



Latitude:34.79777, Longitude:-91.89132

Route:31 Section:03 Log:1.19

Arnold Road ID:43x31x3xA, Arnold Log mile:1.19

District 06, 85 - Lonoke County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

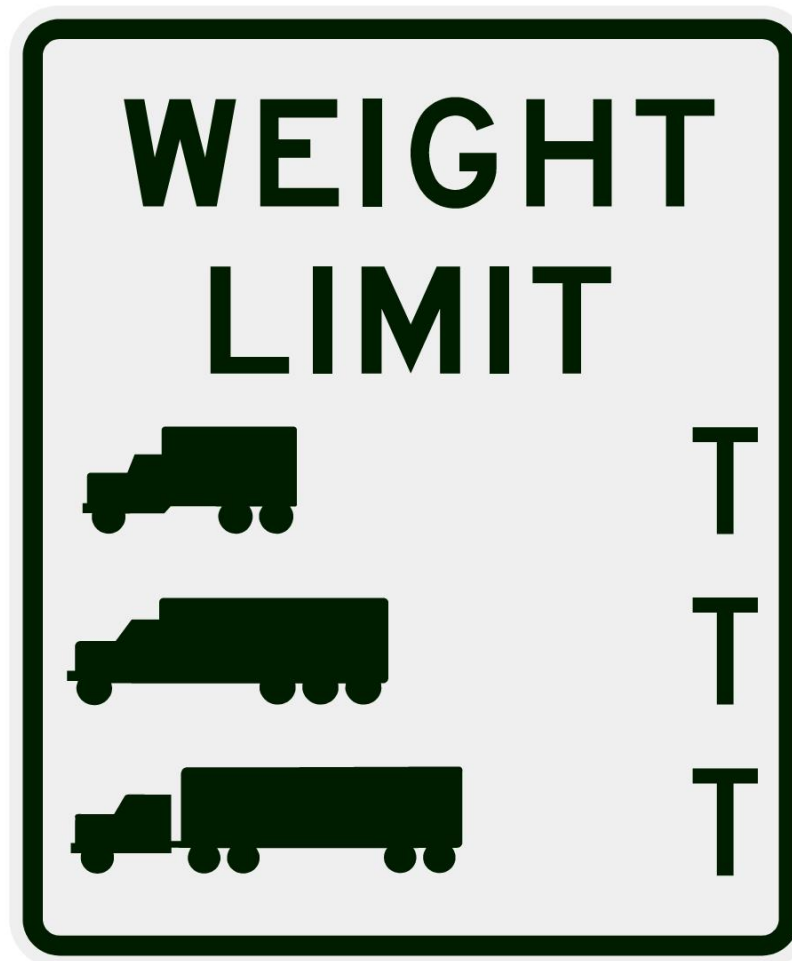
### Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

70 - Bridge Posting: 5 - Equal to or above legal loads

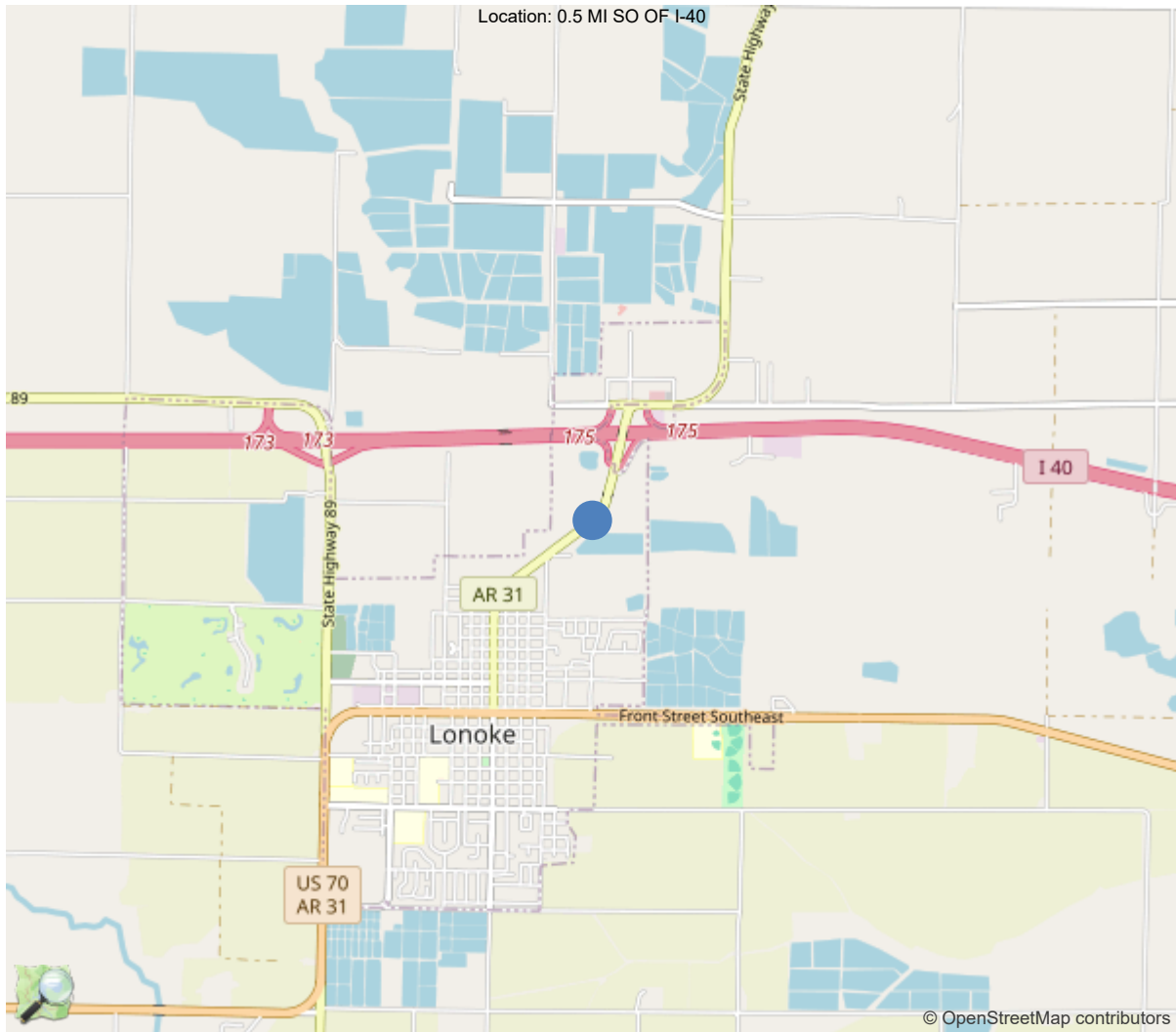
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	47		
Code 5 (40 Tons)	60		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR





34.79777, -91.89132



Asset #05507(Routine)

SH 31 Log 1.19 over BAYOU TWO PRAIRIE RELIEF

Location: 0.5 MI SO OF I-40

Team Lead: Bryan Saunders Inspection Date: 10/25/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	05507
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	85 - Lonoke County
(4) Place Code	41420
(6) Features Intersected	BAYOU TWO PRAIRIE RELIEF
(7) Facility Carried	SH 31 Log 1.19
(9) Location	0.5 MI SO OF I-40
(11) Mile Point	1.19 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000031030
(16) Latitude	34.79777
(17) Longitude	-91.89132
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1 - Concrete
Type	1 - Slab
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1974
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	9100
(30) Year of ADT	2018
(109) Truck ADT	2 %
(19) Bypass, Detour Length	14 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	25 ft
(49) Structure Length	75 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	32.2 ft
(52) Deck Width Out to Out	34.7 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	33.5 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	1 - Navigation protection not
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	6 - Rural Minor Arterial
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	36
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	12153
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	10/25/2023		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			





Asset #05507(Routine)

SH 31 Log 1.19 over BAYOU TWO PRAIRIE RELIEF

Location: 0.5 MI SO OF I-40

Team Lead: Bryan Saunders Inspection Date: 10/25/2023

### General Observation

AHTD Job 6952, drawing 18059

Logged Northbound.

Channel Profile added 10/26/2021

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### 58 - Deck (7 - GOOD CONDITION - some minor problems.)

longitudinal deck cracks and map cracking

Span 1 has a small delam at the drain and one exposed rebar on the right, four feet ahead of bent 1.

Span 2 left side at bent 3 is cracked.

Spans 1,2,3 have a longitudinal crack near centerline and areas of map cracking in travel lanes.

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### 59 - Superstructure (7 - GOOD CONDITION - some minor problems.)

overall good condition

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### 60 - Substructure (7 - GOOD CONDITION - some minor problems.)

minor abrasion to pile

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### A-54 - Sealable Deck Cracks (Y)

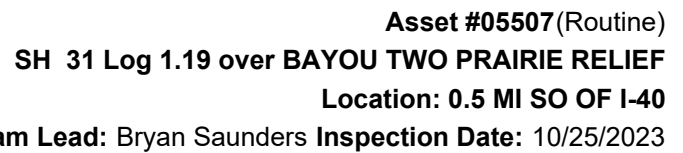
Deck has longitudinal cracks in the center of bridge and map cracks in travel lane

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### A-59 - Joint Repair Needed (Yes)

Joints have lost bond

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ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	2600	686	1878	36	0
1080	Delamination/Spall/Patched Area	SF	2	0	2	0	0
1090	Exposed Rebar	SF	1	0	1	0	0
1130	Cracking (RC and Other)	SF	1911	0	1875	36	0
(38) Span 1 has a small delam at the drain and one exposed rebar on the right, four feet ahead of bent 1. Span 2 left side at bent 3 is cracked. Spans 1,2,3 have a longitudinal crack near centerline and areas of map cracking in travel lanes.							
215	Reinforced Concrete Abutment	LF	100	98	2	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
(215) Erosion exposing pile at bent 4							
227	Reinforced Concrete Pile	EA	12	2	10	0	0
1190	Abrasion/Wear (PSC/RC)	EA	10	0	10	0	0
(227) All pile have minor abrasion bents 2 and 3 Bent 4: erosion action has undermined the abutment exposing 2 pile.							
234	Reinforced Concrete Pier Cap	LF	70	67	3	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1090	Exposed Rebar	LF	2	0	2	0	0
(234) Bent 2 on the bottom at pile 3 and 4, one small exposed rebar. Exposed wire to bottom of bent 2 Bent 3 left end of cap small spall.							
301	Pourable Joint Seal	LF	69	0	0	69	0
2320	Seal Adhesion	LF	34	0	0	34	0
2350	Debris Impaction	LF	35	0	0	35	0
(301) The seals at bents 2 and 3 have lost adhesion and have begun to accumulate debris.							
331	Reinforced Concrete Bridge Railing	LF	150	118	7	25	0
1080	Delamination/Spall/Patched Area	LF	25	0	0	25	0
1090	Exposed Rebar	LF	7	0	7	0	0
(331) The left rail of span 3 has scaling with several small Spalls and delams.							



Trees and brush growing against bridge ends



Longitudinal cracks center of bridge



Scaling left bridge rail span 3



Joint at bent 3





Downstream



Upstream



Deck view



Approach looking north





Bent 4 abutment erosion exposing two pile



Abrasion to pile at bents 2 and 3



Soffit view



Bent 2 exposed wire





Bent 1 abutment



Elevation



Bent 2 Abrasion on bottom of piles.



**Maintenance Needs**

**Date Reported:** 10/01/2015

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Assigned

**Component:**

**Deficiency Description**

The approaching roadway pavement at both abutments is cracked and rough with pot holes.

**Remarks**

Assigned Lonoke Co 06431 11-2-15



Bent 4 cracks and potholes in roadway



Bent 1 cracks and potholes in roadway



North approach roadway



South approach roadway



**Maintenance Needs**

**Date Reported:** 10/01/2015

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:**

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**Deficiency Description**

Erosion at Bent 4 has undermined the abutment and exposed two pile.

**Remarks**

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Bent 4 abutment erosion exposing two pile



Bent 4: erosion action has undermined the abutment exposing 2 pile



Erosion at Bent 4 has undermined the abutment and exposed two pile.



**Maintenance Needs**

**Date Reported:** 10/29/2019

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

**Deficiency Description**

Span 3, Left concrete rail is deteriorating with aggregate losing bond.

**Remarks**



Scaling left bridge rail span 3



Span 3, Left concrete rail is deteriorating with aggregate losing bond.



Span 3, Left concrete rail is deteriorating with aggregate losing bond.





Asset #05507(Routine)

SH 31 Log 1.19 over BAYOU TWO PRAIRIE RELIEF

Location: 0.5 MI SO OF I-40

Team Lead: Bryan Saunders Inspection Date: 10/25/2023

### Maintenance Needs

Date Reported: 10/01/2015

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 9 - None

Status: Monitor

Component:

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### Deficiency Description

The poured joint material at bents 2 and 3 has lost adhesion and has begun to accumulate debris.

### Remarks

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Bent 3 joint seal has lost adhesion and has debris impacted in joint



## Routine Maintenance

### Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	Yes
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	Yes
A-60 - Full Beam Painting Needed	No
A-61 - Polymer Overlay Advised	Yes
A-62 - Hydro and LMC Advised	No
A-63 - Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	Yes

**A-54 - Sealable Deck Cracks (Yes)**

Deck has longitudinal cracks in the center of bridge and map cracks in travel lane

**A-55 - Deck Washing Needed (No)****A-56 - Joint Cleaning/Flushing Needed (Yes)**





**Asset #05507**(Routine)

**SH 31 Log 1.19 over BAYOU TWO PRAIRIE RELIEF**

**Location: 0.5 MI SO OF I-40**

**Team Lead: Bryan Saunders Inspection Date: 10/25/2023**

**A-57 - Girder End and Bearing Painting Needed (No)**

**A-58 - Cap Cleaning/Flushing Needed (No)**

**A-59 - Joint Repair Needed (Yes)**

Joints have lost bond

**A-60 - Full Girder Painting Needed (No)**

**A-61 - Polymer Overlay Advised (Yes)**

**A-62 - Hydro and LMC Advised (No)**

**A-63 - Missing/Incorrect Log Mile Signage (No)**

**A-64 - Vegetation Removal Requested (Yes)**



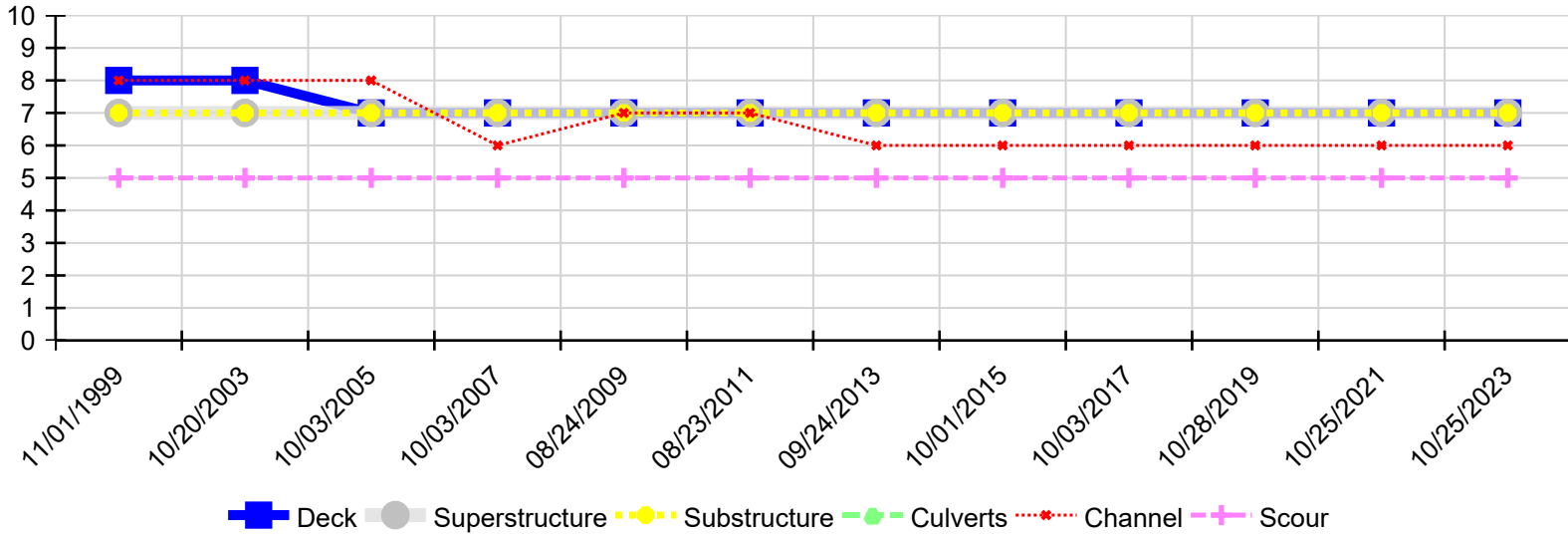
Trees and brush growing against bridge ends





Asset #05507(Routine)  
 SH 31 Log 1.19 over BAYOU TWO PRAIRIE RELIEF  
 Location: 0.5 MI SO OF I-40  
 Team Lead: Bryan Saunders Inspection Date: 10/25/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
10/25/2023	7	7	7	N	6	5
10/25/2021	7	7	7	N	6	5
10/28/2019	7	7	7	N	6	5
10/03/2017	7	7	7	N	6	5
10/01/2015	7	7	7	N	6	5
09/24/2013	7	7	7	N	6	5
08/23/2011	7	7	7	N	7	5
08/24/2009	7	7	7	N	7	5
10/03/2007	7	7	7	N	6	5
10/03/2005	7	7	7	N	8	5
10/20/2003	8	7	7	N	8	5
11/01/1999	8	7	7	N	8	5