

- LEGEND**
- EXISTING BACKGROUND/FEATURES
  - - - PROPOSED BACKGROUND/FEATURES
  - PROPOSED WALLS
  - ⊕ EXISTING BORING
  - ⊙ PROPOSED BORING

- GENERAL NOTES**
1. BORING LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS WILL BE MARKED BY IRON ROD AND LATHE IN FIELD.
  2. EXISTING GROUND ELEVATIONS ARE NOTED AS "EL. =".
  3. BORINGS IDENTIFIED AS "B-xxx" ARE FOR BRIDGE STRUCTURES.
  4. BORINGS IDENTIFIED AS "R-xxx" ARE FOR WALL STRUCTURES. THE APPROX. BOT. OF WALL IS NOTED ON THOSE BORINGS.
  5. THE APPROXIMATE HEIGHT OF CUT OR FILL IS DESIGNATED BY "H=xx"

**PRELIMINARY**  
 FOR INTERIM REVIEW ONLY  
 Not for construction, bidding,  
 or permit purposes.

Chiang, Patel & Yerby, Inc.  
 Engineer AARON R. KWAST  
 P.E. No. 65741 Date 04/30/01

NO.	REVISION	BY	DATE

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 IH-820 RECONSTRUCTION

**BORING PLAN**  
 BEGIN PROJ TO STA 855+00

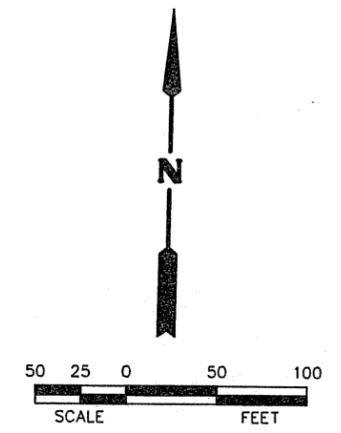
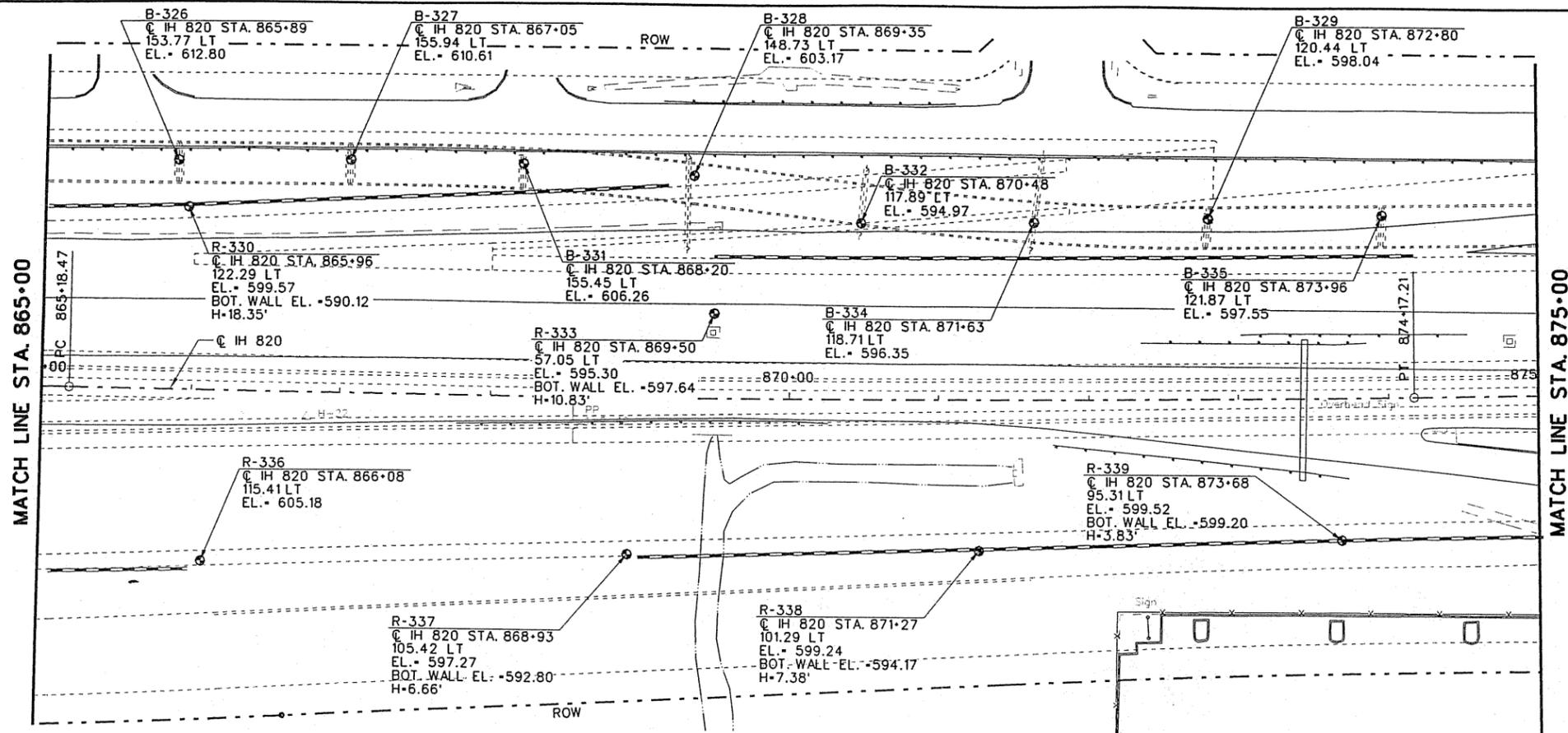
SEG. 2

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST.	COUNTY	CONTROL NO.
Checked:	FTW	TARRANT	0008	14 059

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PROP. EL.  
EXIST. EL.





- LEGEND**
- EXISTING BACKGROUND/FEATURES
  - - - PROPOSED BACKGROUND/FEATURES
  - PROPOSED WALLS
  - ⊕ EXISTING BORING
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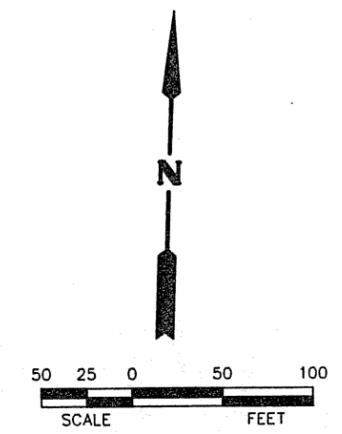
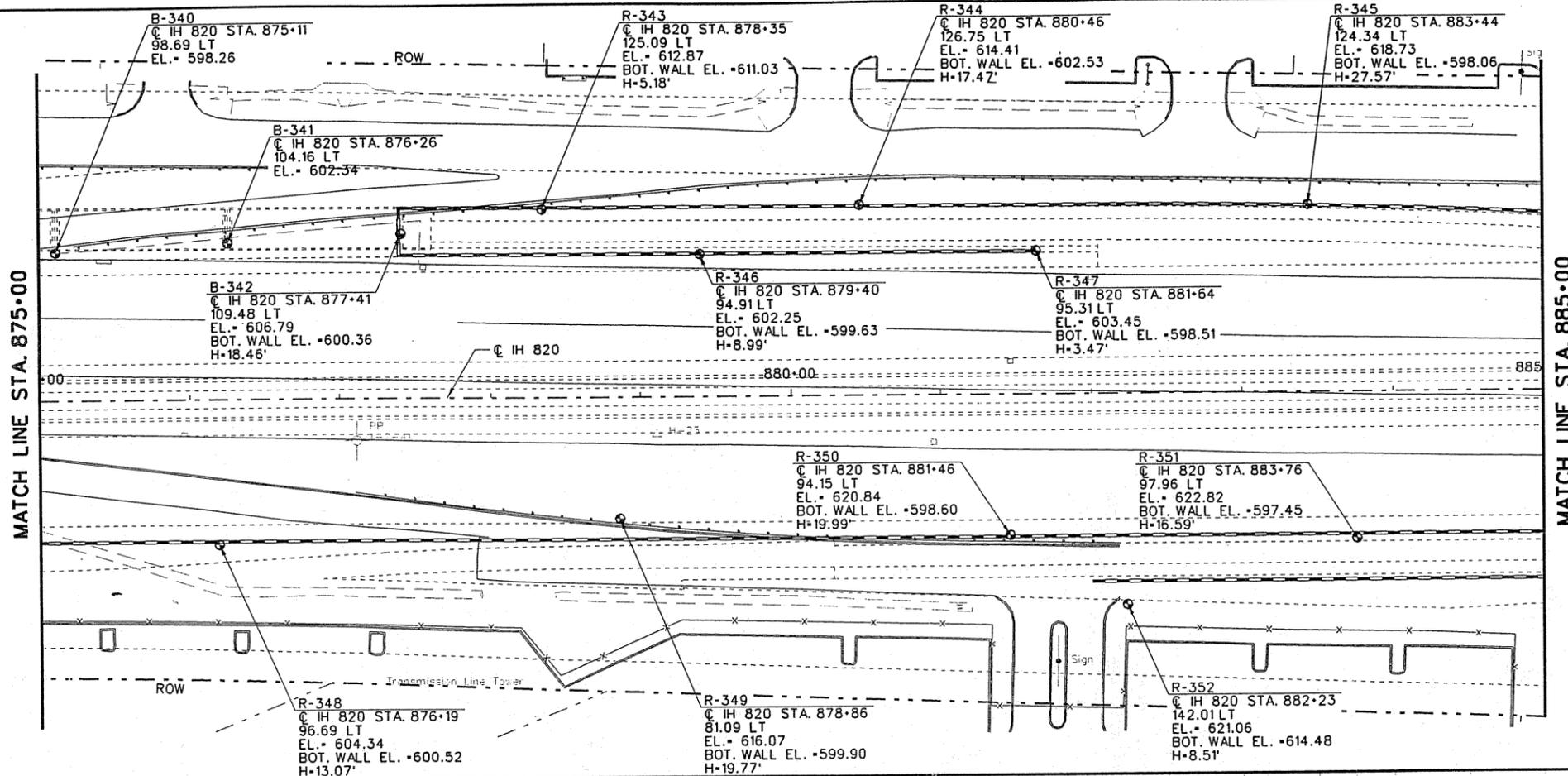
**BORING PLAN**  
 STA 865+00 TO STA 875+00

SEG. 2

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST.	COUNTY	CONTROL NO.
Checked:	FTW	TARRANT	0008	14
				JOB NO.
				059
				SHEET NO.

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PROP. EL.  
 EXIST. EL.



**LEGEND**

- EXISTING BACKGROUND/FEATURES
- - - PROPOSED BACKGROUND/FEATURES
- PROPOSED WALLS
- ⊕ EXISTING BORING
- ⊙ PROPOSED BORING

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**CP** Chiang, Patel & Yerby, Inc.  
 Engineer: AARON R. KWAST  
 P.E. No. 65741 Date 04/30/01

NO.	REVISION	BY	DATE

**CP** Chiang, Patel & Yerby, Inc.  
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**BORING PLAN**  
 STA 875+00 TO STA 885+00

SEG. 2

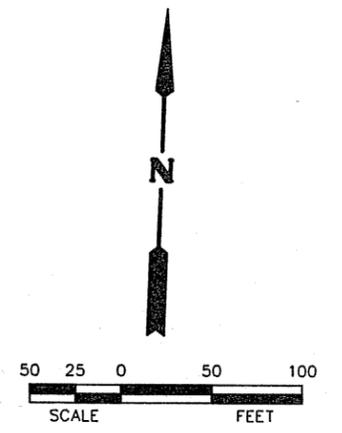
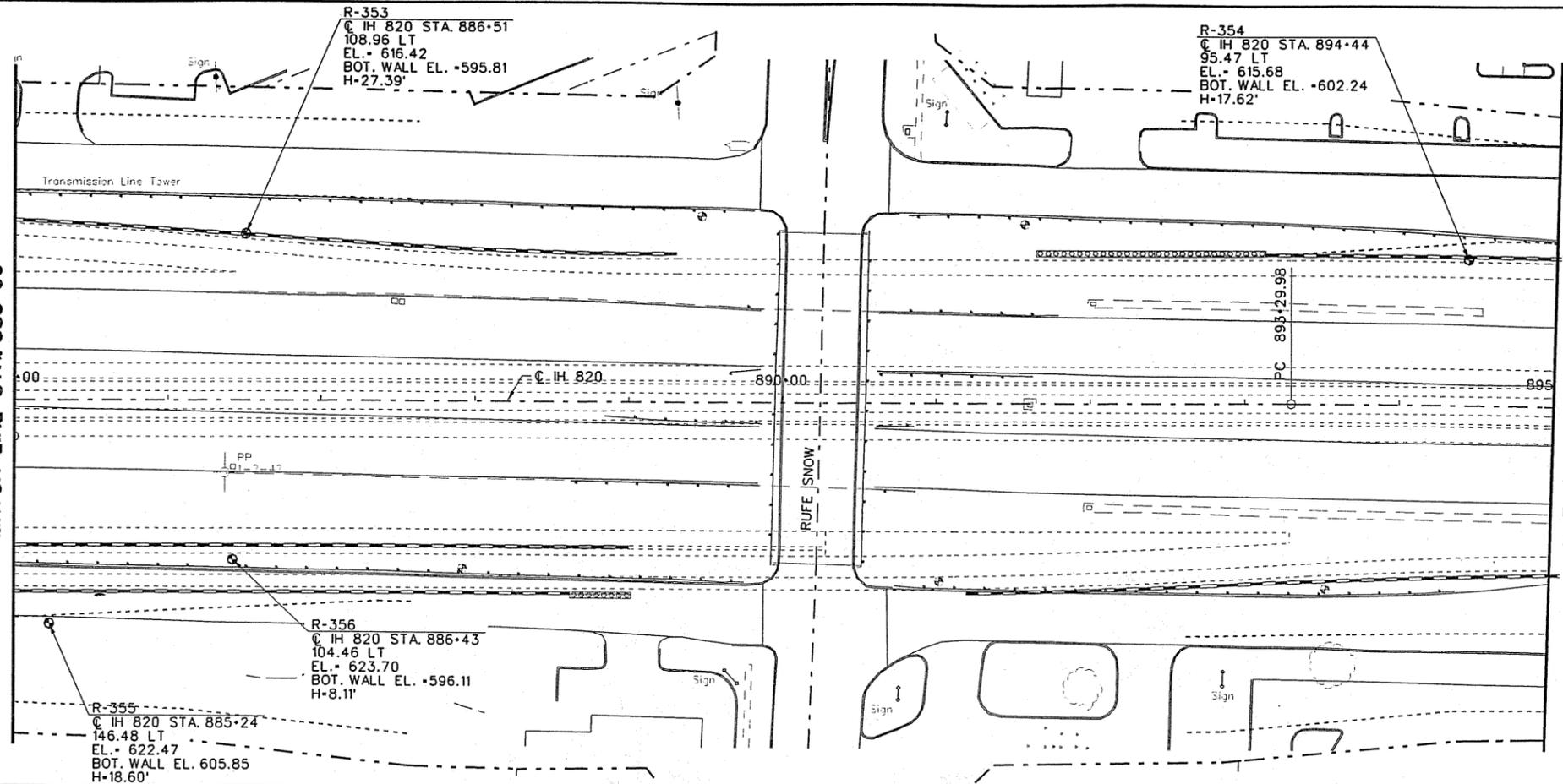
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Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST.	COUNTY	CONTROL NO. SECTION NO. JOB NO. SHEET NO.
Checked:	FTW	TARRANT	0008-14	059

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PROP. EL.  
 EXIST. EL.

MATCH LINE STA. 885+00

MATCH LINE STA. 895+00



LEGEND

- EXISTING BACKGROUND/FEATURES
- - - PROPOSED BACKGROUND/FEATURES
- PROPOSED WALLS
- ⊕ EXISTING BORING
- ⊙ PROPOSED BORING

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Engineer AARON R. KWAST  
P.E. No. 65741 Date 04/30/01

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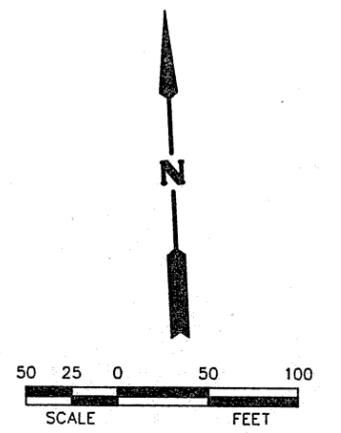
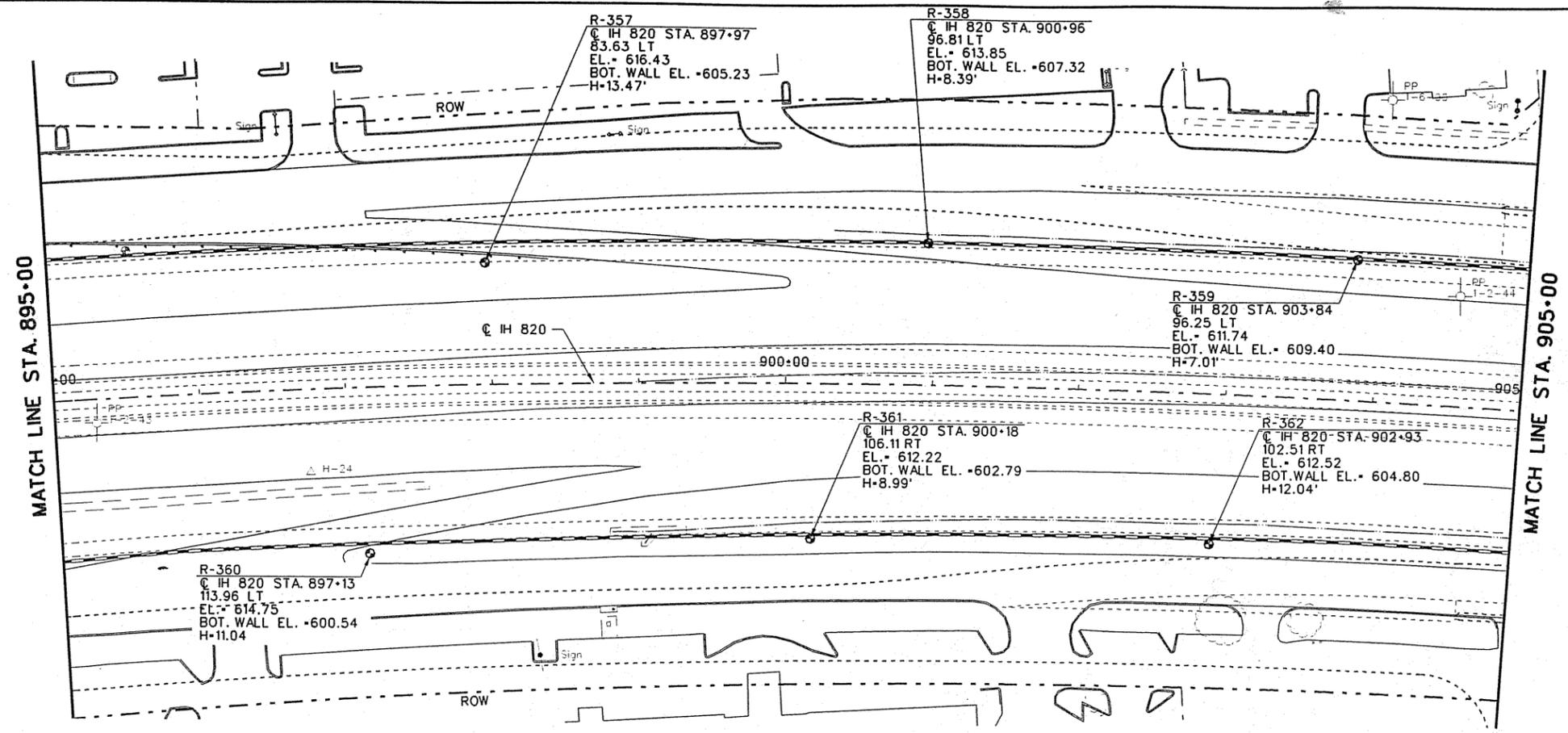
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**BORING PLAN**  
STA 885+00 TO STA 895+00

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST.	COUNTY	CONTROL NO. SECTION NO. JOB NO. SHEET NO.
Checked:	FTW	TARRANT	0008	14 059

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PROP. EL.  
EXIST. EL.



- LEGEND**
- EXISTING BACKGROUND/FEATURES
  - - - PROPOSED BACKGROUND/FEATURES
  - PROPOSED WALLS
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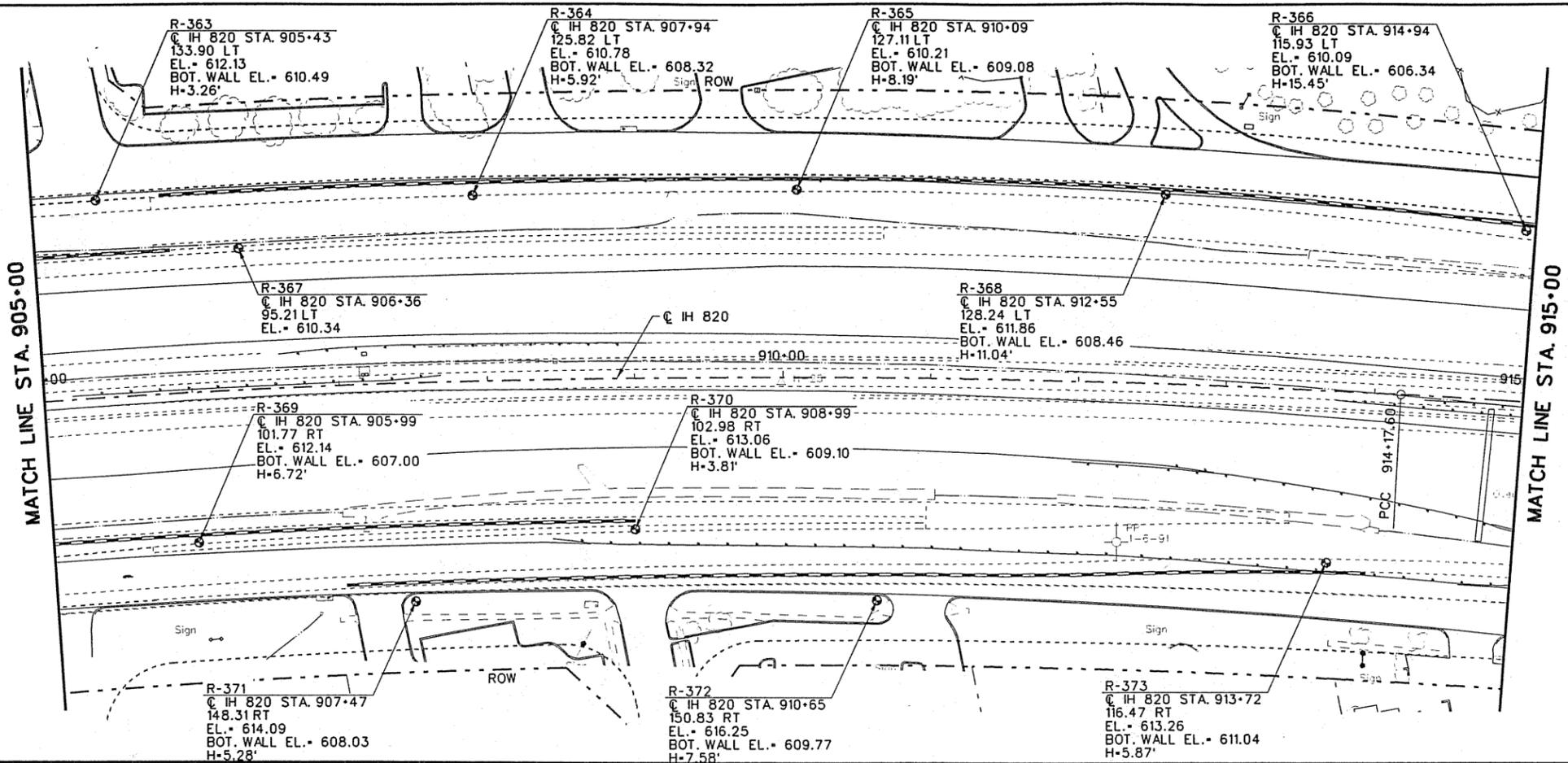
**BORING PLAN**  
 STA 895+00 TO STA 905+00

DESIGNED		FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.			
		06	TEXAS		IH-820			
CHECKED		CADD	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
		FTW	TARRANT	0008	14	059		

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PROP. EL.  
 EXIST. EL.

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**LEGEND**

- EXISTING BACKGROUND/FEATURES
- - - PROPOSED BACKGROUND/FEATURES
- PROPOSED WALLS
- ⊕ EXISTING BORING
- ⊙ PROPOSED BORING

PROP. EL.  
EXIST. EL.

NO.	REVISION	BY	DATE

**Chiang, Patel & Yerby, Inc.**  
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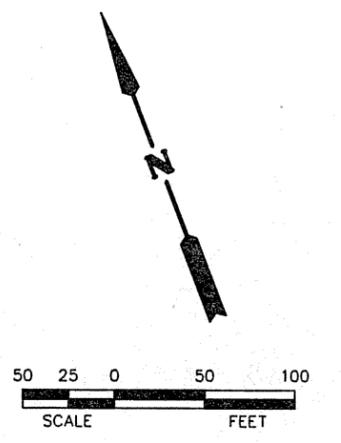
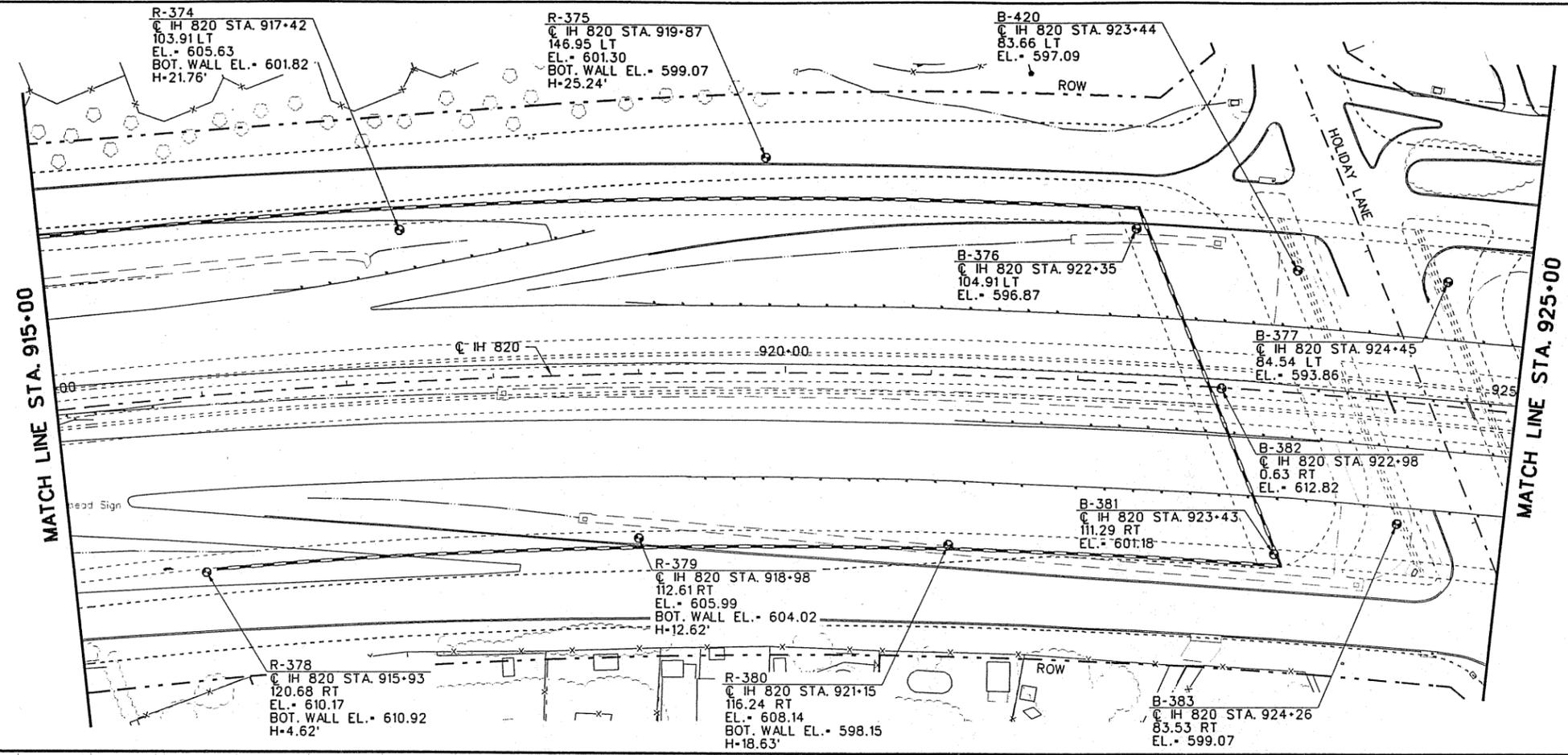
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IH-820 RECONSTRUCTION

**BORING PLAN**

STA 905+00 TO STA 915+00

DESIGNED:	FED. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
CHECKED:	06	TEXAS		IH-820
DRAWN:	CADD	DIST.	COUNTY	CONTROL NO.
CHECKED:	FTW	TARRANT	0008	14 059



**LEGEND**

- EXISTING BACKGROUND/FEATURES
- - - PROPOSED BACKGROUND/FEATURES
- PROPOSED WALLS
- ⊕ EXISTING BORING
- ⊙ PROPOSED BORING

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Chieng, Patel & Yerby, Inc.  
 Engineer AARON R. KWAST  
 P.E. No. 65741 Date 04/30/01

NO.	REVISION	BY	DATE

**Chieng, Patel & Yerby, Inc.**  
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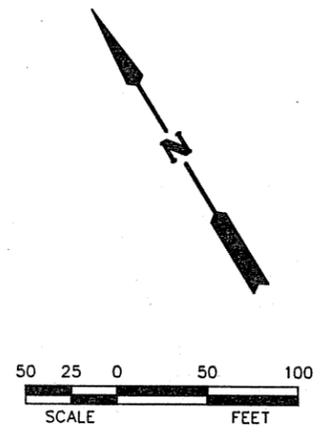
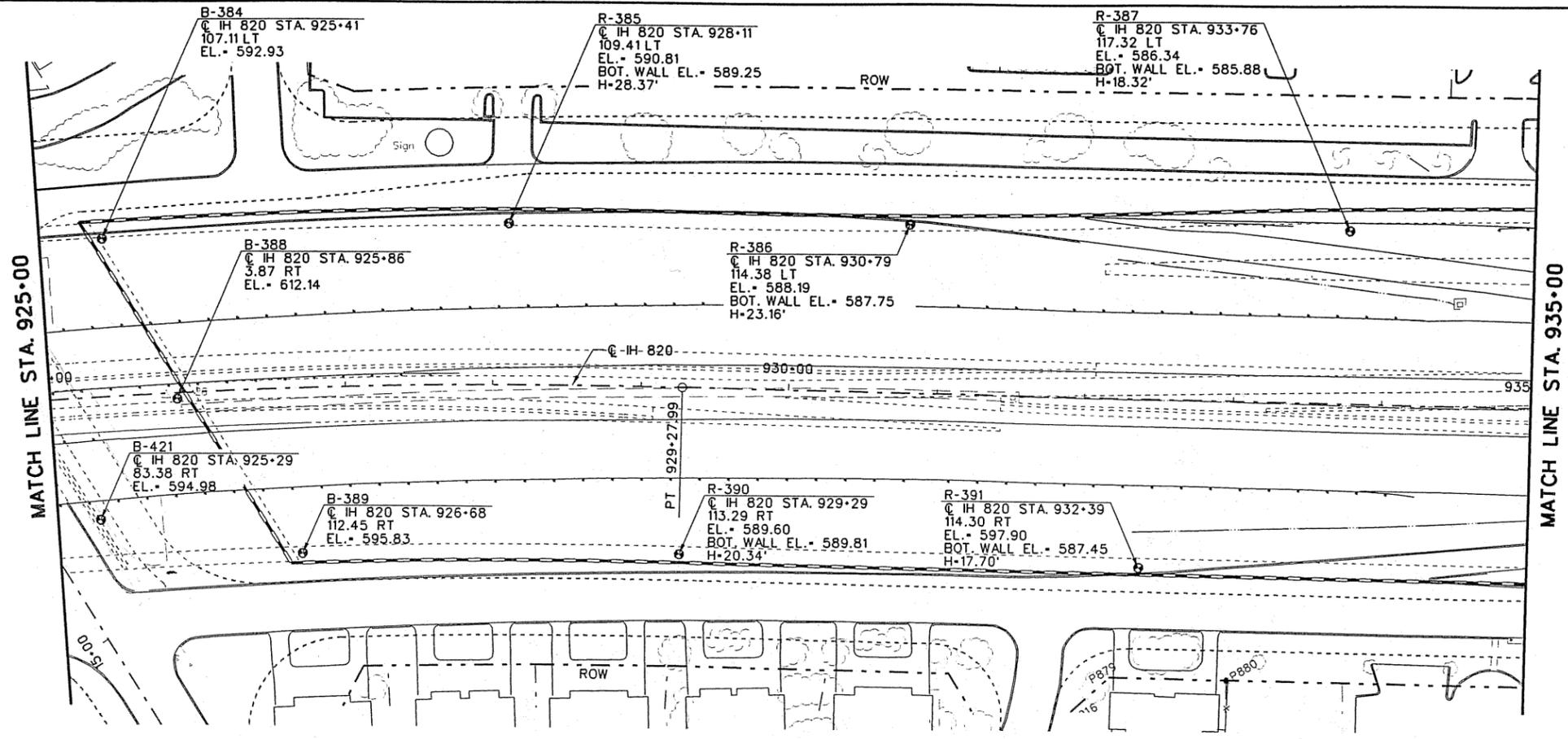
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**BORING PLAN**  
 STA 915+00 TO STA 925+00

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AD PROJECT NO.	HIGHWAY NO.
Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST.	COUNTY	CONTROL NO.
Checked:	FTW	TARRANT	0008	14
				SECTION NO.
				059
				JOB NO.
				SHEET NO.

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PROP. EL.  
 EXIST. EL.



- LEGEND**
- EXISTING BACKGROUND/FEATURES
  - - - PROPOSED BACKGROUND/FEATURES
  - PROPOSED WALLS
  - ⊕ EXISTING BORING
  - ⊙ PROPOSED BORING

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PROP. EL.  
EXIST. EL.

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Chiang, Patel & Yerby, Inc.  
Engineer **AARON R. KWAST**  
P.E. No. 65741 Date 04/30/01

NO.	REVISION	BY	DATE

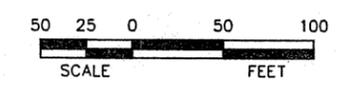
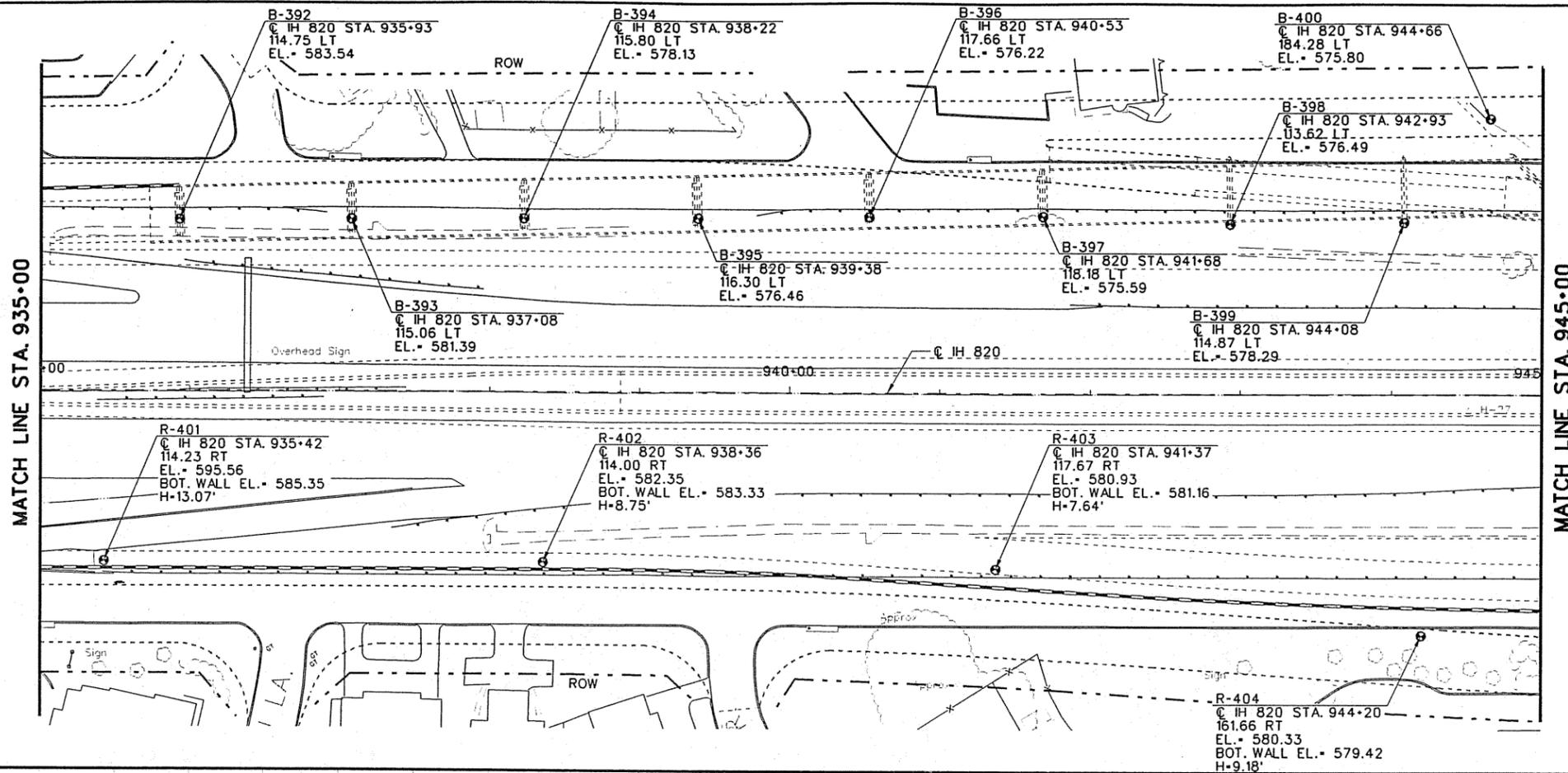
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**BORING PLAN**  
STA 925+00 TO STA 935+00

SEC. 2

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST.	COUNTY	CONTROL NO.
Checked:	FTW	TARRANT	0008	14 059



**LEGEND**

- EXISTING BACKGROUND/FEATURES
- - - PROPOSED BACKGROUND/FEATURES
- PROPOSED WALLS
- ⊕ EXISTING BORING
- ⊙ PROPOSED BORING

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Consulting Engineers - Planners - Project Managers

Engineer AARON R. KWAST  
P.E. No. 65741 Date 04/30/01

NO.	REVISION	BY	DATE

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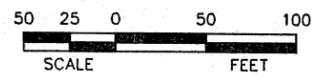
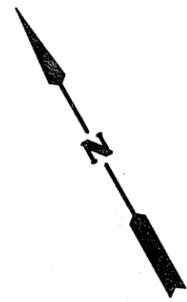
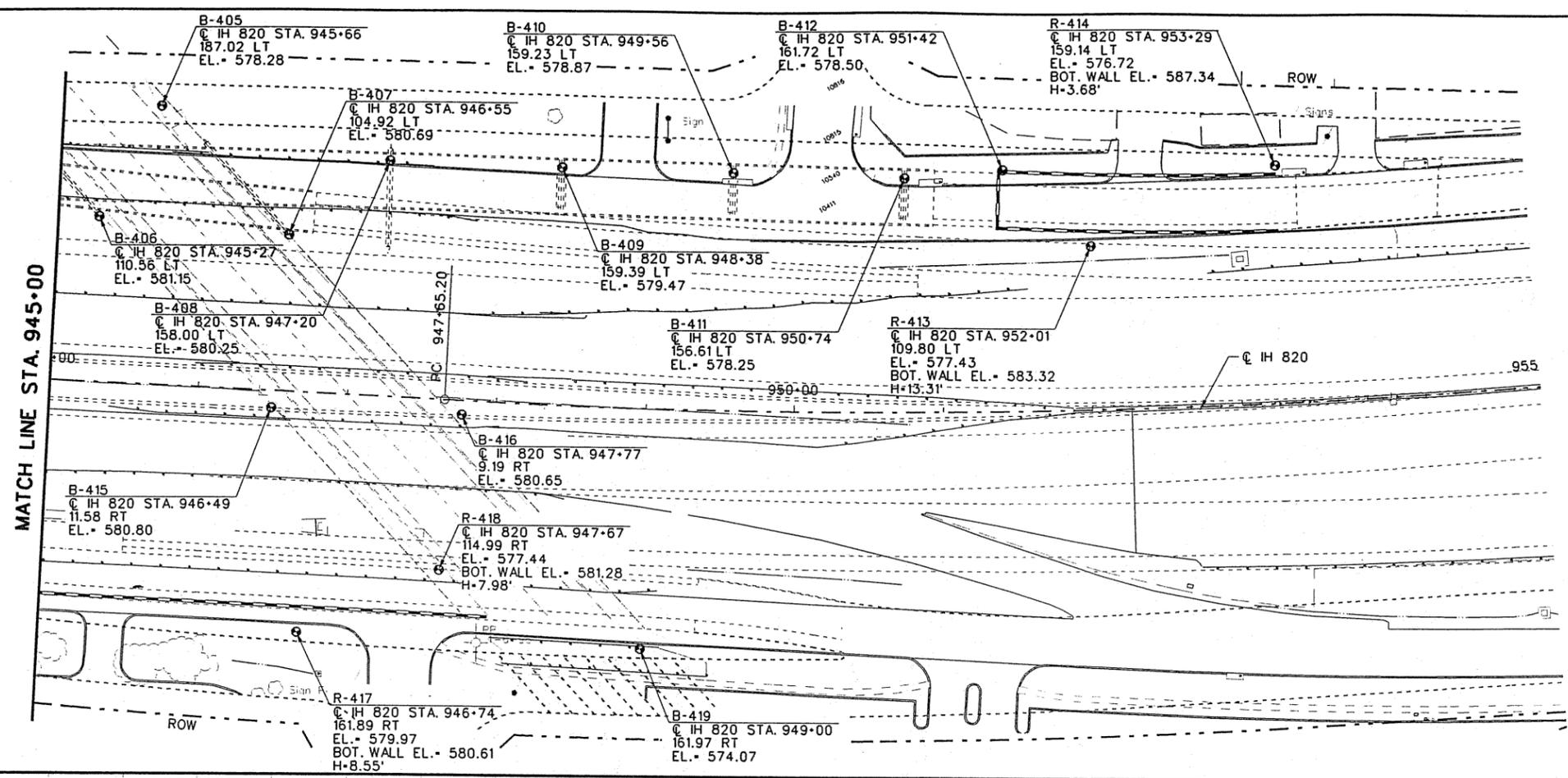
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**BORING PLAN**  
STA 935+00 TO STA 945+00

Designed:	FED. RD. DIV. NO. <u>06</u>	STATE <u>TEXAS</u>	FEDERAL AID PROJECT NO.	HIGHWAY NO. <u>IH-820</u>
Checked:	CADD	DIST.	COUNTY	CONTROL NO.
Drawn:	FTW	TARRANT	0008	14
Checked:			009	059

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PROP. EL.  
EXIST. EL.



**LEGEND**

- EXISTING BACKGROUND/FEATURES
- - - PROPOSED BACKGROUND/FEATURES
- PROPOSED WALLS
- ⚡ EXISTING BORING
- ⊙ PROPOSED BORING

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PROP. EL.  
EXIST. EL.

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Chiang, Patel & Yerby, Inc.  
Engineer **AARON R. KWAST**  
P.E. No. 65741 Date 04/30/01

NO.	REVISION	BY	DATE

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**BORING PLAN**  
STA 945+00 TO END PROJECT

Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.	HIGHWAY NO.
Checked:	06	TEXAS		IH-820
Drawn:	CADD	DIST. COUNTY	CONTROL NO. SECTION NO.	JOB NO. SHEET NO.
Checked:	FTW	TARRANT	0008 14	059



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-290  
Structure Retaining Wall / Bridge  
Station 842+56  
Offset 74.95' Lt

District Fort Worth  
Date 9/4/2003  
Grnd. Elev. 551.79 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
550.8			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, brown, soft, moist							
5										
10		6 (6) 6 (6)								
15		9 (6) 7 (6)								
531.8		15 (6) 17 (6)								
20			CLAY, shaley, brown and gray, stiff to very stiff, moist							
526.8		50 (1) 50 (0.5)								
526.3			LIMESTONE, gray, hard to very							
			SHALE, gray and brown, soft, moist							
30		50 (4.25) 50 (4)								

Remarks: 1) Northing: 6991826.666; Easting: 2351359.175 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.

# DRILLING LOG



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-290  
Structure Retaining Wall / Bridge  
Station 842+56  
Offset 74.95' Lt

District Fort Worth  
Date 9/4/2003  
Grnd. Elev. 551.79 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (4.5) 50 (4)	SHALE, gray and brown, soft, moist							
511.8 40		50 (2.5) 50 (1.25)								
45										
50										
55										
60										

Remarks: 1) Northing: 6991826.666; Easting: 2351359.175 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-291  
Structure Retaining Wall / Bridge  
Station 842+56  
Offset 129.68' Rt

District Fort Worth  
Date 9/8/2003  
Grnd. Elev. 538.91 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
535.9			CLAY, sandy, with limestone fragments, brown, stiff to very stiff, moist						
532.9		17 (6) 26 (6)	GRAVEL, sandy, brown and tan, slightly compact to compact, dry						
530.9			SAND, gravelly, brown, slightly compact, moist						
527.9		8 (6) 26 (6)	CLAY, sandy, brown, soft to stiff, moist						
523.9		50 (5) 50 (4)	CLAY, shaley, slickensided, gray and brown, stiff to hard, moist						
20		50 (5.5) 50 (3.5)	SHALE, clayey, gray and brown, soft, moist						
25	43 (6) 50 (5)								
508.9	50 (3.5) 50 (3.25)								

Remarks: 1) Northing: 6991587.805; Easting: 2351372.462 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-292  
Structure Retaining Wall / Bridge  
Station 845+35  
Offset 73.84' Lt

District Fort Worth  
Date 9/4/2003  
Grnd. Elev. 550.70 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
549.7			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, brown, soft, moist							
5		7 (6) 8 (6)								
10		8 (6) 7 (6)								
15		50 (2) 31 (6)								
535.7			LIMESTONE, waethered, tan, soft,							
535.2			CLAY, shaley, slickensided, brown and gray, very stiff, moist							
531.7			LIMESTONE, gray, hard to very hard, dry							
530.7		50 (2.25) 50 (1.5)	SHALE, gray and brown, soft, moist							
25		50 (3.5) 50 (2)								
523.7			LIMESTONE, gray, hard to very hard, dry							
522.7			SHALE, gray, soft, moist							
520.7		50 (3.25) 50 (2.25)								

Remarks: 1) Northing: 6991838.583; Easting: 2351640.806 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-293  
Structure Retaining Wall / Bridge  
Station 545+49  
Offset 141.30' Rt

District Fort Worth  
Date 6/24/2003  
Grnd. Elev. 563.54 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
560.5	[Hatched pattern]	50 (4) 50 (2)	CLAY, silty, with limestone fragments, tan, stiff, moist							
558.5			LIMESTONE, weathered, tan, hard, moist							
551.5	[Hatched pattern]	33 (6) 50 (4)	CLAY, shaley, with limestone lenses, tan, stiff to hard, moist							
550.5			LIMESTONE, gray, hard to very hard, dry							
548.5	[Hatched pattern]	50 (1.5) 50 (1.5)	SHALE, gray, soft, moist							
547.5			LIMESTONE, gray, hard to very hard, dry							
540.5	[Hatched pattern]	18 (6) 37 (6)	SHALE, clayey, gray and brown, soft, moist							
530.5			SHALE, gray, soft, moist							
25	[Hatched pattern]	50 (5) 50 (3.75)								
30			50 (4) 50 (3.5)							

Remarks: 1) Northing: ; Easting: 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.

# DRILLING LOG



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-293  
Structure Retaining Wall / Bridge  
Station 545+49  
Offset 141.30' Rt

District Fort Worth  
Date 6/24/2003  
Grnd. Elev. 563.54 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
528.	35	50 (2) 50 (1)	SHALE, gray, soft, moist							
527.			LIMESTONE, gray, hard to very hard, dry							
			SHALE, with limestone seams, gray, soft, moist							
	40	50 (3) 50 (1)								
518.5	45	50 (1.5) 50 (1.25)								
50										
55										
60										

Remarks: 1) Northing: ; Easting: 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-294  
Structure Retaining Wall / Bridge  
Station 846+57  
Offset 12.54' Lt

District Fort Worth  
Date 9/4/2003  
Grnd. Elev. 556.80 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
554.8	[Hatched pattern]		CLAY, sandy, brown, soft, moist							
5			CLAY, shaley, gray and brown, stiff to very stiff, moist							
		26 (6) 38 (6)								
		28 (6) 30 (6)								
543.8			LIMESTONE, gray, hard, dry							
543.3			SHALE, clayey, gray and brown, soft, moist							
		36 (6) 48 (6)								
539.8			LIMESTONE, gray, hard to very hard, dry							
538.8			SHALE, clayey, gray and brown, soft, moist							
		50 (2.5) 50 (1)								
536.8			SHALE, with interbedded limestone seams, gray and brown, soft to hard, moist							
533.8			SHALE, with limestone seams, gray and brown, soft, moist							
		50 (3.25) 50 (1.5)								
		50 (2) 50 (0.75)								

Remarks: 1) Northing: 6991745.315; Easting: 2351802.233 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-294  
Structure Retaining Wall / Bridge  
Station 846+57  
Offset 12.54' Lt

District Fort Worth  
Date 9/4/2003  
Grnd. Elev. 556.80 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
524.8			SHALE, with limestone seams, gray and brown, soft, moist						
35		50 (2.25) 50 (2)	SHALE, gray and brown, soft, moist						
516.8		50 (1.75) 50 (1.5)							
40									
45									
50									
55									
60									

Remarks: 1) Northing: 6991745.315; Easting: 2351802.233 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-295  
Structure Retaining Wall / Bridge  
Station 849+11.31  
Offset 152.77 Lt

District Fort Worth  
Date 7/25/2003  
Grnd. Elev. 583.88 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
5		26 (6) 13 (6)	CLAY, sandy, with limestone lenses, tan, soft to stiff, moist						
574.9		11 (6) 15 (6)	CLAY, shaley, light brown, soft to stiff, moist						
15		11 (6) 11 (6)							
20		50 (6) 50 (1)							
562.9		50 (0.75) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
25									
30		50 (1) 50 (0.5)							

Remarks: 1) Northing: ; Easting: 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Jesse Flores, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-295  
Structure Retaining Wall / Bridge  
Station 849+11.31  
Offset 152.77 Lt

District Fort Worth  
Date 7/25/2003  
Grnd. Elev. 583.88 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
551.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
			SHALE, clayey, gray and brown, soft, moist						
35		50 (5) 50 (2.5)							
543.9		50 (3) 50 (2.5)	SHALE, gray, soft, moist						
45		50 (2.5) 50 (2.5)							
533.9		50 (2.5) 50 (2.25)	SHALE, with limestone seams, gray, soft to hard, moist						
55		50 (1.5) 50 (0.5)							
60		50 (1.75) 50 (1.75)							

Remarks: 1) Northing: ; Easting: 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Jesse Flores, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-295  
Structure Retaining Wall / Bridge  
Station 849+11.31  
Offset 152.77 Lt

District Fort Worth  
Date 7/25/2003  
Grnd. Elev. 583.88 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
518.9 65		50 (2) 50 (2.25)	SHALE, with limestone seams, gray, soft to hard, moist						
70									
75									
80									
85									
90									

Remarks: 1) Northing: ; Easting: 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Jesse Flores, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-296  
Structure Retaining Wall / Bridge  
Station 847+72  
Offset 137.53' RT

District Fort Worth  
Date 6/23/2003  
Grnd. Elev. 577.59 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		6 (6) 8 (6)	CLAY, silty, tan and light gray, soft, moist							
570.6			CLAY, shaley, tan and light gray, stiff to hard, moist							
567.6	10	50 (1.5) 50 (1)	LIMESTONE, gray, hard, dry							
564.6			SHALE, gray, soft, moist							
562.6	15	50 (1) 50 (1)	LIMESTONE, gray, hard, dry							
560.6			SHALE, gray, soft, moist							
20		50 (3.75) 50 (0.75)								
25		48 (6) 50 (5.5)								
30		50 (4) 50 (1.5)								

Remarks: 1) Northing: 6991580.464; Easting: 2351882.108 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-296  
Structure Retaining Wall / Bridge  
Station 847+72  
Offset 137.53' RT

District Fort Worth  
Date 6/23/2003  
Grnd. Elev. 577.59 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
35		50 (3) 50 (1.5)	SHALE, gray, soft, moist						
40		50 (3) 50 (1.25)	SHALE, gray, soft, moist						
535.6			LIMESTONE, gray, hard, dry						
534.6			SHALE, gray, soft, moist						
532.6		50 (1.5) 50 (1)	SHALE, gray, soft, moist						
50									
55									
60									

Remarks: 1) Northing: 6991580.464; Easting: 2351882.108 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-301  
Structure Retaining Wall / Bridge  
Station 850+00.25  
Offset 148.62' Lt

District Fort Worth  
Date 7/24/2003  
Grnd. Elev. 584.61 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
583.6			PVMT, 2.0-in. Asphalt; 10.0-in. Flexbase							
			CLAY, sandy, tan, stiff, moist							
581.6			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
		50 (2) 50 (0.5)								
577.6			CLAY, shaley, gray and brown, stiff to very stiff, moist							
		24 (6) 32 (6)								
		12 (6) 17 (6)								
565.6			LIMESTONE, with shale seams, gray, hard to very hard, dry							
		50 (1.5) 50 (1)								
		50 (2) 50 (0.75)								
		50 (1.5) 50 (0.5)								

Remarks: 1) Northing: 6991846.341; Easting: 2352104.233 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-301  
Structure Retaining Wall / Bridge  
Station 850+00.25  
Offset 148.62' Lt

District Fort Worth  
Date 7/24/2003  
Grnd. Elev. 584.61 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
552.6			LIMESTONE, with shale seams, gray, hard to very hard, dry						
		50 (3.5) 50 (2.25)	SHALE, clayey, gray and brown, soft, moist						
35									
544.6		50 (2.75) 50 (2.5)	SHALE, gray, soft, moist						
40									
		50 (2) 50 (2.5)							
45									
534.6		50 (2.25) 50 (2.5)	SHALE, with limestone seams, gray, soft, moist						
50									
		50 (1.75) 50 (1.25)							
55									
524.6		50 (1.5) 50 (1)							
60									

Remarks: 1) Northing: 6991846.341; Easting: 2352104.233 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-302  
Structure Retaining Wall / Bridge  
Station 851+13  
Offset 142.97' Lt

District Fort Worth  
Date 7/24/2003  
Grnd. Elev. 586.41 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
585.4			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase						
581.4		50 (1) 50 (0.5)	CLAY, sandy, brown and tan, soft, moist						
580.4			LIMESTONE, with clay lenses, weathered, tan, soft to hard,						
			CLAY, sandy, with limestone lenses, tan, soft to stiff, moist						
575.4		50 (2) 50 (1)							
			CLAY, silty, tan and gray, soft to stiff, moist						
569.4		15 (6) 16 (6)							
			CLAY, shaley, tan, stiff to very hard, moist						
562.4		15 (6) 27 (6)							
			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
		50 (1.5) 50 (1)							
		50 (1.75) 50 (1)							

Remarks: 1) Northing: 6991847.436; Easting: 2352278.153 2) No water encountered during drilling. 3) Water added at 60' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Jesse Flores, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-302  
Structure Retaining Wall / Bridge  
Station 851+13  
Offset 142.97' Lt

District Fort Worth  
Date 7/24/2003  
Grnd. Elev. 586.41 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
555.4			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
			SHALE, clayey, gray and brown, soft, moist						
35		47 (6) 50 (3.5)							
546.4		50 (3) 50 (2.25)	SHALE, gray, soft, moist						
45		50 (3) 50 (2)							
536.4		50 (2.75) 50 (2)	SHALE, with limestone seams, gray, soft, moist						
55		50 (0.25) 50 (1)							
60		50 (1) 50 (1.5)							

Remarks: 1) Northing: 6991847.436; Easting: 2352278.153 2) No water encountered during drilling. 3) Water added at 60' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Jesse Flores, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-302  
Structure Retaining Wall / Bridge  
Station 851+13  
Offset 142.97' Lt

District Fort Worth  
Date 7/24/2003  
Grnd. Elev. 586.41 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
524.4	[Patterned]	50 (1) 50 (0.5)	SHALE, with limestone seams, gray, soft, moist						
521.4			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
65									
70									
75									
80									
85									
90									

Remarks: 1) Northing: 6991847.436; Easting: 2352278.153 2) No water encountered during drilling. 3) Water added at 60' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Jesse Flores, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



WinCore  
Version 2.01

# DRILLING LOG

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-303  
Structure Retaining Wall / Bridge  
Station 854+41  
Offset 119.96' Lt

District Fort Worth  
Date 8/29/2003  
Grnd. Elev. 586.15 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
585.2			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase						
			CLAY, sandy, with calcareous nodules, dark brown and brown to brown, soft, moist						
576.2		10		CLAY, sandy, with limestone seams, tan, stiff, moist					
570.2		15		CLAY, silty, slickensided, tan, stiff, moist					
566.2		20	15 (6) 12 (6)	CLAY, shaley, brown and gray, stiff to very stiff, moist					
560.2	25	23 (6) 50 (2)							
560.2	30	50 (1.5) 50 (1.5)	LIMESTONE, with shale seams, gray, hard to very hard, dry						

Remarks: 1) Northing: 6991852.960; Easting: 2352550.713 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-303  
Structure Retaining Wall / Bridge  
Station 854+41  
Offset 119.96' Lt

District Fort Worth  
Date 8/29/2003  
Grnd. Elev. 586.15 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (0.5) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
548.7			SHALE, gray, soft, moist							
40		50 (3.5) 50 (2.5)								
45		50 (2.5) 50 (2.5)								
536.2	50	50 (2.75) 50 (2.5)								
55										
60										

Remarks: 1) Northing: 6991852.960; Easting: 2352550.713 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-306  
Structure Retaining Wall / Bridge  
Station 852+43  
Offset 41.27' Rt

District Fort Worth  
Date 9/11/2003  
Grnd. Elev. 568.09 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
5		35 (6) 50 (0.5)	CLAY, sandy, with limestone lenses, dark brown and brown, soft to hard, moist						
562.1			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
560.1			SHALE, gray, soft, moist						
10		50 (3.5) 50 (2.5)							
556.1			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
1.1			SHALE, gray, soft, moist						
15		50 (1.75) 50 (1.5)							
552.1			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
549.6			SHALE, gray and brown, soft, moist						
20		44 (6) 50 (3)							
25		50 (4) 50 (4)							
30		50 (2.5) 50 (2)							

Remarks: 1) Northing: 6991690.506; Easting: 2352348.562 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-306  
Structure Retaining Wall / Bridge  
Station 852+43  
Offset 41.27' Rt

District Fort Worth  
Date 9/11/2003  
Grnd. Elev. 568.09 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
35		50 (3) 50 (2.5)	SHALE, gray and brown, soft, moist						
529.1		50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
526.1			SHALE, with limestone lenses, gray and brown, soft, moist						
45		50 (2.25) 50 (2)							
518.1		50 (1.5) 50 (1.25)							
55									
60									

Remarks: 1) Northing: 6991690.506; Easting: 2352348.562 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-309  
Structure Retaining Wall / Bridge  
Station 851+05  
Offset 178.34' Rt

District Fort Worth  
Date 6/25/2003  
Grnd. Elev. 582.07 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
581.8			CLAY, sandy, with limestone fragments, tan, stiff, moist						
5		22 (6) 14 (6)							
576.1			CLAY, silty, tan, soft, moist						
10		5 (6) 7 (6)							
15		9 (6) 11 (6)	CLAY, shaley, light brown, stiff, moist						
564.1			LIMESTONE, weathered, tan, soft, moist						
563.1		50 (1) 50 (1)	LIMESTONE, with shale seams, gray, hard to very hard, dry						
20									
557.1		50 (1.5) 50 (0.75)	SHALE, gray, soft, moist						
25									
555.1			LIMESTONE, gray, hard, dry						
554.1			SHALE, gray, soft, moist						
30		50 (1.5) 50 (1.75)							

Remarks: 1) Northing: 6991555.615; Easting: 2352213.558 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-309  
Structure Retaining Wall / Bridge  
Station 851+05  
Offset 178.34' Rt

District Fort Worth  
Date 6/25/2003  
Grnd. Elev. 582.07 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
551.1			LIMESTONE, gray, hard, to very hard, dry							
			SHALE, gray and brown, soft, moist							
35		50 (3.5) 50 (3)								
40		50 (3.5) 50 (3.25)								
45		50 (3) 50 (2.75)								
50		50 (1.75) 50 (1)								
531.1			LIMESTONE, gray, hard, dry							
530.1			SHALE, with limestone seams, gray, soft, moist							
55		50 (2.75) 50 (1.5)								
524.1			LIMESTONE, with interbedded shale seams, gray, hard, dry							
522.1 60		50 (1.5) 50 (1)								

Remarks: 1) Northing: 6991555.615; Easting: 2352213.558 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-310  
Structure Retaining Wall / Bridge  
Station 852+55  
Offset 137.03' Rt

District Fort Worth  
Date 7/11/2003  
Grnd. Elev. 581.54 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
577.5			CLAY, silty, dark brown, soft, moist						
5		7 (6) 9 (6)	CLAY, sandy, with limestone seams, tan, soft to stiff, moist						
571.5		10	5 (6) 12 (6)	CLAY, silty, tan and light gray, soft, moist					
566.5		15	5 (6) 9 (6)	CLAY, shaley, tan and gray, soft to stiff, moist					
564.5				LIMESTONE, with clay seams, weathered, tan, soft, moist					
562.5		20	50 (1.5) 50 (1)	LIMESTONE, with shale seams, gray, hard to very hard, dry					
555.5	25	50 (1.25) 50 (0.5)	SHALE, clayey, with limestone lenses, soft, moist						
552.5	30	50 (1.75) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry						

Remarks: 1) Northing: 6991596.116; Easting: 2352363.116 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-310  
Structure Retaining Wall / Bridge  
Station 852+55  
Offset 137.03' Rt

District Fort Worth  
Date 7/11/2003  
Grnd. Elev. 581.54 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
550.5			LIMESTONE, with shale seams, grav. hard to very hard, dry							
35		22 (6) 50 (6)	SHALE, clayey, brown and gray, soft, moist							
541.5		50 (3) 50 (3)	SHALE, gray and brown, soft, moist							
45		50 (3) 50 (2.5)								
531.5		50 (2.5) 50 (2.75)								
55										
60										

Remarks: 1) Northing: 6991596.116; Easting: 2352363.116 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-311  
Structure Retaining Wall / Bridge  
Station 853+54  
Offset 175.06' Rt

District Fort Worth  
Date 9/2/2003  
Grnd. Elev. 581.85 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
581.6			CLAY, sandy, dark gray and brown, soft, moist							
576.8 5		9 (6) 10 (6)	CLAY, sandy, with calcareous nodules, tan, soft, moist							
571.8 10		7 (6) 6 (6)	CLAY, shaley, light brown and gray, soft to stiff, moist							
15		9 (6) 11 (6)								
561.8 20		50 (2.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
25		50 (1) 50 (0.25)								
551.8 30		50 (3) 50 (2.25)								

Remarks: 1) Northing: 6991558.271; Easting: 2352462.314 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-311  
Structure Retaining Wall / Bridge  
Station 853+54  
Offset 175.06' Rt

District Fort Worth  
Date 9/2/2003  
Grnd. Elev. 581.85 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
546.8		50 (4) 50 (2)	LIMESTONE, shaley, gray, soft, moist							
40		50 (3.5) 50 (1.75)	SHALE, gray, soft, moist							
45		50 (3) 50 (2)								
531.8		50 (2) 50 (1.5)								
55										
60										

Remarks: 1) Northing: 6991558.271; Easting: 2352462.314 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-312  
Structure Rataining Wall / Bridge  
Station 856+67  
Offset 113.76' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 589.01 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
587.	[Hatched pattern]		CLAY, sandy, dark brown, soft, moist						
			CLAY, silty, dark gray and brown, soft, moist						
582.			CLAY, sandy, with limestone seams, tan stiff to very stiff, moist						
580.			CLAY, sandy, with calcareous nodules, tan, soft, moist						
576.			CLAY, sandy, with interbedded limestone seams, tan, stiff to hard, moist						
571.			18 (6) 37 (6)	CLAY, shaley, gray and light brown, stiff to very stiff, moist					
		48 (6) 37 (6)							
563.			SHALE, gray, soft, moist						
560.		50 (0.5) 50 (0.25)	LIMESTONE, with shaley seams, gray, hard to very hard, dry						

Remarks: 1) Northing: 6991845.924; Easting: 2352776.505 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.

# DRILLING LOG



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-312  
Structure Retaining Wall / Bridge  
Station 856+67  
Offset 113.76' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 589.01 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
553.	50 (0.5) 50 (0.25)		LIMESTONE, with shaley seams, gray, hard to very hard, dry							
549.	50 (2) 50 (1.75)		SHALE, with limestone lenses, gray, soft, moist							
45										
50										
55										
60										

Remarks: 1) Northing: 6991845.924; Easting: 2352776.505 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-313  
Structure Retaining Wall / Bridge  
Station 859+66  
Offset 119.42' Lt

District Fort Worth  
Date 9/10/2003  
Grnd. Elev. 589.89 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
587.9	[Diagonal hatching pattern]		CLAY, sandy, dark brown, soft, moist						
			CLAY, sandy, with calcareous nodules, light brown, soft to stiff, moist						
584.9 5			CLAY, shaley, slickensided, light brown and gray, stiff, moist						
		10	12 (6) 16 (6)						
577.4	[Brick pattern]		LIMESTONE, weathered, tan, soft, moist						
576.4			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
		15	50 (0.5) 50 (0.25)						
		20	50 (0.25) 50 (0.25)						
567.4	[Horizontal hatching pattern]		SHALE, gray, soft, moist						
			25	50 (1.75) 50 (1.5)					
559.9 30			50 (1.5) 50 (1.75)						

Remarks: 1) Northing: 6991850.532; Easting: 2353075.805 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-314  
Structure Retaining Wall / Bridge  
Station 864+73  
Offset 152.33' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 612.59 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
611.6			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase						
		3 (6) 3 (6)	CLAY, sandy, with calcareous nodules, brown, very soft, moist						
606.6			CLAY, silty, light brown, soft, moist						
602.6	10	10 (6) 13 (6)	CLAY, shaley, slickensided, light brown and gray, stiff to hard, moist						
	15	11 (6) 15 (6)							
	20	16 (6) 23 (6)							
	25	10 (6) 19 (6)							
30		48 (6) 50 (3.5)							

Remarks: 1) Northing: 6991880.992; Easting: 2353582.728 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.





# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-315  
Structure Retaining Wall / Bridge  
Station 855+61  
Offset 40.19' RT

District Fort Worth  
Date 6/24/2003  
Grnd. Elev. 580.60 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
577.6	[Diagonal hatching]	50 (2) 50 (3)	CLAY, sandy, with limestone fragments, brown, soft to stiff, moist							
575.6			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
10	[Diagonal hatching]	15 (6) 17 (6)	CLAY, shaley, tan and gray, stiff, moist							
15			15 (6) 17 (6)							
561.6	[Brick pattern]	50 (1) 50 (1)	LIMESTONE, with shale seams, gray, soft to very hard, dry							
25			50 (1) 50 (1)							
552.6	[Brick pattern]	50 (1.25) 50 (1)	SHALE, gray, soft, moist							
550.6			50 (1.25) 50 (1)							

Remarks: 1) Northing: 6991691.873; Easting: 2352669.923 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

# DRILLING LOG

Hole R-318  
Structure Retaining Wall / Bridge  
Station 862+72  
Offset 118.80' Lt

District Fort Worth  
Date 9/10/2003  
Grnd. Elev. 597.77 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
594.8			CLAY, sandy, with calcareous nodules, dark brown, soft, moist						
5		17 (6) 19 (6)	CLAY, shaley, slickensided, light brown and gray, stiff to very stiff, moist						
10		13 (6) 14 (6)							
15		18 (6) 32 (6)							
581.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
578.8		50 (4) 50 (3.25)	SHALE, gray, soft, moist						
576.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
573.8		50 (2.5) 50 (1.75)	SHALE, gray, soft, moist -with limestone lenses at 27' and 36'						
30		50 (4.5) 50 (2.75)							

Remarks: 1) Northing: 6991848.785; Easting: 2353383.716 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-318  
Structure Retaining Wall / Bridge  
Station 862+72  
Offset 118.80' Lt

District Fort Worth  
Date 9/10/2003  
Grnd. Elev. 597.77 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
35		50 (3.5) 50 (2)	SHALE, gray, soft, moist -with limestone lenses at 27' and 36'						
557.8 40		50 (1.25) 50 (1)							
45									
50									
55									
60									

Remarks: 1) Northing: 6991848.785; Easting: 2353383.716 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-319  
Structure Retaining Wall / Bridge  
Station 855+46  
Offset 136.34' Rt

District Fort Worth  
Date 6/25/2003  
Grnd. Elev. 585.30 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
580.3		7 (6) 6 (6)	CLAY, sandy, brown, soft, moist							
10		30 (6) 15 (6)	CLAY, sandy, with calcareous nodules, light brown and tan, soft to stiff, moist							
15		12 (6) 20 (6)								
567.3		15 (6) 14 (6)	CLAY, shaley, brown and gray, stiff to very stiff, moist							
561.3		50 (2) 50 (1.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
30		50 (1) 50 (0.5)								

Remarks: 1) Northing: 6991596.314; Easting: 2352653.611 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-319  
Structure Retaining Wall / Bridge  
Station 855+46  
Offset 136.34' Rt

District Fort Worth  
Date 6/25/2003  
Grnd. Elev. 585.30 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
550.3		50 (1.25) 50 (1)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
548.3			SHALE, gray and brown, soft, moist							
547.3			LIMESTONE, gray, hard, dry							
40		50 (3) 50 (2)	SHALE, gray and brown, soft, moist							
45		50 (4) 50 (3.5)								
535.3	50	50 (3.75) 50 (3.5)								
55										
60										

Remarks: 1) Northing: 6991596.314; Easting: 2352653.611 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-320  
Structure Retaining Wall / Bridge  
Station 856+39  
Offset 175.58' Rt

District Fort Worth  
Date 9/3/2003  
Grnd. Elev. 586.56 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
585.6	[Hatched pattern]		PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, silty, dark gray and brown, soft, moist							
581.6		3 (6) 5 (6)		CLAY, silty, with calcareous nodules, brown, soft, moist						
576.6		8 (6) 30 (6)		CLAY, sandy, with limestone seams, tan, stiff to hard, moist						
570.6		48 (6) 34 (6)		CLAY, shaley, brown, stiff, moist						
		17 (6) 17 (6)								
560.6	18 (6) 50 (3.5)		LIMESTONE, with shale seams, gray, hard to very hard, dry							
557.6	50 (3) 50 (1.5)		SHALE, gray, soft, moist							

Remarks: 1) Northing: 6991555.894; Easting: 2352747.555 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-320  
Structure Retaining Wall / Bridge  
Station 856+39  
Offset 175.58' Rt

District Fort Worth  
Date 9/3/2003  
Grnd. Elev. 586.56 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
555.6	[Log Scale]	50 (3.25) 50 (2)	SHALE, gray, soft, moist						
			LIMESTONE, with shale seams, gray, hard to very hard, dry						
552.6			SHALE, gray, soft, moist						
550.6			LIMESTONE, with shale seams, gray, hard to very hard, dry						
546.6		50 (1.5) 50 (1)							
45									
50									
55									
60									

Remarks: 1) Northing: 6991555.894; Easting: 2352747.555 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



WinCore  
Version 2.01

# DRILLING LOG

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-321  
Structure Retaining Wall / Bridge  
Station 858+38  
Offset 42.77' RT

District Fort Worth  
Date 6/24/2003  
Grnd. Elev. 589.97 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
584.		10 (6) 11 (6)	CLAY, sandy, with calcareous nodules, brown, soft to stiff, moist							
		50 (3.5) 50 (4.5)	CLAY, shaley, with limestone seams, tan and light gray, stiff to hard, moist							
		50 (2) 50 (1.5)								
570.		37 (6) 44 (6)	CLAY, shaley, brown and gray, very stiff to hard, moist							
		35 (6) 50 (4.5)								
562.		50 (1.5) 50 (1.25)	LIMESTONE, with shale seams, gray, hard, dry							

Remarks: 1) Northing: 6991688.825; Easting: 2352946.913 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-321  
Structure Retaining Wall / Bridge  
Station 858+38  
Offset 42.77' RT

District Fort Worth  
Date 6/24/2003  
Grnd. Elev. 589.97 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35	[Brick pattern]	50 (1) 50 (0.75)	LIMESTONE, with shale seams, gray, hard, dry							
553.			SHALE, gray, soft, moist							
550. 40	[Horizontal lines]	50 (1.25) 50 (1)								
45	[Vertical lines]									
50	[Vertical lines]									
55	[Vertical lines]									
60	[Vertical lines]									

Remarks: 1) Northing: 6991688.825; Easting: 2352946.913 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-322  
Structure Retaining Wall / Bridge  
Station 858+47  
Offset 136.11' Rt

District Fort Worth  
Date 7/3/2003  
Grnd. Elev. 591.93 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		8 (6) 9 (6)	CLAY, sandy, brown and tan, soft to stiff, moist							
582.9		38 (6) 50 (2)	CLAY, sandy, with limestone seams, tan, soft to hard, moist							
580.9		50 (2) 50 (1)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
573.9		32 (6) 50 (6)	CLAY, shaley, brown and gray, stiff to hard, moist							
25		15 (6) 13 (6)								
30		23 (6) 22 (6)								

Remarks: 1) Northing: 6991595.649; Easting: 2352955.119 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-322  
Structure Retaining Wall / Bridge  
Station 858+47  
Offset 136.11' Rt

District Fort Worth  
Date 7/3/2003  
Grnd. Elev. 591.93 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
557.9			CLAY, shaley, brown and gray, stiff to hard, moist						
35		50 (1.5) 50 (1)	LIMESTONE, with shale seams, gray, hard, dry						
552.9		40	50 (2) 50 (2.5)	SHALE, gray, soft, moist					
549.9			LIMESTONE, gray, hard, dry						
548.9			SHALE, gray, soft, moist						
546.9		45	50 (1.25) 50 (1)						
50									
55									
60									

Remarks: 1) Northing: 6991595.649; Easting: 2352955.119 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-323  
Structure Retaining Wall / Bridge  
Station 861+43  
Offset 42.38' Rt

District Fort Worth  
Date 6/25/2003  
Grnd. Elev. 592.07 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
589.1	[Hatched pattern]		CLAY, sandy, brown to light brown, soft, moist							
5		10 (6) 11 (6)	CLAY, shaley, light brown, soft to stiff, moist							
10		15 (6) 22 (6)								
15		20 (6) 50 (4)								
576.1	[Stippled pattern]		SHALE, gray, soft, moist							
575.1			LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (1.75) 50 (1.5)								
568.1	[Stippled pattern]		SHALE, gray, soft, moist							
25		50 (2) 50 (1.5)								
562.1		50 (2) 50 (2)								

Remarks: 1) Northing: 6991687.744; Easting: 2353252.572 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-324  
Structure Retaining Wall / Bridge  
Station 861+12  
Offset 138.71' Rt

District Fort Worth  
Date 7/9/2003  
Grnd. Elev. 598.96 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
596.	[Hatched pattern]		CLAY, sandy, dark brown, soft, moist							
5		10 (6) 15 (6)	CLAY, silty, with calcareous nodules, tan, stiff, moist							
592.			CLAY, shaley, tan, stiff, moist							
10		12 (6) 14 (6)								
15		9 (6) 11 (6)								
20		11 (6) 19 (6)								
577.	[Brick pattern]		LIMESTONE, with shale seams, gray, hard, dry							
575.			SHALE, gray, soft, moist							
25		50 (3) 50 (1.5)								
573.	[Brick pattern]		LIMESTONE, with shale seams, gray, hard, dry							
30		50 (0.75) 50 (0.25)								

Remarks: 1) Northing: 6991591.590; Easting: 2353220.420 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-324  
Structure Retaining Wall / Bridge  
Station 861+12  
Offset 138.71' Rt

District Fort Worth  
Date 7/9/2003  
Grnd. Elev. 598.96 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
568.			LIMESTONE, with shale seams, gray, hard, dry						
		50 (3) 50 (2.25)	SHALE, gray, soft, moist						
35									
		50 (3.75) 50 (3.25)							
40									
556.			LIMESTONE, with shale seams, gray, hard, dry						
554.		50 (1) 50 (1.25)							
45									
50									
55									
60									

Remarks: 1) Northing: 6991591.590; Easting: 2353220.420 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-325  
Structure Retaining Wall / Bridge  
Station 863+71  
Offset 132.18' Rt

District Fort Worth  
Date 7/10/2003  
Grnd. Elev. 604.22 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
5		14 (6) 15 (6)	CLAY, shaley, light brown and gray, stiff to very stiff, moist						
10		21 (6) 36 (6)							
15		38 (6) 50 (5)							
20		50 (5) 50 (2)							
25		50 (5.25) 50 (3.5)							
576.2			SHALE, gray, soft, moist						
30		50 (3.75) 50 (2)							

Remarks: 1) Northing: 6991596.678; Easting: 2353479.618 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-325  
Structure Retaining Wall / Bridge  
Station 863+71  
Offset 132.18' Rt

District Fort Worth  
Date 7/10/2003  
Grnd. Elev. 604.22 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
573.2	[Pattern]	50 (3) 50 (1)	SHALE, gray, soft, moist							
572.2			LIMESTONE, gray, hard, dry							
571.2	[Pattern]	50 (3) 50 (1)	SHALE, gray, soft, moist							
35			LIMESTONE, gray, hard to very hard, moist							
568.2	[Pattern]	50 (2.5) 50 (2)	SHALE, gray, soft, moist							
566.2	[Pattern]		LIMESTONE, with shale seams, gray, hard, dry							
565.2	[Pattern]	50 (2.5) 50 (2)	SHALE, gray, soft, moist							
40	[Pattern]									
359.2	[Pattern]	50 (3.25) 50 (2.25)								
45	[Pattern]									
50	[Pattern]									
55	[Pattern]									
60	[Pattern]									

Remarks: 1) Northing: 6991596.678; Easting: 2353479.618 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-327  
Structure Retaining Wall / Bridge  
Station 867+05  
Offset 155.94' Lt

District Fort Worth  
Date 9/8/2003  
Grnd. Elev. 610.61 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
609.1			PVMT, 5.0-in. Asphalt; 12.0-in. Flexbase							
607.6			CLAY, sandy, with limestone fragments, brown, soft, moist							
5		3 (6) 4 (6)	CLAY, silty, slickensided, light brown and light gray, very soft to soft, moist -sulfates present at 7'							
600.6	10	7 (6) 10 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, soft to hard, moist							
15		10 (6) 12 (6)								
20		15 (6) 17 (6)								
25		38 (6) 42 (6)								
30		50 (5.5) 50 (3.5)								

Remarks: 1) Northing: 6991884.298; Easting: 2353812.827 2) No water encountered during drilling. 3) Water added at a depth of 40' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-327  
Structure Retaining Wall / Bridge  
Station 867+05  
Offset 155.94' Lt

District Fort Worth  
Date 9/8/2003  
Grnd. Elev. 610.61 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks	
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)		
577.6			CLAY, shaley, slickensided, light brown and gray to gray and brown, soft to hard, moist								
35		50 (3.5) 50 (2.5)	SHALE, gray, soft, moist								
571.6		40	50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
570.1				SHALE, gray, soft, moist							
568.6				LIMESTONE, with shale seams, gray, hard to very hard, dry							
565.6		45	50 (1.5) 50 (1.25)	SHALE, gray, soft, moist							
560.6	50	50 (1.25) 50 (1)									
55											
60											

Remarks: 1) Northing: 6991884.298; Easting: 2353812.827 2) No water encountered during drilling. 3) Water added at a depth of 40' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar      Logger: Brad Weddell      Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-328  
Structure Retaining Wall / Bridge  
Station 869+35  
Offset 148.73' Lt

District Fort Worth  
Date 9/8/2003  
Grnd. Elev. 603.17 ft  
GW Elev. 585.17 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
601.7			PVMT, 5.0-in. Asphalt; 12.0-in. Flexbase						
			CLAY, sandy, dark brown, soft, moist						
5		5 (6) 4 (6)							
597.2			LIMESTONE, weathered, tan, hard, moist						
596.2			CLAY, sandy, with calcareous nodules, light brown, soft, moist						
593.2	10	4 (6) 5 (6)							
			CLAY, shaley, slickensided, light brown and light gray, soft to very stiff, moist -wet sand seam at 18'						
15		7 (6) 10 (6)							
20		8 (6) 12 (6)							
25		22 (6) 23 (6)							
30		23 (6) 26 (6)							

Remarks: 1) Northing: 6991879.404; Easting: 2354042.108 2) No water encountered during drilling.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.

# DRILLING LOG



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-328  
Structure Retaining Wall / Bridge  
Station 869+35  
Offset 148.73' Lt

District Fort Worth  
Date 9/8/2003  
Grnd. Elev. 603.17 ft  
GW Elev. 585.17 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks	
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)		
571.2			CLAY, shaley, slickensided, light brown and light gray, soft to very stiff, moist								
			wet sand seam at 18'								
570.2			SHALE, gray, soft, moist								
			50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
567.2				SHALE, gray, soft, moist							
566.2				LIMESTONE, with shale lenses, gray, hard to very hard, dry							
564.7				SHALE, gray, soft, moist							
563.7			50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
561.2				SHALE, gray, soft, moist							
			50 (2) 50 (1.5)								
553.2		50 (1.75) 50 (1.5)									
55											
60											

Remarks: 1) Northing: 6991879.404; Easting: 2354042.108 2) No water encountered during drilling.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-330  
Structure Retaining Wall / Bridge  
Station 865+96  
Offset 122.29' Lt

District Fort Worth  
Date 9/10/2003  
Grnd. Elev. 600.19 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
599.2	[Hatched pattern]		PVMT, 6.0-in. Asphalt; 6.0-in. Flexbase							
			CLAY, sandy, brown, soft, moist							
597.2	[Diagonal hatching]	32 (6) 42 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, stiff to hard, moist							
5										
	[Diagonal hatching]	50 (6) 50 (2)								
10										
589.2	[Horizontal hatching]		SHALE, gray, soft, moist							
	[Horizontal hatching]	50 (2.5) 50 (2)								
15										
581.7	[Brick pattern]	50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20										
575.2	[Brick pattern]	50 (0.5) 50 (0.25)								
25										
30										

Remarks: 1) Northing: 6991850.925; Easting: 2353705.067 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Eddie Kratz, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-333  
Structure Retaining Wall / Bridge  
Station 869+50  
Offset 57.05' Lt

District Fort Worth  
Date 9/10/2003  
Grnd. Elev. 595.90 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
593.9			PVMT, 6.0-in. Asphalt; 18.0-in. Flexbase							
590.9 5		11 (6) 17 (6)	CLAY, silty, with calcareous nodules, light brown, soft to stiff, moist							
10		20 (6) 28 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, stiff to hard, moist							
15		26 (6) 46 (6)								
20		50 (6) 50 (3.5)								
573.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
571.9		50 (1.75) 50 (1.75)	SHALE, gray, soft, moist							
569.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
565.9 30		50 (0.5) 50 (0.25)								

Remarks: 1) Northing: 6991788.247; Easting: 2354057.764 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Eddie Kratz, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-334  
Structure Retaining Wall / Bridge  
Station 871+63  
Offset 138.71' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 605.35 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
604.4			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase						
602.4			CLAY, sandy, with calcareous nodules, dark gray and brown, soft, moist						
5		3 (6) 4 (6)	CLAY, silty, with calcareous nodules, brown, very soft to soft, moist						
10		6 (6) 6 (6)							
594.4			CLAY, shaley, slickensided, light brown, stiff to very stiff, moist						
15		10 (6) 14 (6)							
20		16 (6) 28 (6)							
25		25 (6) 27 (6)							
577.4			SHALE, gray and brown, soft, moist						
30		50 (2.5) 50 (1)							

Remarks: 1) Northing: 6991853.576; Easting: 2354269.172 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-334  
Structure Retaining Wall / Bridge  
Station 871+63  
Offset 138.71' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 605.35 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
35		50 (2.5) 50 (4)	SHALE, gray and brown, soft, moist						
567.4			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
565.4	40	50 (2.5) 50 (2.25)	SHALE, gray, soft, moist						
562.9			LIMESTONE, with shale seams, gray, hard to very hard, dry						
45		50 (0.5) 50 (0.5)	SHALE, gray, soft, moist						
558.4			SHALE, gray, soft, moist						
50		50 (2.25) 50 (1.5)							
550.4	55	50 (2) 50 (1)							
60									

Remarks: 1) Northing: 6991853.576; Easting: 2354269.172 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-335  
Structure Retaining Wall / Bridge  
Station 873+96  
Offset 141.87' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 604.55 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
603.6			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, brown, soft, moist							
601.6			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
599.6		6 (6) 5 (6)								
597.6			CLAY, sandy, with calcareous nodules, brown, soft, moist							
			CLAY, slickensided, light brown and gray, soft, moist							
10		5 (6) 4 (6)								
592.6			CLAY, shaley, slickensided, light brown and gray, soft to hard, moist							
15		7 (6) 9 (6)								
20		11 (6) 15 (6)								
25		16 (6) 17 (6)								
30		38 (6) 50 (5)								

Remarks: 1) Northing: ; Easting: 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-335  
Structure Retaining Wall / Bridge  
Station 873+96  
Offset 141.87' Lt

District Fort Worth  
Date 9/5/2003  
Grnd. Elev. 604.55 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
571.6	[Pattern]	50 (3.75) 50 (3)	CLAY, shaley, slickensided, light brown and gray, soft to hard, moist						
35			SHALE, gray, soft, moist						
564.6	[Pattern]	50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
40			SHALE, gray, soft, moist						
563.6	[Pattern]	50 (0.5) 50 (0.25)	LIMESTONE, gray, hard to very hard, dry						
562.6			SHALE, gray, soft, moist						
561.6	[Pattern]	50 (0.5) 50 (0.25)	LIMESTONE, gray, hard to very hard, dry						
9.6			SHALE, gray, soft, moist						
558.6	[Pattern]	50 (2) 50 (2)	SHALE, gray, soft, moist						
45			LIMESTONE, gray, hard to very hard, dry						
557.6	[Pattern]	50 (2) 50 (2)	LIMESTONE, gray, hard to very hard, dry						
556.6			SHALE, gray, soft, moist						
554.6	[Pattern]	50 (2) 50 (2)							
55	[Pattern]								
60	[Pattern]								

Remarks: 1) Northing: ; Easting: 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-336  
Structure Retaining Wall / Bridge  
Station 866+08  
Offset 115.41' Rt

District Fort Worth  
Date 7/3/2003  
Grnd. Elev. 605.32 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		13 (6) 14 (6)	CLAY, shaley, brown and gray, soft to very stiff, moist							
10		11 (6) 17 (6)								
15		15 (6) 22 (6)								
20		25 (6) 42 (6)								
581.3										
580.3		50 (5.75) 50 (3.5)	SHALE, gray, soft, moist							
30										

Remarks: 1) Northing: 6991613.439; Easting: 2353717.039 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-337  
Structure Retaining Wall / Bridge  
Station 868+93  
Offset 105.42' Rt

District Fort Worth  
Date 7/3/2003  
Grnd. Elev. 597.25 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
5		7 (6) 8 (6)	CLAY, sandy, with calcareous nodules, tan and light brown, soft to stiff, moist						
587.2	10	10 (6) 12 (6)		CLAY, shaley, brown and gray, stiff to very stiff, moist					
15		13 (6) 20 (6)							
20		12 (6) 19 (6)							
574.2		50 (2.5) 50 (1)	LIMESTONE, with shale seams, gray, soft to hard, dry						
25		50 (1.5) 50 (1)							
567.2	30								

Remarks: 1) Northing: 6991624.632; Easting: 2354003.425 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-338  
Structure Retaining Wall / Bridge  
Station 871+27  
Offset 101.29' Rt

District Fort Worth  
Date 7/14/2003  
Grnd. Elev. 599.51 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
			CLAY, sandy, brown, soft, moist							
5		4 (6) 5 (6)								
590.5			CLAY, gravelly, tan, soft, moist							
10		8 (6) 6 (6)								
588.5			CLAY, silty, tan and light gray, soft to stiff, moist							
15		6 (6) 8 (6)								
20		10 (6) 11 (6)								
577.5			CLAY, shaley, tan and light gray, stiff, moist							
25		50 (4.5) 50 (1.5)								
574.			LIMESTONE, gray, hard to very hard, dry							
571.5			SHALE, clayey, gray, soft, moist							
569.5		50 (0.5) 50 (0.25)								

Remarks: 1) Northing: 6991633.323; Easting: 2354237.991 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-338  
Structure Retaining Wall / Bridge  
Station 871+27  
Offset 101.29' Rt

District Fort Worth  
Date 7/14/2003  
Grnd. Elev. 599.51 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
568.5	[Log symbols]	50 (1.75) 50 (1)	LIMESTONE, gray, hard to very hard, dry							
567.5			SHALE, gray, soft, moist							
564.5 35			LIMESTONE, with shale seams, gray, hard to very hard, dry							
40										
45										
50										
55										
60										

Remarks: 1) Northing: 6991633.323; Easting: 2354237.991 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-339  
Structure Retaining Wall / Bridge  
Station 873+68  
Offset 95.31' Rt

District Fort Worth  
Date 7/15/2003  
Grnd. Elev. 599.67 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
5		6 (6) 7 (6)	CLAY, sandy, with limestone fragments, light brown, soft, moist						
10		7 (6) 11 (6)							
587.7			CLAY, silty, tan and gray, soft, moist						
15		7 (6) 9 (6)							
583.7			CLAY, shaley, tan and gray, stiff to very stiff, moist						
20		14 (6) 28 (6)							
574.7		19 (6) 30 (6)							
25									
30									

Remarks: 1) Northing: 6991645.201; Easting: 2354480.391 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-341  
Structure Retaining Wall / Bridge  
Station 876+26  
Offset 104.16' Lt

District Fort Worth  
Date 9/10/2003  
Grnd. Elev. 602.34 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
601.3			PVMT, 4.0-in. Asphalt; 8.0-in. Concrete							
599.3			CLAY, sandy, brown and gray, hard, moist							
5		8 (6) 16 (6)	CLAY, sandy, with limestone fragments, brown and tan, soft to stiff, moist							
593.3		6 (6) 7 (6)	CLAY, silty, slickensided, light brown, soft, moist							
10										
590.3		13 (6) 19 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, stiff to hard, moist							
15										
20		21 (6) 23 (6)								
25		38 (6) 50 (5)								
30		50 (4.5) 50 (3.75)								

Remarks: 1) Northing: ; Easting: 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.





# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-343  
Structure Retaining Wall / Bridge  
Station 878+20.85  
Offset 211.6' Lt

District Fort Worth  
Date 8/29/2003  
Grnd. Elev. 613.39 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
610.6			PVMT, 3.0-in. Asphalt; 5.0-in. Concrete; 24.0-in. Flexbase							
608.4	5	4 (6) 4 (6)	CLAY, sandy, with calcareous nodules, brown, soft, moist							
605.4			CLAY, silty, with calcareous nodules, tan and light gray, soft, moist							
10		7 (6) 7 (6)	CLAY, silty, slickensided, brown, soft to stiff, moist							
15		9 (6) 15 (6)								
597.4			CLAY, shaley, slickensided, brown and gray, stiff to very stiff, moist							
593.4	20	21 (6) 36 (6)	SHALE, clayey, gray and brown, soft, moist							
25		50 (6) 50 (4)								
587.4			SHALE, gray, soft, moist							
583.4	30	50 (4.75) 50 (3.75)								

Remarks: 1) Northing: 6991882.558; Easting: 2354939.009 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-344  
Structure Retaining Wall / Bridge  
Station 880+48.5  
Offset 145.4' Lt

District Fort Worth  
Date 8/29/2003  
Grnd. Elev. 618.80 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
617.3			PVMT, 2.0-in. Asphalt; 8.0-in. Concrete; 6.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, brown to tan, soft to stiff, moist							
613.8 5			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10										
15										
600.8			SHALE, clayey, brown and gray, soft, moist							
20		38 (6) 50 (5)								
593.8 25		43 (6) 50 (4.5)	SHALE, gray and brown, soft, moist							
30		50 (3.5) 50 (2.75)								

Remarks: 1) Northing: 6991891.141; Easting: 2355150.077 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-344  
Structure Retaining Wall / Bridge  
Station 880+48.5  
Offset 145.4' Lt

District Fort Worth  
Date 8/29/2003  
Grnd. Elev. 618.80 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (2.75) 50 (2.25)	SHALE, gray and brown, soft, moist							
40		50 (3.5) 50 (3.25)								
45		50 (2) 50 (1.25)								
50										
55										
60										

Remarks: 1) Northing: 6991891.141; Easting: 2355150.077 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-345  
Structure Retaining Wall / Bridge  
Station 883+45.6  
Offset 140.6' Lt

District Fort Worth  
Date 8/28/2003  
Grnd. Elev. 623.90 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
622.9			PVMT, 2.0-in. Asphalt; 10.0-in. Flexbase							
			CLAY, sandy, with limestone fragments, tan, soft to stiff, moist							
619.9			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
616.9			CLAY, shaley, tan and gray, stiff to very stiff, moist							
614.9			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
9.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (1.25) 50 (0.5)								
25		50 (4) 50 (2.5)								
596.9			SHALE, gray and brown, soft, moist							
30		50 (4) 50 (2.25)								

Remarks: 1) Northing: 6991899.814; Easting: 2355448.505 2) No water encountered during drilling.

the ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-345  
Structure Retaining Wall / Bridge  
Station 883+45.6  
Offset 140.6' Lt

District Fort Worth  
Date 8/28/2003  
Grnd. Elev. 623.90 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (4) 50 (2.5)	SHALE, gray and brown, soft, moist							
40		50 (4) 50 (2.75)								
45		50 (2.25) 50 (1.5)								
50		50 (2.5) 50 (2)								
568.9 55		50 (2) 50 (1.5)								
60										

Remarks: 1) Northing: 6991899.814; Easting: 2355448.505 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-346  
Structure Retaining Wall / Bridge  
Station 879+45.2  
Offset 78.1' Lt

District Fort Worth  
Date 9/2/2003  
Grnd. Elev. 598.90 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
597.9			PVMT, 5.0-in. Asphalt; 7.0-in. Concrete							
596.9			CLAY, sandy, gravelly, dark brown and gray and tan, soft.							
			SHALE, clayey, with clay seams, gray, soft, moist							
5		25 (6) 29 (6)								
10		29 (6) 50 (5)								
15		31 (6) 50 (3.5)								
20		25 (6) 50 (4.5)								
573.9 25		50 (4) 50 (1.5)	SHALE, gray, soft, moist							
568.9 30		50 (1.5) 50 (0.5)								

Remarks: 1) Northing: 6991855.984; Easting: 2355045.079 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-347  
Structure Retaining Wall / Bridge  
Station 881+66.5  
Offset 73.4' Lt

District Fort Worth  
Date 9/2/2003  
Grnd. Elev. 599.70 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
598.7			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
597.7			CLAY, sandy, dark brown, soft, moist							
			SHALE, gray, soft, moist							
5		15 (6) 15 (6)								
10		25 (6) 39 (6)								
15		48 (6) 50 (3.5)								
20		50 (3) 50 (2.5)								
25		50 (4) 50 (1.75)								
569.7 30		50 (3.5) 50 (1.25)								

Remarks: 1) Northing: 6991864.256; Easting: 2355268.734 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-348  
Structure Retaining Wall / Bridge  
Station 876+19  
Offset 96.69' Rt

District Fort Worth  
Date 7/7/2003  
Grnd. Elev. 604.62 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		10 (6) 10 (6)	CLAY, shaley, brown and gray, stiff to very stiff, moist							
10		10 (6) 13 (6)								
15		24 (6) 36 (6)								
20		37 (6) 50 (4.75)								
583.6				SHALE, gray, soft, moist						
25		50 (4.75) 50 (3.5)								
30		50 (4.5) 50 (3.75)								

Remarks: 1) Northing: 6991653.263; Easting: 2354730.972 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-348  
Structure Retaining Wall / Bridge  
Station 876+19  
Offset 96.69' Rt

District Fort Worth  
Date 7/7/2003  
Grnd. Elev. 604.62 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
572.6	[Patterned]	50 (1) 50 (0.75)	SHALE, gray, soft, moist							
			LIMESTONE, with shale seams, gray, hard to very hard, dry							
569.6 35										
40										
45										
50										
55										
60										

Remarks: 1) Northing: 6991653.263; Easting: 2354730.972 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-349  
Structure Retaining Wall / Bridge  
Station 878+86  
Offset 81.09' Rt

District Fort Worth  
Date 7/2/2003  
Grnd. Elev. 616.39 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
614.4			PVMT, 4.0-in. Asphalt; 18.0-in. Flexbase							
613.4			CLAY, sandy, tan, soft, moist							
611.4		50 (6) 50 (2.5)	CLAY, sandy, with limestone seams, tan, hard, moist							
608.4			LIMESTONE, with clay seams, weathered, tan, soft, moist							
604.4		8 (6) 10 (6)	CLAY, silty, tan and light gray, soft, moist							
			CLAY, shaley, gray and brown, stiff to very stiff, moist							
		18 (6) 30 (6)								
		20 (6) 30 (6)								
594.4			SHALE, clayey, gray and brown, soft, moist							
		35 (6) 48 (6)								
589.4			SHALE, gray, soft, moist							
		50 (5.5) 50 (3)								

Remarks: 1) Northing: 6991678.088; Easting: 2354997.575 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-349  
Structure Retaining Wall / Bridge  
Station 878+86  
Offset 81.09' Rt

District Fort Worth  
Date 7/2/2003  
Grnd. Elev. 616.39 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (5.25) 50 (4.5)	SHALE, gray, soft, moist							
577.4										
576.4 40		50 (1.5) 50 (1)	LIMESTONE, gray, hard to very hard, dry							
			SHALE, gray, soft, moist							
571.4 45		50 (1.75) 50 (1.5)								
50										
55										
60										

Remarks: 1) Northing: 6991678.088; Easting: 2354997.575 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-350  
Structure Retaining Wall / Bridge  
Station 881+46  
Offset 94.15' Rt

District Fort Worth  
Date 7/2/2003  
Grnd. Elev. 620.85 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
618.8			PVMT, 4.0-in. Asphalt; 18.0-in. Flexbase							
616.8			CLAY, sandy, brown, stiff, moist							
615.8 5		20 (6) 50 (2.5)	CLAY, silty, with limestone lenses, tan, stiff, moist							
			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10		50 (2) 50 (2.5)								
15		50 (1.5) 50 (1)								
604.8			CLAY, shaley, brown and gray, very stiff, moist							
20		38 (6) 42 (6)								
598.8			SHALE, clayey, gray and brown, soft, moist							
25		40 (6) 40 (6)								
593.8			SHALE, gray, soft, moist							
30		50 (4) 50 (2.5)								

Remarks: 1) Northing: 6991674.417; Easting: 2355257.485 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-350  
Structure Retaining Wall / Bridge  
Station 881+46  
Offset 94.15' Rt

District Fort Worth  
Date 7/2/2003  
Grnd. Elev. 620.85 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (2.5) 50 (2)	SHALE, gray, soft, moist							
40		50 (1.75) 50 (1.75)								
45		50 (1) 50 (0.75)								
50										
55										
60										

Remarks: 1) Northing: 6991674.417; Easting: 2355257.485 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-351  
Structure Retaining Wall / Bridge  
Station 883+76  
Offset 97.96' Rt

District Fort Worth  
Date 7/7/2003  
Grnd. Elev. 622.74 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
621.2			PVMT, 4.0-in. Asphalt; 12.0-in. Flexbase							
5		37 (6) 50 (3.75)	CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
616.7			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10		50 (1.5) 50 (1.25)								
611.7			LIMESTONE, with shale seams, gray, hard to very hard, dry							
15		50 (2) 50 (1)								
20		50 (1.5) 50 (1)								
599.7			CLAY, shaley, gray and brown, stiff to very stiff, moist							
25		34 (6) 39 (6)								
30		34 (6) 40 (6)								

Remarks: 1) Northing: 6991678.893; Easting: 2355487.683 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-351  
Structure Retaining Wall / Bridge  
Station 883+76  
Offset 97.96' Rt

District Fort Worth  
Date 7/7/2003  
Grnd. Elev. 622.74 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
590.7			CLAY, shaley, gray and brown, stiff to very stiff, moist							
			SHALE, clayey, gray and brown, soft, moist							
35		50 (4) 50 (4)								
582.7		50 (3.5) 50 (3)	SHALE, gray, soft, moist							
45		50 (3.5) 50 (3.75)								
50		50 (2.5) 50 (2)								
567.7		50 (3) 50 (1.75)								
60										

Remarks: 1) Northing: 6991678.893; Easting: 2355487.683 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-353  
Structure Retaining Wall / Bridge  
Station 886+50.5  
Offset 138.4' Lt

District Fort Worth  
Date 8/28/2003  
Grnd. Elev. 625.00 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
623.8			PVMT, 2.0-in. Asphalt; 6.0-in. Concrete; 6.0-in. Flexbase							
5			CLAY, sandy, with calcareous nodules, brown to tan, soft, moist							
617.			CLAY, sandy, with limestone seams, tan, soft to very stiff, moist							
614.			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
15			CLAY, shaley, tan and gray, stiff, moist							
609.			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
607.			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
605.	20	50 (1.5) 50 (0.5)								
25		50 (0.75) 50 (0.5)								
598.			SHALE, gray and brown, soft, moist							
30		50 (5) 50 (3.5)								

Remarks: 1) Northing: 6991895.152; Easting: 2355755.343 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-353  
Structure Retaining Wall / Bridge  
Station 886+50.5  
Offset 138.4' Lt

District Fort Worth  
Date 8/28/2003  
Grnd. Elev. 625.00 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (5.5) 50 (3.5)	SHALE, gray and brown, soft, moist							
40		50 (4.5) 50 (3.25)								
45		50 (3) 50 (2)								
50		50 (3) 50 (1.5)								
570. 55		50 (3) 50 (1.75)								
60										

Remarks: 1) Northing: 6991895.152; Easting: 2355755.343 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-354  
Structure Retaining Wall / Bridge  
Station 894+44  
Offset 95.47' Lt

District Fort Worth  
Date 9/3/2003  
Grnd. Elev. 615.92 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
614.9			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase						
			CLAY, sandy, dark brown to brown, soft, moist						
5									
608.9			CLAY, sandy, with limestone seams, tan, stiff, moist						
606.9			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist						
10									
602.9			CLAY, sandy, tan, stiff to very stiff, moist						
15		18 (6) 31 (6)							
598.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
20		50 (1) 50 (0.5)							
25		50 (1) 50 (0.5)							
588.9			SHALE, gray and brown, soft, moist						
30		50 (5.5) 50 (3.5)							

Remarks: 1) Northing: 6991908.658; Easting: 2356549.151 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-354  
Structure Retaining Wall / Bridge  
Station 894+44  
Offset 95.47' Lt

District Fort Worth  
Date 9/3/2003  
Grnd. Elev. 615.92 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (3.75) 50 (3.25)	SHALE, gray and brown, soft, moist							
40		50 (2.5) 50 (3)								
45		50 (2.5) 50 (2)								
50										
55										
60										

Remarks: 1) Northing: 6991908.658; Easting: 2356549.151 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-356  
Structure Retaining Wall / Bridge  
Station 886+43  
Offset 104.46' Rt

District Fort Worth  
Date 7/9/2003  
Grnd. Elev. 623.67 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
622.7	[Diagonal hatching]	50 (2.75) 50 (2.5)	PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
5			CLAY, sandy, with calcareous nodules, tan, stiff to hard, moist							
617.7	[Brick pattern]	50 (2) 50 (1.5)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10										
610.7	[Brick pattern]	50 (2) 50 (1)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
15										
	[Brick pattern]	50 (1) 50 (0.75)								
20										
	[Brick pattern]	50 (1.5) 50 (1)								
25										
597.7	[Horizontal hatching]	50 (5) 50 (3.5)	SHALE, clayey, brown and gray, soft, moist							
30										

Remarks: 1) Northing: 6991681.185; Easting: 2355754.144 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-356  
Structure Retaining Wall / Bridge  
Station 886+43  
Offset 104.46' Rt

District Fort Worth  
Date 7/9/2003  
Grnd. Elev. 623.67 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
587.7		42 (6) 50 (3)	SHALE, clayey, brown and gray, soft, moist							
			SHALE, gray and brown, soft, moist							
40		50 (4) 50 (2)								
45		50 (4) 50 (1.5)								
50		50 (3) 50 (2)								
568.7		50 (3.75) 50 (1)								
60										

Remarks: 1) Northing: 6991681.185; Easting: 2355754.144 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-357  
Structure Retaining Wall / Bridge  
Station 897+97  
Offset 83.63' Lt

District Fort Worth  
Date 8/27/2003  
Grnd. Elev. 616.76 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
614.8			CLAY, sandy, with calcareous nodules, brown, soft, moist							
612.8			CLAY, sandy, with limestone seams, tan, stiff to very stiff, moist							
5		50 (1) 50 (0.5)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
10		50 (1) 50 (0.5)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
605.8			SHALE, gray, soft, moist							
15		50 (4) 50 (3)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (0.5) 50 (0.25)	SHALE, gray, soft, moist							
25		50 (0.5) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
588.8			SHALE, gray, soft, moist							
586.8		50 (1.75) 50 (1.5)								

Remarks: 1) Northing: 6991889.960; Easting: 2356907.004 2) No water encountered during drilling. 3) Water added at a depth of 5' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-358  
Structure Retaining Wall / Bridge  
Station 900+96  
Offset 96.81' Lt

District Fort Worth  
Date 8/27/2003  
Grnd. Elev. 613.77 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
610.8	[Diagonal hatching]		CLAY, sandy, with calcareous nodules, brown, soft, moist						
608.8 5			50 (2.5) 50 (1.5)	CLAY, sandy, with limestone seams, tan, stiff to very stiff, moist					
606.8	[Brick pattern]		LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist						
10			50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry					
99.8	[Horizontal hatching]		SHALE, gray, soft, moist						
15			50 (3) 50 (2)	LIMESTONE, with shale lenses, gray, hard to very hard, dry					
596.8	[Brick pattern]		LIMESTONE, with shale lenses, gray, hard to very hard, dry						
20			50 (0.5) 50 (0.25)						
25	[Brick pattern]								
586.3			50 (0.5) 50 (0.5)	SHALE, gray, soft, moist					
583.8 30	[Horizontal hatching]								

Remarks: 1) Northing: 6991895.283; Easting: 2357209.030 2) No water encountered during drilling. 3) Water added at a depth of 7' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.





# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-360  
Structure Retaining Wall / Bridge  
Station 897+13  
Offset 113.96' Rt

District Fort Worth  
Date 7/9/2003  
Grnd. Elev. 615.16 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
612.2	5	4 (6) 3 (6)	CLAY, sandy, brown, very soft, moist							
			CLAY, sandy, with calcareous nodules, tan, very soft to stiff, moist							
606.2	10	50 (4.5) 50 (2)	LIMESTONE, with clay seams, weathered, tan, soft, moist							
602.2			CLAY, shaley, brown and gray, stiff to very stiff, moist							
599.2	15	24 (6) 23 (6)	LIMESTONE, gray, hard, dry							
598.2			CLAY, shaley, gray and brown, stiff, moist							
597.2	20	50 (1.5) 50 (1)	LIMESTONE, gray, hard, dry							
596.2			CLAY, shaley, gray and brown, stiff, moist							
595.2			LIMESTONE, with shale seams, gray, hard to very hard, dry							
	25	50 (0.5) 50 (0.25)								
587.2			SHALE, gray, soft, moist							
30		50 (6) 50 (4.5)								

Remarks: 1) Northing: 6991700.577; Easting: 2356819.360 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-360  
Structure Retaining Wall / Bridge  
Station 897+13  
Offset 113.96' Rt

District Fort Worth  
Date 7/9/2003  
Grnd. Elev. 615.16 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (4.5) 50 (2.5)	SHALE, gray, soft, moist							
575.2 40		50 (3) 50 (2.25)								
45										
50										
55										
60										

Remarks: 1) Northing: 6991700.577; Easting: 2356819.360 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-361  
Structure Retaining Wall / Bridge  
Station 900+18  
Offset 106.11' Rt

District Fort Worth  
Date 7/10/2003  
Grnd. Elev. 612.47 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
611.5	[Hatched pattern]		PVMT, 4.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, sandy, with gravel, brown, soft, moist							
607.5	[Hatched pattern]	12 (6) 12 (6)	CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
602.5		50 (2.5) 50 (0.5)	LIMESTONE, with clay lenses, weathered, tan, hard, moist							
599.5	[Brick pattern]	50 (2) 50 (1)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
596.5			CLAY, shaley, gray and brown, stiff, moist							
593.5	[Brick pattern]	50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
584.5			SHALE, clayey, gray and brown, soft, moist							
30		50 (4) 50 (3.5)								

Remarks: 1) Northing: 6991697.158; Easting: 2357118.564 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-361  
Structure Retaining Wall / Bridge  
Station 900+18  
Offset 106.11' Rt

District Fort Worth  
Date 7/10/2003  
Grnd. Elev. 612.47 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
577.5	35	50 (5) 50 (3.5)	SHALE, clayey, gray and brown, soft, moist							
40										
45										
50										
55										
60										

Remarks: 1) Northing: 6991697.158; Easting: 2357118.564 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-362  
Structure Retaining Wall / Bridge  
Station 902+93  
Offset 102.51' Rt

District Fort Worth  
Date 7/7/2003  
Grnd. Elev. 612.92 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
611.4			PVMT, 4.0-in. Asphalt; 12.0-in. Flexbase							
			CLAY, sandy, brown, soft, moist							
5		8 (6) 50 (3)								
606.9			LIMESTONE, weathered, tan, hard, moist							
605.9			CLAY, sandy, with limestone seams, tan, soft to very stiff, moist							
10		24 (6) 25 (6)								
600.9			LIMESTONE, weathered, tan, hard, moist							
599.9			LIMESTONE, with shale seams, gray, hard to very hard, dry							
15		50 (1) 50 (0.5)								
20		50 (1.5) 50 (0.75)								
587.9		50 (1) 50 (0.75)								
25										
30										

Remarks: 1) Northing: 6991679.442; Easting: 2357389.844 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-363  
Structure Retaining Wall / Bridge  
Station 905+43  
Offset 133.90' Lt

District Fort Worth  
Date 8/27/2003  
Grnd. Elev. 612.38 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
609.4			CLAY, sandy, with calcareous nodules, brown to tan, soft to stiff, moist						
607.4 5		50 (3.75) 50 (1.25)	CLAY, sandy, with limestone fragments, tan, stiff to hard, moist						
602.4 10		50 (1) 50 (0.5)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist						
15		50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
592.4 20		50 (0.25) 50 (0.25)							
25									
30									

Remarks: 1) Northing: 6991888.711; Easting: 2357664.875 2) No water encountered during drilling. 3) Water added at a depth of 5' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-364  
Structure Retaining Wall / Bridge  
Station 907+94  
Offset 125.82' Lt

District Fort Worth  
Date 8/25/2003  
Grnd. Elev. 610.82 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		13 (6) 18 (6)	CLAY, sandy, with calcareous nodules, dark gray and brown to tan, soft to stiff, moist							
602.8		50 (3.5) 50 (1.5)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
597.8		50 (0.25) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
593.8			SHALE, clayey, gray, soft, moist							
591.8		50 (1) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
585.8		50 (0.25) 50 (0.25)								
30										

Remarks: 1) Northing: 6991844.670; Easting: 2357915.830 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



WinCore  
Version 2.01

# DRILLING LOG

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-365  
Structure Retaining Wall / Bridge  
Station 910+09  
Offset 127.11' Lt

District Fort Worth  
Date 8/29/2003  
Grnd. Elev. 610.63 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
608.6	[Diagonal Hatching]		CLAY, sandy, brown, soft, moist						
			CLAY, sandy, with calcareous nodules and limestone seams, tan, stiff to hard, moist						
5		21 (6) 50 (3.25)							
10		50 (4.5) 50 (5.75)							
597.6	[Brick Pattern]		LIMESTONE, with shale lenses, gray, hard to very hard, dry						
15			50 (0.5) 50 (0.5)						
20			50 (1) 50 (0.5)						
589.6			SHALE, gray, soft, moist						
588.1			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
585.6	25	50 (1.5) 50 (1)							
30									

Remarks: 1) Northing: 69918808.272; Easting: 2358131.957 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar      Logger: Brad Weddell      Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-366  
Structure Retaining Wall / Bridge  
Station 914+94  
Offset 115.93' Lt

District Fort Worth  
Date 8/22/2003  
Grnd. Elev. 610.30 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
608.3	[Pattern]	23 (6) 50 (4.5)	CLAY, sandy, brown, soft, moist							
606.3			LIMESTONE, with clay lenses, weathered, tan, hard, moist							
604.3	[Pattern]	50 (5.5) 50 (4.25)	CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
601.3			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
598.3	[Pattern]	50 (1.5) 50 (1)	CLAY, shaley, with limestone lenses, tan, hard, moist							
596.3			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
592.3	[Pattern]	50 (4.5) 41 (6)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
589.3			SHALE, clayey, gray, soft, moist							
587.3	[Pattern]	50 (0.75) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
585.3										
583.3	[Pattern]	50 (0.25) 50 (0.25)								

Remarks: 1) Northing: 6991689.775; Easting: 2358610.589 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-366  
Structure Retaining Wall / Bridge  
Station 914+94  
Offset 115.93' Lt

District Fort Worth  
Date 8/22/2003  
Grnd. Elev. 610.30 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
577.3	[Lithology Column]	50 (2.5) 50 (2.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
575.3 35			SHALE, gray, soft, moist							
40										
45										
50										
55										
60										

Remarks: 1) Northing: 6991689.775; Easting: 2358610.589 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.

# DRILLING LOG



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-368  
Structure Retaining Wall / Bridge  
Station 912+55  
Offset 128.24' Lt

District Fort Worth  
Date 9/4/2003  
Grnd. Elev. 612.21 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
610.2	[Diagonal hatching]	50 (3.5) 50 (4)	CLAY, sandy, brown, soft, moist						
5			CLAY, sandy, with limestone seams, tan, stiff to hard, moist						
600.2	[Brick pattern]	50 (4) 50 (2)	LIMESTONE, with shale seams, gray, hard to very hard, dry						
10			50 (2) 50 (2)						
15			50 (2) 50 (1.5)						
591.2	[Horizontal hatching]	50 (2) 50 (1)	SHALE, gray, soft, moist						
588.7			LIMESTONE, with shale seams, gray, hard to very hard, dry						
587.2	25								
30									

Remarks: 1) Northing: 6991758.905; Easting: 2358376.935 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

# DRILLING LOG

Hole R-371  
Structure Retaining Wall / Bridge  
Station 907+47  
Offset 148.31' Rt

District Fort Worth  
Date 7/10/2003  
Grnd. Elev. 614.66 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
613.7			PVMT, 3.0-in. Asphalt; 7.0-in. Flexbase						
		3 (6) 4 (6)	CLAY, sandy, gray and brown, very soft to soft, moist						
604.7		14 (6) 30 (6)	CLAY, sandy, with limestone seams, tan, stiff to very stiff, moist						
599.7		50 (3.5) 50 (1.5)	LIMESTONE, with clay lenses, weathered, tan, soft, moist						
597.7			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
		50 (1.5) 50 (0.5)							
593.7			SHALE, clayey, gray and brown, soft, moist						
591.7			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
		50 (1) 50 (0.75)							
584.7		50 (0.5) 50 (0.5)							

Remarks: 1) Northing: 6991580.444; Easting: 2357826.525 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-372  
Structure Retaining Wall / Bridge  
Station 910+65  
Offset 150.83' Rt

District Fort Worth  
Date 7/14/2003  
Grnd. Elev. 616.59 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
610.6		2 (6) 3 (6)	CLAY, sandy, brown and gray, very soft, moist							
			CLAY, silty, tan and light gray, very soft, moist							
604.6		3 (6) 4 (6)								
			CLAY, sandy, with sandstone lenses, tan and red brown, soft, moist							
601.6		50 (3.75) 50 (3.25)								
			SHALE, gray, soft, moist							
599.6			LIMESTONE, with shale seams, gray, hard to very hard, dry							
		50 (0.75) 50 (0.25)								
20										
		50 (0.5) 50 (0.25)								
25										
590.6			SHALE, gray, soft, moist							
589.6			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
		50 (1) 50 (1.5)								
30										

Remarks: 1) Northing: 6991523.476; Easting: 2358134.804 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-373  
Structure Retaining Wall / Bridge  
Station 913+72  
Offset 116.47' Rt

District Fort Worth  
Date 7/14/2003  
Grnd. Elev. 613.73 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
612.7			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
			CLAY, sandy, brown, very soft, moist							
5		3 (6) 4 (6)								
607.7			CLAY, silty, tan and gray, soft, moist							
606.7			CLAY, sandy, tan and gray, soft, moist							
605.7			CLAY, shaley, tan, stiff to very hard, moist							
10		50 (5) 50 (2)								
15		50 (2.5) 50 (1.75)								
596.7			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (2.5) 50 (0.75)								
589.2			SHALE, gray, soft, moist							
25		50 (4) 50 (2.25)								
586.7			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
583.7	30	50 (1) 50 (0.5)								

Remarks: 1) Northing: 6991491.305; Easting: 2358437.350 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-374  
Structure Retaining Wall / Bridge  
Station 917+42  
Offset 103.91' Lt

District Fort Worth  
Date 8/22/2003  
Grnd. Elev. 606.13 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
604.1			CLAY, sandy, brown, soft, moist							
603.1			LIMESTONE, weathered, tan, soft, moist							
5		4 (6) 5 (6)	CLAY, sandy, with calcareous nodules, brown and tan, soft, moist							
597.1		50 (5.25) 50 (3)	CLAY, shaley, with limestone seams, tan, very stiff to hard, moist							
15		50 (1.75) 50 (0.5)								
588.1			SHALE, clayey, gray, soft, moist							
586.1		50 (3) 50 (1.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
581.1		50 (0.5) 50 (0.25)								
30										

Remarks: 1) Northing: 6991607.049; Easting: 2358851.217 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-375  
Structure Retaining Wall / Bridge  
Station 919+87  
Offset 146.95' Lt

District Fort Worth  
Date 8/25/2003  
Grnd. Elev. 601.52 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
600.5			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
		33 (6) 42 (6)	CLAY, sandy, with limestone lenses, tan, stiff to very stiff, moist							
594.5			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
591.5	10	50 (1) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
587.5	15	50 (5.5) 50 (2)	SHALE, clayey, gray, soft, moist							
584.5			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
	20	50 (0.5) 50 (0.25)								
	25	50 (0.25) 50 (0.25)								
573.5			SHALE, gray, soft, moist							
571.5	30	50 (2.25) 50 (2)								

Remarks: 1) Northing: 6991563.461; Easting: 2359102.873 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-376  
Structure Retaining Wall / Bridge  
Station 922+35  
Offset 104.91' Lt

District Fort Worth  
Date 8/26/2003  
Grnd. Elev. 596.87 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
592.9			CLAY, sandy, with limestone fragments, brown and tan, soft to very stiff, moist						
5		50 (1) 50 (2)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist						
10		50 (0.5) 50 (0.25)							
583.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
15		50 (4) 50 (1.5)	SHALE, gray, soft, moist						
580.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry						
20		50 (0.5) 50 (0.25)							
25		50 (0.5) 50 (0.25)							
570.9			SHALE, gray, soft, moist						
566.9		50 (2) 50 (1.5)							

Remarks: 1) Northing: 6991427.163; Easting: 2359322.249 2) No water encountered during drilling. 3) Water added at a depth of 10' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-378  
Structure Retaining Wall / Bridge  
Station 915+93  
Offset 120.68' Rt

District Fort Worth  
Date 7/14/2003  
Grnd. Elev. 610.32 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
609.3			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
			CLAY, sandy, brown, very soft, moist							
605.3 5		3 (6) 4 (6)	CLAY, silty, tan very soft, moist							
602.3			CLAY, shaley, with limestone lenses, tan, stiff to hard, moist							
10		50 (4.5) 47 (6)								
15		50 (4) 50 (1)								
592.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (1) 50 (0.5)								
25	50 (1) 50 (0.5)									
584.3		SHALE, gray, soft, moist								
582.3		LIMESTONE, with shale lenses, gray, hard to very hard, dry								
580.3 30	50 (1) 50 (0.75)									

Remarks: 1) Northing: 6991434.946; Easting: 2358642.417 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-379  
Structure Retaining Wall / Bridge  
Station 918+98  
Offset 112.61' Rt

District Fort Worth  
Date 7/16/2003  
Grnd. Elev. 606.17 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
603.2	[Log Diagram]		CLAY, sandy, brown, soft, moist						
601.2 5		17 (6) 50 (4.5)	CLAY, sandy, with calcareous nodules, tan, soft, moist						
10		50 (5) 50 (2.75)	CLAY, shaley, with limestone seams, tan, hard, moist						
593.2		50 (1.75) 50 (1)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
20		50 (0.75) 50 (0.5)							
585.2			SHALE, clayey, gray, soft, moist						
581.2 25		50 (1.5) 50 (0.5)	LIMESTONE, with shale seams, gray, hard to very hard, dry						
576.2 30	50 (1.75) 50 (0.5)								

Remarks: 1) Northing: 6991350.914; Easting: 2358927.871 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-380  
Structure Retaining Wall / Bridge  
Station 921+15  
Offset 116.24' Rt

District Fort Worth  
Date 8/26/2003  
Grnd. Elev. 602.74 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
597.7	5	17 (6) 33 (6)	CLAY, sandy, brown, soft to stiff, moist						
10		50 (6) 50 (1)	CLAY, sandy, with limestone fragments, tan, stiff to hard, moist						
591.7			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist						
18.7		50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
20		50 (0.25) 50 (0.25)							
25		50 (0.25) 50 (0.25)							
572.7	30	50 (0.25) 50 (0.25)							

Remarks: 1) Northing: 6991271.767; Easting: 2359124.192 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-381  
Structure Retaining Wall / Bridge  
Station 923+43  
Offset 111.29'

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 601.08 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
600.1			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
5		21 (6) 26 (6)	CLAY, sandy, with limestone seams, tan, soft to very stiff, moist							
592.1		50 (4) 50 (2.5)	LIMESTONE, with clay lenses, weathered, tan, soft, moist							
588.1		50 (1.5) 50 (0.75)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1) 50 (1)								
20		50 (1) 50 (0.5)								
25		50 (0.5) 50 (0.25)								
30										

Remarks: 1) Northing: 6991185.660; Easting: 2359330.118 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-381  
Structure Retaining Wall / Bridge  
Station 923+43  
Offset 111.29'

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 601.08 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
570.1			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
			SHALE, gray, soft, moist							
35		50 (3) 50 (2.5)								
40		50 (4) 50 (2)								
45		50 (2.5) 50 (1.5)								
50		50 (4) 50 (2)								
55		50 (3) 50 (1.75)								
60		50 (0.5) 50 (0.25)								

Remarks: 1) Northing: 6991185.660; Easting: 2359330.118 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-381  
Structure Retaining Wall / Bridge  
Station 923+43  
Offset 111.29'

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 601.08 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
65		50 (2) 50 (1.25)	SHALE, gray, soft, moist							
535.1			LIMESTONE, with interbedded shale lenses, gray, soft to hard, moist							
531.1		70 50 (1.5) 50 (1)								
75										
80										
85										
90										

Remarks: 1) Northing: 6991185.660; Easting: 2359330.118 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-384  
Structure Retaining Wall / Bridge  
Station 925+41  
Offset 107.11' Lt

District Fort Worth  
Date 8/21/2003  
Grnd. Elev. 592.93 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
591.9	[Hatched pattern]		PVMT, 5.0-in. Asphalt; 6.0-in. Flexbase							
			CLAY, sandy, dark brown, soft, moist							
587.9 5	[Hatched pattern]	7 (6) 15 (6)	CLAY, sandy, with limestone fragments, tan, stiff, moist							
582.9 10	[Hatched pattern]	50 (0.5) 50 (0.25)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
577.9 15	[Hatched pattern]	50 (1.5) 50 (0.5)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (2) 50 (1)								
25		50 (0.5) 50 (0.25)								
562.9 30		50 (4.5) 50 (3.75)								

Remarks: 1) Northing: 6991291.992; Easting: 2359605.228 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-384  
Structure Retaining Wall / Bridge  
Station 925+41  
Offset 107.11' Lt

District Fort Worth  
Date 8/21/2003  
Grnd. Elev. 592.93 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (4.5) 50 (1.75)	SHALE, gray and brown, soft, moist							
40		50 (2.75) 50 (2)								
45		50 (3) 50 (2)								
50		50 (3.5) 50 (3)								
55		50 (2.25) 50 (2)								
60		50 (2) 50 (1)								

Remarks: 1) Northing: 6991291.992; Easting: 2359605.228 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-384  
Structure Retaining Wall / Bridge  
Station 925+41  
Offset 107.11' Lt

District Fort Worth  
Date 8/21/2003  
Grnd. Elev. 592.93 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
528.9	[Penetrometer Scale]	50 (0.5) 50 (0.25)	SHALE, gray and brown, soft, moist							
527.9 65			LIMESTONE, gray, hard to very hard, dry							
70										
75										
80										
85										
90										

Remarks: 1) Northing: 6991291.992; Easting: 2359605.228 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Arne Gelfert

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-385  
Structure Retaining Wall / Bridge  
Station 928+11  
Offset 109.41' Lt

District Fort Worth  
Date 8/22/2003  
Grnd. Elev. 590.81 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
586.8	5	6 (6) 6 (6)	CLAY, sandy, dark gray and brown, soft, moist							
			CLAY, silty, brown, soft, moist							
580.8	10	6 (6) 19 (6)	CLAY, silty, with calcareous nodules, tan, soft to stiff, moist							
578.8			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
574.8	15	50 (1) 50 (0.5)	CLAY, shaley, gray and brown, stiff to very stiff, moist							
572.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
565.8	20	50 (1) 50 (0.25)								
	25	50 (1) 50 (0.25)								
	30									

Remarks: 1) Northing: 6991158.186; Easting: 2359846.245 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-386  
Structure Retaining Wall / Bridge  
Station 930+79  
Offset 114.38' Lt

District Fort Worth  
Date 8/22/2003  
Grnd. Elev. 588.43 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		7 (6) 8 (6)	CLAY, sandy, dark brown, soft, moist							
580.4										
10		5 (6) 4 (6)	CLAY, sandy, with calcareous nodules, brown, soft, moist							
575.4										
15		49 (6) 23 (6)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
569.4										
20		50 (1.25) 50 (0.75)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
25		50 (0.5) 50 (0.5)								
560.4										
30		50 (4.5) 50 (3.25)	SHALE, gray, soft, moist							

Remarks: 1) Northing: 6991017.414; Easting: 2360077.138 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-387  
Structure Retaining Wall / Bridge  
Station 933+76  
Offset 117.32' Lt

District Fort Worth  
Date 8/7/2003  
Grnd. Elev. 586.39 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
579.4		7 (6) 8 (6)	CLAY, sandy, brown, soft, moist							
576.4		50 (3) 50 (1.75)	CLAY, sandy, with calcareous nodules, brown and tan, soft to stiff, moist							
571.4		50 (1.25) 50 (0.75)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
569.4			LIMESTONE, gray, hard to very hard, dry							
567.9			SHALE, gray, soft, moist							
561.4		50 (1) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
		50 (0.5) 50 (0.25)								
30										

Remarks: 1) Northing: 6990859.515; Easting: 2360328.616 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-389  
Structure Retaining Wall / Bridge  
Station 926+68  
Offset 112.45' Rt

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 595.83 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		10 (6) 13 (6)	CLAY, sandy, with calcareous nodules, brown to tan, soft, moist							
10		50 (3.5) 50 (1)								
584.8			LIMESTONE, with clay seams, weathered, tan, soft, moist							
582.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1) 50 (0.5)								
579.8			SHALE, clayey, gray, soft, moist							
577.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (1) 50 (0.5)								
572.8			SHALE, gray, soft, moist							
571.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
25		50 (1.5) 50 (0.5)								
566.8			SHALE, gray and brown, soft, moist							
30		46 (6) 50 (5.75)								

Remarks: 1) Northing: 6991038.847; Easting: 2359610.802 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-389  
Structure Retaining Wall / Bridge  
Station 926+68  
Offset 112.45' Rt

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 595.83 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (3.5) 50 (2.5)	SHALE, gray and brown, soft, moist							
40		50 (3.5) 50 (2.75)								
45		50 (3.25) 50 (2.25)								
50		50 (3.25) 50 (1.75)								
55		50 (3.75) 50 (1.75)								
60		50 (2) 50 (1)								

Remarks: 1) Northing: 6991038.847; Easting: 2359610.802 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-389  
Structure Retaining Wall / Bridge  
Station 926+68  
Offset 112.45' Rt

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 595.83 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
530.8	[Log Scale]	50 (1.75) 50 (0.5)	SHALE, gray and brown, soft, moist							
528.8			LIMESTONE, gray, hard to very hard, dry							
525.8		50 (0.5) 50 (0.25)	SHALE, gray, soft, moist							
75										
80										
85										
90										

Remarks: 1) Northing: 6991038.847; Easting: 2359610.802 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-390  
Structure Retaining Wall / Bridge  
Station 929+29  
Offset 113.29' Rt

District Fort Worth  
Date 7/16/2003  
Grnd. Elev. 589.87 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		5 (6) 6 (6)	CLAY, sandy, brown to tan, soft, moist							
581.9										
579.9	10	50 (1) 50 (0.5)	CLAY, sandy, with limestone fragments, tan, stiff, moist							
577.9			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
575.9			CLAY, shaley, with limestone lenses, tan, stiff, moist							
573.9	15	50 (2.25) 50 (1.5)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
	20	50 (0.5) 50 (0.5)								
564.9	25	50 (0.75) 50 (0.5)								
30										

Remarks: 1) Northing: 6990906.494; Easting: 2359827.969 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-391  
Structure Retaining Wall / Bridge  
Station 932+39  
Offset 114.30' Rt

District Fort Worth  
Date 7/16/2003  
Grnd. Elev. 588.08 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		5 (6) 6 (6)	CLAY, sandy, brown and gray, soft, moist							
580.1										
10		50 (5) 50 (0.5)	CLAY, sandy, with limestone fragments, tan, soft to stiff, moist							
577.1										
575.1			LIMESTONE, with clay seams, weathered, tan, soft, moist							
575.1										
15		23 (6) 50 (5)	CLAY, shaley, tan and gray, stiff to very stiff, moist							
571.1										
570.1			LIMESTONE, weathered, tan, soft, moist							
569.1			SHALE, clayey, gray, soft, moist							
569.1										
20		50 (0.5) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
561.1										
25		50 (1) 50 (0.5)								
561.1										
561.1			SHALE, clayey, gray and brown, soft, moist							
561.1										
30		24 (6) 50 (5.5)								

Remarks: 1) Northing: 6990738.186; Easting: 2360088.339 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-391  
Structure Retaining Wall / Bridge  
Station 932+39  
Offset 114.30' Rt

District Fort Worth  
Date 7/16/2003  
Grnd. Elev. 588.08 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
556.1			SHALE, clayey, gray and brown, soft, moist							
			SHALE, gray, soft, moist							
35		50 (5.25) 50 (4.75)								
548.1		50 (4.75) 50 (3.75)								
40										
45										
50										
55										
60										

Remarks: 1) Northing: 6990738.186; Easting: 2360088.339 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-392  
Structure Retaining Wall / Bridge  
Station 935+93  
Offset 114.75' Lt

District Fort Worth  
Date 8/25/2003  
Grnd. Elev. 583.54 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
582.5			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
5		7 (6) 12 (6)	CLAY, sandy, with calcareous nodules, dark gray and brown to light brown, soft, moist							
573.5		50 (1) 50 (0.25)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
570.5		50 (0.25) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
15		50 (0.25) 50 (0.25)								
20		50 (0.25) 50 (0.25)								
25		50 (0.5) 50 (0.25)								
555.		50 (3) 50 (3)	SHALE, gray and brown, soft, moist							
30										

Remarks: 1) Northing: 6990740.351; Easting: 2360510.490 2) No water encountered during drilling. 3) Water added at a depth of 10' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-392  
Structure Retaining Wall / Bridge  
Station 935+93  
Offset 114.75' Lt

District Fort Worth  
Date 8/25/2003  
Grnd. Elev. 583.54 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (2) 50 (1.75)	SHALE, gray and brown, soft, moist							
40		50 (3) 50 (1.5)								
48.5		50 (1.75) 50 (1.5)								
50										
55										
60										

Remarks: 1) Northing: 6990740.351; Easting: 2360510.490 2) No water encountered during drilling. 3) Water added at a depth of 10' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-394  
Structure Retaining Wall / Bridge  
Station 938+22  
Offset 115.80' Lt

District Fort Worth  
Date 9/9/2003  
Grnd. Elev. 578.13 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
571.1		28 (6) 50 (4.5)	CLAY, sandy, with calcareous nodules, brown, soft to hard, moist							
568.1		50 (0.5) 50 (0.5)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
566.6			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
564.6			SHALE, gray, soft, moist							
554.6		50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
		50 (0.25) 50 (0.25)								
			SHALE, gray, soft, moist							
		50 (3) 50 (2.5)								
		50 (2) 50 (1.5)								

Remarks: 1) Northing: 6990617.241; Easting: 2360704.417 2) No water encountered during drilling. 3) Water added at a depth of 12' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-394  
Structure Retaining Wall / Bridge  
Station 938+22  
Offset 115.80' Lt

District Fort Worth  
Date 9/9/2003  
Grnd. Elev. 578.13 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (2.5) 50 (1.5)	SHALE, gray, soft, moist							
538.1 40		50 (1.5) 50 (1)								
45										
50										
55										
60										

Remarks: 1) Northing: 6990617.241; Easting: 2360704.417 2) No water encountered during drilling. 3) Water added at a depth of 12' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-396  
Structure Retaining Wall / Bridge  
Station 940+53  
Offset 117.66' Lt

District Fort Worth  
Date 9/9/2003  
Grnd. Elev. 576.22 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
575.2	[Hatched pattern]	18 (6) 38 (6)	PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase						
			CLAY, sandy, with calcareous nodules, brown, soft to very stiff, moist						
570.2	[Brick pattern]	13 (6) 50 (5)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist						
567.2			CLAY, shaley, slickensided, tan and gray, stiff to hard, moist						
564.2	[Brick pattern]	50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
554.2			SHALE, gray, soft, moist						
550.2	[Brick pattern]	50 (2.5) 50 (2)							
546.2									
546.2 30	[Brick pattern]	50 (2) 50 (2)							

Remarks: 1) Northing: 6990494.473; Easting: 2360899.304 2) No water encountered during drilling. 3) Water added at a depth of 12' to facilitate coring.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-398  
Structure Retaining Wall / Bridge  
Station 942+93  
Offset 113.62' Lt

District Fort Worth  
Date 8/7/2003  
Grnd. Elev. 576.49 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
575.5			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, sandy, brown and gray, soft, moist							
5		4 (6) 8 (6)								
569.5			CLAY, sandy, with limestone seams, tan, stiff, moist							
567.5			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10		50 (1) 50 (0.5)								
565.5			LIMESTONE, gray, hard to very hard, dry							
563.5			SHALE, gray, soft, moist							
15		50 (3) 50 (0.5)								
561.5			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (0.5) 50 (0.5)								
25		50 (0.5) 50 (0.5)								
548.5			SHALE, gray, soft, moist							
30		50 (3.5) 50 (3)								

Remarks: 1) Northing: 6990361.484; Easting: 2361099.242 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-398  
Structure Retaining Wall / Bridge  
Station 942+93  
Offset 113.62' Lt

District Fort Worth  
Date 8/7/2003  
Grnd. Elev. 576.49 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	
35		50 (3.25) 50 (3)	SHALE, gray, soft, moist						
40		50 (3.25) 50 (3)							
45		50 (2.5) 50 (2.25)							
50		50 (3) 50 (2)							
55		50 (2) 50 (2)							
60		50 (2) 50 (1.5)							

Remarks: 1) Northing: 6990361.484; Easting: 2361099.242 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-398  
Structure Retaining Wall / Bridge  
Station 942+93  
Offset 113.62' Lt

District Fort Worth  
Date 8/7/2003  
Grnd. Elev. 576.49 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
513.5	[Cone Penetration Test Log]	50 (0.5) 50 (0.25)	SHALE, gray, soft, moist							
511.5 65			LIMESTONE, gray, hard to very hard, dry							
70										
75										
80										
85										
90										

Remarks: 1) Northing: 6990361.484; Easting: 2361099.242 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-401  
Structure Retaining Wall / Bridge  
Station 935+42  
Offset 114.23' Rt

District Fort Worth  
Date 8/26/2003  
Grnd. Elev. 585.68 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
580.7	5	10 (6) 13 (6)	CLAY, sandy, dark brown to brown, soft to stiff, moist							
574.7	10	33 (6) 50 (3.75)	CLAY, sandy, with limestone fragments, brown, stiff to very stiff, moist							
571.7	15	13 (6) 18 (6)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, dry							
568.7			CLAY, tan and light gray, stiff, moist							
566.7	20	50 (0.75) 50 (0.25)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, dry							
557.7	25	50 (0.25) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
555.7	30	50 (2) 50 (1.5)	SHALE, gray, soft, moist							

Remarks: 1) Northing: 6990575.073; Easting: 2360344.065 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-402  
Structure Retaining Wall / Bridge  
Station 938+36  
Offset 114.00' Rt

District Fort Worth  
Date 7/15/2003  
Grnd. Elev. 582.20 ft  
GW Elev. 573.20 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
581.2			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
5		5 (6) 7 (6)	CLAY, sandy, brown to light brown, soft, moist							
573.2		3 (6) 8 (6)	SAND, gravelly, tan, loose, water bearing							
570.2			CLAY, sandy, tan, soft, moist							
15		14 (6) 20 (6)								
565.2			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
563.2		50 (1) 50 (0.75)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
25		50 (1.5) 50 (0.5)								
555.2			SHALE, gray, soft, moist							
552.2		50 (3.5) 50 (2.75)								

Remarks: 1) Northing: 6990416.263; Easting: 2360591.084 2) Groundwater encountered at a depth of 9' during drilling.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-403  
Structure Retaining Wall / Bridge  
Station 941+37  
Offset 117.67' Rt

District Fort Worth  
Date 7/15/2003  
Grnd. Elev. 580.87 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
579.9			PVMT, 5.0-in. Asphalt; 8.0-in. Flexbase							
577.9			CLAY, sandy, brown and gray, soft, moist							
576.4			LIMESTONE, gray, hard, dry							
570.9	5	5 (6) 8 (6)	CLAY, sandy, brown and gray, soft, moist							
567.9	10	9 (6) 11 (6)	CLAY, sandy, with limestone fragments, light brown and gray, soft to stiff, moist							
563.9	15	9 (6) 12 (6)	CLAY, shaley, with limestone seams, tan and gray, stiff to hard, moist							
561.9	20	50 (1.5) 50 (0.5)	LIMESTONE, with clay lenses, weathered, tan, hard, moist							
553.9	25	50 (1) 50 (0.5)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
550.9	30	38 (6) 49 (6)	SHALE, clayey, gray, soft, moist							

Remarks: 1) Northing: 6990250.062; Easting: 2360842.974 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-404  
Structure Retaining Wall / Bridge  
Station 944+20  
Offset 161.66' Rt

District Fort Worth  
Date 7/15/2003  
Grnd. Elev. 580.94 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
579.9			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
		5 (6) 5 (6)	CLAY, sandy, brown and gray, soft, moist							
572.9		50 (5.75) 50 (2.5)	CLAY, shaley, with limestone seams, tan, stiff to hard, moist							
569.9			LIMESTONE, weathered, tan, soft, moist							
568.9			LIMESTONE, with shale seams, gray, hard, dry							
566.9		32 (6) 50 (3.5)	SHALE, gray, soft, moist							
562.9		50 (2) 50 (1.5)	LIMESTONE, with shale seams, gray, hard, dry							
		50 (0.75) 50 (0.5)								
552.9			SHALE, gray, soft, moist							
550.9		50 (4.5) 50 (3.25)								

Remarks: 1) Northing: 6990060.419; Easting: 2361057.223 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-406  
Structure Retaining Wall / Bridge  
Station 945+27  
Offset 110.56' Lt

District Fort Worth  
Date 8/6/2003  
Grnd. Elev. 581.15 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties			Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	
580.2			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase CLAY, sandy, brown, soft, moist						
5		5 (6) 6 (6)							
572.2		25 (6) 28 (6)	CLAY, sandy, with limestone seams, tan, stiff to very stiff, moist						
568.2			LIMESTONE, weathered, tan, soft, moist						
7.2		50 (1) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
15									
20		50 (1) 50 (0.75)							
25		50 (0.5) 50 (0.25)							
30		50 (0.5) 50 (0.25)							

Remarks: 1) Northing: 6990232.314; Easting: 2361295.022 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-406  
Structure Retaining Wall / Bridge  
Station 945+27  
Offset 110.56' Lt

District Fort Worth  
Date 8/6/2003  
Grnd. Elev. 581.15 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
550.2			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
		50 (5) 50 (3.5)	SHALE, gray, soft, moist							
35										
		50 (2.75) 50 (2.5)								
40										
		50 (2) 50 (1.5)								
45										
		50 (2.5) 50 (1.5)								
50										
		50 (2) 50 (1.5)								
526.2 55										
60										

Remarks: 1) Northing: 6990232.314; Easting: 2361295.022 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-408  
Structure Retaining Wall / Bridge  
Station 947+20  
Offset 158.00' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 580.25 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
576.3			CLAY, sandy, brown, soft to stiff, moist							
5		45 (6) 29 (6)	CLAY, sandy, with limestone seams, tan, very stiff to hard, moist							
10		50 (4) 50 (2.5)								
568.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1.5) 50 (1)								
20		50 (0.75) 50 (0.5)								
25		50 (0.75) 50 (0.5)								
550.3 30		50 (0.5) 50 (0.25)								

Remarks: 1) Northing: 6990168.153; Easting: 2361482.944 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-410  
Structure Retaining Wall / Bridge  
Station 949+56  
Offset 159.23' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 578.87 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
577.9			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
5		10 (6) 12 (6)	CLAY, sandy, with limestone fragments, light brown, soft to stiff, moist							
570.9			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10		50 (2.5) 50 (1)								
565.9			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (0.75) 50 (0.25)								
20		50 (0.5) 50 (0.5)								
25		50 (0.5) 50 (0.25)								
548.9 30		50 (0.5) 50 (0.25)								

Remarks: 1) Northing: 6990047.649; Easting: 2361679.021 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Scott Campbell, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-411  
Structure Retaining Wall / Bridge  
Station 950+74  
Offset 156.61' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 578.25 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
577.3			PVMT, 12.0-in. Concrete							
			CLAY, sandy, light brown, soft, moist							
5		4 (6) 4 (6)								
569.3		50 (5) 50 (2.25)	CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
566.3			LIMESTONE, with clay seams, weathered, tan, hard, moist							
564.3		50 (0.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
561.3			SHALE, gray, soft, moist							
560.3		50 (0.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
556.3			SHALE, gray, soft, moist							
555.3		50 (0.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
550.3			SHALE, gray and brown, soft, moist							
30		50 (5) 50 (2.5)								

Remarks: 1) Northing: 6989987.727; Easting: 2361777.129 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-411  
Structure Retaining Wall / Bridge  
Station 950+74  
Offset 156.61' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 578.25 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35		50 (3.25) 50 (2.5)	SHALE, gray and brown, soft, moist							
40		50 (3.25) 50 (3)								
45		50 (3.25) 50 (2)								
50		50 (4) 50 (2)								
55		50 (4) 50 (2)								
60		50 (1) 50 (0.75)								

Remarks: 1) Northing: 6989987.727; Easting: 2361777.129 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole B-411  
Structure Retaining Wall / Bridge  
Station 950+74  
Offset 156.61' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 578.25 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
65		50 (3) 50 (1.5)	SHALE, gray and brown, soft, moist							
510.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
508.3 70		50 (0.5) 50 (0.25)								
75										
80										
85										
90										

Remarks: 1) Northing: 6989987.727; Easting: 2361777.129 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-413  
Structure Retaining Wall / Bridge  
Station 952+01  
Offset 109.80' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 577.69 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		6 (6) 6 (6)	CLAY, sandy, brown, soft, moist							
570.7			CLAY, sandy, with limestone seams, tan, soft to hard, moist							
10		17 (6) 50 (3.5)								
565.7			LIMESTONE, with clay seams, weathered, tan, soft, moist							
15		50 (1) 50 (0.5)								
561.7			SHALE, gray, soft, moist							
560.7			LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (1.5) 50 (1)								
552.7		50 (2) 50 (0.75)								
25										
30										

Remarks: 1) Northing: 6989886.495; Easting: 2361862.968 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-414  
Structure Retaining Wall / Bridge  
Station 953+29  
Offset 159.14' Lt

District Fort Worth  
Date 7/18/2003  
Grnd. Elev. 576.99 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
576.			PVMT, 10.0-in. Concrete; 2.0-in. Asphalt							
			CLAY, sandy, with calcareous nodules, light brown, soft, moist							
5		4 (6) 4 (6)								
569.			CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
10		17 (6) 50 (3.5)								
566.			LIMESTONE, with clay seams, weathered, tan, soft, moist							
15		50 (3.5) 50 (1)								
561.			SHALE, gray, soft, moist							
558.			LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (1.75) 50 (1.25)								
556.			SHALE, gray, soft, moist							
555.			LIMESTONE, with shale seams, gray, hard to very hard, dry							
25		50 (0.5) 50 (0.25)								
30										

Remarks: 1) Northing: 6989872.430; Easting: 2361996.617 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-417  
Structure Retaining Wall / Bridge  
Station 946+74  
Offset 161.89' Rt

District Fort Worth  
Date 7/17/2003  
Grnd. Elev. 580.31 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
579.3			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
		10 (6) 10 (6)	CLAY, sandy, brown and gray, soft, moist							
572.3			CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
		50 (2) 50 (0.75)								
569.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
567.3			SHALE, gray, soft, moist							
		50 (5.5) 50 (2)								
564.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
		50 (1) 50 (0.5)								
555.3										
		50 (1) 50 (0.25)								
30										

Remarks: 1) Northing: 6989923.054; Easting: 2361270.834 2) No water encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Tim Bronco, Terra Mar

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.



# DRILLING LOG

WinCore  
Version 2.01

County Tarrant  
Highway N Loop 820  
Control 0008-14-058

Hole R-420  
Structure Retaining Wall / Bridge  
Station 864+17  
Offset 33.99' RT

District Fort Worth  
Date 6/25/2003  
Grnd. Elev. 593.12 ft  
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
590.1		19 (6) 19 (6)	CLAY, sandy, brown, soft to stiff, moist							
5			CLAY, shaley, light brown and gray to gray and brown, stiff to hard, moist							
10			50 (6) 50 (4)							
578.1			50 (4.75) 50 (3.5)							
574.1		50 (3.5) 50 (2.5)	SHALE, gray, soft, moist							
573.1			LIMESTONE, gray, hard, dry							
570.1			SHALE, gray, soft, moist							
25			LIMESTONE, with shale seams, gray, hard to very hard, dry							
566.1		50 (2) 50 (1.75)	SHALE, gray, soft, moist							
563.1			30							

Remarks: 1) Northing: 6991695.044; Easting: 2353526.306 2) No groundwater encountered during drilling.

The ground water elevation was not determined during the course of this boring.

Driller: Johnny Thompson, Texplor

Logger: Brad Weddell

Organization: TEAM Consultants, Inc.