

ANNUAL WETLAND MONITORING REPORT

YEAR 2 (2007)

GATLIN SWAMP WETLAND RESTORATION SITE

MARTIN COUNTY, NORTH CAROLINA

(Contract # D05024-2)



Prepared for:

**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL
RESOURCES**
ECOSYSTEM ENHANCEMENT PROGRAM
RALEIGH, NORTH CAROLINA



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October 2007

EXECUTIVE SUMMARY

Restoration Systems, L.L.C. (Restoration Systems) has completed the restoration of nonriverine wetlands at the Gatlin Swamp Wetland Restoration Site (hereinafter referred to as the “Site”) to assist the North Carolina Ecosystem Enhancement Program (EEP) in fulfilling restoration goals in the region. The Site is located approximately 1.5 miles southwest of Oak City, in Martin County (Figure 1). The Site encompasses approximately 150.2 acres of land situated in an expansive interstream flat characterized primarily by timber production and agriculture. The project provides 138.7 acres of non-riverine wetland restoration, with benefits to water quality and wildlife in a watershed that is highly dissected for agriculture and timber production.

The Site is located within sub-basin 03-02-09 of the Roanoke River Basin. This area is part of United States Geological Survey (USGS) Hydrologic Unit (HU) 03010107 of the South Atlantic/Gulf Region (14-digit HU 03010107120020). Site features drain to Etheridge Swamp and Conoho Creek, which is a major tributary to the Roanoke River.

A Detailed Wetland Restoration Plan was completed for the Site in September 2005. The plan outlined methods designed to restore agricultural fields that had been ditched, drained, and cleared for row crop production. Prior to implementation, the entire 150.2 acre Site contained 138.7 acres of hydric soil that had been effectively drained and contained no jurisdictional wetlands. The Detailed Wetland Restoration Plan outlined restoration procedures, including (1) ditch cleaning prior to backfill, (2) depression construction, (3) impervious ditch plug construction, (4) ditch backfilling, (5) floodplain soil scarification, and (6) plant community restoration.

The following objectives are proposed to provide mitigation credit requested under the EEP Request for Proposal (RFP) #16-D05024 dated October 22, 2004:

- Provide 125 acres of nonriverine Wetland Mitigation Units, as calculated in accordance with the requirements stipulated in RFP #16-D05024.
- Restore approximately 125 acres of wetland through filling agricultural ditches, removal of spoil castings, eliminating row crop production activities, and/or planting with native forest species.
- Protect the Site in perpetuity with a conservation easement which is held by the State of North Carolina.

As constructed, the Site provides 138.7 acres of non-riverine wetland restoration and 11.5 acres of forested upland buffer (Figure 2).

In summary, the Site achieved the defined (or targeted) success criteria;

1. Saturation (free water) within one foot of the soil surface for a minimum of 5 percent (12 consecutive days) of the growing season, for all Site groundwater gauges in the Second Monitoring Year (Year 2007).
2. Vegetation plots across the Site were well above the required 320 stems per acre with an average of 736 tree stems per acre in the Second Monitoring Year (Year 2007).

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**GATLIN SWAMP WETLAND RESTORATION SITE
ANNUAL MONITORING REPORT
YEAR 2 (2007)
MARTIN COUNTY, NORTH CAROLINA**

1.0 INTRODUCTION

Restoration Systems established the Gatlin Swamp Wetland Restoration Site (Site) in the Coastal Plain region of the Roanoke River Basin (14-digit HU 03010107120020). The Site is located approximately 1.5 miles southwest of Oak City, in Martin County (Figure 1). The Site encompasses approximately 150.2 acres of land situated in an expansive interstream flat characterized primarily by timber production and agriculture. The project offers 138.7 acres of nonriverine wetland restoration, with benefits to water quality and wildlife in a watershed that is highly dissected for agriculture and timber production.

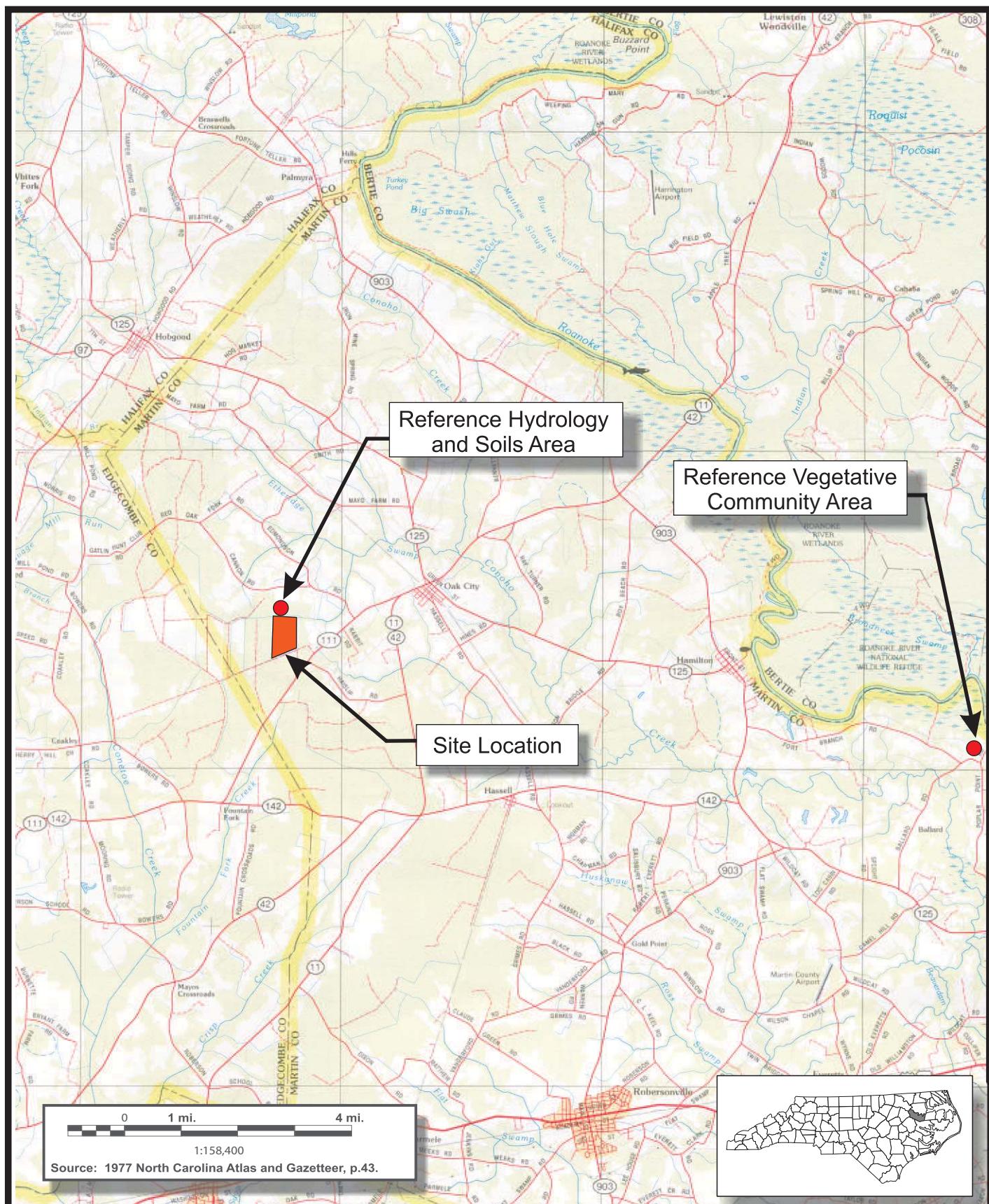
A Detailed Wetland Restoration Plan was completed for the Site in September 2005. The plan outlined methods designed to restore agricultural fields that had been ditched, drained, and cleared for row crop production. Prior to implementation, the entire 150.2 acre Site contained 138.7 acres of hydric soil that had been effectively drained and contained no jurisdictional wetlands. The Detailed Wetland Restoration Plan outlined restoration procedures including 1) ditch cleaning prior to backfill, 2) depression construction, 3) impervious ditch plug construction, 4) ditch backfilling, 5) floodplain soil scarification, and 6) plant community restoration.

The following objectives are proposed to provide mitigation credit requested under the EEP Request For Proposal (RFP) #16-D05024 dated October 22, 2004:

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- Restore approximately 125 acres of wetland through filling agricultural ditches, removal of spoil castings, eliminating row crop production activities, and/or planting with native forest species.
- Protect the Site in perpetuity with a conservation easement which is held by the State of North Carolina.

As constructed, the Site provides 138.7 acres of non-riverine wetland restoration and 11.5 acres of forested upland buffer (Figure 2).

Upon completion of the detailed restoration plan, construction schematics were developed and construction was initiated in October 2005. Anderson Farms completed earthwork and grading at the Site in December of 2005. Carolina Silvics completed planting of the Site in January 2006. Axiom Environmental, Inc. completed as-built mitigation plan and as-built construction drawings in January 2006.



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SITE LOCATION
GATLIN SWAMP WETLAND RESTORATION SITE
Martin County, North Carolina

FIGURE 1

Information on project managers, owners, and contractors follows:

Owner Information

Restoration Systems, L.L.C.
George Howard and John Preyer
1101 Haynes Street, Suite 107
Raleigh, North Carolina 27604
(919) 755-9490

Designer and Monitoring Performer Information

Axiom Environmental, Inc.
W. Grant Lewis
2126 Rowland Pond Drive
Willow Spring, North Carolina 27592
(919) 215-1693

Second Year Monitoring Firm Information

ARCADIS G&M of North Carolina, Inc.
Ben Furr and Keven Duerr
801 Corporate Center Drive, Suite 300
Raleigh, North Carolina 27607
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Earthwork Contractor Information

Anderson Farms
Gary Wilkerson and Richard Anderson
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Tarboro, North Carolina 27886
(252) 823-4730

Planting Contractor Information

Carolina Silvics
Dwight McKinney
908 Indian Trail Road
Edenton, North Carolina 27932
(919) 523-4375

2.0 MONITORING PROGRAM

The Site monitoring protocol consists of a comparison between reference and restoration areas along with evaluation of jurisdictional wetland criteria (Environmental Laboratory 1987). Monitoring will entail analysis of two primary parameters: hydrology and vegetation. Monitoring of restoration efforts will be performed for a minimum of 5 years or until success criteria are fulfilled. The monitoring program is described below.

2.1 Wetland Hydrology

2.1.1 Hydrology Monitoring Procedure

After hydrological modifications were completed at the Site, continuously recording monitoring gauges were installed in accordance with specifications outlined in *Installing Monitoring Wells/Piezometers in Wetlands* (NCWRP 1993). Monitoring gauges were set to a depth of approximately 24 inches below the soil surface. Screened portions of each gauge were surrounded by filter fabric, buried in a sand screen, and sealed with a bentonite cap to prevent siltation and surface flow infiltration during floods.

Five monitoring gauges were installed in wetland restoration areas to provide representative coverage of the Site (Figure 2). Two gauges were also placed in a reference area in similar landscape positions to use as comparison with onsite conditions (Figure 1). Hydrological



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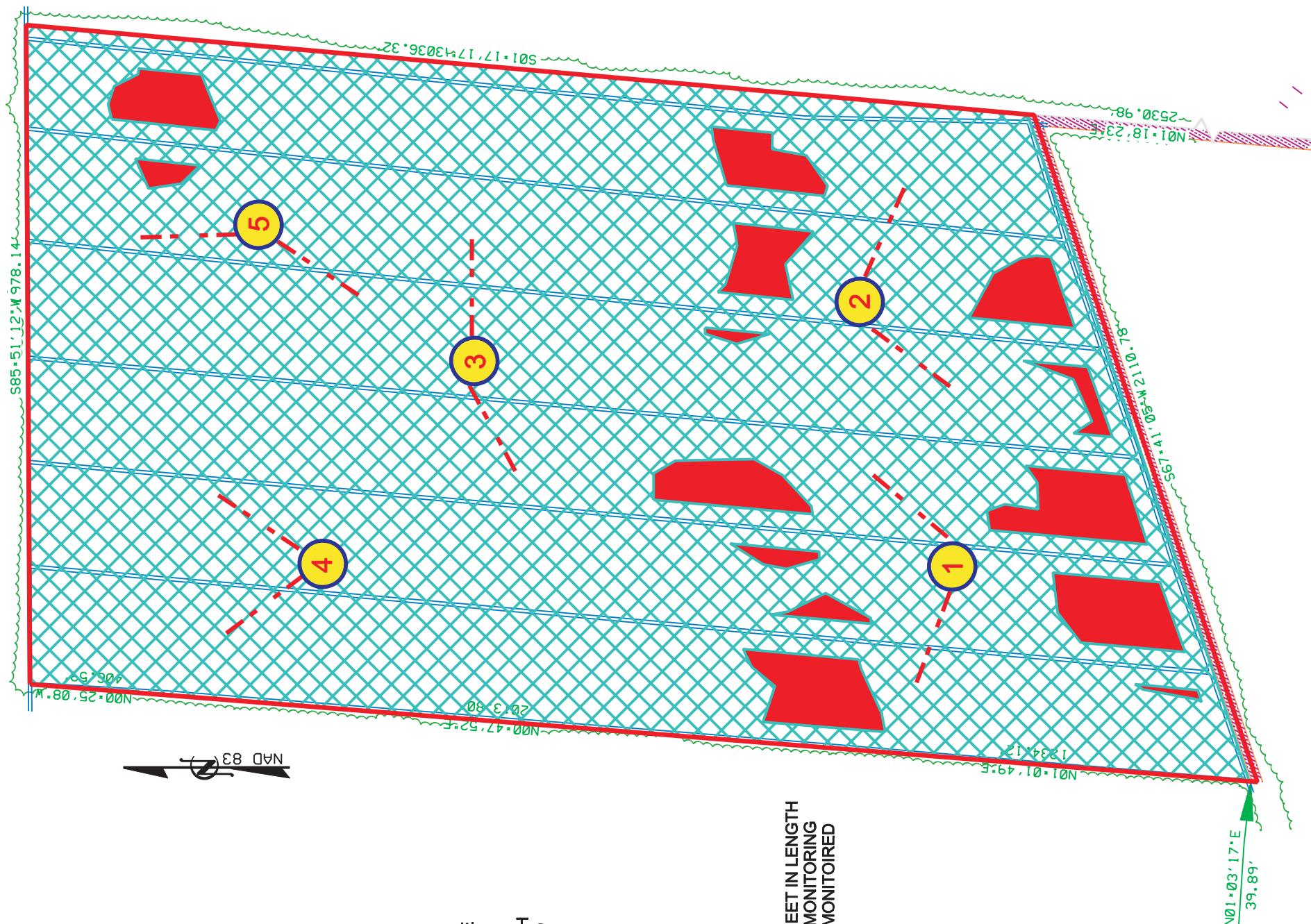
NOTES/REVISEONS

Project:
Gatlin Swamp
Wetland Restoration
Site

Martin County
North Carolina

Title:
MONITORING
PLAN

Scale:
 1" = 400'
FIGURE 2



LEGEND	DESCRIPTION	SYMBOL	AREA
SITE BOUNDARY		—	150.2 AC
WETLAND RESTORATION		■	138.7 AC
UPLAND		■	
GROUNDWATER GAUGE		○	1
VEGETATION PLOTS		—	

GROUNDWATER GAUGES

INFINITY CONTINUOUS MONITORING GAUGES INSTALLED IN ACCORDANCE WITH SPECIFICATIONS OUTLINED IN U.S. ARMY CORPS OF ENGINEERS, INSTALLING MONITORING WELLSPIEZOMETERS IN WETLANDS (WRP TECHNICAL NOTE HY-IA-3.1, AUGUST 1993). SCREENS ARE SET TO A DEPTH OF APPROXIMATELY 18 INCHES. GAUGES ARE PROGRAMMED TO RECORD AT 24-HOUR INTERVALS. DAILY RAINFALL IS CORRELATED FROM DATA OBTAINED AT A NATIONAL WEATHER SERVICE STATION LOCATED IN TARBORO (STATION 318500 - COOP).

VEGETATION MONITORING PLOT

VEGETATION MONITORING PLOTS ARE COMPRISED OF TRANSECTS, 600 FEET IN LENGTH AND 8 FEET IN WIDTH CENTERED ON EACH OF THE FIVE GROUNDWATER MONITORING GAUGES. IN EACH MONITORING PLOT, VEGETATION PARAMETERS TO BE MONITORED INCLUDE SPECIES COMPOSITION AND DENSITY.

sampling will be performed in restoration and reference areas during the growing season (March 16 and November 14) at daily intervals necessary to satisfy the hydrology success criteria within each physiographic landscape area.

2.1.2 Hydrologic Success Criteria

Target hydrological goals have been developed using regulatory wetland hydrology criteria and reference wetland sites.

Regulatory Wetland Hydrology Criteria

The regulatory wetland hydrology criterion requires saturation (free water) within 1 foot of the soil surface for 5 percent of the growing season under normal climatic conditions. In some instances, the regulatory wetland hydroperiod may extend between 5 and 12.5 percent of the growing season.

Reference Groundwater Modeling

The reference groundwater model forecasted the wetland hydroperiod in restoration areas will range between approximately 2 and 26 percent of the growing season in early successional phases. Because wetland hydroperiods during old field stages of wetland development are projected to extend for less than 12.5 percent of the growing season, wetland monitoring plans that extend for a 5-year period after restoration will utilize a minimum 5 percent wetland hydrology criterion to substantiate restoration success.

Reference Wetland Sites

Two monitoring gauges were installed in reference wetlands located in the northern and eastern periphery of the Site. Wetland hydroperiods measured by groundwater gauges located within the reference areas will be compared to hydroperiods exhibited by groundwater gauges in the restoration area to further evaluate restoration success. Success criteria outlined by the groundwater model indicates that the wetland restoration area should maintain saturation within one foot of the soil surface for at least 74 percent of the hydroperiod exhibited by the reference wetland gauges in any given year.

Under normal climatic conditions, the hydrologic success criterion requires saturation (free water) within 1 foot of the soil surface for a minimum of 5 percent of the growing season. This hydroperiod translates to saturation for a minimum, 12-day (5 percent) consecutive period during the growing season, which extends from March 16 and November 14 (USDA 1977).

In atypical dry years, the hydroperiod must exceed 75 percent of the hydroperiod exhibited by the reference gauges. Reference gauge data will be used to compare wetland hydroperiods between the restoration areas and relatively undisturbed reference wetlands. These data will supplement regulatory evaluation of success criteria and also provide information that will allow interpretation of mitigation success in years not supporting "normal" rainfall conditions.

2.1.3 Hydrological Monitoring Results and Comparison with Success Criteria

Hydrographs for each monitoring location are provided in Appendix A along with daily rainfall totals for 2007 from a rain gauge located onsite. The precipitation data collected from the rain gauge onsite was compared to the data collected by the State Climate Office of North Carolina at the Highway Patrol Station located in Martin County (SCONC 2007). Both sets of rain data closely matched, verifying that the rain gauge onsite was working properly during the Second Monitoring Year (Year 2007). Groundwater data presented in Table 1 were collected through September 27, 2007, for reference and restoration area gauges, which corresponds to 196 days of the 244-day annual growing season. Data will continue to be downloaded monthly until the end of the 2007 growing season (November 14, 2007) and will be available upon request. Reference gauge 1 could not be located during the Second Monitoring Year (Year 2007) and therefore is not included in Table 1.

All Site groundwater gauges achieved the defined (or targeted) success criteria for hydrology, saturation (free water) within 1 foot of the soil surface for a minimum of 5 percent (12 consecutive days) of the growing season, in the Second Monitoring Year (Year 2007) (Table 1).

Table 1. 2007 (Year 2) Groundwater Gauge Results

Gauge	Max Consecutive Days Saturated During Growing Season (Percentage) *	Defined (or Targeted) Success Criteria Achieved
1	25 days (10 %)	Yes
2	25 days (10 %)	Yes
3	48 days (20 %)	Yes
4	48 days (20 %)	Yes
5	99 days (41 %)	Yes
Ref 2	66 days (27 %)	Yes

* Gauge data presented in the table were collected through September 27, 2007, for the Gatlin Swamp reference and restoration area gauges. Data will continue to be downloaded monthly for the remainder of the 2007 growing season (until November 14, 2007) and will be available upon request.

2.2 Vegetation

2.2.1 Vegetation Monitoring Procedure

Restoration monitoring procedures for vegetation are designed in accordance with United States Environmental Protection Agency guidelines presented in Mitigation Site Type (MiST) documentation (USEPA 1990) and United States Army Corps of Engineers (USACE) Compensatory Hardwood Mitigation Guidelines (USDOA 1993). The following presents a general discussion of the monitoring program.

During the first year, vegetation received visual evaluations on a periodic basis to ascertain the degree of overtopping of planted species by nuisance species. Quantitative second year sampling was conducted on September 27, 2007. Subsequently, quantitative sampling of vegetation will be performed between June 1 and September 30 of each monitoring year for 5 years or until the vegetation success criteria are achieved.

Five sample transects were installed within planted areas of the Site to equally represent the various hydrologic regimes (Figure 2). Each transect is 600 feet in length and 7.25 feet in width (0.1 acre). Transects were centered on the five groundwater monitoring gauges and are defined by the corresponding gauge number. In each sample plot, vegetation parameters monitored include species composition and species density. Photographs of the five vegetation plots are included in Appendix B.

2.2.2 Vegetation Success Criteria

Success criteria have been established to verify that the vegetation component supports community elements necessary for floodplain forest development. Success criteria are dependent upon the density and growth of Character forest species. Additional success criteria are dependent upon density and growth of "Character Tree Species." Character Tree Species include planted species and species identified through inventory of an approved reference (relatively undisturbed) forest community used to design the planting plan. All canopy tree species planted and identified in the reference forest will be utilized to define "Character Tree Species" as termed in the success criteria.

Table 2. Character Tree Species

PLANTED SPECIES	REFERENCE SITE SPECIES
Loblolly Pine (<i>Pinus taeda</i>)	Northern Red Oak (<i>Quercus rubra</i>)
Pond Pine (<i>Pinus serotina</i>)	Red Maple (<i>Acer rubrum</i>)
Swamp Chestnut Oak (<i>Quercus michauxii</i>)	White Oak (<i>Quercus alba</i>)
Cherrybark Oak (<i>Quercus pagoda</i>)	Bitternut Hickory (<i>Carya cordiformis</i>)
Southern Red Oak (<i>Quercus falcata</i>)	Hop Hornbeam (<i>Ostrya virginiana</i>)
Water Oak (<i>Quercus nigra</i>)	Tulip Tree (<i>Liriodendron tulipifera</i>)
Willow Oak (<i>Quercus phellos</i>)	Sweetgum (<i>Liquidambar styraciflua</i>)
Sweetbay (<i>Magnolia virginiana</i>)	American Beech (<i>Fagus grandiflora</i>)
River Birch (<i>Betula nigra</i>)	Mockernut Hickory (<i>Carya tomentosa</i>)
	American Sycamore (<i>Platanus occidentalis</i>)
	Ironwood (<i>Carpinus carolinia</i>)
	Black Walnut (<i>Juglans nigra</i>)
	Hackberry (<i>Celtis laevigata</i>)
	Green Ash (<i>Fraxinus pennsylvanica</i>)

An average density of 320 stems per acre of Character Tree Species must be surviving in the first 3 monitoring years. Subsequently, 290 Character Tree Species per acre must be surviving in year 4 and 260 Character Tree Species per acre in year 5. Planted species must represent a minimum of 30 percent of the required stems per acre total (96 stems/acre). Planted Character Tree Species may serve as a seed source for species maintenance during mid-successional phases of forest

development. Each naturally recruited Character Tree Species may represent up to 10 percent of the required stems per acre total. In essence, seven naturally recruited Character Tree Species may represent a maximum of 70 percent of the required stems per acre total. Additional stems of naturally recruited species above the 10 percent and 70 percent thresholds are discarded from the statistical analysis.

If vegetation success criteria are not achieved based on average density calculations from combined plots over the entire restoration area, supplemental planting may be performed with tree species listed in the Restoration Plan or observed in the Reference Site. Supplemental planting will be performed as needed until achievement of vegetation success criteria.

No quantitative sampling requirements are proposed for herb assemblages as part of the vegetation success criteria. Development of floodplain forests over several decades will dictate the success in migration and establishment of desired understory and groundcover populations.

2.2.3 Vegetation Sampling Results and Comparison to Success Criteria

Quantitative sampling of vegetation was conducted in September 2007. Results are provided in Table 3. Vegetation success criteria for year 2 (320 tree stems per acre) were exceeded for the 2007 annual monitoring year with an average of 736 tree stems per acre across the Site. Each individual vegetation plot met success criteria with a range of 650 to 900 tree stems per acre.

3.0 CONCLUSIONS

The Site achieved the defined (or targeted) success criteria, with saturation (free water) within one foot of the soil surface for a minimum of 5 percent (12 consecutive days) of the growing season, for all Site groundwater gauges in the Second Monitoring Year (Year 2007). Also, vegetation plots across the Site were well above the required 320 stems per acre with an average of 736 tree stems per acre in the Second Monitoring Year (Year 2007). The average number of stems per acre slightly increased across the Site compared to 2006 monitoring data.

TABLE 3.
2007 VEGETATION MONITORING DATA AND RESULTS

Note: Each plot totals 0.1 acre in size.

Community	Pine Flatwoods					Total Stems for Plots 1-5	Total Stems/Acre	Total Stems/Acre Counting Towards Success Criteria*
	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5			
Species*								
Character Tree Species (count toward success criteria)								
<i>Betula nigra</i> (river birch)	7	5	14	8	18	52	104	104
<i>Diospyros virginiana</i> (persimmon)		1	1			2	4	4
<i>Liquidambar styraciflua</i> (sweetgum)		1		4		5	10	10
<i>Magnolia virginiana</i> (sweetbay)	4	4	12	3	6	29	58	58
<i>Pinus</i> sp. (pine)	13	11	12	12	10	58	116	116
<i>Populus heterophylla</i> (cottonwood)	18	13	23	12	10	76	152	32
<i>Quercus falcata/pagoda</i> (southern red/cherrybark oak)	11	16	8	10	6	51	102	102
<i>Quercus lyrata</i> (overcup oak)					2	2	4	4
<i>Quercus michauxii</i> (swamp chestnut oak)	15	7	17	9	7	55	110	110
<i>Quercus nigra</i> (water oak)		2	1		1	4	8	8
<i>Quercus pagoda</i> (cherrybark oak)	2	3	6	6	2	19	38	38
<i>Quercus phellos</i> (willow oak)	14	9	13	10	12	58	116	116
<i>Salix</i> sp. (willow)	18	63	59	91	12	243	486	32
<i>Ulmus rubra</i> (red elm)	1					1	2	2
Species that Don't Count Toward Success							0	
<i>Rhus copallina</i> (winged sumac)			2	6		8	16	0
<i>Baccharis halimifolia</i> (eastern baccharis)	27	22	27	11	13	100	200	0
TOTAL STEMS/PLOT	130	157	195	182	99	711	1422	736
TOTAL STEMS/PLOT COUNTING TOWARDS SUCCESS CRITERIA	73	65	90	67	70			
TOTAL STEMS/ACRE COUNTING TOWARDS SUCCESS CRITERIA	730	650	900	670	700			

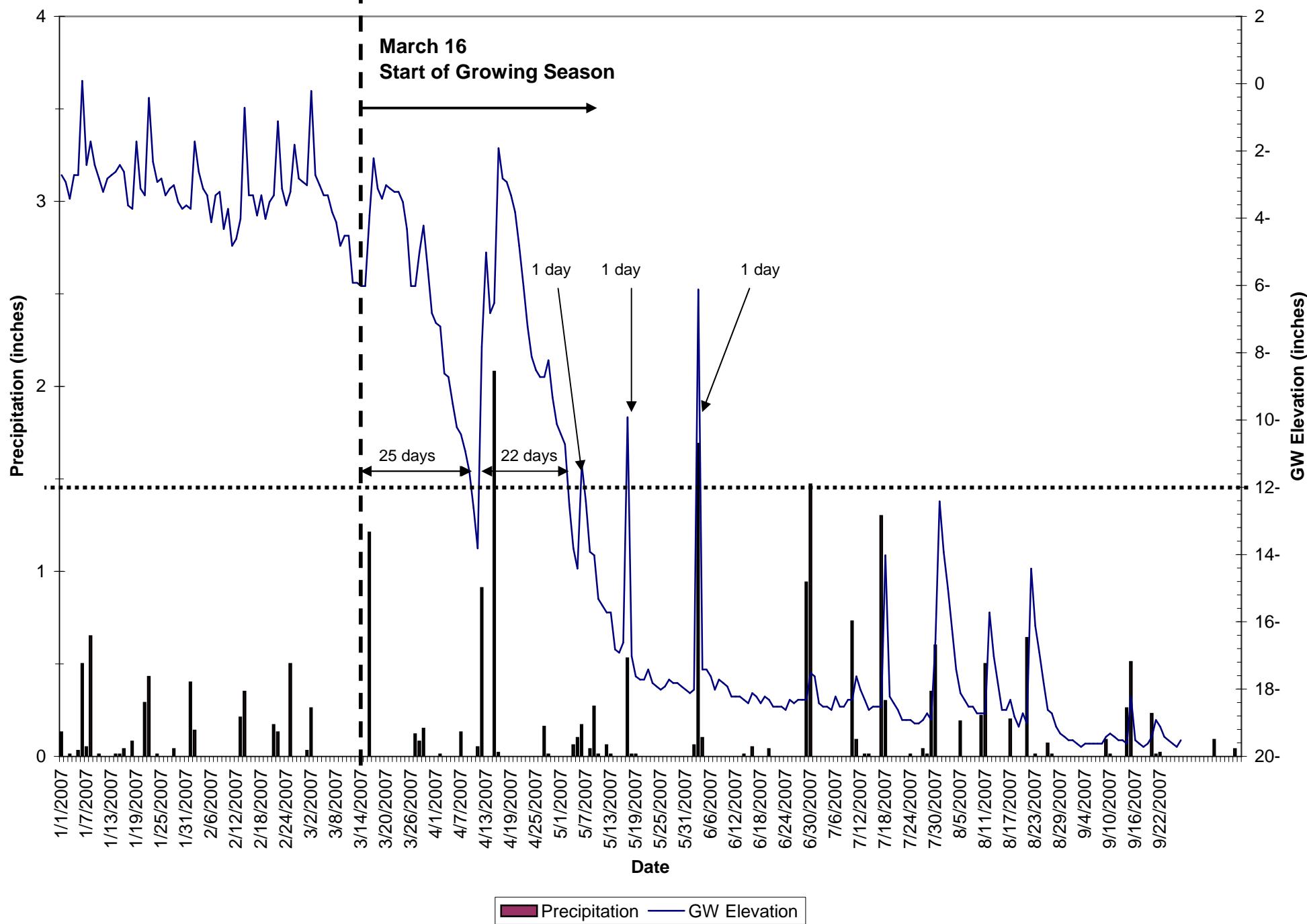
*Success criteria requires that no naturally recruited species may make up more than 10 percent of the 320 stems per acre total. Using this criteria, no naturally recruited species can provide more than 32 stems/acre towards success criteria (or 3.2 stems/0.1 acre plot).

4.0 REFERENCES

- Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. United States Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
- North Carolina Wetlands Restoration Program (NCWRP). 1993. Installing Monitoring Wells/Piezometers in Wetlands (WRP Technical Note HY-IA-3.1). North Carolina Department of Environment, Health, and Natural Resources, Raleigh, North Carolina.
- State Climate Office of North Carolina (SCONC). 2007. North Carolina Climate Retrieval and Observations Network of the Southeast Database. (online). Available: <http://www.nc-climate.ncsu.edu/cronos/index.php?station=WILL&temporal=daily> [September 27, 2007]. State Climate Office of North Carolina, Raleigh, North Carolina.
- United States Department of Agriculture (USDA). 1977. Soil Survey of Martin County, North Carolina. United States Department of Agriculture, Natural Resources Conservation Service.
- United States Department of the Army (USDOA). 1993 (unpublished). Compensatory Hardwood Mitigation Guidelines. United States Army Corps of Engineers, Wilmington District.
- United States Environmental Protection Agency (USEPA). 1990. Mitigation Site Classification (MiST). A Methodology to Classify Pre-Project Mitigation Sites and Develop Performance Standards for Construction and Restoration of Forested Wetlands. USEPA Workshop, August 13-15, 1989. USEPA Region IV and Hardwood Research Cooperative, North Carolina State University, Raleigh, NC.

APPENDIX A
GAUGE DATA

Gatlin Gauge 1 9DE5D3D



Gauge 1

Data Acquired : September 27, 2007

Serial Number: 9DE5D3D

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
1/1/2007	5:00	-2.72			2/22/2007	5:00	-1.12			4/15/2007	5:00	-6.52	4	31
1/2/2007	5:00	-2.92			2/23/2007	5:00	-3.12			4/16/2007	5:00	-1.92	5	32
1/3/2007	5:00	-3.42			2/24/2007	5:00	-3.62			4/17/2007	5:00	-2.82	6	33
1/4/2007	5:00	-2.72			2/25/2007	5:00	-3.22			4/18/2007	5:00	-2.92	7	34
1/5/2007	5:00	-2.72			2/26/2007	5:00	-1.82			4/19/2007	5:00	-3.32	8	35
1/6/2007	5:00	0.08			2/27/2007	5:00	-2.82			4/20/2007	5:00	-3.82	9	36
1/7/2007	5:00	-2.42			2/28/2007	5:00	-2.92			4/21/2007	5:00	-4.82	10	37
1/8/2007	5:00	-1.72			3/1/2007	5:00	-3.02			4/22/2007	5:00	-6.02	11	38
1/9/2007	5:00	-2.42			3/2/2007	5:00	-0.22			4/23/2007	5:00	-7.22	12	39
1/10/2007	5:00	-2.82			3/3/2007	5:00	-2.72			4/24/2007	5:00	-8.12	13	40
1/11/2007	5:00	-3.22			3/4/2007	5:00	-3.02			4/25/2007	5:00	-8.52	14	41
1/12/2007	5:00	-2.82			3/5/2007	5:00	-3.32			4/26/2007	5:00	-8.72	15	42
1/13/2007	5:00	-2.72			3/6/2007	5:00	-3.32			4/27/2007	5:00	-8.72	16	43
1/14/2007	5:00	-2.62			3/7/2007	5:00	-3.82			4/28/2007	5:00	-8.22	17	44
1/15/2007	5:00	-2.42			3/8/2007	5:00	-4.12			4/29/2007	5:00	-9.32	18	45
1/16/2007	5:00	-2.62			3/9/2007	5:00	-4.82			4/30/2007	5:00	-10.12	19	46
1/17/2007	5:00	-3.62			3/10/2007	5:00	-4.52			5/1/2007	5:00	-10.42	20	47
1/18/2007	5:00	-3.72			3/11/2007	5:00	-4.52			5/2/2007	5:00	-10.72	21	48
1/19/2007	5:00	-1.72			3/12/2007	5:00	-5.92			5/3/2007	5:00	-12.52		49
1/20/2007	5:00	-3.12			3/13/2007	5:00	-5.92			5/4/2007	5:00	-13.82		50
1/21/2007	5:00	-3.32			3/14/2007	5:00	-6.02			5/5/2007	5:00	-14.42		51
1/22/2007	5:00	-0.42			3/15/2007	5:00	-6.02			5/6/2007	5:00	-11.32		52
1/23/2007	5:00	-2.32			3/16/2007	5:00	-3.92	1	1	5/7/2007	5:00	-12.42		53
1/24/2007	5:00	-2.92			3/17/2007	5:00	-2.22	2	2	5/8/2007	5:00	-13.92		54
1/25/2007	5:00	-2.82			3/18/2007	5:00	-3.12	3	3	5/9/2007	5:00	-14.02		55
1/26/2007	5:00	-3.32			3/19/2007	5:00	-3.42	4	4	5/10/2007	5:00	-15.32		56
1/27/2007	5:00	-3.12			3/20/2007	5:00	-3.02	5	5	5/11/2007	5:00	-15.52		57
1/28/2007	5:00	-3.02			3/21/2007	5:00	-3.12	6	6	5/12/2007	5:00	-15.72		58
1/29/2007	5:00	-3.52			3/22/2007	5:00	-3.22	7	7	5/13/2007	5:00	-15.72		59
1/30/2007	5:00	-3.72			3/23/2007	5:00	-3.22	8	8	5/14/2007	5:00	-16.82		60
1/31/2007	5:00	-3.62			3/24/2007	5:00	-3.52	9	9	5/15/2007	5:00	-16.92		61
2/1/2007	5:00	-3.72			3/25/2007	5:00	-4.32	10	10	5/16/2007	5:00	-16.62		62
2/2/2007	5:00	-1.72			3/26/2007	5:00	-6.02	11	11	5/17/2007	5:00	-9.92	1	63
2/3/2007	5:00	-2.62			3/27/2007	5:00	-6.02	12	12	5/18/2007	5:00	-17.02		64
2/4/2007	5:00	-3.12			3/28/2007	5:00	-5.02	13	13	5/19/2007	5:00	-17.62		65
2/5/2007	5:00	-3.32			3/29/2007	5:00	-4.22	14	14	5/20/2007	5:00	-17.72		66
2/6/2007	5:00	-4.12			3/30/2007	5:00	-5.52	15	15	5/21/2007	5:00	-17.72		67
2/7/2007	5:00	-3.32			3/31/2007	5:00	-6.82	16	16	5/22/2007	5:00	-17.42		68
2/8/2007	5:00	-3.22			4/1/2007	5:00	-7.12	17	17	5/23/2007	5:00	-17.82		69
2/9/2007	5:00	-4.32			4/2/2007	5:00	-7.22	18	18	5/24/2007	5:00	-17.92		70
2/10/2007	5:00	-3.72			4/3/2007	5:00	-8.62	19	19	5/25/2007	5:00	-18.02		71
2/11/2007	5:00	-4.82			4/4/2007	5:00	-8.72	20	20	5/26/2007	5:00	-17.92		72
2/12/2007	5:00	-4.62			4/5/2007	5:00	-9.52	21	21	5/27/2007	5:00	-17.72		73
2/13/2007	5:00	-4.02			4/6/2007	5:00	-10.22	22	22	5/28/2007	5:00	-17.82		74
2/14/2007	5:00	-0.72			4/7/2007	5:00	-10.42	23	23	5/29/2007	5:00	-17.82		75
2/15/2007	5:00	-3.32			4/8/2007	5:00	-10.92	24	24	5/30/2007	5:00	-17.92		76
2/16/2007	5:00	-3.32			4/9/2007	5:00	-11.52	25	25	5/31/2007	5:00	-18.02		77
2/17/2007	5:00	-3.92			4/10/2007	5:00	-12.62		26	6/1/2007	5:00	-18.12		78
2/18/2007	5:00	-3.32			4/11/2007	5:00	-13.82		27	6/2/2007	5:00	-18.02		79
2/19/2007	5:00	-4.02			4/12/2007	5:00	-7.82	1	28	6/3/2007	5:00	-6.12	1	80
2/20/2007	5:00	-3.52			4/13/2007	5:00	-5.02	2	29	6/4/2007	5:00	-17.42		81
2/21/2007	5:00	-3.32			4/14/2007	5:00	-6.82	3	30	6/5/2007	5:00	-17.42		82

Gauge 1

Data Acquired : September 27, 2007

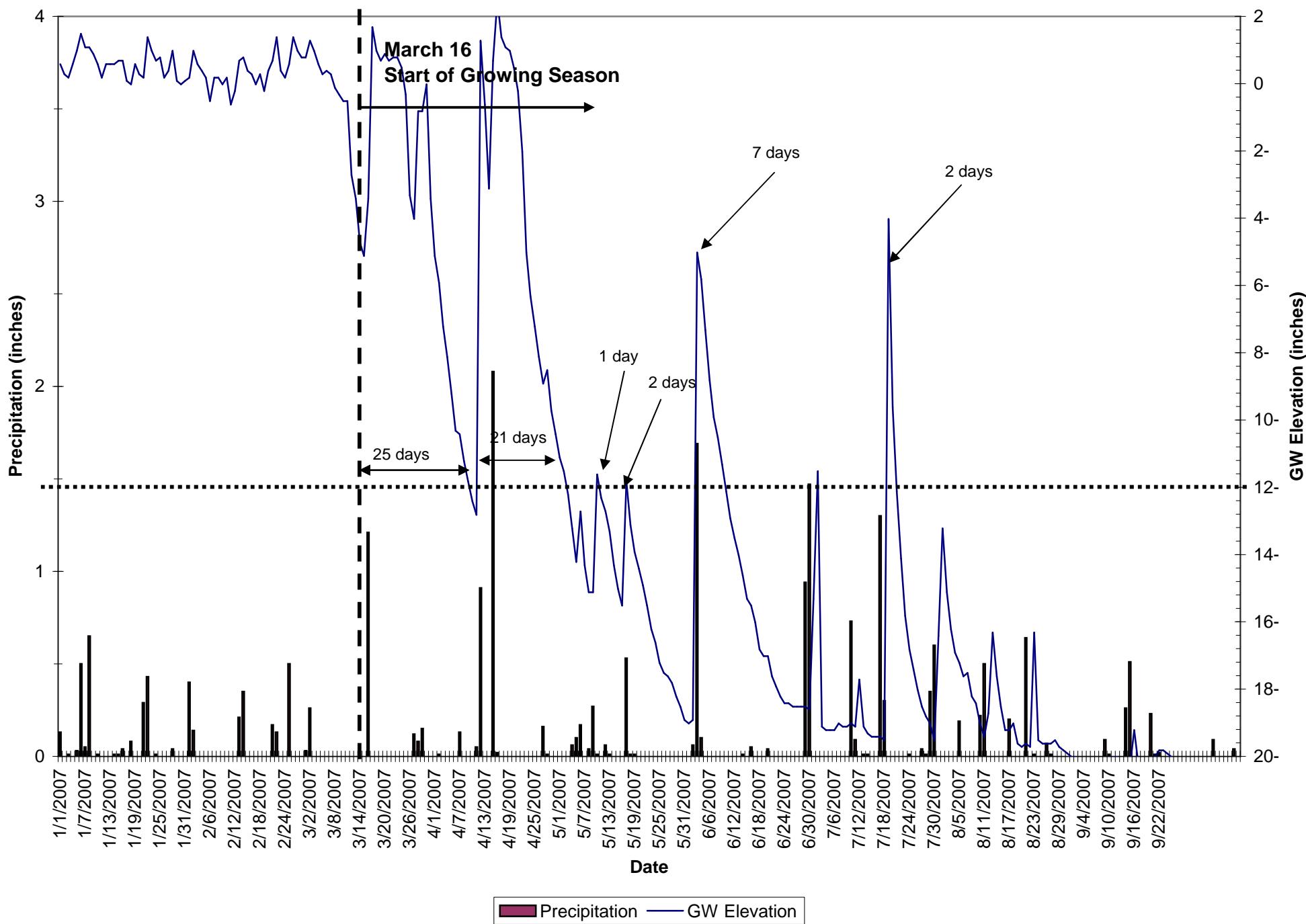
Serial Number: 9DE5D3D

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
6/6/2007	5:00	-17.62		83	7/26/2007	5:00	-19.02		133	9/14/2007	5:00	-19.62		183
6/7/2007	5:00	-18.02		84	7/27/2007	5:00	-18.92		134	9/15/2007	5:00	-18.22		184
6/8/2007	5:00	-17.72		85	7/28/2007	5:00	-18.72		135	9/16/2007	5:00	-19.52		185
6/9/2007	5:00	-17.82		86	7/29/2007	5:00	-18.92		136	9/17/2007	5:00	-19.62		186
6/10/2007	5:00	-17.92		87	7/30/2007	5:00	-16.52		137	9/18/2007	5:00	-19.72		187
6/11/2007	5:00	-18.22		88	7/31/2007	5:00	-12.42		138	9/19/2007	5:00	-19.62		188
6/12/2007	5:00	-18.22		89	8/1/2007	5:00	-13.92		139	9/20/2007	5:00	-19.42		189
6/13/2007	5:00	-18.22		90	8/9/2007	5:00	-18.72		147	9/21/2007	5:00	-18.92		190
6/14/2007	5:00	-18.32		91	8/10/2007	5:00	-18.72		148	9/22/2007	5:00	-19.12		191
6/15/2007	5:00	-18.42		92	8/11/2007	5:00	-18.72		149	9/23/2007	5:00	-19.42		192
6/16/2007	5:00	-18.12		93	8/12/2007	5:00	-15.72		150	9/24/2007	5:00	-19.52		193
6/17/2007	5:00	-18.22		94	8/13/2007	5:00	-17.02		151	9/25/2007	5:00	-19.62		194
6/18/2007	5:00	-18.42		95	8/14/2007	5:00	-17.82		152	9/26/2007	5:00	-19.72		195
6/19/2007	5:00	-18.22		96	8/15/2007	5:00	-18.62		153	9/27/2007	5:00	-19.52		196
6/20/2007	5:00	-18.32		97	8/16/2007	5:00	-18.62		154					
6/21/2007	5:00	-18.52		98	8/17/2007	5:00	-18.32		155					
6/22/2007	5:00	-18.52		99	8/18/2007	5:00	-18.82		156					
6/23/2007	5:00	-18.52		100	8/19/2007	5:00	-19.12		157					
6/24/2007	5:00	-18.62		101	8/20/2007	5:00	-18.72		158					
6/25/2007	5:00	-18.32		102	8/21/2007	5:00	-19.02		159					
6/26/2007	5:00	-18.42		103	8/22/2007	5:00	-14.42		160					
6/27/2007	5:00	-18.32		104	8/23/2007	5:00	-16.12		161					
6/28/2007	5:00	-18.32		105	8/24/2007	5:00	-16.92		162					
6/29/2007	5:00	-18.32		106	8/25/2007	5:00	-17.82		163					
6/30/2007	5:00	-17.52		107	8/26/2007	5:00	-18.62		164					
7/1/2007	5:00	-17.62		108	8/27/2007	5:00	-18.72		165					
7/2/2007	5:00	-18.42		109	8/28/2007	5:00	-19.12		166					
7/3/2007	5:00	-18.52		110	8/29/2007	5:00	-19.32		167					
7/4/2007	5:00	-18.52		111	8/30/2007	5:00	-19.42		168					
7/5/2007	5:00	-18.62		112	8/31/2007	5:00	-19.52		169					
7/6/2007	5:00	-18.22		113	9/1/2007	5:00	-19.52		170					
7/7/2007	5:00	-18.52		114	9/2/2007	5:00	-19.62		171					
7/8/2007	5:00	-18.52		115	9/3/2007	5:00	-19.72		172					
7/9/2007	5:00	-18.32		116	9/4/2007	5:00	-19.62		173					
7/10/2007	5:00	-18.32		117	9/5/2007	5:00	-19.62		174					
7/11/2007	5:00	-17.62		118	9/6/2007	5:00	-19.62		175					
7/12/2007	5:00	-18.02		119	9/7/2007	5:00	-19.62		176					
7/13/2007	5:00	-18.32		120	9/8/2007	5:00	-19.62		177					
7/14/2007	5:00	-18.62		121	9/9/2007	5:00	-19.42		178					
7/15/2007	5:00	-18.52		122	9/10/2007	5:00	-19.32		179					
7/16/2007	5:00	-18.52		123	9/11/2007	5:00	-19.42		180					
7/17/2007	5:00	-18.52		124	9/12/2007	5:00	-19.52		181					
7/18/2007	5:00	-14.02		125	9/13/2007	5:00	-19.52		182					
7/19/2007	5:00	-18.22		126	8/2/2007	5:00	-15.02		140					
7/20/2007	5:00	-18.42		127	8/3/2007	5:00	-16.22		141					
7/21/2007	5:00	-18.62		128	8/4/2007	5:00	-17.42		142					
7/22/2007	5:00	-18.92		129	8/5/2007	5:00	-18.12		143					
7/23/2007	5:00	-18.92		130	8/6/2007	5:00	-18.32		144					
7/24/2007	5:00	-18.92		131	8/7/2007	5:00	-18.52		145					
7/25/2007	5:00	-19.02		132	8/8/2007	5:00	-18.52		146					

Gatlin Gauge 2 9BEC0B5



Gauge 2

Data Acquired : September 27, 2007

Serial Number: 9BEC0B5

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
1/1/2007	5:00	0.58			2/22/2007	5:00	1.38			4/15/2007	5:00	0.68	4	31
1/2/2007	5:00	0.28			2/23/2007	5:00	0.38			4/16/2007	5:00	2.48	5	32
1/3/2007	5:00	0.18			2/24/2007	5:00	0.18			4/17/2007	5:00	1.38	6	33
1/4/2007	5:00	0.58			2/25/2007	5:00	0.58			4/18/2007	5:00	1.08	7	34
1/5/2007	5:00	0.98			2/26/2007	5:00	1.38			4/19/2007	5:00	0.98	8	35
1/6/2007	5:00	1.48			2/27/2007	5:00	0.98			4/20/2007	5:00	0.48	9	36
1/7/2007	5:00	1.08			2/28/2007	5:00	0.78			4/21/2007	5:00	-0.22	10	37
1/8/2007	5:00	1.08			3/1/2007	5:00	0.78			4/22/2007	5:00	-2.02	11	38
1/9/2007	5:00	0.88			3/2/2007	5:00	1.28			4/23/2007	5:00	-5.02	12	39
1/10/2007	5:00	0.58			3/3/2007	5:00	0.98			4/24/2007	5:00	-6.32	13	40
1/11/2007	5:00	0.18			3/4/2007	5:00	0.58			4/25/2007	5:00	-7.22	14	41
1/12/2007	5:00	0.58			3/5/2007	5:00	0.28			4/26/2007	5:00	-8.12	15	42
1/13/2007	5:00	0.58			3/6/2007	5:00	0.38			4/27/2007	5:00	-8.92	16	43
1/14/2007	5:00	0.58			3/7/2007	5:00	0.28			4/28/2007	5:00	-8.52	17	44
1/15/2007	5:00	0.68			3/8/2007	5:00	-0.12			4/29/2007	5:00	-9.72	18	45
1/16/2007	5:00	0.68			3/9/2007	5:00	-0.32			4/30/2007	5:00	-10.42	19	46
1/17/2007	5:00	0.08			3/10/2007	5:00	-0.52			5/1/2007	5:00	-11.12	20	47
1/18/2007	5:00	-0.02			3/11/2007	5:00	-0.52			5/2/2007	5:00	-11.52	21	48
1/19/2007	5:00	0.58			3/12/2007	5:00	-2.72			5/3/2007	5:00	-12.22		49
1/20/2007	5:00	0.28			3/13/2007	5:00	-3.42			5/4/2007	5:00	-13.22		50
1/21/2007	5:00	0.18			3/14/2007	5:00	-4.72			5/5/2007	5:00	-14.22		51
1/22/2007	5:00	1.38			3/15/2007	5:00	-5.12			5/6/2007	5:00	-12.72		52
1/23/2007	5:00	0.98			3/16/2007	5:00	-3.42	1	1	5/7/2007	5:00	-14.32		53
1/24/2007	5:00	0.68			3/17/2007	5:00	1.68	2	2	5/8/2007	5:00	-15.12		54
1/25/2007	5:00	0.78			3/18/2007	5:00	0.98	3	3	5/9/2007	5:00	-15.12		55
1/26/2007	5:00	0.18			3/19/2007	5:00	0.68	4	4	5/10/2007	5:00	-11.62	1	56
1/27/2007	5:00	0.38			3/20/2007	5:00	0.88	5	5	5/11/2007	5:00	-12.32		57
1/28/2007	5:00	0.98			3/21/2007	5:00	0.68	6	6	5/12/2007	5:00	-12.72		58
1/29/2007	5:00	0.08			3/22/2007	5:00	0.78	7	7	5/13/2007	5:00	-13.32		59
1/30/2007	5:00	-0.02			3/23/2007	5:00	0.78	8	8	5/14/2007	5:00	-14.32		60
1/31/2007	5:00	0.08			3/24/2007	5:00	0.48	9	9	5/15/2007	5:00	-15.02		61
2/1/2007	5:00	0.18			3/25/2007	5:00	-0.32	10	10	5/16/2007	5:00	-15.52		62
2/2/2007	5:00	0.98			3/26/2007	5:00	-3.32	11	11	5/17/2007	5:00	-11.82	1	63
2/3/2007	5:00	0.58			3/27/2007	5:00	-4.02	12	12	5/18/2007	5:00	-13.12		64
2/4/2007	5:00	0.38			3/28/2007	5:00	-0.82	13	13	5/19/2007	5:00	-13.92		65
2/5/2007	5:00	0.18			3/29/2007	5:00	-0.82	14	14	5/20/2007	5:00	-14.42		66
2/6/2007	5:00	-0.52			3/30/2007	5:00	-0.02	15	15	5/21/2007	5:00	-14.92		67
2/7/2007	5:00	0.18			3/31/2007	5:00	-3.42	16	16	5/22/2007	5:00	-15.52		68
2/8/2007	5:00	0.18			4/1/2007	5:00	-5.12	17	17	5/23/2007	5:00	-16.22		69
2/9/2007	5:00	-0.02			4/2/2007	5:00	-5.92	18	18	5/24/2007	5:00	-16.62		70
2/10/2007	5:00	0.18			4/3/2007	5:00	-7.22	19	19	5/25/2007	5:00	-17.22		71
2/11/2007	5:00	-0.62			4/4/2007	5:00	-8.12	20	20	5/26/2007	5:00	-17.52		72
2/12/2007	5:00	-0.22			4/5/2007	5:00	-9.22	21	21	5/27/2007	5:00	-17.62		73
2/13/2007	5:00	0.68			4/6/2007	5:00	-10.32	22	22	5/28/2007	5:00	-17.82		74
2/14/2007	5:00	0.78			4/7/2007	5:00	-10.42	23	23	5/29/2007	5:00	-18.22		75
2/15/2007	5:00	0.38			4/8/2007	5:00	-11.22	24	24	5/30/2007	5:00	-18.52		76
2/16/2007	5:00	0.28			4/9/2007	5:00	-11.82	25	25	5/31/2007	5:00	-18.92		77
2/17/2007	5:00	-0.02			4/10/2007	5:00	-12.42		26	6/1/2007	5:00	-19.02		78
2/18/2007	5:00	0.28			4/11/2007	5:00	-12.82		27	6/2/2007	5:00	-18.92		79
2/19/2007	5:00	-0.22			4/12/2007	5:00	1.28	1	28	6/3/2007	5:00	-5.02	1	80
2/20/2007	5:00	0.38			4/13/2007	5:00	-0.62	2	29	6/4/2007	5:00	-5.82	2	81
2/21/2007	5:00	0.68			4/14/2007	5:00	-3.12	3	30	6/5/2007	5:00	-7.32	3	82

Gauge 2

Data Acquired : September 27, 2007

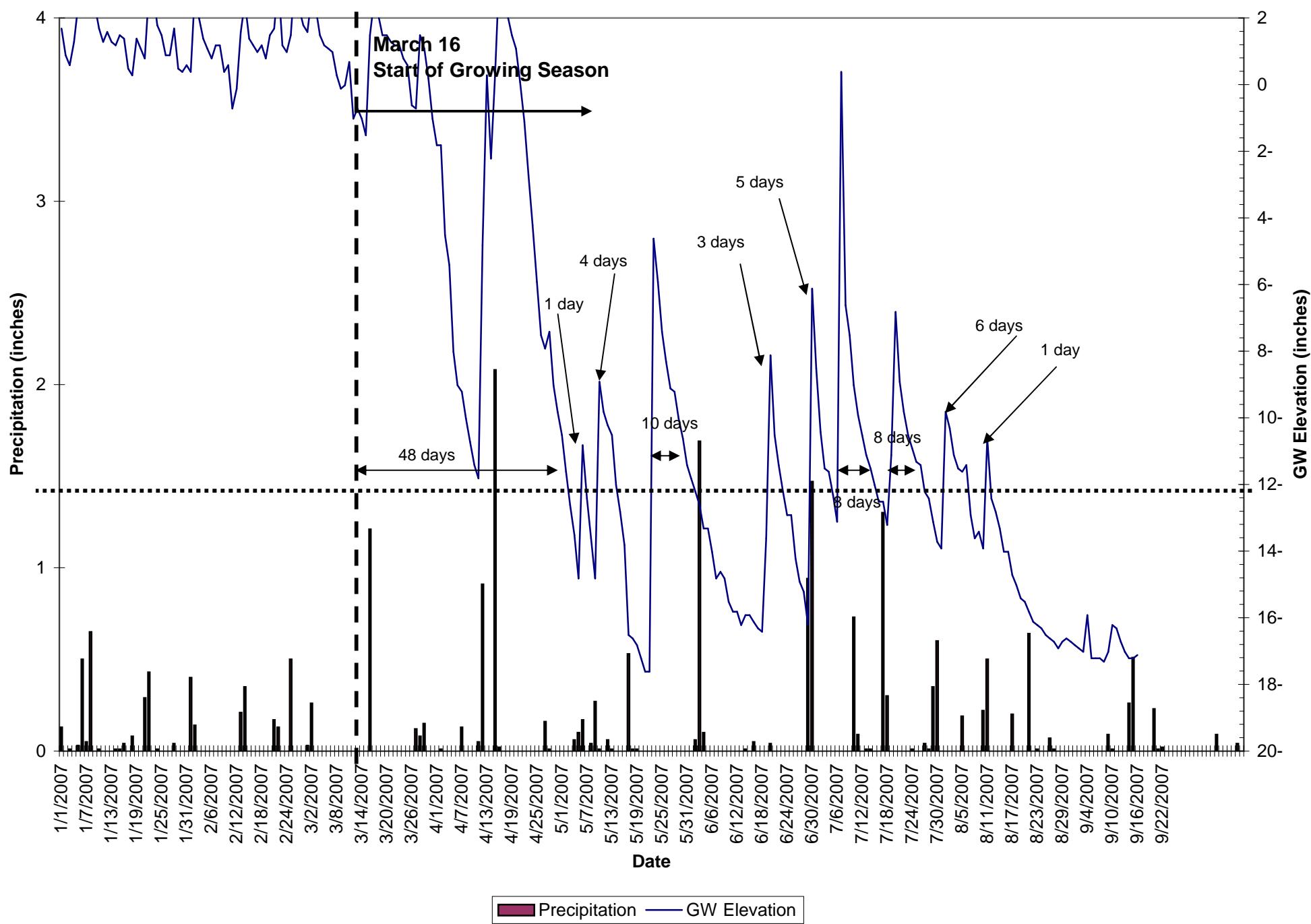
Serial Number: 9BEC0B5

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
6/6/2007	5:00	-8.82	4	83	7/27/2007	5:00	-18.82		135	9/17/2007	5:00	-20.22		187
6/7/2007	5:00	-9.92	5	84	7/28/2007	5:00	-19.02		136	9/18/2007	5:00	-20.22		188
6/8/2007	5:00	-10.52	6	85	7/29/2007	5:00	-19.52		137	9/19/2007	5:00	-20.22		189
6/9/2007	5:00	-11.32	7	86	7/30/2007	5:00	-16.42		138	9/20/2007	5:00	-20.02		190
6/10/2007	5:00	-12.12		87	7/31/2007	5:00	-13.22		139	9/21/2007	5:00	-19.82		191
6/11/2007	5:00	-12.92		88	8/1/2007	5:00	-15.12		140	9/22/2007	5:00	-19.82		192
6/12/2007	5:00	-13.52		89	8/2/2007	5:00	-16.22		141	9/23/2007	5:00	-19.92		193
6/13/2007	5:00	-14.02		90	8/3/2007	5:00	-16.92		142	9/24/2007	5:00	-20.02		194
6/14/2007	5:00	-14.62		91	8/4/2007	5:00	-17.22		143	9/25/2007	5:00	-20.22		195
6/15/2007	5:00	-15.32		92	8/5/2007	5:00	-17.62		144	9/26/2007	5:00	-20.22		196
6/16/2007	5:00	-15.52		93	8/6/2007	5:00	-17.52		145	9/27/2007	5:00	-20.02		197
6/17/2007	5:00	-16.02		94	8/7/2007	5:00	-18.22		146					
6/18/2007	5:00	-16.82		95	8/8/2007	5:00	-18.42		147					
6/19/2007	5:00	-17.02		96	8/9/2007	5:00	-19.02		148					
6/20/2007	5:00	-17.02		97	8/10/2007	5:00	-19.42		149					
6/21/2007	5:00	-17.62		98	8/11/2007	5:00	-18.72		150					
6/22/2007	5:00	-17.92		99	8/12/2007	5:00	-16.32		151					
6/23/2007	5:00	-18.22		100	8/13/2007	5:00	-17.62		152					
6/24/2007	5:00	-18.42		101	8/14/2007	5:00	-18.52		153					
6/25/2007	5:00	-18.42		102	8/15/2007	5:00	-19.22		154					
6/26/2007	5:00	-18.52		103	8/16/2007	5:00	-19.22		155					
6/27/2007	5:00	-18.52		104	8/17/2007	5:00	-19.02		156					
6/28/2007	5:00	-18.52		105	8/18/2007	5:00	-19.62		157					
6/28/2007	5:00	-18.52		106	8/19/2007	5:00	-19.72		158					
6/29/2007	5:00	-18.62		107	8/20/2007	5:00	-19.62		159					
6/30/2007	5:00	-15.32		108	8/21/2007	5:00	-19.72		160					
7/1/2007	5:00	-11.52		109	8/22/2007	5:00	-16.32		161					
7/2/2007	5:00	-19.12		110	8/23/2007	5:00	-19.52		162					
7/3/2007	5:00	-19.22		111	8/24/2007	5:00	-19.62		163					
7/4/2007	5:00	-19.22		112	8/25/2007	5:00	-19.62		164					
7/5/2007	5:00	-19.22		113	8/26/2007	5:00	-19.62		165					
7/6/2007	5:00	-19.02		114	8/27/2007	5:00	-19.52		166					
7/7/2007	5:00	-19.12		115	8/28/2007	5:00	-19.72		167					
7/8/2007	5:00	-19.12		116	8/29/2007	5:00	-19.82		168					
7/9/2007	5:00	-19.02		117	8/30/2007	5:00	-19.92		169					
7/10/2007	5:00	-19.12		118	8/31/2007	5:00	-20.02		170					
7/11/2007	5:00	-17.72		119	9/1/2007	5:00	-20.02		171					
7/12/2007	5:00	-19.12		120	9/2/2007	5:00	-20.12		172					
7/13/2007	5:00	-19.32		121	9/3/2007	5:00	-20.22		173					
7/14/2007	5:00	-19.42		122	9/4/2007	5:00	-20.12		174					
7/15/2007	5:00	-19.42		123	9/5/2007	5:00	-20.12		175					
7/16/2007	5:00	-19.42		124	9/6/2007	5:00	-20.12		176					
7/17/2007	5:00	-19.52		125	9/7/2007	5:00	-20.12		177					
7/18/2007	5:00	-4.02	1	126	9/8/2007	5:00	-20.12		178					
7/19/2007	5:00	-9.62	2	127	9/9/2007	5:00	-20.12		179					
7/20/2007	5:00	-12.12		128	9/10/2007	5:00	-20.02		180					
7/21/2007	5:00	-14.12		129	9/11/2007	5:00	-20.02		181					
7/22/2007	5:00	-15.82		130	9/12/2007	5:00	-20.12		182					
7/23/2007	5:00	-16.82		131	9/13/2007	5:00	-20.22		183					
7/24/2007	5:00	-17.42		132	9/14/2007	5:00	-20.32		184					
7/25/2007	5:00	-18.02		133	9/15/2007	5:00	-19.22		185					
7/26/2007	5:00	-18.52		134	9/16/2007	5:00	-20.22		186					

Gatlin Gauge 3 A3BF21B



Gauge 3

Data Acquired : September 27, 2007

Serial Number: A3BF21B

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
1/1/2007	5:00	1.68			2/22/2007	5:00	3.08			4/15/2007	5:00	0.28	31	31
1/2/2007	5:00	0.88			2/23/2007	5:00	1.18			4/16/2007	5:00	3.48	32	32
1/3/2007	5:00	0.58			2/24/2007	5:00	0.98			4/17/2007	5:00	2.58	33	33
1/4/2007	5:00	1.28			2/25/2007	5:00	1.48			4/18/2007	5:00	2.08	34	34
1/5/2007	5:00	2.38			2/26/2007	5:00	3.28			4/19/2007	5:00	1.48	35	35
1/6/2007	5:00	2.38			2/27/2007	5:00	2.28			4/20/2007	5:00	1.08	36	36
1/7/2007	5:00	2.38			2/28/2007	5:00	1.78			4/21/2007	5:00	0.08	37	37
1/8/2007	5:00	2.28			3/1/2007	5:00	1.58			4/22/2007	5:00	-1.12	38	38
1/9/2007	5:00	2.38			3/2/2007	5:00	2.68			4/23/2007	5:00	-2.72	39	39
1/10/2007	5:00	1.68			3/3/2007	5:00	2.28			4/24/2007	5:00	-4.22	40	40
1/11/2007	5:00	1.28			3/4/2007	5:00	1.48			4/25/2007	5:00	-5.92	41	41
1/12/2007	5:00	1.58			3/5/2007	5:00	1.18			4/26/2007	5:00	-7.52	42	42
1/13/2007	5:00	1.28			3/6/2007	5:00	1.08			4/27/2007	5:00	-7.92	43	43
1/14/2007	5:00	1.18			3/7/2007	5:00	0.98			4/28/2007	5:00	-7.42	44	44
1/15/2007	5:00	1.48			3/8/2007	5:00	0.28			4/29/2007	5:00	-9.02	45	45
1/16/2007	5:00	1.38			3/9/2007	5:00	-0.12			4/30/2007	5:00	-9.82	46	46
1/17/2007	5:00	0.48			3/10/2007	5:00	-0.02			5/1/2007	5:00	-10.52	47	47
1/18/2007	5:00	0.28			3/11/2007	5:00	0.68			5/2/2007	5:00	-11.62	48	48
1/19/2007	5:00	1.38			3/12/2007	5:00	-1.02			5/3/2007	5:00	-12.62		49
1/20/2007	5:00	1.08			3/13/2007	5:00	-0.72			5/4/2007	5:00	-13.52		50
1/21/2007	5:00	0.78			3/14/2007	5:00	-1.02			5/5/2007	5:00	-14.82		51
1/22/2007	5:00	2.88			3/15/2007	5:00	-1.52			5/6/2007	5:00	-10.82		52
1/23/2007	5:00	2.78			3/16/2007	5:00	1.48	1	1	5/7/2007	5:00	-12.42		53
1/24/2007	5:00	1.78			3/17/2007	5:00	2.58	2	2	5/8/2007	5:00	-13.62		54
1/25/2007	5:00	1.48			3/18/2007	5:00	2.08	3	3	5/9/2007	5:00	-14.82		55
1/26/2007	5:00	0.88			3/19/2007	5:00	1.48	4	4	5/10/2007	5:00	-8.92	1	56
1/27/2007	5:00	0.88			3/20/2007	5:00	1.48	5	5	5/11/2007	5:00	-9.82	2	57
1/28/2007	5:00	1.68			3/21/2007	5:00	1.28	6	6	5/12/2007	5:00	-10.22	3	58
1/29/2007	5:00	0.48			3/22/2007	5:00	1.18	7	7	5/13/2007	5:00	-10.52	4	59
1/30/2007	5:00	0.38			3/23/2007	5:00	1.18	8	8	5/14/2007	5:00	-12.02		60
1/31/2007	5:00	0.58			3/24/2007	5:00	0.78	9	9	5/15/2007	5:00	-12.82		61
2/1/2007	5:00	0.38			3/25/2007	5:00	0.58	10	10	5/16/2007	5:00	-13.82		62
2/2/2007	5:00	2.78			3/26/2007	5:00	-0.62	11	11	5/17/2007	5:00			63
2/3/2007	5:00	1.98			3/27/2007	5:00	-0.72	12	12	5/18/2007	5:00			64
2/4/2007	5:00	1.38			3/28/2007	5:00	1.48	13	13	5/19/2007	5:00			65
2/5/2007	5:00	1.08			3/29/2007	5:00	1.08	14	14	5/20/2007	5:00			66
2/6/2007	5:00	0.78			3/30/2007	5:00	0.18	15	15	5/21/2007	5:00			67
2/7/2007	5:00	1.18			3/31/2007	5:00	-1.02	16	16	5/22/2007	5:00			68
2/8/2007	5:00	1.18			4/1/2007	5:00	-1.82	17	17	5/23/2007	5:00			69
2/9/2007	5:00	0.38			4/2/2007	5:00	-1.82	18	18	5/24/2007	5:00			70
2/10/2007	5:00	0.58			4/3/2007	5:00	-4.52	19	19	5/25/2007	5:00			71
2/11/2007	5:00	-0.72			4/4/2007	5:00	-5.42	20	20	5/26/2007	5:00			72
2/12/2007	5:00	-0.12			4/5/2007	5:00	-8.02	21	21	5/27/2007	5:00			73
2/13/2007	5:00	1.58			4/6/2007	5:00	-9.02	22	22	5/28/2007	5:00	-16.52		74
2/14/2007	5:00	2.48			4/7/2007	5:00	-9.22	23	23	5/29/2007	5:00	-16.62		75
2/15/2007	5:00	1.38			4/8/2007	5:00	-10.02	24	24	5/30/2007	5:00	-16.82		76
2/16/2007	5:00	1.18			4/9/2007	5:00	-10.72	25	25	5/31/2007	5:00	-17.22		77
2/17/2007	5:00	0.98			4/10/2007	5:00	-11.42	26	26	6/1/2007	5:00	-17.62		78
2/18/2007	5:00	1.18			4/11/2007	5:00	-11.82	27	27	6/2/2007	5:00	-17.62		79
2/19/2007	5:00	0.78			4/12/2007	5:00	-4.82	28	28	6/3/2007	5:00	-4.62	1	80
2/20/2007	5:00	1.48			4/13/2007	5:00	0.28	29	29	6/4/2007	5:00	-5.92	2	81
2/21/2007	5:00	1.68			4/14/2007	5:00	-2.22	30	30	6/5/2007	5:00	-7.42	3	82

Gauge 3

Data Acquired : September 27, 2007

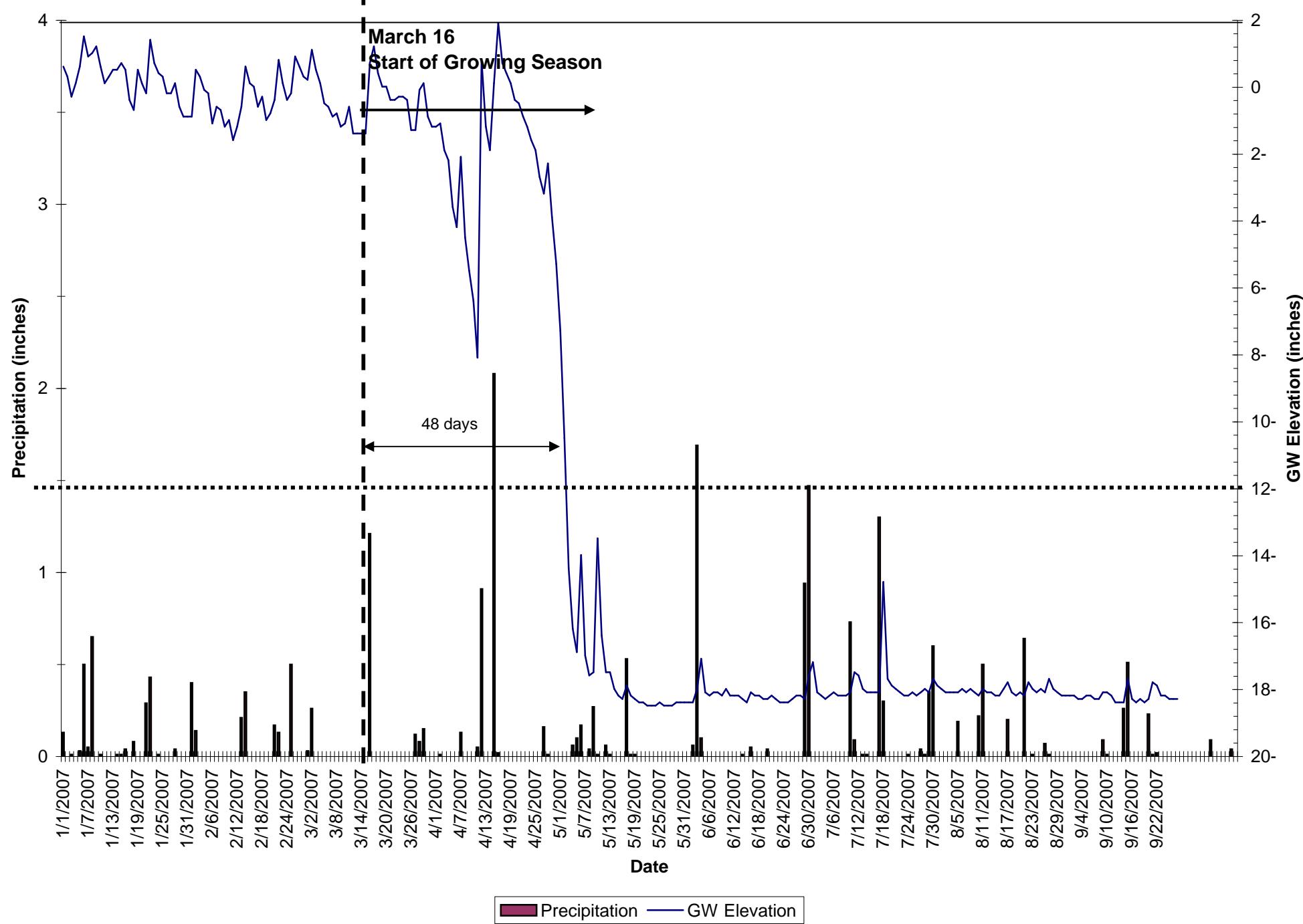
Serial Number: A3BF21B

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
6/6/2007	5:00	-8.32	4	83	7/28/2007	5:00	-12.52		135	9/18/2007	5:00	-17.22		187
6/7/2007	5:00	-9.12	5	84	7/29/2007	5:00	-13.22		136	9/19/2007	5:00	-17.32		188
6/8/2007	5:00	-9.22	6	85	7/30/2007	5:00	-11.12	1	137	9/20/2007	5:00	-17.02		189
6/9/2007	5:00	-10.02	7	86	7/31/2007	5:00	-6.82	2	138	9/21/2007	5:00	-16.22		190
6/10/2007	5:00	-10.62	8	87	8/1/2007	5:00	-8.92	3	139	9/22/2007	5:00	-16.32		191
6/11/2007	5:00	-11.42	9	88	8/2/2007	5:00	-9.82	4	140	9/23/2007	5:00	-16.72		192
6/12/2007	5:00	-11.82	10	89	8/3/2007	5:00	-10.52	5	141	9/24/2007	5:00	-17.02		193
6/13/2007	5:00	-12.22		90	8/4/2007	5:00	-10.92	6	142	9/25/2007	5:00	-17.22		194
6/14/2007	5:00	-12.62		91	8/5/2007	5:00	-11.32	7	143	9/26/2007	5:00	-17.22		195
6/15/2007	5:00	-13.32		92	8/6/2007	5:00	-11.42	8	144	9/27/2007	5:00	-17.12		196
6/16/2007	5:00	-13.32		93	8/7/2007	5:00	-12.22		145					
6/17/2007	5:00	-14.02		94	8/8/2007	5:00	-12.42		146					
6/18/2007	5:00	-14.82		95	8/9/2007	5:00	-13.12		147					
6/19/2007	5:00	-14.62		96	8/10/2007	5:00	-13.72		148					
6/20/2007	5:00	-14.82		97	8/11/2007	5:00	-13.92		149					
6/21/2007	5:00	-15.52		98	8/12/2007	5:00	-9.82	1	150					
6/22/2007	5:00	-15.82		99	8/13/2007	5:00	-10.32	2	151					
6/23/2007	5:00	-15.82		100	8/14/2007	5:00	-11.12	3	152					
6/24/2007	5:00	-16.22		101	8/15/2007	5:00	-11.52	4	153					
6/25/2007	5:00	-15.92		102	8/16/2007	5:00	-11.62	5	154					
6/26/2007	5:00	-15.92		103	8/17/2007	5:00	-11.42	6	155					
6/27/2007	5:00	-16.12		104	8/18/2007	5:00	-12.92		156					
6/28/2007	5:00	-16.32		105	8/19/2007	5:00	-13.62		157					
6/29/2007	5:00	-16.42		106	8/20/2007	5:00	-13.42		158					
6/30/2007	5:00	-13.62		107	8/21/2007	5:00	-13.92		159					
7/1/2007	5:00	-8.12	1	108	8/22/2007	5:00	-10.62	1	160					
7/2/2007	5:00	-10.52	2	109	8/23/2007	5:00	-12.42		161					
7/3/2007	5:00	-11.42	3	110	8/24/2007	5:00	-12.82		162					
7/4/2007	5:00	-12.22		111	8/25/2007	5:00	-13.32		163					
7/5/2007	5:00	-12.92		112	8/26/2007	5:00	-14.02		164					
7/6/2007	5:00	-12.92		113	8/27/2007	5:00	-14.02		165					
7/7/2007	5:00	-14.22		114	8/28/2007	5:00	-14.72		166					
7/8/2007	5:00	-14.92		115	8/29/2007	5:00	-15.02		167					
7/9/2007	5:00	-15.22		116	8/30/2007	5:00	-15.42		168					
7/10/2007	5:00	-16.22		117	8/31/2007	5:00	-15.52		169					
7/11/2007	5:00	-6.12	1	118	9/1/2007	5:00	-15.82		170					
7/12/2007	5:00	-8.52	2	119	9/2/2007	5:00	-16.12		171					
7/13/2007	5:00	-10.42	3	120	9/3/2007	5:00	-16.22		172					
7/14/2007	5:00	-11.52	4	121	9/4/2007	5:00	-16.32		173					
7/15/2007	5:00	-11.62	5	122	9/5/2007	5:00	-16.52		174					
7/16/2007	5:00	-12.32		123	9/6/2007	5:00	-16.62		175					
7/17/2007	5:00	-13.12		124	9/7/2007	5:00	-16.72		176					
7/18/2007	5:00	0.38	1	125	9/8/2007	5:00	-16.92		177					
7/19/2007	5:00	-6.62	2	126	9/9/2007	5:00	-16.72		178					
7/20/2007	5:00	-7.52	3	127	9/10/2007	5:00	-16.62		179					
7/21/2007	5:00	-9.02	4	128	9/11/2007	5:00	-16.72		180					
7/22/2007	5:00	-9.92	5	129	9/12/2007	5:00	-16.82		181					
7/23/2007	5:00	-10.52	6	130	9/13/2007	5:00	-16.92		182					
7/24/2007	5:00	-11.12	7	131	9/14/2007	5:00	-17.02		183					
7/25/2007	5:00	-11.52	8	132	9/15/2007	5:00	-15.92		184					
7/26/2007	5:00	-12.02		133	9/16/2007	5:00	-17.22		185					
7/27/2007	5:00	-12.52		134	9/17/2007	5:00	-17.22		186					

Gatlin Gauge 4 9DE7267



Gauge 4

Data Acquired : September 27, 2007

Serial Number: 9DE7267

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
1/1/2007	5:00	0.62			2/22/2007	5:00	0.82			4/15/2007	5:00	0.12	31	31
1/2/2007	5:00	0.32			2/23/2007	5:00	0.12			4/16/2007	5:00	1.92	32	32
1/3/2007	5:00	-0.28			2/24/2007	5:00	-0.38			4/17/2007	5:00	0.72	33	33
1/4/2007	5:00	0.12			2/25/2007	5:00	-0.18			4/18/2007	5:00	0.42	34	34
1/5/2007	5:00	0.62			2/26/2007	5:00	0.92			4/19/2007	5:00	0.12	35	35
1/6/2007	5:00	1.52			2/27/2007	5:00	0.62			4/20/2007	5:00	-0.38	36	36
1/7/2007	5:00	0.92			2/28/2007	5:00	0.32			4/21/2007	5:00	-0.48	37	37
1/8/2007	5:00	1.02			3/1/2007	5:00	0.22			4/22/2007	5:00	-0.88	38	38
1/9/2007	5:00	1.22			3/2/2007	5:00	1.12			4/23/2007	5:00	-1.18	39	39
1/10/2007	5:00	0.62			3/3/2007	5:00	0.52			4/24/2007	5:00	-1.58	40	40
1/11/2007	5:00	0.12			3/4/2007	5:00	0.12			4/25/2007	5:00	-1.88	41	41
1/12/2007	5:00	0.32			3/5/2007	5:00	-0.48			4/26/2007	5:00	-2.68	42	42
1/13/2007	5:00	0.52			3/6/2007	5:00	-0.58			4/27/2007	5:00	-3.18	43	43
1/14/2007	5:00	0.52			3/7/2007	5:00	-0.88			4/28/2007	5:00	-2.28	44	44
1/15/2007	5:00	0.72			3/8/2007	5:00	-0.78			4/29/2007	5:00	-3.88	45	45
1/16/2007	5:00	0.52			3/9/2007	5:00	-1.18			4/30/2007	5:00	-5.28	46	46
1/17/2007	5:00	-0.38			3/10/2007	5:00	-1.08			5/1/2007	5:00	-7.28	47	47
1/18/2007	5:00	-0.68			3/11/2007	5:00	-0.58			5/2/2007	5:00	-10.48	48	48
1/19/2007	5:00	0.52			3/12/2007	5:00	-1.38			5/3/2007	5:00	-14.38	49	
1/20/2007	5:00	0.12			3/13/2007	5:00	-1.38			5/4/2007	5:00	-16.18	50	
1/21/2007	5:00	-0.18			3/14/2007	5:00	-1.38			5/5/2007	5:00	-16.88	51	
1/22/2007	5:00	1.42			3/15/2007	5:00	-1.38			5/6/2007	5:00	-13.98	52	
1/23/2007	5:00	0.72			3/16/2007	5:00	0.72	1	1	5/7/2007	5:00	-16.98	53	
1/24/2007	5:00	0.42			3/17/2007	5:00	1.22	2	2	5/8/2007	5:00	-17.58	54	
1/25/2007	5:00	0.32			3/18/2007	5:00	0.42	3	3	5/9/2007	5:00	-17.48	55	
1/26/2007	5:00	-0.18			3/19/2007	5:00	0.02	4	4	5/10/2007	5:00	-13.48	56	
1/27/2007	5:00	-0.18			3/20/2007	5:00	0.02	5	5	5/11/2007	5:00	-16.38	57	
1/28/2007	5:00	0.12			3/21/2007	5:00	-0.38	6	6	5/12/2007	5:00	-17.48	58	
1/29/2007	5:00	-0.58			3/22/2007	5:00	-0.38	7	7	5/13/2007	5:00	-17.48	59	
1/30/2007	5:00	-0.88			3/23/2007	5:00	-0.28	8	8	5/14/2007	5:00	-17.98	60	
1/31/2007	5:00	-0.88			3/24/2007	5:00	-0.28	9	9	5/15/2007	5:00	-18.18	61	
2/1/2007	5:00	-0.88			3/25/2007	5:00	-0.38	10	10	5/16/2007	5:00	-18.28	62	
2/2/2007	5:00	0.52			3/26/2007	5:00	-1.28	11	11	5/17/2007	5:00	-17.88	63	
2/3/2007	5:00	0.32			3/27/2007	5:00	-1.28	12	12	5/18/2007	5:00	-18.18	64	
2/4/2007	5:00	-0.08			3/28/2007	5:00	-0.08	13	13	5/19/2007	5:00	-18.28	65	
2/5/2007	5:00	-0.18			3/29/2007	5:00	0.12	14	14	5/20/2007	5:00	-18.38	66	
2/6/2007	5:00	-1.08			3/30/2007	5:00	-0.88	15	15	5/21/2007	5:00	-18.38	67	
2/7/2007	5:00	-0.58			3/31/2007	5:00	-1.18	16	16	5/22/2007	5:00	-18.48	68	
2/8/2007	5:00	-0.68			4/1/2007	5:00	-1.18	17	17	5/23/2007	5:00	-18.48	69	
2/9/2007	5:00	-1.18			4/2/2007	5:00	-1.08	18	18	5/24/2007	5:00	-18.48	70	
2/10/2007	5:00	-0.98			4/3/2007	5:00	-1.88	19	19	5/25/2007	5:00	-18.38	71	
2/11/2007	5:00	-1.58			4/4/2007	5:00	-2.18	20	20	5/26/2007	5:00	-18.48	72	
2/12/2007	5:00	-1.18			4/5/2007	5:00	-3.58	21	21	5/27/2007	5:00	-18.48	73	
2/13/2007	5:00	-0.58			4/6/2007	5:00	-4.18	22	22	5/28/2007	5:00	-18.48	74	
2/14/2007	5:00	0.62			4/7/2007	5:00	-2.08	23	23	5/29/2007	5:00	-18.38	75	

Gauge 4

Data Acquired : September 27, 2007

Serial Number: 9DE7267

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
2/15/2007	5:00	0.12			4/8/2007	5:00	-4.48	24	24	5/30/2007	5:00	-18.38		76
2/16/2007	5:00	0.02			4/9/2007	5:00	-5.48	25	25	5/31/2007	5:00	-18.38		77
2/17/2007	5:00	-0.58			4/10/2007	5:00	-6.38	26	26	6/1/2007	5:00	-18.38		78
2/18/2007	5:00	-0.28			4/11/2007	5:00	-8.08	27	27	6/2/2007	5:00	-18.38		79
2/19/2007	5:00	-0.98			4/12/2007	5:00	0.82	28	28	6/3/2007	5:00	-17.98		80
2/20/2007	5:00	-0.78			4/13/2007	5:00	-1.18	29	29	6/4/2007	5:00	-17.08		81
2/21/2007	5:00	-0.38			4/14/2007	5:00	-1.88	30	30	6/5/2007	5:00	-18.08		82
6/6/2007	5:00	-18.18	83		7/28/2007	5:00	-17.98		135	9/18/2007	5:00	-18.28		187
6/7/2007	5:00	-18.08	84		7/29/2007	5:00	-18.08		136	9/19/2007	5:00	-18.38		188
6/8/2007	5:00	-18.08	85		7/30/2007	5:00	-17.68		137	9/20/2007	5:00	-18.28		189
6/9/2007	5:00	-18.18	86		7/31/2007	5:00	-17.88		138	9/21/2007	5:00	-17.78		190
6/10/2007	5:00	-17.98	87		8/1/2007	5:00	-17.98		139	9/22/2007	5:00	-17.88		191
6/11/2007	5:00	-18.18	88		8/2/2007	5:00	-18.08		140	9/23/2007	5:00	-18.18		192
6/12/2007	5:00	-18.18	89		8/3/2007	5:00	-18.08		141	9/24/2007	5:00	-18.18		193
6/13/2007	5:00	-18.18	90		8/4/2007	5:00	-18.08		142	9/25/2007	5:00	-18.28		194
6/14/2007	5:00	-18.28	91		8/5/2007	5:00	-18.08		143	9/26/2007	5:00	-18.28		195
6/15/2007	5:00	-18.38	92		8/6/2007	5:00	-17.98		144	9/27/2007	5:00	-18.28		196
6/16/2007	5:00	-18.08	93		8/7/2007	5:00	-18.08		145					
6/17/2007	5:00	-18.18	94		8/8/2007	5:00	-17.98		146					
6/18/2007	5:00	-18.18	95		8/9/2007	5:00	-18.08		147					
6/19/2007	5:00	-18.28	96		8/10/2007	5:00	-18.18		148					
6/20/2007	5:00	-18.28	97		8/11/2007	5:00	-17.98		149					
6/21/2007	5:00	-18.18	98		8/12/2007	5:00	-18.08		150					
6/22/2007	5:00	-18.28	99		8/13/2007	5:00	-18.08		151					
6/23/2007	5:00	-18.38	100		8/14/2007	5:00	-18.18		152					
6/24/2007	5:00	-18.38	101		8/15/2007	5:00	-18.18		153					
6/25/2007	5:00	-18.38	102		8/16/2007	5:00	-17.98		154					
6/26/2007	5:00	-18.28	103		8/17/2007	5:00	-17.78		155					
6/27/2007	5:00	-18.18	104		8/18/2007	5:00	-18.08		156					
6/28/2007	5:00	-18.18	105		8/19/2007	5:00	-18.18		157					
6/29/2007	5:00	-18.28	106		8/20/2007	5:00	-18.08		158					
6/30/2007	5:00	-17.58	107		8/21/2007	5:00	-18.18		159					
7/1/2007	5:00	-17.18	108		8/22/2007	5:00	-17.78		160					
7/2/2007	5:00	-18.08	109		8/23/2007	5:00	-17.98		161					
7/3/2007	5:00	-18.18	110		8/24/2007	5:00	-18.08		162					
7/4/2007	5:00	-18.28	111		8/25/2007	5:00	-17.98		163					
7/5/2007	5:00	-18.18	112		8/26/2007	5:00	-18.08		164					
7/6/2007	5:00	-18.08	113		8/27/2007	5:00	-17.68		165					
7/7/2007	5:00	-18.18	114		8/28/2007	5:00	-17.98		166					
7/8/2007	5:00	-18.18	115		8/29/2007	5:00	-18.08		167					
7/9/2007	5:00	-18.18	116		8/30/2007	5:00	-18.18		168					
7/10/2007	5:00	-18.08	117		8/31/2007	5:00	-18.18		169					
7/11/2007	5:00	-17.48	118		9/1/2007	5:00	-18.18		170					
7/12/2007	5:00	-17.58	119		9/2/2007	5:00	-18.18		171					
7/13/2007	5:00	-17.98	120		9/3/2007	5:00	-18.28		172					
7/14/2007	5:00	-18.08	121		9/4/2007	5:00	-18.28		173					

Gauge 4

Data Acquired : September 27, 2007

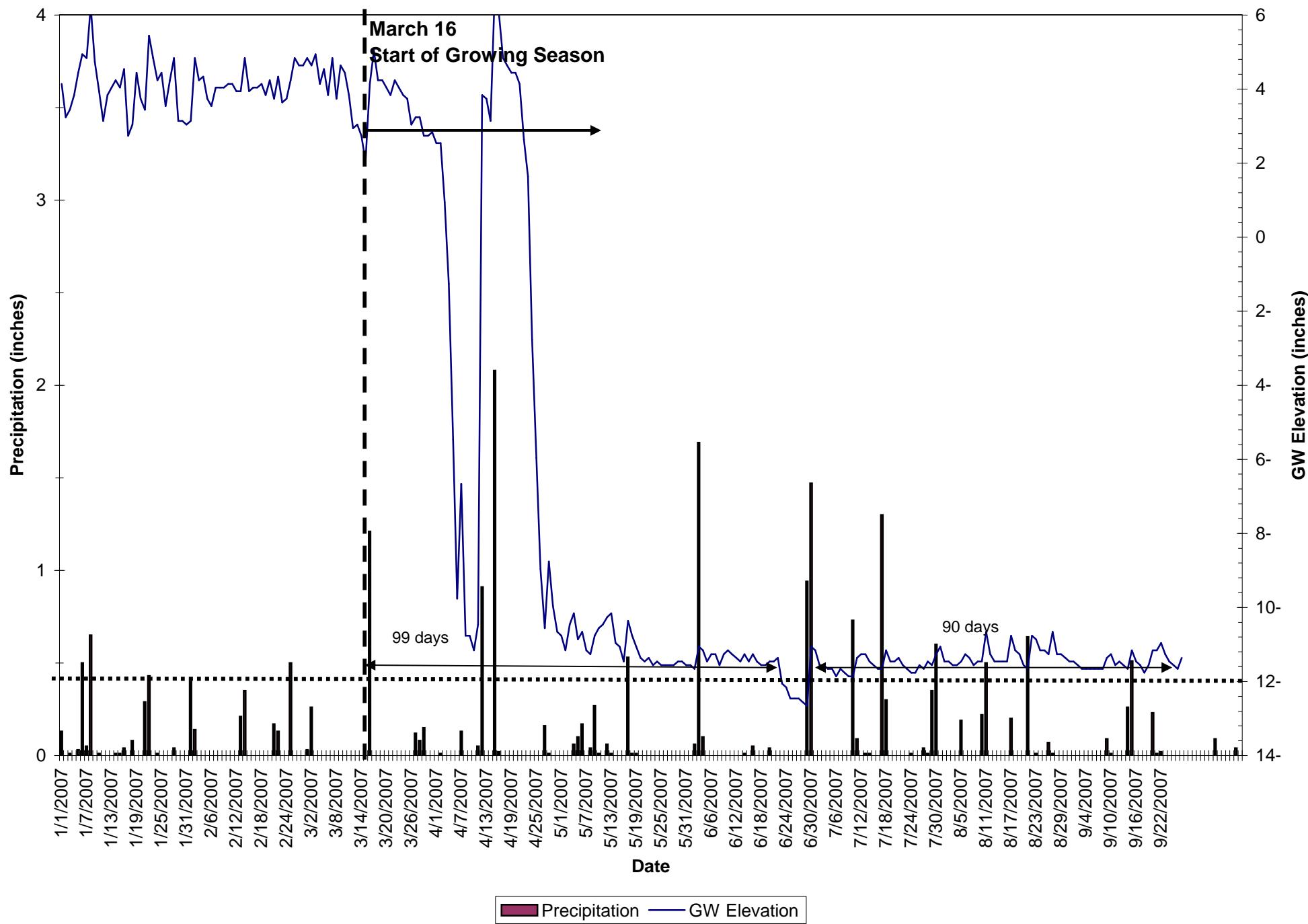
Serial Number: 9DE7267

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
7/15/2007	5:00	-18.08		122	9/5/2007	5:00	-18.18		174					
7/16/2007	5:00	-18.08		123	9/6/2007	5:00	-18.18		175					
7/17/2007	5:00	-18.08		124	9/7/2007	5:00	-18.28		176					
7/18/2007	5:00	-14.78		125	9/8/2007	5:00	-18.28		177					
7/19/2007	5:00	-17.68		126	9/9/2007	5:00	-18.08		178					
7/20/2007	5:00	-17.88		127	9/10/2007	5:00	-18.08		179					
7/21/2007	5:00	-17.98		128	9/11/2007	5:00	-18.18		180					
7/22/2007	5:00	-18.08		129	9/12/2007	5:00	-18.38		181					
7/23/2007	5:00	-18.18		130	9/13/2007	5:00	-18.38		182					
7/24/2007	5:00	-18.18		131	9/14/2007	5:00	-18.38		183					
7/25/2007	5:00	-18.08		132	9/15/2007	5:00	-17.68		184					
7/26/2007	5:00	-18.18		133	9/16/2007	5:00	-18.28		185					
7/27/2007	5:00	-18.08		134	9/17/2007	5:00	-18.38		186					

Gatlin Gauge 5 EBD2B2C



Gauge 5

Data Acquired : September 27, 2007

Serial Number: EBD2B2C

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
1/1/2007	5:00	4.14			2/22/2007	5:00	4.34			4/15/2007	5:00	6.54	31	31
1/2/2007	5:00	3.24			2/23/2007	5:00	3.64			4/16/2007	5:00	6.04	32	32
1/3/2007	5:00	3.44			2/24/2007	5:00	3.74			4/17/2007	5:00	4.84	33	33
1/4/2007	5:00	3.84			2/25/2007	5:00	4.24			4/18/2007	5:00	4.64	34	34
1/5/2007	5:00	4.44			2/26/2007	5:00	4.84			4/19/2007	5:00	4.44	35	35
1/6/2007	5:00	4.94			2/27/2007	5:00	4.64			4/20/2007	5:00	4.44	36	36
1/7/2007	5:00	4.84			2/28/2007	5:00	4.64			4/21/2007	5:00	4.14	37	37
1/8/2007	5:00	6.24			3/1/2007	5:00	4.84			4/22/2007	5:00	2.64	38	38
1/9/2007	5:00	4.74			3/2/2007	5:00	4.64			4/23/2007	5:00	1.64	39	39
1/10/2007	5:00	3.94			3/3/2007	5:00	4.94			4/24/2007	5:00	-2.76	40	40
1/11/2007	5:00	3.14			3/4/2007	5:00	4.14			4/25/2007	5:00	-5.96	41	41
1/12/2007	5:00	3.84			3/5/2007	5:00	4.54			4/26/2007	5:00	-8.96	42	42
1/13/2007	5:00	4.04			3/6/2007	5:00	3.84			4/27/2007	5:00	-10.56	43	43
1/14/2007	5:00	4.24			3/7/2007	5:00	4.84			4/28/2007	5:00	-8.76	44	44
1/15/2007	5:00	4.04			3/8/2007	5:00	3.74			4/29/2007	5:00	-9.96	45	45
1/16/2007	5:00	4.54			3/9/2007	5:00	4.64			4/30/2007	5:00	-10.66	46	46
1/17/2007	5:00	2.74			3/10/2007	5:00	4.44			5/1/2007	5:00	-10.76	47	47
1/18/2007	5:00	3.04			3/11/2007	5:00	3.84			5/2/2007	5:00	-11.16	48	48
1/19/2007	5:00	4.44			3/12/2007	5:00	2.94			5/3/2007	5:00	-10.46	49	49
1/20/2007	5:00	3.74			3/13/2007	5:00	3.04			5/4/2007	5:00	-10.16	50	50
1/21/2007	5:00	3.44			3/14/2007	5:00	2.74			5/5/2007	5:00	-10.86	51	51
1/22/2007	5:00	5.44			3/15/2007	5:00	2.04			5/6/2007	5:00	-10.66	52	52
1/23/2007	5:00	4.84			3/16/2007	5:00	4.14	1	1	5/7/2007	5:00	-11.16	53	53
1/24/2007	5:00	4.24			3/17/2007	5:00	5.04	2	2	5/8/2007	5:00	-11.26	54	54
1/25/2007	5:00	4.44			3/18/2007	5:00	4.24	3	3	5/9/2007	5:00	-10.76	55	55
1/26/2007	5:00	3.54			3/19/2007	5:00	4.24	4	4	5/10/2007	5:00	-10.56	56	56
1/27/2007	5:00	4.24			3/20/2007	5:00	4.04	5	5	5/11/2007	5:00	-10.46	57	57
1/28/2007	5:00	4.84			3/21/2007	5:00	3.84	6	6	5/12/2007	5:00	-10.26	58	58
1/29/2007	5:00	3.14			3/22/2007	5:00	4.24	7	7	5/13/2007	5:00	-10.16	59	59
1/30/2007	5:00	3.14			3/23/2007	5:00	4.04	8	8	5/14/2007	5:00	-10.96	60	60
1/31/2007	5:00	3.04			3/24/2007	5:00	3.84	9	9	5/15/2007	5:00	-11.06	61	61
2/1/2007	5:00	3.14			3/25/2007	5:00	3.74	10	10	5/16/2007	5:00	-11.46	62	62
2/2/2007	5:00	4.84			3/26/2007	5:00	3.04	11	11	5/17/2007	5:00	-10.36	63	63
2/3/2007	5:00	4.24			3/27/2007	5:00	3.24	12	12	5/18/2007	5:00	-10.76	64	64
2/4/2007	5:00	4.34			3/28/2007	5:00	3.24	13	13	5/19/2007	5:00	-11.06	65	65
2/5/2007	5:00	3.74			3/29/2007	5:00	2.74	14	14	5/20/2007	5:00	-11.36	66	66
2/6/2007	5:00	3.54			3/30/2007	5:00	2.74	15	15	5/21/2007	5:00	-11.46	67	67
2/7/2007	5:00	4.04			3/31/2007	5:00	2.84	16	16	5/22/2007	5:00	-11.36	68	68
2/8/2007	5:00	4.04			4/1/2007	5:00	2.54	17	17	5/23/2007	5:00	-11.56	69	69
2/9/2007	5:00	4.04			4/2/2007	5:00	2.54	18	18	5/24/2007	5:00	-11.46	70	70
2/10/2007	5:00	4.14			4/3/2007	5:00	0.94	19	19	5/25/2007	5:00	-11.56	71	71
2/11/2007	5:00	4.14			4/4/2007	5:00	-1.26	20	20	5/26/2007	5:00	-11.56	72	72
2/12/2007	5:00	3.94			4/5/2007	5:00	-5.46	21	21	5/27/2007	5:00	-11.56	73	73
2/13/2007	5:00	3.94			4/6/2007	5:00	-9.76	22	22	5/28/2007	5:00	-11.56	74	74
2/14/2007	5:00	4.84			4/7/2007	5:00	-6.66	23	23	5/29/2007	5:00	-11.46	75	75
2/15/2007	5:00	3.94			4/8/2007	5:00	-10.76	24	24	5/30/2007	5:00	-11.46	76	76
2/16/2007	5:00	4.04			4/9/2007	5:00	-10.76	25	25	5/31/2007	5:00	-11.56	77	77
2/17/2007	5:00	4.04			4/10/2007	5:00	-11.16	26	26	6/1/2007	5:00	-11.56	78	78
2/18/2007	5:00	4.14			4/11/2007	5:00	-10.46	27	27	6/2/2007	5:00	-11.66	79	79
2/19/2007	5:00	3.84			4/12/2007	5:00	3.84	28	28	6/3/2007	5:00	-11.06	80	80
2/20/2007	5:00	4.24			4/13/2007	5:00	3.74	29	29	6/4/2007	5:00	-11.16	81	81
2/21/2007	5:00	3.74			4/14/2007	5:00	3.14	30	30	6/5/2007	5:00	-11.46	82	82

Gauge 5

Data Acquired : September 27, 2007

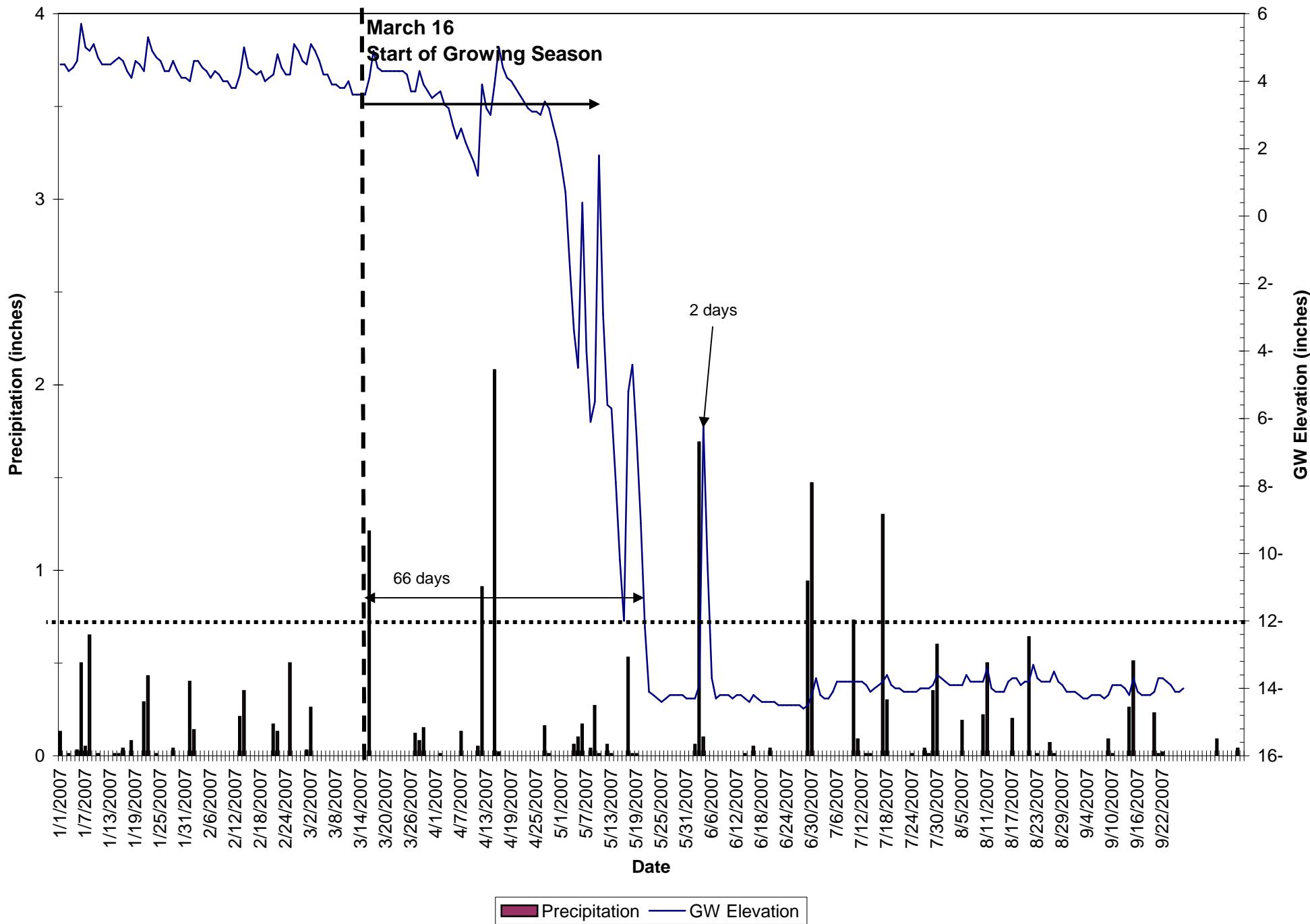
Serial Number: EBD2B2C

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
6/6/2007	5:00	-11.26	83	83	7/28/2007	5:00	-11.46	29	135	9/18/2007	5:00	-11.76	81	187
6/7/2007	5:00	-11.26	84	84	7/29/2007	5:00	-11.56	30	136	9/19/2007	5:00	-11.56	82	188
6/8/2007	5:00	-11.56	85	85	7/30/2007	5:00	-11.26	31	137	9/20/2007	5:00	-11.16	83	189
6/9/2007	5:00	-11.26	86	86	7/31/2007	5:00	-11.06	32	138	9/21/2007	5:00	-11.16	84	190
6/10/2007	5:00	-11.16	87	87	8/1/2007	5:00	-11.46	33	139	9/22/2007	5:00	-10.96	85	191
6/11/2007	5:00	-11.26	88	88	8/2/2007	5:00	-11.46	34	140	9/23/2007	5:00	-11.26	86	192
6/12/2007	5:00	-11.36	89	89	8/3/2007	5:00	-11.56	35	141	9/24/2007	5:00	-11.46	87	193
6/13/2007	5:00	-11.46	90	90	8/4/2007	5:00	-11.56	36	142	9/25/2007	5:00	-11.56	88	194
6/14/2007	5:00	-11.26	91	91	8/5/2007	5:00	-11.46	37	143	9/26/2007	5:00	-11.66	89	195
6/15/2007	5:00	-11.46	92	92	8/6/2007	5:00	-11.26	38	144	9/27/2007	5:00	-11.36	90	196
6/16/2007	5:00	-11.26	93	93	8/7/2007	5:00	-11.36	39	145					
6/17/2007	5:00	-11.46	94	94	8/8/2007	5:00	-11.56	40	146					
6/18/2007	5:00	-11.56	95	95	8/9/2007	5:00	-11.46	41	147					
6/19/2007	5:00	-11.56	96	96	8/10/2007	5:00	-11.46	42	148					
6/20/2007	5:00	-11.46	97	97	8/11/2007	5:00	-10.66	43	149					
6/21/2007	5:00	-11.46	98	98	8/12/2007	5:00	-11.26	44	150					
6/22/2007	5:00	-11.36	99	99	8/13/2007	5:00	-11.46	45	151					
6/23/2007	5:00	-12.06	100		8/14/2007	5:00	-11.46	46	152					
6/24/2007	5:00	-12.16		101	8/15/2007	5:00	-11.46	47	153					
6/25/2007	5:00	-12.46		102	8/16/2007	5:00	-11.46	48	154					
6/26/2007	5:00	-12.46		103	8/17/2007	5:00	-10.76	49	155					
6/27/2007	5:00	-12.46		104	8/18/2007	5:00	-11.16	50	156					
6/28/2007	5:00	-12.56		105	8/19/2007	5:00	-11.26	51	157					
6/29/2007	5:00	-12.66		106	8/20/2007	5:00	-11.56	52	158					
6/30/2007	5:00	-11.06	1	107	8/21/2007	5:00	-11.66	53	159					
7/1/2007	5:00	-11.16	2	108	8/22/2007	5:00	-10.76	54	160					
7/2/2007	5:00	-11.56	3	109	8/23/2007	5:00	-10.86	55	161					
7/3/2007	5:00	-11.56	4	110	8/24/2007	5:00	-11.16	56	162					
7/4/2007	5:00	-11.66	5	111	8/25/2007	5:00	-11.16	57	163					
7/5/2007	5:00	-11.66	6	112	8/26/2007	5:00	-11.26	58	164					
7/6/2007	5:00	-11.86	7	113	8/27/2007	5:00	-10.66	59	165					
7/7/2007	5:00	-11.66	8	114	8/28/2007	5:00	-11.26	60	166					
7/8/2007	5:00	-11.76	9	115	8/29/2007	5:00	-11.26	61	167					
7/9/2007	5:00	-11.86	10	116	8/30/2007	5:00	-11.36	62	168					
7/10/2007	5:00	-11.86	11	117	8/31/2007	5:00	-11.46	63	169					
7/11/2007	5:00	-11.36	12	118	9/1/2007	5:00	-11.46	64	170					
7/12/2007	5:00	-11.26	13	119	9/2/2007	5:00	-11.56	65	171					
7/13/2007	5:00	-11.26	14	120	9/3/2007	5:00	-11.66	66	172					
7/14/2007	5:00	-11.46	15	121	9/4/2007	5:00	-11.66	67	173					
7/15/2007	5:00	-11.56	16	122	9/5/2007	5:00	-11.66	68	174					
7/16/2007	5:00	-11.66	17	123	9/6/2007	5:00	-11.66	69	175					
7/17/2007	5:00	-11.66	18	124	9/7/2007	5:00	-11.66	70	176					
7/18/2007	5:00	-11.16	19	125	9/8/2007	5:00	-11.66	71	177					
7/19/2007	5:00	-11.46	20	126	9/9/2007	5:00	-11.36	72	178					
7/20/2007	5:00	-11.46	21	127	9/10/2007	5:00	-11.26	73	179					
7/21/2007	5:00	-11.36	22	128	9/11/2007	5:00	-11.56	74	180					
7/22/2007	5:00	-11.56	23	129	9/12/2007	5:00	-11.46	75	181					
7/23/2007	5:00	-11.66	24	130	9/13/2007	5:00	-11.56	76	182					
7/24/2007	5:00	-11.76	25	131	9/14/2007	5:00	-11.66	77	183					
7/25/2007	5:00	-11.76	26	132	9/15/2007	5:00	-11.16	78	184					
7/26/2007	5:00	-11.56	27	133	9/16/2007	5:00	-11.46	79	185					
7/27/2007	5:00	-11.66	28	134	9/17/2007	5:00	-11.56	80	186					

Gatlin Gauge Reference A3C4CBB



Gauge Ref

Data Acquired : September 27, 2007

Serial Number: a3c4cbb

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
1/1/2007	5:00	4.5			2/22/2007	5:00	4.8			4/15/2007	5:00	3.9	31	31
1/2/2007	5:00	4.5			2/23/2007	5:00	4.4			4/16/2007	5:00	5	32	32
1/3/2007	5:00	4.3			2/24/2007	5:00	4.2			4/17/2007	5:00	4.4	33	33
1/4/2007	5:00	4.4			2/25/2007	5:00	4.2			4/18/2007	5:00	4.1	34	34
1/5/2007	5:00	4.6			2/26/2007	5:00	5.1			4/19/2007	5:00	4	35	35
1/6/2007	5:00	5.7			2/27/2007	5:00	4.9			4/20/2007	5:00	3.8	36	36
1/7/2007	5:00	5			2/28/2007	5:00	4.6			4/21/2007	5:00	3.6	37	37
1/8/2007	5:00	4.9			3/1/2007	5:00	4.5			4/22/2007	5:00	3.4	38	38
1/9/2007	5:00	5.1			3/2/2007	5:00	5.1			4/23/2007	5:00	3.2	39	39
1/10/2007	5:00	4.7			3/3/2007	5:00	4.9			4/24/2007	5:00	3.1	40	40
1/11/2007	5:00	4.5			3/4/2007	5:00	4.6			4/25/2007	5:00	3.1	41	41
1/12/2007	5:00	4.5			3/5/2007	5:00	4.2			4/26/2007	5:00	3	42	42
1/13/2007	5:00	4.5			3/6/2007	5:00	4.2			4/27/2007	5:00	3.4	43	43
1/14/2007	5:00	4.6			3/7/2007	5:00	3.9			4/28/2007	5:00	3.2	44	44
1/15/2007	5:00	4.7			3/8/2007	5:00	3.9			4/29/2007	5:00	2.7	45	45
1/16/2007	5:00	4.6			3/9/2007	5:00	3.8			4/30/2007	5:00	2.2	46	46
1/17/2007	5:00	4.3			3/10/2007	5:00	3.8			5/1/2007	5:00	1.5	47	47
1/18/2007	5:00	4.1			3/11/2007	5:00	4			5/2/2007	5:00	0.7	48	48
1/19/2007	5:00	4.6			3/12/2007	5:00	3.6			5/3/2007	5:00	-1.5	49	49
1/20/2007	5:00	4.5			3/13/2007	5:00	3.6			5/4/2007	5:00	-3.4	50	50
1/21/2007	5:00	4.3			3/14/2007	5:00	3.6			5/5/2007	5:00	-4.5	51	51
1/22/2007	5:00	5.3			3/15/2007	5:00	3.6			5/6/2007	5:00	0.4	52	52
1/23/2007	5:00	4.9			3/16/2007	5:00	4.1	1	1	5/7/2007	5:00	-4	53	53
1/24/2007	5:00	4.7			3/17/2007	5:00	4.9	2	2	5/8/2007	5:00	-6.1	54	54
1/25/2007	5:00	4.6			3/18/2007	5:00	4.4	3	3	5/9/2007	5:00	-5.5	55	55
1/26/2007	5:00	4.3			3/19/2007	5:00	4.3	4	4	5/10/2007	5:00	1.8	56	56
1/27/2007	5:00	4.3			3/20/2007	5:00	4.3	5	5	5/11/2007	5:00	-2.9	57	57
1/28/2007	5:00	4.6			3/21/2007	5:00	4.3	6	6	5/12/2007	5:00	-5.6	58	58
1/29/2007	5:00	4.3			3/22/2007	5:00	4.3	7	7	5/13/2007	5:00	-5.7	59	59
1/30/2007	5:00	4.1			3/23/2007	5:00	4.3	8	8	5/14/2007	5:00	-7.9	60	60
1/31/2007	5:00	4.1			3/24/2007	5:00	4.3	9	9	5/15/2007	5:00	-10.2	61	61
2/1/2007	5:00	4			3/25/2007	5:00	4.2	10	10	5/16/2007	5:00	-12	62	62
2/2/2007	5:00	4.6			3/26/2007	5:00	3.7	11	11	5/17/2007	5:00	-5.2	63	63
2/3/2007	5:00	4.6			3/27/2007	5:00	3.7	12	12	5/18/2007	5:00	-4.4	64	64
2/4/2007	5:00	4.4			3/28/2007	5:00	4.3	13	13	5/19/2007	5:00	-6.5	65	65
2/5/2007	5:00	4.3			3/29/2007	5:00	3.9	14	14	5/20/2007	5:00	-9.1	66	66
2/6/2007	5:00	4.1			3/30/2007	5:00	3.7	15	15	5/21/2007	5:00	-12.2	67	
2/7/2007	5:00	4.3			3/31/2007	5:00	3.5	16	16	5/22/2007	5:00	-14.1		68
2/8/2007	5:00	4.2			4/1/2007	5:00	3.6	17	17	5/23/2007	5:00	-14.2		69
2/9/2007	5:00	4			4/2/2007	5:00	3.7	18	18	5/24/2007	5:00	-14.3		70
2/10/2007	5:00	4			4/3/2007	5:00	3.3	19	19	5/25/2007	5:00	-14.4		71
2/11/2007	5:00	3.8			4/4/2007	5:00	3.2	20	20	5/26/2007	5:00	-14.3		72
2/12/2007	5:00	3.8			4/5/2007	5:00	2.7	21	21	5/27/2007	5:00	-14.2		73
2/13/2007	5:00	4.2			4/6/2007	5:00	2.3	22	22	5/28/2007	5:00	-14.2		74
2/14/2007	5:00	5			4/7/2007	5:00	2.6	23	23	5/29/2007	5:00	-14.2		75
2/15/2007	5:00	4.4			4/8/2007	5:00	2.2	24	24	5/30/2007	5:00	-14.2		76
2/16/2007	5:00	4.3			4/9/2007	5:00	1.9	25	25	5/31/2007	5:00	-14.3		77
2/17/2007	5:00	4.2			4/10/2007	5:00	1.6	26	26	6/1/2007	5:00	-14.3		78
2/18/2007	5:00	4.3			4/11/2007	5:00	1.2	27	27	6/2/2007	5:00	-14.3		79
2/19/2007	5:00	4			4/12/2007	5:00	3.9	28	28	6/3/2007	5:00	-13.9		80
2/20/2007	5:00	4.1			4/13/2007	5:00	3.2	29	29	6/4/2007	5:00	-6.2	1	81
2/21/2007	5:00	4.2			4/14/2007	5:00	3	30	30	6/5/2007	5:00	-10.3	2	82

Gauge Ref

Data Acquired : September 27, 2007

Serial Number: a3c4cbb

CD: Consecutive Days Saturation (within 12 inches of the soil surface) During the Growing Season

JD: Julian Days During Growing Season

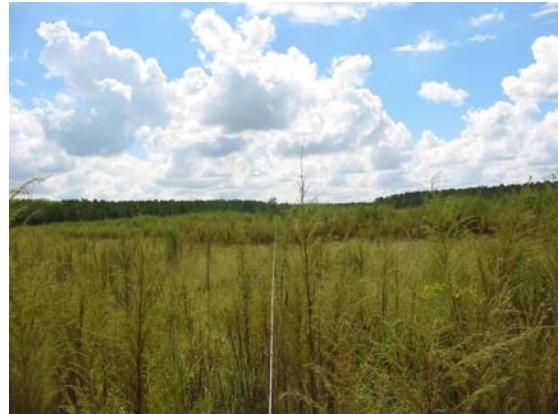
Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD	Date	Time	Level (in)	CD	JD
6/6/2007	5:00	-13.7		83	7/28/2007	5:00	-14		135	9/18/2007	5:00	-14.2		187
6/7/2007	5:00	-14.3		84	7/29/2007	5:00	-13.9		136	9/19/2007	5:00	-14.2		188
6/8/2007	5:00	-14.2		85	7/30/2007	5:00	-13.6		137	9/20/2007	5:00	-14.1		189
6/9/2007	5:00	-14.2		86	7/31/2007	5:00	-13.7		138	9/21/2007	5:00	-13.7		190
6/10/2007	5:00	-14.2		87	8/1/2007	5:00	-13.8		139	9/22/2007	5:00	-13.7		191
6/11/2007	5:00	-14.3		88	8/2/2007	5:00	-13.9		140	9/23/2007	5:00	-13.8		192
6/12/2007	5:00	-14.2		89	8/3/2007	5:00	-13.9		141	9/24/2007	5:00	-13.9		193
6/13/2007	5:00	-14.2		90	8/4/2007	5:00	-13.9		142	9/25/2007	5:00	-14.1		194
6/14/2007	5:00	-14.3		91	8/5/2007	5:00	-13.9		143	9/26/2007	5:00	-14.1		195
6/15/2007	5:00	-14.4		92	8/6/2007	5:00	-13.6		144	9/27/2007	5:00	-14		196
6/16/2007	5:00	-14.2		93	8/7/2007	5:00	-13.8		145					
6/17/2007	5:00	-14.3		94	8/8/2007	5:00	-13.8		146					
6/18/2007	5:00	-14.4		95	8/9/2007	5:00	-13.8		147					
6/19/2007	5:00	-14.4		96	8/10/2007	5:00	-13.8		148					
6/20/2007	5:00	-14.4		97	8/11/2007	5:00	-13.4		149					
6/21/2007	5:00	-14.4		98	8/12/2007	5:00	-14		150					
6/22/2007	5:00	-14.5		99	8/13/2007	5:00	-14.1		151					
6/23/2007	5:00	-14.5		100	8/14/2007	5:00	-14.1		152					
6/24/2007	5:00	-14.5		101	8/15/2007	5:00	-14.1		153					
6/25/2007	5:00	-14.5		102	8/16/2007	5:00	-13.8		154					
6/26/2007	5:00	-14.5		103	8/17/2007	5:00	-13.7		155					
6/27/2007	5:00	-14.5		104	8/18/2007	5:00	-13.7		156					
6/28/2007	5:00	-14.6		105	8/19/2007	5:00	-13.9		157					
6/29/2007	5:00	-14.5		106	8/20/2007	5:00	-13.8		158					
6/30/2007	5:00	-14.2		107	8/21/2007	5:00	-13.8		159					
7/1/2007	5:00	-13.7		108	8/22/2007	5:00	-13.3		160					
7/2/2007	5:00	-14.2		109	8/23/2007	5:00	-13.7		161					
7/3/2007	5:00	-14.3		110	8/24/2007	5:00	-13.8		162					
7/4/2007	5:00	-14.3		111	8/25/2007	5:00	-13.8		163					
7/5/2007	5:00	-14.1		112	8/26/2007	5:00	-13.8		164					
7/6/2007	5:00	-13.8		113	8/27/2007	5:00	-13.5		165					
7/7/2007	5:00	-13.8		114	8/28/2007	5:00	-13.8		166					
7/8/2007	5:00	-13.8		115	8/29/2007	5:00	-13.9		167					
7/9/2007	5:00	-13.8		116	8/30/2007	5:00	-14.1		168					
7/10/2007	5:00	-13.8		117	8/31/2007	5:00	-14.1		169					
7/11/2007	5:00	-13.8		118	9/1/2007	5:00	-14.1		170					
7/12/2007	5:00	-13.8		119	9/2/2007	5:00	-14.2		171					
7/13/2007	5:00	-13.9		120	9/3/2007	5:00	-14.3		172					
7/14/2007	5:00	-14.1		121	9/4/2007	5:00	-14.3		173					
7/15/2007	5:00	-14		122	9/5/2007	5:00	-14.2		174					
7/16/2007	5:00	-13.9		123	9/6/2007	5:00	-14.2		175					
7/17/2007	5:00	-13.8		124	9/7/2007	5:00	-14.2		176					
7/18/2007	5:00	-13.6		125	9/8/2007	5:00	-14.3		177					
7/19/2007	5:00	-13.9		126	9/9/2007	5:00	-14.2		178					
7/20/2007	5:00	-14		127	9/10/2007	5:00	-13.9		179					
7/21/2007	5:00	-14		128	9/11/2007	5:00	-13.9		180					
7/22/2007	5:00	-14.1		129	9/12/2007	5:00	-13.9		181					
7/23/2007	5:00	-14.1		130	9/13/2007	5:00	-14		182					
7/24/2007	5:00	-14.1		131	9/14/2007	5:00	-14.2		183					
7/25/2007	5:00	-14.1		132	9/15/2007	5:00	-13.7		184					
7/26/2007	5:00	-14		133	9/16/2007	5:00	-14.1		185					
7/27/2007	5:00	-14		134	9/17/2007	5:00	-14.2		186					

APPENDIX B
VEGETATION PLOT PHOTOGRAPHS

**Gatlin Swamp Wetland Restoration Site
Year 2 (2007) Annual Monitoring Report
Vegetation Photographs Taken September 2007**



Plot 1



Plot 2



Plot 3



Plot 4



Plot 5