.836	28.842	39.194
3/15/09 4:00	15.879	5.236		18.149	19.549	23.269	12.013	30.819	28.840	39.194
3/15/09 8:00	15.884	5.247		18.119	19.516	23.265	12.004	30.853	28.838	39.194
3/15/09 12:00	15.901	5.264		18.093	19.483	23.267	12.001	NA	28.836	39.196
3/15/09 16:00	15.898	5.271		18.109	19.452	23.246	11.971		28.834	39.194
3/15/09 20:00	15.908	5.283		18.259	19.422	23.250	11.969		28.830	39.194
3/16/09 0:00	15.934	5.299		18.289	19.393	23.268	11.983		28.827	39.194
3/16/09 4:00	15.957	5.313		18.312	19.363	23.269	11.978		28.825	39.194
3/16/09 8:00	15.983	5.329		18.401	19.332	23.293	11.992		28.824	39.196
3/16/09 12:00	16.011	5.341		18.440	19.304	23.300	11.997		28.821	39.194
3/16/09 16:00	16.011	5.344		18.478	19.275	23.269	11.962		28.814	39.194
3/16/09 20:00	16.016	5.353		18.545	19.245	23.263	11.952		28.808	39.196

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
3/17/09 0:00	16.028	5.362		18.499	19.219	23.265	11.947		28.803	39.194
3/17/09 4:00	16.033	5.369		18.459	19.188	23.254	11.929		28.799	39.196
3/17/09 8:00	16.037	5.379		18.401	19.160	23.252	11.922		28.797	39.196
3/17/09 12:00	16.042	5.383		18.335	19.134	23.247	11.908		28.793	39.194
3/17/09 16:00	16.019	5.383		18.328	19.106	23.210	11.858		28.786	39.194
3/17/09 20:00	16.023	5.393		18.527	19.075	23.222	11.868		28.784	39.194
3/18/09 0:00	16.052	5.409		18.589	19.051	23.234	11.884		28.780	39.194
3/18/09 4:00	16.080	5.423		18.541	19.023	23.258	11.900		28.777	39.196
3/18/09 8:00	16.108	5.435		18.573	18.997	23.282	11.917		28.775	39.194
3/18/09 12:00	16.146	5.446		18.669	18.974	23.291	11.931		28.771	39.196
3/18/09 16:00	16.172	5.458		18.762	18.950	23.311	11.936		28.771	39.196
3/18/09 20:00	16.198	5.470		19.016	18.924	23.338	11.957		28.767	39.194
3/19/09 0:00	16.228	5.479		19.013	18.900	23.354	11.969		28.765	39.194
3/19/09 4:00	16.252	5.489		18.909	18.877	23.364	11.971		28.763	39.196
3/19/09 8:00	16.285	5.500		18.748	18.853	23.393	11.997		28.763	39.194
3/19/09 12:00	16.308	5.507		18.592	18.832	23.397	12.002		28.762	39.194
3/19/09 16:00	16.301	5.505		18.503	18.806	23.358	11.943		28.757	39.194
3/19/09 20:00	16.290	5.507		18.450	18.783	23.342	11.917		28.755	39.194
3/20/09 0:00	16.294	5.514		18.408	18.759	23.337	11.905		28.751	39.194
3/20/09 4:00	16.292	5.519		18.335	18.738	23.325	11.886		28.749	39.194
3/20/09 8:00	16.287	5.524		18.296	18.717	23.317	11.870		28.746	39.194
3/20/09 12:00	16.278	5.524		18.289	18.693	23.293	11.842		28.747	39.194
3/20/09 16:00	16.250	5.521		18.296	18.669	23.253	11.795		28.740	39.194
3/20/09 20:00	16.226	5.521		18.524	18.646	23.242	11.774		28.735	39.194
3/21/09 0:00	16.228	5.531		18.515	18.625	23.237	11.767		28.731	39.194
3/21/09 4:00	16.231	5.535		18.496	18.601	23.233	11.760		28.729	39.191
3/21/09 8:00	16.250	5.549		18.487	18.582	23.262	11.785		28.727	39.194
3/21/09 12:00	16.266	5.556		18.431	18.561	23.264	11.783		28.725	39.191
3/21/09 16:00	16.254	5.556		18.373	18.537	23.234	11.745		28.721	39.191
3/21/09 20:00	16.250	5.563		18.405	18.516	23.235	11.743		28.714	39.191
3/22/09 0:00	16.261	5.571		18.326	18.497	23.237	11.741		28.712	39.191
3/22/09 4:00	16.261	5.575		18.198	18.476	23.223	11.724		28.708	39.189
3/22/09 8:00	16.254	5.578		18.168	18.457	23.217	11.713		28.706	39.189
3/22/09 12:00	16.238	5.575		18.096	18.436	23.186	11.675		28.703	39.189
3/22/09 16:00	16.195	5.566		18.112	18.415	23.134	11.607		28.697	39.189
3/22/09 20:00	16.167	5.566		18.317	18.393	23.121	11.590		28.690	39.189
3/23/09 0:00	16.153	5.566		18.368	18.375	23.092	11.562		28.685	39.187

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
3/23/09 4:00	16.125	5.568		18.268	18.353	23.064	11.525		28.681	39.187
3/23/09 8:00	16.089	5.564		18.259	18.330	23.027	11.482		28.677	39.187
3/23/09 12:00	16.061	5.568		18.289	18.306	23.004	11.459		28.675	39.184
3/23/09 16:00	16.023	5.564		18.424	18.285	22.957	11.412		28.665	39.184
3/23/09 20:00	16.009	5.573		18.645	18.268	22.960	11.414		28.662	39.182
3/24/09 0:00	14.333	5.098		18.678	18.094	22.169	11.083		28.659	39.175
3/24/09 4:00	10.996	3.493		18.596	17.990	21.375	10.721		28.650	39.170
3/24/09 8:00	8.818	2.820		18.541	17.941	21.060	10.451		28.642	39.161
3/24/09 12:00	8.662	2.780		18.473	17.919	21.029	10.270		28.630	39.163
3/24/09 16:00	9.029	2.960		18.247	17.903	21.006	10.120		28.618	39.161
3/24/09 20:00	9.455	3.189		18.096	17.886	20.999	10.012		28.607	39.158
3/25/09 0:00	9.842	3.400		17.937	17.870	20.959	9.911		28.596	39.154
3/25/09 4:00	10.179	3.582		17.865	17.851	20.903	9.817		28.584	39.147
3/25/09 8:00	10.483	3.743		17.879	17.830	20.875	9.725		28.573	39.149
3/25/09 12:00	10.761	3.886		17.839	17.809	20.844	9.655		28.564	39.142
3/25/09 16:00	10.945	4.008		17.867	17.787	20.739	9.554		28.547	39.139
3/25/09 20:00	11.136	4.134		17.991	17.761	20.732	9.497		28.536	39.135
3/26/09 0:00	11.294	4.237		17.991	17.733	20.661	9.439		28.523	39.130
3/26/09 4:00	11.404	4.321		17.984	17.702	20.586	9.364		28.511	39.125
3/26/09 8:00	11.529	4.405		18.040	17.674	20.582	9.333		28.497	39.123
3/26/09 12:00	11.647	4.478		18.068	17.641	20.565	9.312		28.484	39.116
3/26/09 16:00	11.718	4.534		18.203	17.608	20.488	9.232		28.472	39.114
3/26/09 20:00	11.826	4.609		18.524	17.575	20.524	9.239		28.456	39.109
3/27/09 0:00	11.937	4.677		18.634	17.542	20.540	9.239		28.445	39.104
3/27/09 4:00	12.008	4.728		18.615	17.507	20.496	9.192		28.431	39.099
3/27/09 8:00	12.069	4.773		18.578	17.474	20.471	9.161		28.419	39.097
3/27/09 12:00	12.119	4.813		18.494	17.436	20.435	9.119		28.401	39.085
3/27/09 16:00	12.121	4.838		18.503	17.401	20.320	9.027		28.387	39.081
3/27/09 20:00	12.140	4.864		18.748	17.360	20.264	8.983		28.368	39.074
3/28/09 0:00	12.164	4.892		18.818	17.323	20.193	8.926		28.354	39.066
3/28/09 4:00	12.161	4.906		18.722	17.283	20.090	8.847		28.337	39.062
3/28/09 8:00	12.168	4.925		18.734	17.243	20.020	8.797		28.318	39.057
3/28/09 12:00	12.171	4.939		18.706	17.200	19.942	8.741		28.301	39.050
3/28/09 16:00	12.173	4.943		18.729	17.158	19.867	8.684		28.284	39.043
3/28/09 20:00	12.213	4.950		18.843	17.115	19.870	8.692		28.265	39.036
3/29/09 0:00	12.258	4.953		18.839	17.070	19.862	8.694		28.248	39.029
3/29/09 4:00	12.305	4.960		18.683	17.030	19.863	8.701		28.233	39.024

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
3/29/09 8:00	12.359	4.978		18.534	16.990	19.887	8.720		28.217	39.017
3/29/09 12:00	12.399	4.990		18.252	16.945	19.875	8.715		28.198	39.008
3/29/09 16:00	12.395	4.967		18.086	16.898	19.800	8.661		28.180	39.001
3/29/09 20:00	12.399	4.943		18.112	16.858	19.744	8.628		28.164	38.993
3/30/09 0:00	12.418	4.934		18.058	16.820	19.720	8.609		28.145	38.986
3/30/09 4:00	12.411	4.922		17.963	16.780	19.638	8.555		28.126	38.977
3/30/09 8:00	12.390	4.906		17.900	16.738	19.552	8.497		28.108	38.972
3/30/09 12:00	12.378	4.901		17.828	16.700	19.473	8.457		28.087	38.965
3/30/09 16:00	12.347	4.897		17.872	16.658	19.373	8.391		28.069	38.958
3/30/09 20:00	12.357	4.918		18.135	16.618	19.345	8.381		28.046	38.949
3/31/09 0:00	12.220	4.885		18.219	16.559	19.206	8.370		28.025	38.939
3/31/09 4:00	11.900	4.611		18.163	16.519	19.187	8.342		28.004	38.930
3/31/09 8:00	11.933	4.447		18.154	16.483	19.204	8.344		27.986	38.925
3/31/09 12:00	11.999	4.382		18.172	16.448	19.211	8.344		27.967	38.916
3/31/09 16:00	12.060	4.370		18.235	16.410	19.207	8.346		27.939	38.906
3/31/09 20:00	12.126	4.394		18.312	16.372	19.231	8.365		27.921	38.899
4/1/09 0:00	12.194	4.438		18.345	16.342	19.262	8.389		27.900	38.887
4/1/09 4:00	12.241	4.482		18.368	16.306	19.262	8.389		27.882	38.883
4/1/09 8:00	12.281	4.534		18.384	16.271	19.277	8.396		27.861	38.876
4/1/09 12:00	12.324	4.578		18.326	16.240	19.277	8.400		27.838	38.866
4/1/09 16:00	12.307	4.599		18.254	16.202	19.183	8.318		27.815	38.857
4/1/09 20:00	12.326	4.639		18.198	16.169	19.179	8.313		27.791	38.850
4/2/09 0:00	12.343	4.674		18.126	16.134	19.153	8.302		27.769	38.840
4/2/09 4:00	12.362	4.709		18.026	16.099	19.156	8.302		27.748	38.831
4/2/09 8:00	12.383	4.728		17.977	16.056	19.090	8.309		27.726	38.819
4/2/09 12:00	12.390	4.693		17.893	16.016	19.059	8.290		27.706	38.810
4/2/09 16:00	12.003	4.564		17.916	15.964	18.881	8.245		27.685	38.798
4/2/09 20:00	11.459	4.164		18.096	15.924	18.895	8.252		27.662	38.789
4/3/09 0:00	11.492	3.961		18.149	15.889	18.902	8.250		27.642	38.781
4/3/09 4:00	11.565	3.900		18.061	15.856	18.879	8.229		27.621	38.774
4/3/09 8:00	11.666	3.926		18.002	15.823	18.910	8.252		27.599	38.763
4/3/09 12:00	11.751	3.975		17.930	15.792	18.924	8.257		27.582	38.756
4/3/09 16:00	11.775	4.024		17.967	15.757	18.845	8.201		27.558	38.746
4/3/09 20:00	11.807	4.101		18.156	15.726	18.841	8.203		27.537	38.734
4/4/09 0:00	11.859	4.190		18.221	15.695	18.857	8.215		27.516	38.727
4/4/09 4:00	11.881	4.269		18.130	15.667	18.841	8.201		27.496	38.720
4/4/09 8:00	11.873	4.335		18.093	15.636	18.775	8.163		27.472	38.711

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
4/4/09 12:00	11.836	4.379		18.049	15.603	18.662	8.088		27.451	38.701
4/4/09 16:00	11.784	4.426		18.089	15.573	18.559	8.031		27.429	38.690
4/4/09 20:00	11.760	4.468		18.312	15.528	18.519	8.017		27.408	38.678
4/5/09 0:00	11.770	4.459		18.315	15.495	18.512	8.017		27.384	38.668
4/5/09 4:00	11.784	4.452		18.256	15.464	18.512	8.020		27.362	38.659
4/5/09 8:00	11.815	4.459		18.210	15.436	18.553	8.048		27.338	38.650
4/5/09 12:00	11.852	4.454		18.165	15.405	18.626	8.149		27.320	38.635
4/5/09 16:00	11.723	4.307		18.280	15.370	18.697	8.215		27.300	38.624
4/5/09 20:00	11.725	4.185		18.548	15.344	18.821	8.285		27.281	38.609
4/6/09 0:00	11.758	4.131		18.589	15.318	18.844	8.290		27.262	38.609
4/6/09 4:00	11.763	4.127		18.582	15.292	18.819	8.262		27.242	38.600
4/6/09 8:00	11.793	4.171		18.631	15.264	18.850	8.273		27.225	38.588
4/6/09 12:00	11.819	4.225		18.578	15.238	18.833	8.259		27.204	38.579
4/6/09 16:00	11.815	4.260		18.499	15.212	18.779	8.219		27.183	38.569
4/6/09 20:00	11.831	4.318		18.501	15.184	18.778	8.212		27.163	38.562
4/7/09 0:00	11.836	4.377		18.534	15.158	18.749	8.193		27.144	38.551
4/7/09 4:00	11.824	4.438		18.433	15.132	18.705	8.158		27.123	38.541
4/7/09 8:00	11.817	4.496		18.412	15.104	18.672	8.139		27.103	38.532
4/7/09 12:00	11.786	4.531		18.289	15.075	18.582	8.083		27.082	38.522
4/7/09 16:00	11.723	4.543		18.226	15.047	18.456	8.001		27.059	38.513
4/7/09 20:00	11.683	4.566		18.319	15.016	18.367	7.954		27.039	38.503
4/8/09 0:00	11.673	4.599		18.303	14.990	18.333	7.935		27.017	38.492
4/8/09 4:00	11.680	4.632		18.198	14.962	18.329	7.937		26.994	38.485
4/8/09 8:00	11.723	4.672		18.214	14.938	18.387	7.980		26.974	38.473
4/8/09 12:00	11.758	4.704		18.154	14.910	18.403	7.991		26.955	38.463
4/8/09 16:00	11.746	4.730		18.205	14.882	18.330	7.940		26.929	38.454
4/8/09 20:00	11.746	4.761		18.333	14.853	18.298	7.930		26.906	38.445
4/9/09 0:00	11.774	4.791		18.303	14.827	18.321	7.949		26.886	38.433
4/9/09 4:00	11.767	4.812		18.207	14.799	18.263	7.912		26.862	38.423
4/9/09 8:00	11.779	4.831		18.186	14.773	18.266	7.919		26.843	38.414
4/9/09 12:00	11.784	4.847		18.112	14.747	18.221	7.893		26.819	38.405
4/9/09 16:00	11.755	4.854		18.175	14.719	18.134	7.848		26.795	38.393
4/9/09 20:00	11.760	4.871		18.389	14.693	18.132	7.851		26.776	38.383
4/10/09 0:00	11.600	4.772		18.466	14.625	17.882	7.858		26.754	38.372
4/10/09 4:00	11.232	4.389		18.370	14.594	17.939	7.867		26.731	38.357
4/10/09 8:00	11.044	4.038		18.366	14.542	17.857	7.926		26.712	38.343
4/10/09 12:00	10.692	3.738		18.287	14.516	17.984	7.956		26.689	38.339

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
4/10/09 16:00	10.765	3.661		18.370	14.493	18.015	7.935		26.671	38.329
4/10/09 20:00	10.923	3.734		18.631	14.469	18.085	7.966		26.649	38.317
4/11/09 0:00	11.053	3.843		18.706	14.448	18.115	7.963		26.629	38.306
4/11/09 4:00	11.154	3.951		18.636	14.424	18.139	7.966		26.608	38.296
4/11/09 8:00	11.244	4.061		18.634	14.401	18.168	7.973		26.590	38.287
4/11/09 12:00	11.303	4.155		18.601	14.377	18.172	7.961		26.568	38.277
4/11/09 16:00	11.291	4.232		18.608	14.351	18.076	7.881		26.546	38.268
4/11/09 20:00	11.291	4.311		18.827	14.330	18.030	7.846		26.520	38.256
4/12/09 0:00	11.301	4.386		18.878	14.304	18.006	7.825		26.497	38.247
4/12/09 4:00	11.317	4.449		18.792	14.280	18.002	7.818		26.474	38.237
4/12/09 8:00	11.315	4.503		18.757	14.257	17.958	7.787		26.453	38.228
4/12/09 12:00	11.310	4.548		18.727	14.233	17.908	7.757		26.430	38.218
4/12/09 16:00	11.296	4.587		18.778	14.210	17.854	7.721		26.410	38.207
4/12/09 20:00	11.289	4.615		18.955	14.186	17.822	7.703		26.386	38.197
4/13/09 0:00	11.258	4.606		18.918	14.153	17.621	7.644		26.363	38.185
4/13/09 4:00	11.169	4.470		18.790	14.115	17.447	7.578		26.338	38.174
4/13/09 8:00	10.853	4.171		18.757	14.075	17.332	7.540		26.314	38.162
4/13/09 12:00	10.553	3.888		18.629	14.040	17.256	7.517		26.293	38.153
4/13/09 16:00	10.431	3.675		18.438	14.007	17.245	7.517		26.270	38.141
4/13/09 20:00	10.464	3.598		18.445	13.969	17.281	7.529		26.247	38.129
4/14/09 0:00	10.553	3.605		18.422	13.917	17.321	7.545		26.224	38.120
4/14/09 4:00	10.629	3.659		18.380	13.830	17.336	7.545		26.200	38.110
4/14/09 8:00	10.721	3.743		18.382	13.745	17.398	7.573		26.180	38.098
4/14/09 12:00	10.782	3.822		18.373	13.672	17.407	7.573		26.157	38.087
4/14/09 16:00	10.803	3.909		18.454	13.599	17.384	7.545		26.131	38.075
4/14/09 20:00	10.824	4.012		18.547	13.521	17.377	7.550		26.109	38.063
4/15/09 0:00	10.871	4.110		18.438	13.438	17.417	7.573		26.083	38.054
4/15/09 4:00	10.909	4.197		17.394	13.358	17.441	7.585		26.059	38.039
4/15/09 8:00	10.961	4.276		16.786	13.264	17.489	7.606		26.039	38.032
4/15/09 12:00	10.994	4.342		16.313	13.167	17.489	7.602		26.018	38.021
4/15/09 16:00	10.989	4.398		15.985	13.068	17.442	7.557		25.992	38.009
4/15/09 20:00	11.001	4.459		15.789	12.962	17.422	7.543		25.964	37.999
4/16/09 0:00	11.039	4.520		15.649	12.863	17.461	7.564		25.939	37.988
4/16/09 4:00	11.076	4.571		15.488	12.766	17.478	7.571		25.916	37.978
4/16/09 8:00	11.121	4.615		15.416	12.670	17.526	7.594		25.893	37.966
4/16/09 12:00	11.149	4.651		15.365	12.582	17.519	7.562		25.872	37.957
4/16/09 16:00	11.135	4.681		15.425	12.469	17.451	7.505		25.847	37.945

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
4/16/09 20:00	11.154	4.721		15.700	12.346	17.449	7.503		25.823	37.933
4/17/09 0:00	11.180	4.754		15.803	12.247	17.456	7.503		25.798	37.922
4/17/09 4:00	11.206	4.779		15.768	12.148	17.476	7.512		25.775	37.912
4/17/09 8:00	11.227	4.800		15.857	12.047	17.469	7.508		25.754	37.900
4/17/09 12:00	11.227	4.817		15.880	11.953	17.426	7.477		25.731	37.891
4/17/09 16:00	11.194	4.831		15.996	11.853	17.335	7.425		25.706	37.879
4/17/09 20:00	11.197	4.857		16.159	11.761	17.317	7.418		25.682	37.870
4/18/09 0:00	11.197	4.873		16.250	11.669	17.283	7.395		25.660	37.858
4/18/09 4:00	11.185	4.882		16.281	11.561	17.232	7.367		25.634	37.846
4/18/09 8:00	11.197	4.889		16.346	11.462	17.226	7.360		25.610	37.835
4/18/09 12:00	10.824	4.518		16.292	11.302	16.994	7.313		25.587	37.823
4/18/09 16:00	10.820	4.272		16.306	11.184	16.990	7.294		25.562	37.811
4/18/09 20:00	10.862	4.192		16.409	11.059	16.981	7.284		25.536	37.799
4/19/09 0:00	10.921	4.192		16.395	10.955	16.976	7.277		25.511	37.790
4/19/09 4:00	10.947	4.213		16.355	10.842	16.951	7.256		25.488	37.776
4/19/09 8:00	11.008	4.260		16.278	10.736	17.010	7.294		25.465	37.766
4/19/09 12:00	11.060	4.309		16.185	10.648	17.020	7.301		25.441	37.757
4/19/09 16:00	11.074	4.358		16.194	10.556	16.985	7.270		25.419	37.743
4/19/09 20:00	11.112	4.426		16.369	10.471	17.021	7.299		25.395	37.731
4/20/09 0:00	11.145	4.487		16.469	10.408	17.018	7.301		25.372	37.721
4/20/09 4:00	11.145	4.534		16.425	10.327	16.986	7.277		25.349	37.710
4/20/09 8:00	11.166	4.578		16.448	10.243	16.993	7.284		25.326	37.698
4/20/09 12:00	11.182	4.621		16.500	10.162	16.981	7.275		25.300	37.686
4/20/09 16:00	11.190	4.665		16.572	10.082	16.961	7.256		25.279	37.674
4/20/09 20:00	11.213	4.716		16.837	10.011	16.983	7.282		25.257	37.663
4/21/09 0:00	11.241	4.763		16.917	9.957	16.996	7.294		25.233	37.653
4/21/09 4:00	11.253	4.798		16.842	9.901	16.988	7.289		25.210	37.641
4/21/09 8:00	11.286	4.833		16.819	9.856	17.031	7.317		25.187	37.632
4/21/09 12:00	11.296	4.861		16.781	9.818	17.016	7.308		25.164	37.618
4/21/09 16:00	11.284	4.885		16.882	9.752	16.963	7.273		25.143	37.606
4/21/09 20:00	11.281	4.911		17.066	9.660	16.940	7.266		25.120	37.594
4/22/09 0:00	11.305	4.939		17.115	9.601	16.956	7.284		25.097	37.585
4/22/09 4:00	11.312	4.955		17.007	9.563	16.947	7.282		25.073	37.575
4/22/09 8:00	11.340	4.978		16.979	9.542	16.992	7.313		25.053	37.564
4/22/09 12:00	11.350	4.995		16.912	9.521	16.985	7.308		25.030	37.552
4/22/09 16:00	11.340	5.009		16.970	9.483	16.943	7.282		25.006	37.538
4/22/09 20:00	11.345	5.030		17.152	9.448	16.925	7.287		24.984	37.528

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
4/23/09 0:00	11.362	5.049		17.196	9.422	16.932	7.294		24.960	37.517
4/23/09 4:00	11.357	5.058		17.131	9.389	16.909	7.282		24.939	37.505
4/23/09 8:00	11.366	5.070		17.138	9.360	16.919	7.299		24.916	37.493
4/23/09 12:00	11.369	5.079		17.091	9.316	16.902	7.294		24.896	37.484
4/23/09 16:00	11.359	5.089		17.224	9.268	16.874	7.270		24.872	37.472
4/23/09 20:00	11.371	5.102		17.408	9.226	16.873	7.284		24.849	37.460
4/24/09 0:00	11.388	5.114		17.434	9.209	16.886	7.299		24.829	37.451
4/24/09 4:00	11.392	5.126		17.362	9.188	16.887	7.306		24.805	37.436
4/24/09 8:00	11.406	5.135		17.397	9.158	16.909	7.324		24.786	37.425
4/24/09 12:00	11.430	5.149		17.329	9.141	16.937	7.343		24.764	37.415
4/24/09 16:00	11.432	5.161		17.415	9.117	16.921	7.327		24.743	37.403
4/24/09 20:00	11.463	5.180		17.494	9.091	16.964	7.376		24.719	37.392
4/25/09 0:00	11.505	5.201		17.536	9.096	17.023	7.418		24.699	37.382
4/25/09 4:00	11.512	5.213		17.441	9.099	17.014	7.416		24.681	37.370
4/25/09 8:00	11.560	5.229		17.390	9.091	17.109	7.475		24.659	37.359
4/25/09 12:00	11.604	5.241		17.341	9.099	17.160	7.508		24.641	37.349
4/25/09 16:00	11.614	5.245		17.506	9.073	17.156	7.505		24.623	37.340
4/25/09 20:00	11.611	5.248		17.739	9.037	17.140	7.494		24.602	37.326
4/26/09 0:00	11.604	5.248		17.774	9.028	17.112	7.477		24.583	37.319
4/26/09 4:00	11.597	5.245		17.620	9.009	17.101	7.470		24.565	37.305
4/26/09 8:00	11.595	5.243		17.599	8.964	17.101	7.477		24.544	37.295
4/26/09 12:00	11.602	5.243		17.592	8.952	17.106	7.482		24.523	37.286
4/26/09 16:00	11.578	5.241		17.576	8.950	17.054	7.449		24.505	37.274
4/26/09 20:00	11.468	5.168		NA	8.950	17.038	7.216		24.487	37.260
4/27/09 0:00	7.171	3.524			8.544	15.491	6.220		24.465	37.239
4/27/09 4:00	6.042	2.892			8.092	15.072	5.722		24.438	37.222
4/27/09 8:00	6.032	2.632			7.622	14.858	5.283		24.408	37.203
4/27/09 12:00	6.107	2.623			7.179	14.862	4.928		24.373	37.184
4/27/09 16:00	6.322	2.719			6.910	14.867	4.562		24.338	37.166
4/27/09 20:00	6.588	2.852			6.825	14.887	4.348		24.303	37.163
4/28/09 0:00	6.845	2.986			6.820	14.884	4.254		24.268	37.149
4/28/09 4:00	7.064	3.088			6.829	14.842	4.191		24.235	37.135
4/28/09 8:00	7.262	3.168			6.837	14.807	4.163		24.196	37.123
4/28/09 12:00	7.443	3.234			6.841	14.760	4.141		24.161	37.109
4/28/09 16:00	7.568	3.311			6.820	14.652	4.090		24.126	37.097
4/28/09 20:00	7.698	3.418			6.825	14.587	4.078		24.087	37.083
4/29/09 0:00	7.835	3.519			6.841	14.556	4.085		24.052	37.067

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
4/29/09 4:00	7.917	3.568			6.825	14.455	4.050		24.014	37.052
4/29/09 8:00	8.026	3.589			6.841	14.430	4.066		23.978	37.038
4/29/09 12:00	8.103	3.575			6.834	14.354	4.052		23.940	37.022
4/29/09 16:00	8.151	3.475			6.813	14.236	4.019		23.903	37.010
4/29/09 20:00	8.217	3.311			6.820	14.188	4.022		23.866	36.991
4/30/09 0:00	8.292	3.236			6.839	14.157	4.029		23.829	36.977
4/30/09 4:00	8.360	3.201			6.851	14.131	4.040		23.789	36.961
4/30/09 8:00	8.478	3.187			6.893	14.174	4.099		23.754	36.944
4/30/09 12:00	8.549	3.100			6.905	14.134	4.111		23.717	36.928
4/30/09 16:00	8.610	3.077			6.910	14.120	4.134		23.680	36.911
4/30/09 20:00	8.714	3.124			6.933	14.156	4.191		23.645	36.895
5/1/09 0:00	8.804	3.189			6.954	14.162	4.226		23.610	36.878
5/1/09 4:00	8.898	3.248			6.966	14.192	4.275		23.575	36.862
5/1/09 8:00	8.999	3.315			6.980	14.223	4.329		23.538	36.845
5/1/09 12:00	9.075	3.388			6.987	14.219	4.362		23.506	36.831
5/1/09 16:00	9.117	3.477			6.983	14.179	4.372		23.468	36.812
5/1/09 20:00	9.145	3.587			6.971	14.139	4.381		23.433	36.796
5/2/09 0:00	9.200	3.697			6.978	14.152	4.419		23.399	36.782
5/2/09 4:00	9.230	3.776			6.980	14.121	4.428		23.366	36.763
5/2/09 8:00	9.256	3.816			6.985	14.107	4.449		23.331	36.746
5/2/09 12:00	9.289	3.842			6.997	14.087	4.461		23.296	36.732
5/2/09 16:00	9.287	3.896			6.980	14.027	4.459		23.262	36.713
5/2/09 20:00	9.299	3.971			6.980	13.997	4.473		23.226	36.697
5/3/09 0:00	9.353	4.055			6.999	14.033	4.517		23.191	36.680
5/3/09 4:00	9.395	4.125			7.009	14.045	4.550		23.159	36.664
5/3/09 8:00	9.450	4.181			7.025	14.071	4.592		23.126	36.647
5/3/09 12:00	9.490	4.221			7.028	14.065	4.611		23.094	36.631
5/3/09 16:00	9.518	4.270			7.032	14.039	4.621		23.059	36.614
5/3/09 20:00	9.549	4.322			7.032	14.039	4.651		23.027	36.598
5/4/09 0:00	9.603	4.373			7.049	14.075	4.698		22.994	36.581
5/4/09 4:00	9.648	4.418			7.049	14.094	4.733		22.964	36.565
5/4/09 8:00	9.699	4.457			7.063	14.130	4.773		22.931	36.548
5/4/09 12:00	9.728	4.488			7.058	14.116	4.790		22.899	36.532
5/4/09 16:00	9.728	4.513			7.046	14.066	4.780		22.869	36.515
5/4/09 20:00	9.747	4.544			7.054	14.069	4.809		22.839	36.499
5/5/09 0:00	9.777	4.572			7.061	14.089	4.839		22.808	36.482
5/5/09 4:00	9.796	4.593			7.056	14.079	4.855		22.775	36.468

TABLE S1.1 (Cont.)

Date and Time	Water Level (ft below reference point)									
	McPike	Potter	Hughes	Barr	Burks	MoDOT	Clizer "old"	Morgan	SB24	SB38
5/5/09 8:00	9.824	4.614			7.065	14.108	4.891		22.748	36.452
5/5/09 12:00	9.836	4.626			7.056	14.078	4.895		22.715	36.435
5/5/09 16:00	9.827	4.640			7.046	14.040	4.893		22.685	36.419
5/5/09 20:00	9.834	4.656			7.049	14.036	4.910		22.655	36.402
5/6/09 0:00	9.867	4.677			7.068	14.062	4.942		22.625	36.386
5/6/09 4:00	9.865	4.687			7.063	14.041	4.949		22.597	36.372
5/6/09 8:00	9.895	4.701			7.079	14.077	4.985		22.567	36.353
5/6/09 12:00	9.916	4.708			7.077	14.099	5.018		22.537	36.339
5/6/09 16:00	9.928	4.712			7.079	14.075	5.018		22.509	36.322
5/6/09 20:00	9.961	4.724			7.075	14.104	5.058		22.479	36.306
5/7/09 0:00	10.011	4.740			7.091	14.142	5.100		22.453	36.292
5/7/09 4:00	10.041	4.747			7.094	14.158	5.126		22.425	36.273
5/7/09 8:00	10.077	4.759			7.098	14.190	5.166		22.399	36.259
5/7/09 12:00	10.077	4.761			7.087	14.171	5.168		22.370	36.245
5/7/09 16:00	10.067	4.771			7.077	14.121	5.161		22.342	36.228
5/7/09 20:00	10.070	4.789			7.065	14.066	5.187		22.316	36.212
5/8/09 0:00	10.124	4.803			7.091	14.087	5.238		22.291	36.197
5/8/09 4:00	10.140	4.804			7.087	14.059	5.255		22.263	36.181
5/8/09 8:00	10.150	4.797			7.075	14.038	5.276		22.237	36.164
5/8/09 12:00	10.173	4.773			7.087	14.058	5.309			

^a NA, data from indicated date and time until next reported value are missing because of logger electrical malfunction.

TABLE S1.2 Summary of daily rainfall events at St. Joseph, Missouri, April 30, 2008, to May 8, 2009.

Date	Rainfall (in.)	Date	Rainfall (in.)	Date	Rainfall (in.)
4/30/2008	0.00	7/30/2008	0.02	12/23/2008	0.06
5/1/2008	0.02	8/14/2008	0.05	12/25/2008	0.06
5/2/2008	0.77	8/21/2008	0.04	12/27/2008	0.25
5/3/2008	0.01	8/23/2008	0.89	12/28/2008	0.69
5/6/2008	0.03	9/2/2008	1.18	1/28/2009	0.01
5/9/2008	0.72	9/3/2008	0.42	2/9/2009	0.14
5/10/2008	0.79	9/4/2008	0.21	2/10/2009	0.10
5/11/2008	0.01	9/5/2008	0.01	2/11/2009	0.22
5/22/2008	0.67	9/6/2008	0.26	2/14/2009	0.01
5/24/2008	0.48	9/7/2008	0.02	2/26/2009	0.02
5/25/2008	0.01	9/8/2008	1.25	3/2/2009	0.03
5/26/2008	0.05	9/10/2008	0.07	3/6/2009	0.04
5/28/2008	0.05	9/11/2008	0.03	3/7/2009	0.78
5/30/2008	0.01	9/12/2008	1.92	3/8/2009	0.85
6/2/2008	0.05	9/13/2008	1.80	3/9/2009	0.25
6/3/2008	0.01	9/24/2008	0.44	3/22/2009	0.01
6/5/2008	0.93	9/29/2008	0.13	3/23/2009	0.99
6/8/2008	0.70	10/6/2008	0.19	3/24/2009	0.63
6/9/2008	0.01	10/7/2008	0.05	3/25/2009	0.01
6/12/2008	2.92	10/13/2008	0.44	3/26/2009	0.01
6/15/2008	0.26	10/14/2008	0.03	3/29/2009	0.21
6/19/2008	0.85	10/15/2008	0.30	3/30/2009	0.25
6/24/2008	0.71	10/17/2008	0.13	4/2/2009	0.33
6/26/2008	0.02	10/21/2008	0.83	4/4/2009	0.05
6/27/2008	0.57	10/22/2008	1.71	4/5/2009	0.09
7/2/2008	0.95	10/23/2008	0.02	4/9/2009	0.39
7/3/2008	0.13	10/24/2008	0.02	4/10/2009	0.25
7/8/2008	0.28	11/5/2008	0.43	4/12/2009	0.29
7/9/2008	0.01	11/6/2008	0.05	4/13/2009	0.13
7/11/2008	0.02	11/10/2008	0.01	4/18/2009	0.40
7/12/2008	0.27	11/11/2008	0.29	4/23/2009	0.29
7/18/2008	0.47	11/13/2008	0.02	4/25/2009	0.01
7/21/2008	0.02	11/15/2008	0.01	4/26/2009	1.26
7/22/2008	0.40	11/29/2008	0.19	4/27/2009	0.65
7/24/2008	0.06	12/2/2008	0.01	4/29/2009	0.15
7/25/2008	1.16	12/9/2008	0.01	4/30/2009	0.01
7/28/2008	0.62	12/11/2008	0.01	5/8/2009	0.17
7/29/2008	0.50	12/19/2008	0.17		

Source of data: UME (2009).



Environmental Science Division

Argonne National Laboratory
9700 South Cass Avenue, Bldg. 203
Argonne, IL 60439-4843
www.anl.gov



U.S. DEPARTMENT OF
ENERGY

Argonne National Laboratory is a U.S. Department of Energy
laboratory managed by UChicago Argonne, LLC