

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
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or permit purposes.

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

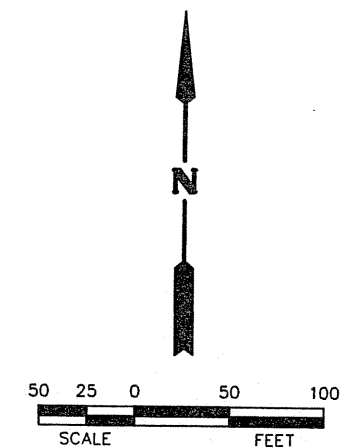
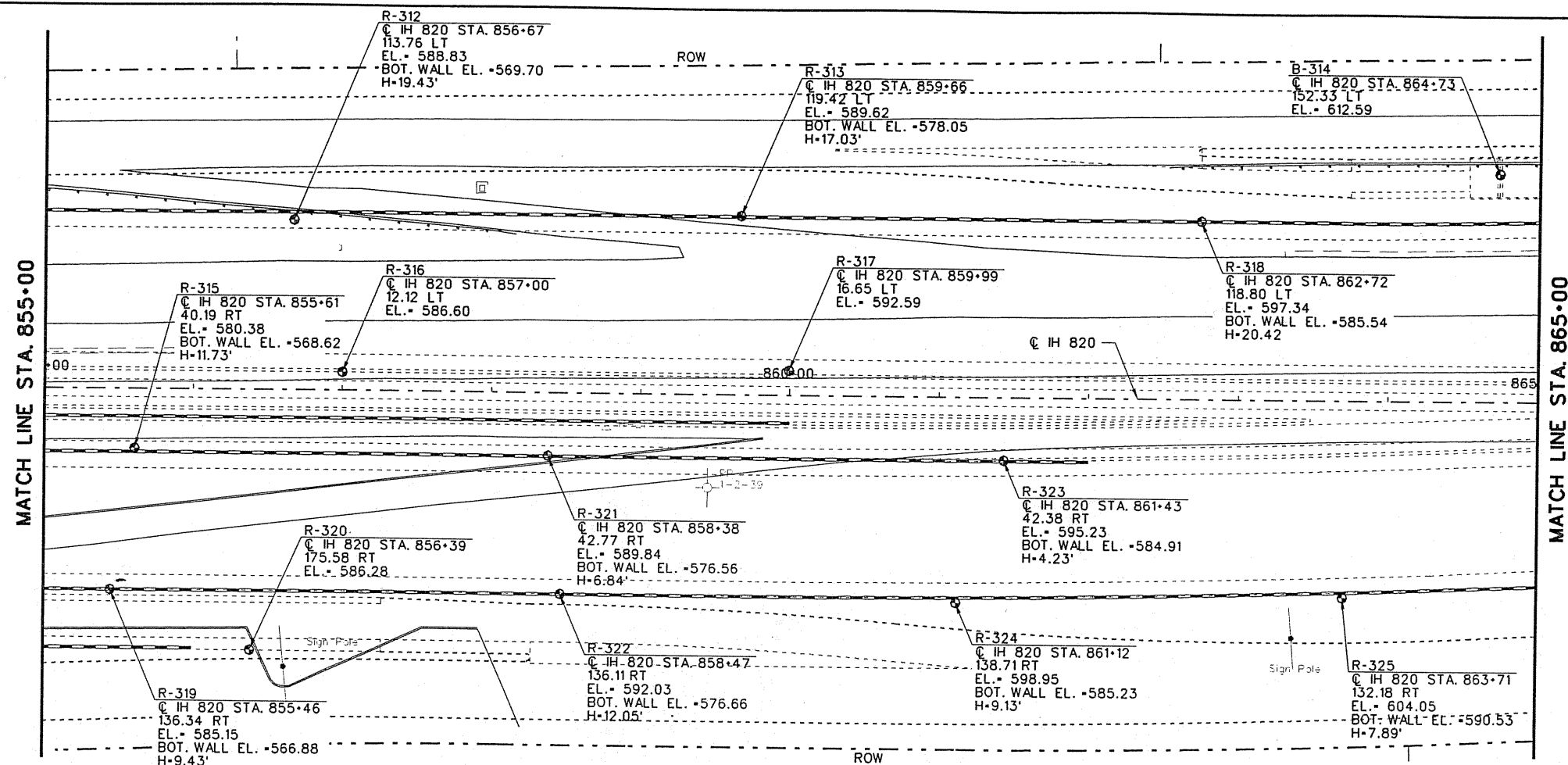
NO.	REVISION	BY	DATE

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IH-820 RECONSTRUCTION

BORING PLAN BEGIN PROJ TO STA 855+00

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
 4 EXISTING BORING
 4 PROPOSED BORING

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Engineer AARON R. KWAST
P.E. No. 65741 Date 04/30/0

NO.	REVISION	BY	DATE
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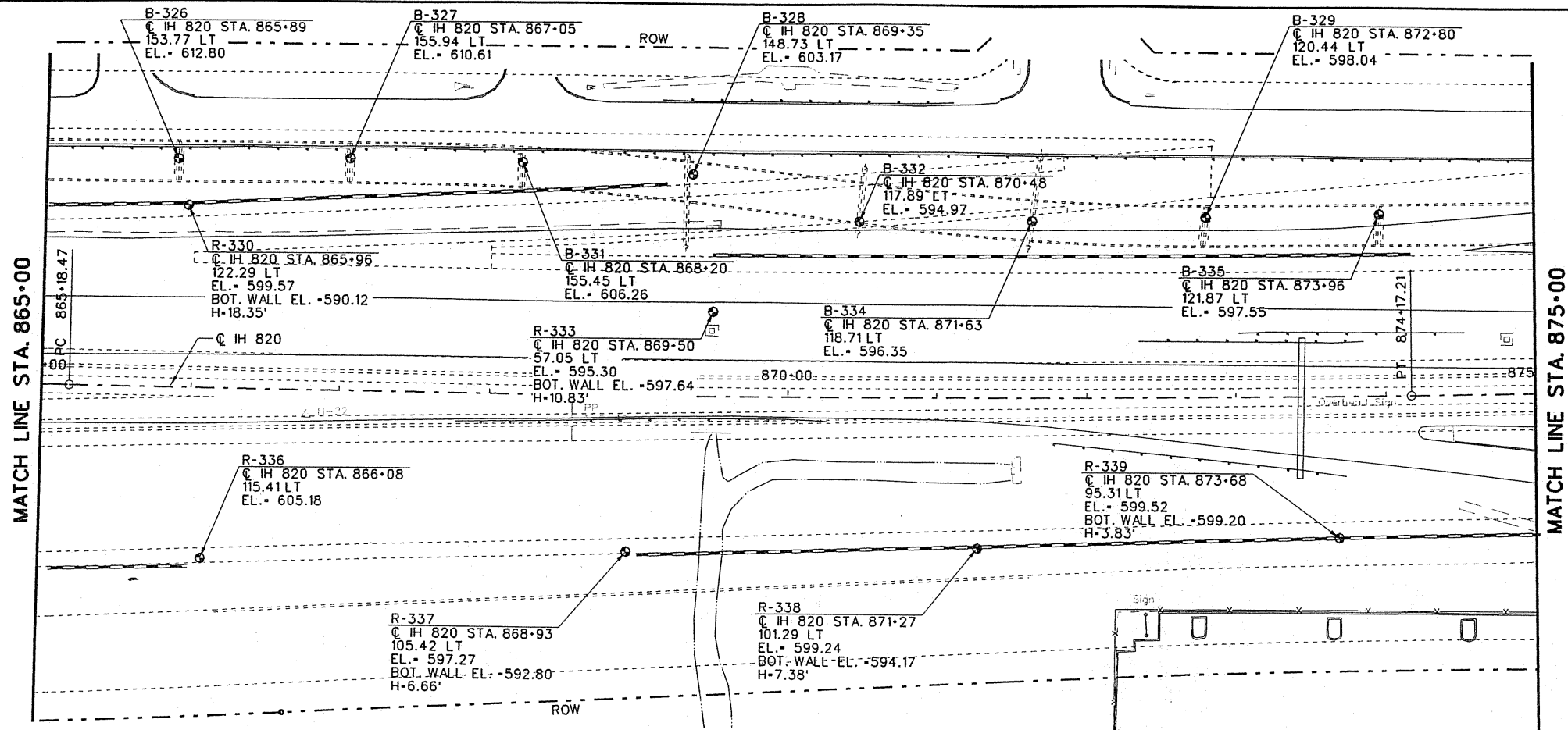
IH-820 RECONSTRUCTION

BORING PLAN

STA 855+00 TO STA 865+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.	SECTION NO.	JOB NO.
Checked:	FTW	TARRANT	0008	14	059	SHEET NO.



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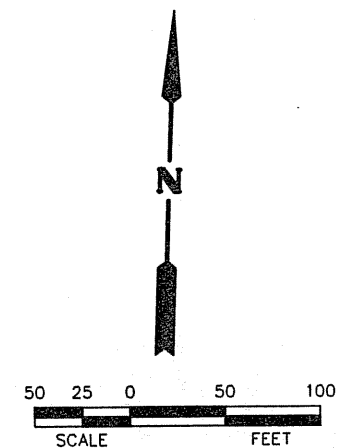
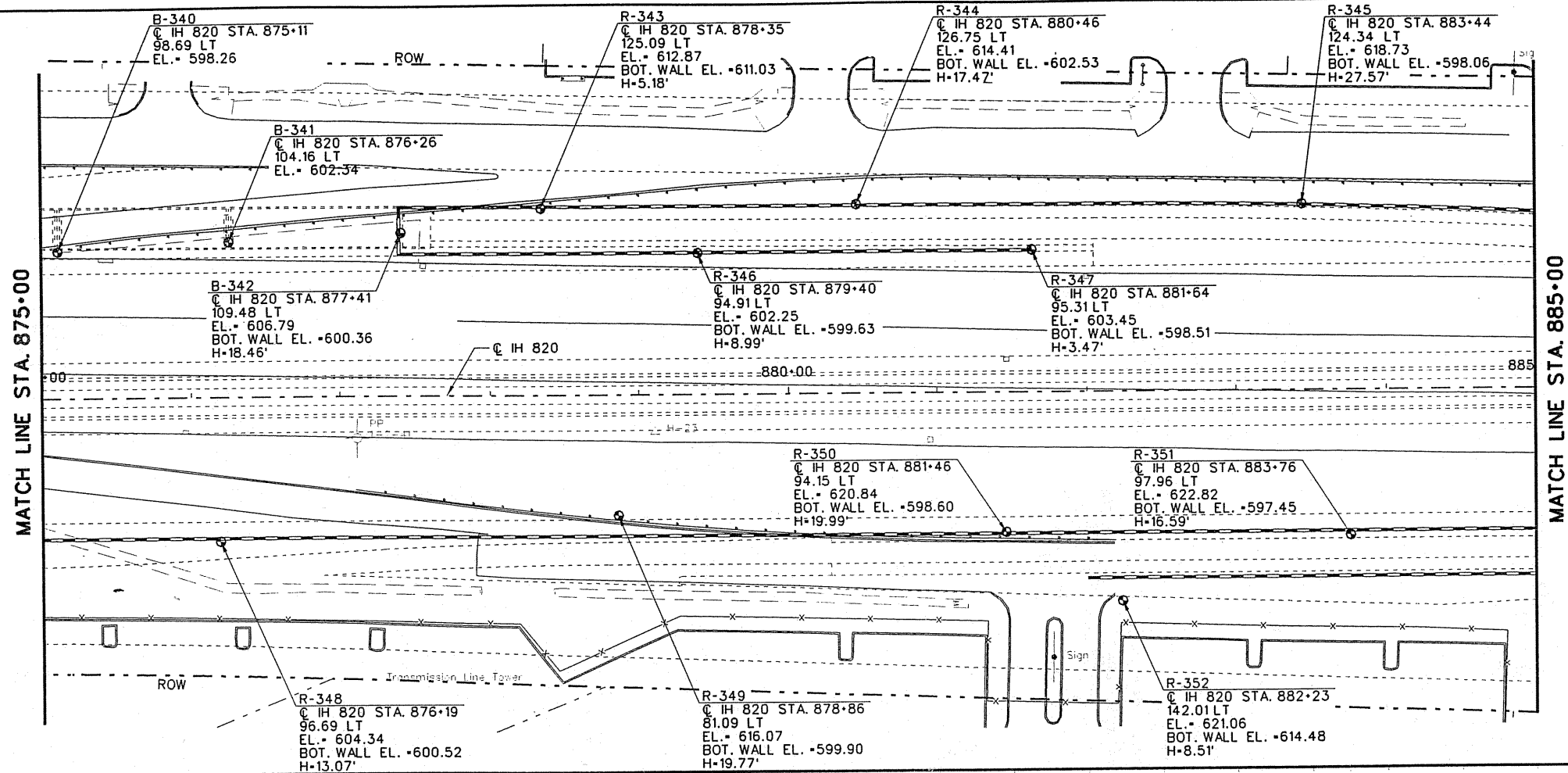
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Engineer **AARON R. KWAST**
P.E. No. **65741** Date **04/30/01**

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BORING PLAN
STA 865+00 TO STA 875+00

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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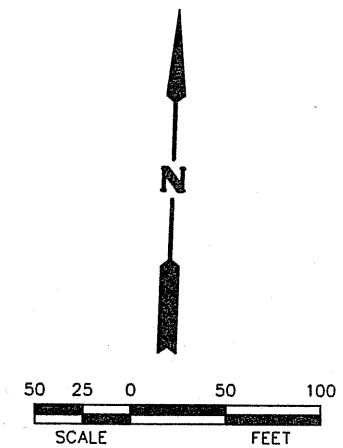
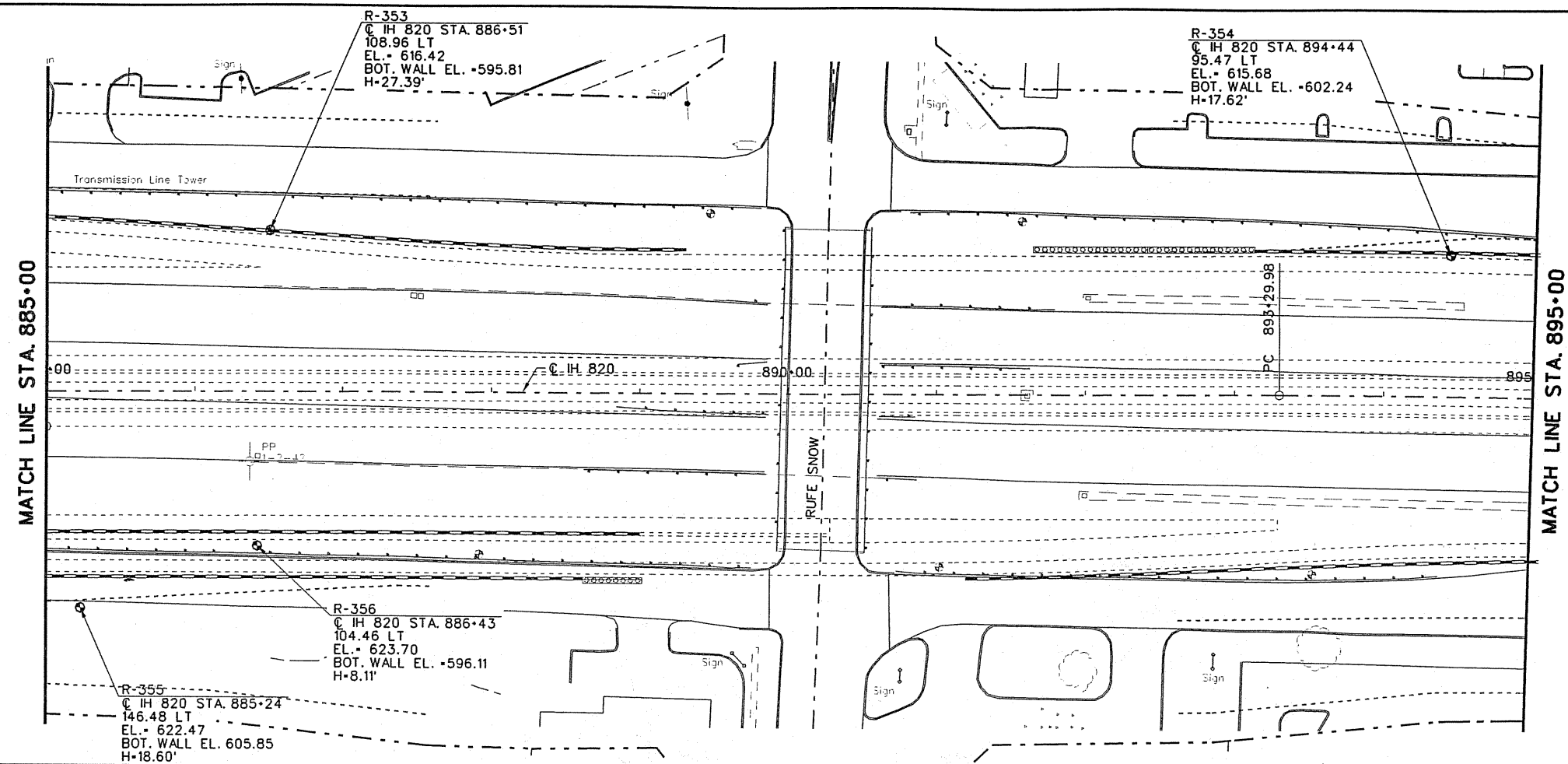
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BORING PLAN STA 875+00 TO STA 885+00


DESIGNED:		STATE:		FEDERAL AID PROJECT NO.		HIGHWAY NO.	
Checked:		06 TEXAS				IH-820	
DRAWN:		COUNTY:		CONTROL NO.		JOB NO.	
Checked:		FTW TARRANT		0008 14		059	



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


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

NO.	REVISION	BY	DATE
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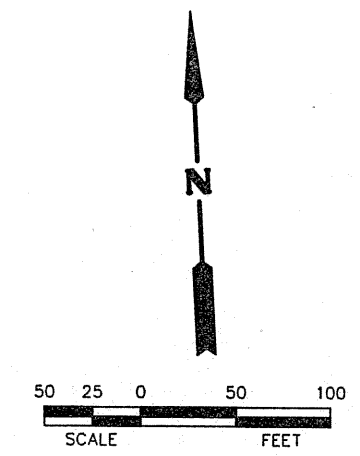
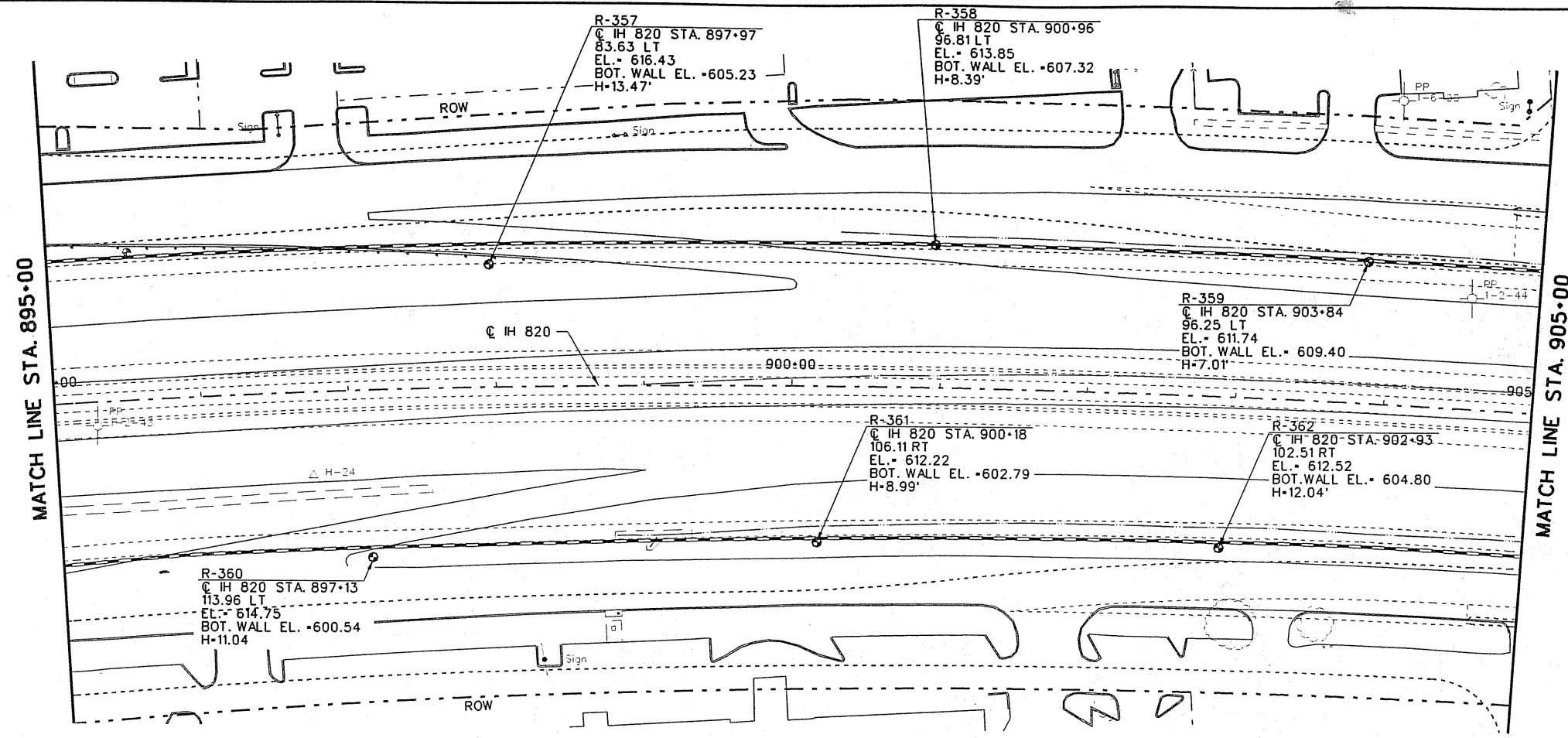
IH-820 RECONSTRUCTION

BORING PLAN

STA 885+00 TO STA 895+00

SEG. 2						
Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
Checked:	06	TEXAS				H-820
Drawn	CADD	DIST.	COUNTY	CONTROL NO.	SECTION	JOB NO.
Checked:	ETW	TARRANT	0008	14	050	SHEET NO.

SHEET 5 OF 11



LEGEND

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

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

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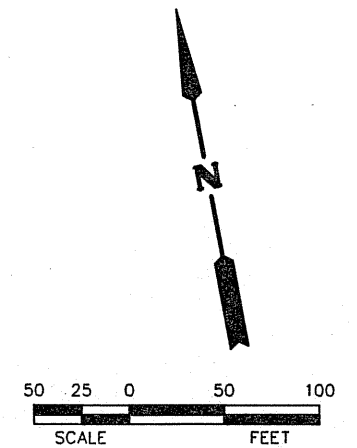
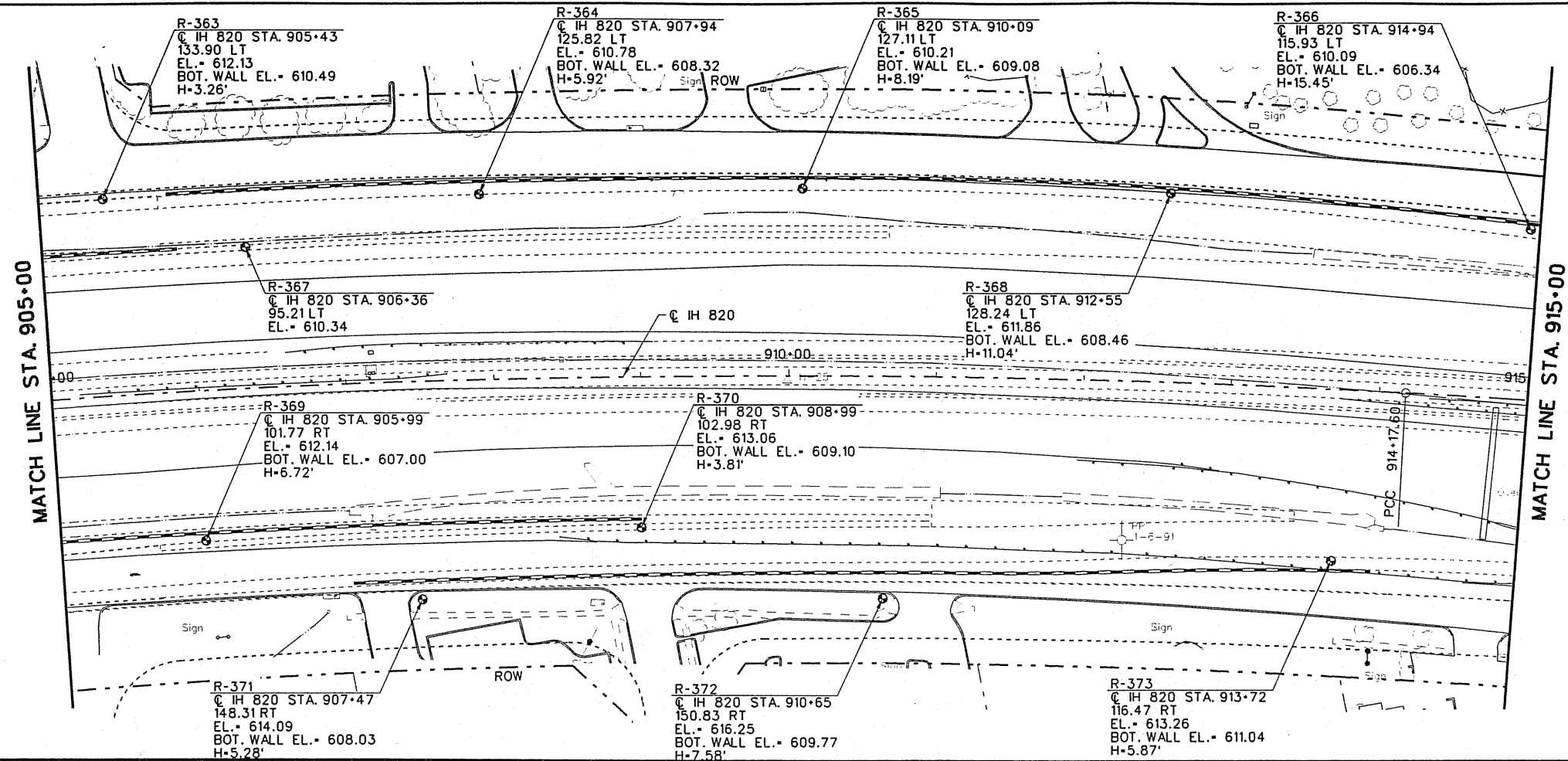
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BORING PLAN
STA 895+00 TO STA 905+00

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.
				SECTION NO.
				JOB NO.
				SHEET NO.

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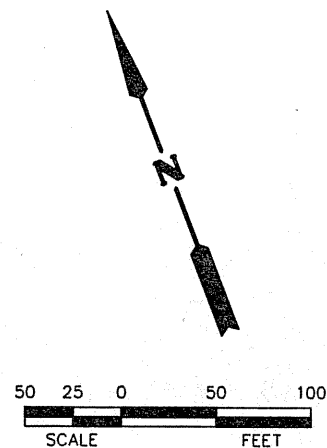
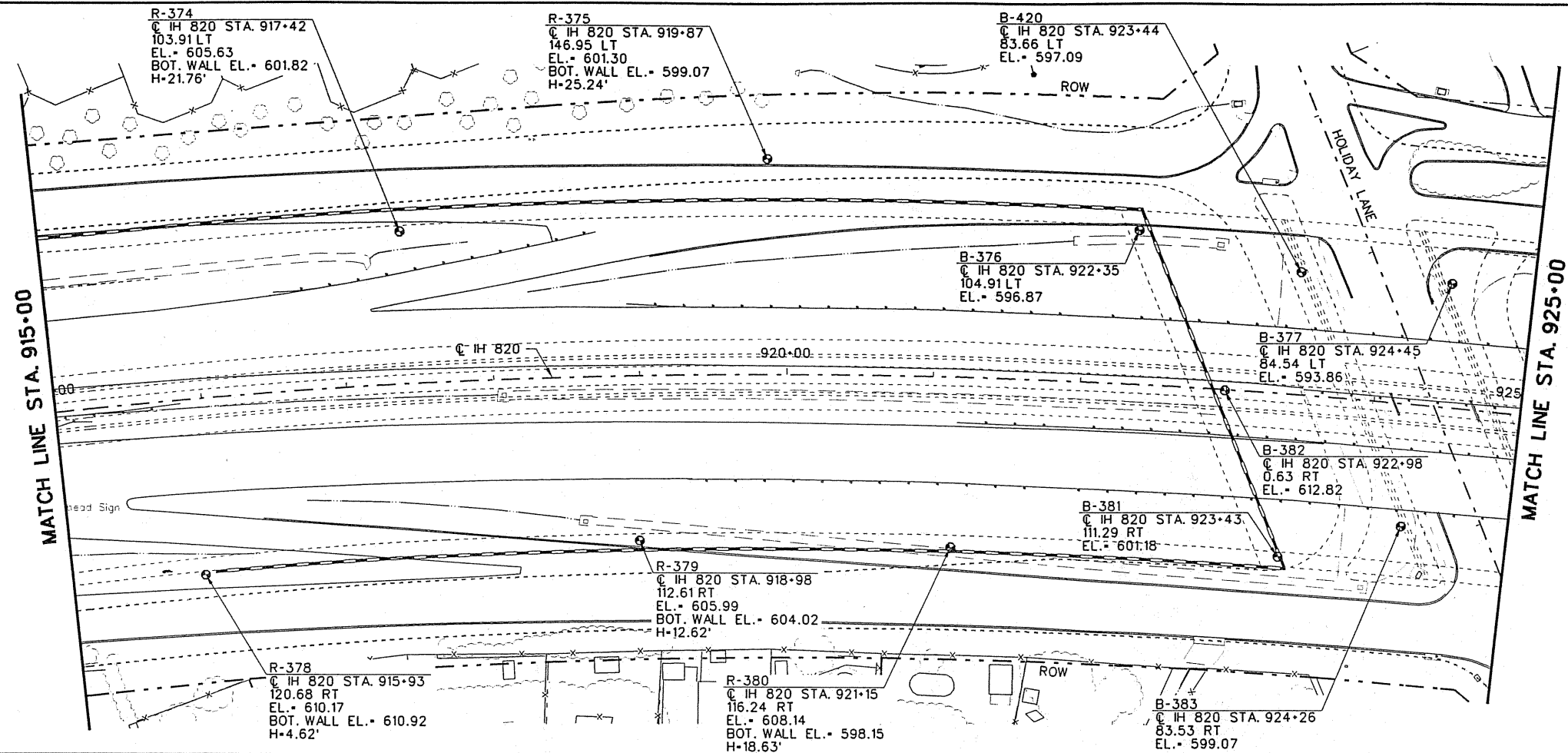


LEGEND

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

PROP. EL.
EXIST. EL.

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BORING PLAN STA 905+00 TO STA 915+00			
SEG. 2			
Designed:	FED. RD. DIV. NO.	STATE	FEDERAL AID PROJECT NO.
Checked:	06	TEXAS	
Drawn:	CADD	DIST.	CONTROL NO.
Checked:	FTW	TARRANT	0008
		SECTION NO.	JOB NO.
		14	059
			HIGHWAY NO.
			IH-820
			SHEET NO.



LEGEND

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

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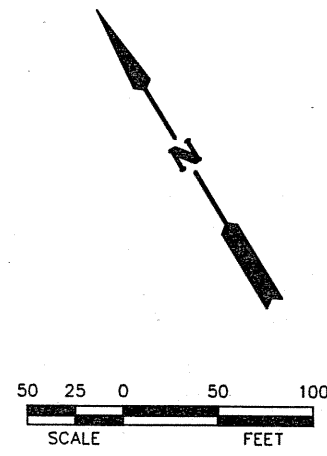
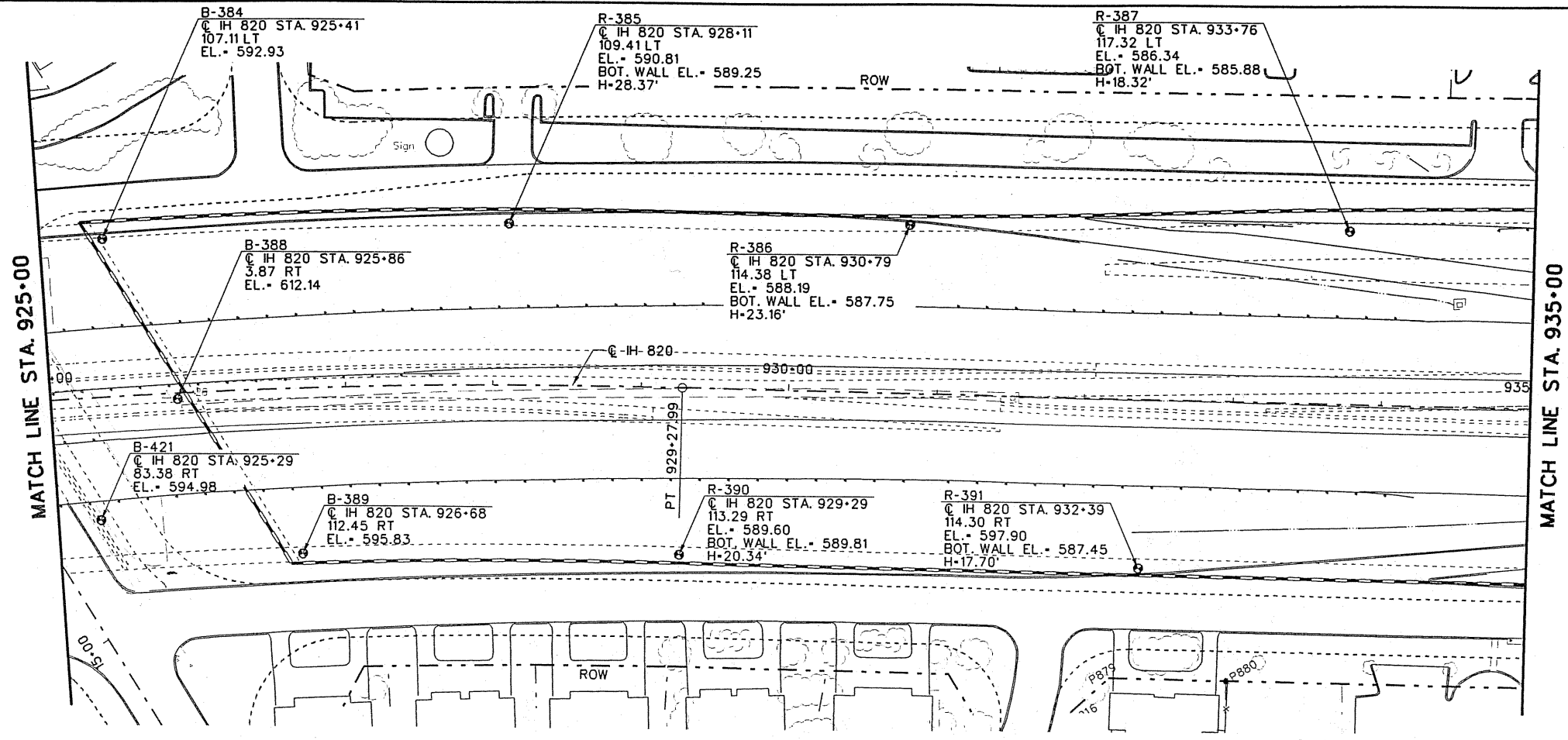
Chiang, Patel & Yerby, Inc.
Engineer AARON R. KWAST
P.E. No. 65741 Date 04/30/01

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BORING PLAN STA 915+00 TO STA 925+00


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

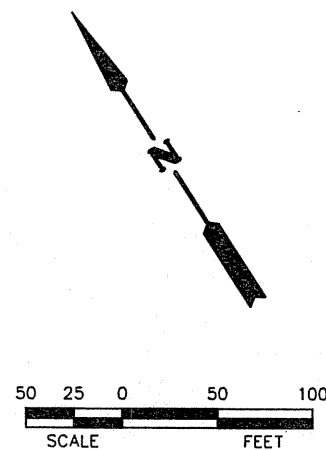
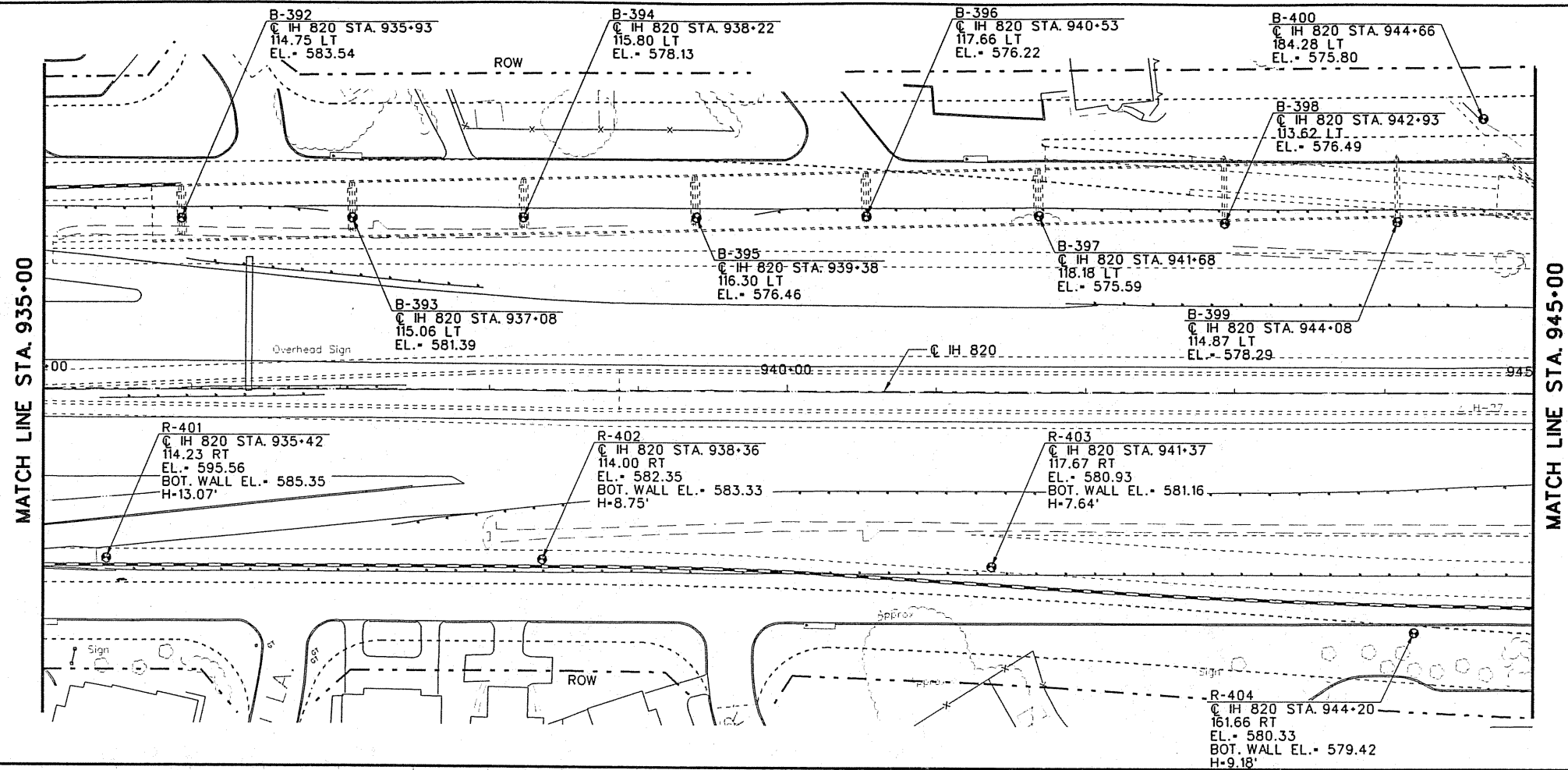
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BORING PLAN

STA 925+00 TO STA 935+00

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



LEGEND

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

PRELIMINARY
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or permit purposes.

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

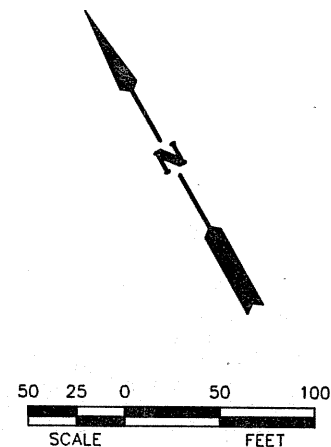
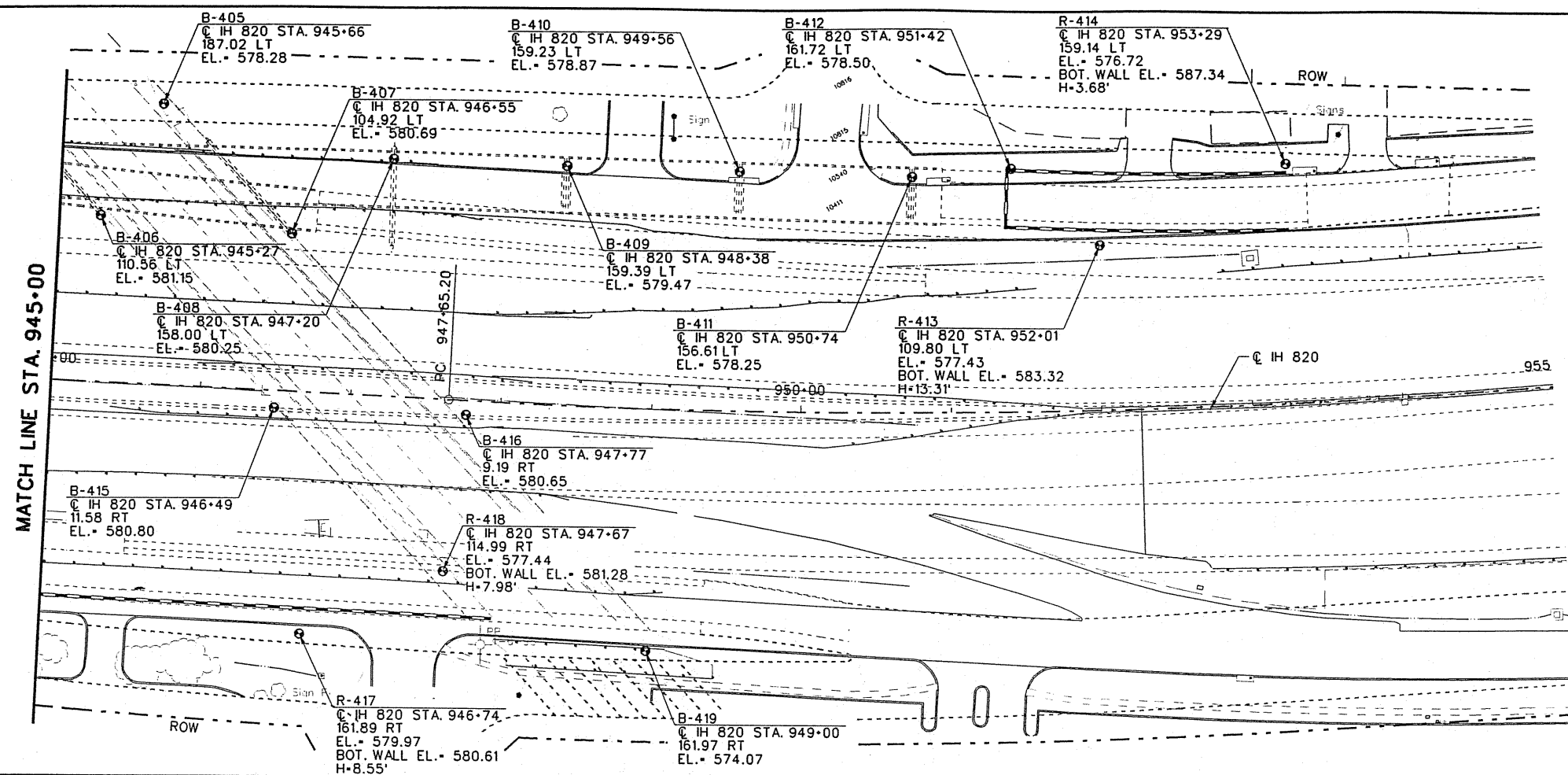
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BORING PLAN STA 935+00 TO STA 945+00

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



LEGEND

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

PRELIMINARY
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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				1H-820
DRAWN:	CADD	DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CHECKED:		FTW	TARRANT	0008	14	059	



WinCore
Version 2.01

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

DRILLING LOG

1 of 2

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)								
20		15 (6) 17 (6)								
531.8			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 Press. (psi)	Deviator 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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
535.9			CLAY, sandy, with limestone fragments, brown, stiff to very stiff, moist							
5		17 (6) 26 (6)	GRAVEL, sandy, brown and tan, slightly compact to compact, dry							
532.9			SAND, gravelly, brown, slightly compact, moist							
530.9			CLAY, sandy, brown, soft to stiff, moist							
10		8 (6) 26 (6)								
527.9			CLAY, shaley, slickensided, gray and brown, stiff to hard, moist							
15		50 (5) 50 (4)								
523.9			SHALE, clayey, gray and brown, soft, moist							
20		50 (5.5) 50 (3.5)								
25		43 (6) 50 (5)								
508.9		50 (3.5) 50 (3.25)								
30										

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

1 of 1

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)								
535.7 535.2			LIMESTONE, waethered, tan, soft, CLAY, shaley, slickensided, brown and gray, very stiff, moist							
531.7 530.7		50 (2.25) 50 (1.5)	LIMESTONE, gray, hard to very hard, dry							
20			SHALE, gray and brown, soft, moist							
25		50 (3.5) 50 (2)								
523.7 522.7			LIMESTONE, gray, hard to very hard, dry							
			SHALE, gray, soft, moist							
520.7		50 (3.25) 50 (2.25)								
30										

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

1 of 2

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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			CLAY, silty, with limestone fragments, tan, stiff, moist							
558.5		50 (4) 50 (2)	LIMESTONE, weathered, tan, hard, moist							
551.5		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		50 (1.5) 50 (1.5)	SHALE, gray, soft, moist							
547.5			LIMESTONE, gray, hard to very hard, dry							
540.5		18 (6) 37 (6)	SHALE, clayey, gray and brown, soft, moist							
			SHALE, gray, soft, moist							
		50 (5) 50 (3.75)								
		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

2 of 2

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)	
528.			SHALE, gray, soft, moist							
527.		50 (2) 50 (1)	LIMESTONE, gray, hard to very hard, dry							
			SHALE, with limestone seams, gray, soft, moist							
40		50 (3) 50 (1)								
18.5 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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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			CLAY, sandy, brown, soft, moist							
			CLAY, shaley, gray and brown, stiff to very stiff, moist							
5		26 (6) 38 (6)								
10		28 (6) 30 (6)								
543.8			LIMESTONE, gray, hard, dry							
543.3			SHALE, clayey, gray and brown, soft, moist							
15		36 (6) 48 (6)								
539.8			LIMESTONE, gray, hard to very hard, dry							
538.8			SHALE, clayey, gray and brown, soft, moist							
20		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							
25		50 (3.25) 50 (1.5)								
30		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

2 of 2

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)	
524.8			SHALE, with limestone seams, gray and brown, soft, moist							
			SHALE, gray and brown, soft, moist							
35		50 (2.25) 50 (2)								
516.8 40		50 (1.75) 50 (1.5)								
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

1 of 3

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	Wet Den. (pcf)	
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							
10		11 (6) 11 (6)								
15		50 (6) 50 (1)								
20		50 (6) 50 (1)								
562.9		50 (0.75) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
25		50 (1) 50 (0.5)								
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

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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	Wet Den. (pcf)	
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)								
40			SHALE, gray, soft, moist							
45		50 (2.5) 50 (2.5)								
533.9		50 (2.5) 50 (2.25)								
50			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.



WinCore
Version 2.01

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

DRILLING LOG

3 of 3

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	Wet Den. (pcf)	
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

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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	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.



WinCore
Version 2.01

DRILLING LOG

2 of 2

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	Wet Den. (pcf)	
			SHALE, gray, soft, moist							
35		50 (3) 50 (1.5)								
40		50 (3) 50 (1.25)								
535.6			LIMESTONE, gray, hard, dry							
534.6			SHALE, gray, soft, moist							
532.6		50 (1.5) 50 (1)								
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.



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

DRILLING LOG

1 of 2

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)	
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							
5		50 (2) 50 (0.5)								
577.6			CLAY, shaley, gray and brown, stiff to very stiff, moist							
10		24 (6) 32 (6)								
15		12 (6) 17 (6)								
565.6			LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (1.5) 50 (1)								
25		50 (2) 50 (0.75)								
30		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.



WinCore
Version 2.01

DRILLING LOG

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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	Wet Den. (pcf)	
552.6			LIMESTONE, with shale seams, gray, hard to very hard, dry							
			SHALE, clayey, gray and brown, soft, moist							
35		50 (3.5) 50 (2.25)								
544.6		50 (2.75) 50 (2.5)								
40			SHALE, gray, soft, moist							
45		50 (2) 50 (2.5)								
534.6		50 (2.25) 50 (2.5)								
50			SHALE, with limestone seams, gray, soft, moist							
55		50 (1.75) 50 (1.25)								
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

1 of 3

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	Wet Den. (pcf)	
585.4			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, sandy, brown and tan, soft, moist							
581.4 5		50 (1) 50 (0.5)								
580.4			LIMESTONE, with clay lenses, weathered, tan, soft to hard,							
			CLAY, sandy, with limestone lenses, tan, soft to stiff, moist							
10		50 (2) 50 (1)								
575.4			CLAY, silty, tan and gray, soft to stiff, moist							
15		15 (6) 16 (6)								
569.4			CLAY, shaley, tan, stiff to very hard, moist							
20		15 (6) 27 (6)								
562.4			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
25		50 (1.5) 50 (1)								
30		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.



WinCore
Version 2.01

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

DRILLING LOG

2 of 3

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	Wet Den. (pcf)	
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	40	50 (3) 50 (2.25)	SHALE, gray, soft, moist							
45		50 (3) 50 (2)								
536.4	50	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

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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	Wet Den. (pcf)	
524.4			SHALE, with limestone seams, gray, soft, moist							
			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
521.4 65		50 (1) 50 (0.5)								
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

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

DRILLING LOG

1 of 2

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)	
585.2			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, dark brown and brown to brown, soft, moist							
5										
576.2	10		CLAY, sandy, with limestone seams, tan, stiff, moist							
15										
570.2			CLAY, silty, slickensided, tan, stiff, moist							
566.2	20	15 (6) 12 (6)	CLAY, shaley, brown and gray, stiff to very stiff, moist							
25		23 (6) 50 (2)								
560.2			LIMESTONE, with shale seams, gray, hard to very hard, dry							
30		50 (1.5) 50 (1.5)								

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

2 of 2

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)	
			LIMESTONE, with shale seams, gray, hard to very hard, dry							
35		50 (0.5) 50 (0.25)								
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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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	Wet Den. (pcf)	
			CLAY, sandy, with limestone lenses, dark brown and brown, soft to hard, moist							
5		35 (6) 50 (0.5)								
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.



WinCore
Version 2.01

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

DRILLING LOG

2 of 2

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	Wet Den. (pcf)	
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

1 of 2

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)	
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)								
552.1										

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.



WinCore
Version 2.01

DRILLING LOG

2 of 2

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

1 of 2

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)	
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		5 (6) 12 (6)	CLAY, silty, tan and light gray, soft, moist							
10										
566.5		5 (6) 9 (6)	CLAY, shaley, tan and gray, soft to stiff, moist							
15										
564.5			LIMESTONE, with clay seams, weathered, tan, soft, moist							
562.5		50 (1.5) 50 (1)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
20										
555.5		50 (1.25) 50 (0.5)	SHALE, clayey, with limestone lenses, soft, moist							
25										
552.5		50 (1.75) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
30										

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

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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							
			SHALE, clayey, brown and gray, soft, moist							
35		22 (6) 50 (6)								
541.5 40		50 (3) 50 (3)								
			SHALE, gray and brown, soft, moist							
45		50 (3) 50 (2.5)								
531.5 50		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

1 of 2

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 Press. (psi)	Deviator 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

2 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
546.8 35		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		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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
587.			CLAY, sandy, dark brown, soft, moist							
			CLAY, silty, dark gray and brown, soft, moist							
5										
582.			CLAY, sandy, with limestone seams, tan stiff to very stiff, moist							
580.			CLAY, sandy, with calcareous nodules, tan, soft, moist							
10										
576.			CLAY, sandy, with interbedded limestone seams, tan, stiff to hard, moist							
15										
571.			CLAY, shaley, gray and light brown, stiff to very stiff, moist							
20		18 (6) 37 (6)								
25		48 (6) 37 (6)								
563.			SHALE, gray, soft, moist							
560.			LIMESTONE, with shaley seams, gray, hard to very hard, dry							
30		50 (0.5) 50 (0.25)								

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.

WinCore
Version 2.01

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

[illegible]

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

Organization: TEAM Consultants, Inc.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
587.9			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							
		12 (6) 16 (6)								
10										
577.4			LIMESTONE, weathered, tan, soft, moist							
576.4			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
		50 (0.5) 50 (0.25)								
15										
		50 (0.25) 50 (0.25)								
20										
567.4			SHALE, gray, soft, moist							
		50 (1.75) 50 (1.5)								
25										
		50 (1.5) 50 (1.75)								
559.9 30										

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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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	Wet Den. (pcf)	
611.6			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, brown, very soft, moist							
5		3 (6) 3 (6)								
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.



WinCore
Version 2.01

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

DRILLING LOG

2 of 2

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	Wet Den. (pcf)	
581.6			CLAY, shaley, slickensided, light brown and gray, stiff							
			SHALE, gray, soft, moist							
577.6	35	50 (0.5) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
40		50 (0.5) 50 (0.25)								
569.1			SHALE, with limestone lenses, gray, soft, moist							
45		50 (1) 50 (0.75)								
562.6	50	50 (1.75) 50 (1)								
55										
60										

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

1 of 1

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			CLAY, sandy, with limestone fragments, brown, soft to stiff, moist							
575.6	5	50 (2) 50 (3)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
			CLAY, shaley, tan and gray, stiff, moist							
10		15 (6) 17 (6)								
15		15 (6) 17 (6)								
561.6	20	50 (1) 50 (1)	LIMESTONE, with shale seams, gray, soft to very hard, dry							
25		50 (1) 50 (1)								
552.6			SHALE, gray, soft, moist							
550.6	30	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

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

DRILLING LOG

1 of 2

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)	
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'							
25										
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.



WinCore
Version 2.01

DRILLING LOG

2 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
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

1 of 2

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	5	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							
25		50 (1) 50 (0.5)								
30										

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

2 of 2

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)	
550.3	35	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

1 of 2

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			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, silty, dark gray and brown, soft, moist							
581.6	5	3 (6) 5 (6)	CLAY, silty, with calcareous nodules, brown, soft, moist							
576.6	10	8 (6) 30 (6)	CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
570.6	15	48 (6) 34 (6)	CLAY, shaley, brown, stiff, moist							
	20	17 (6) 17 (6)								
	25	18 (6) 50 (3.5)								
560.6			LIMESTONE, with shale seams, gray, hard to very hard, dry							
557.6			SHALE, gray, soft, moist							
	30	50 (3) 50 (1.5)								

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

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

[illegible]

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

Organization: TEAM Consultants, Inc.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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)	
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							
30										

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

2 of 2

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		50 (1) 50 (0.75)	LIMESTONE, with shale seams, gray, hard, dry							
553.			SHALE, gray, soft, moist							
550. 40		50 (1.25) 50 (1)								
45										
50										
55										
60										

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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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.



WinCore
Version 2.01

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

DRILLING LOG

2 of 2

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)	
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										
548.9			LIMESTONE, gray, hard, dry							
			SHALE, gray, soft, moist							
546.9		50 (1.25) 50 (1)								
45										
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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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			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			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			SHALE, gray, soft, moist							
25		50 (2) 50 (1.5)								
562.1 30		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

1 of 2

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.			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.			LIMESTONE, with shale seams, gray, hard, dry							
575.		50 (3) 50 (1.5)	SHALE, gray, soft, moist							
573.			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

2 of 2

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)	
568.			LIMESTONE, with shale seams, gray, hard, dry							
			SHALE, gray, soft, moist							
35		50 (3) 50 (2.25)								
40		50 (3.75) 50 (3.25)								
556.			LIMESTONE, with shale seams, gray, hard, dry							
554.		50 (1) 50 (1.25)								
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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 2

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)	
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)	SHALE, gray, soft, moist							
576.2										
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

2 of 2

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			SHALE, gray, soft, moist							
			LIMESTONE, gray, hard, dry							
572.2			SHALE, gray, soft, moist							
571.2			LIMESTONE, gray, hard to very hard, moist							
35		50 (3) 50 (1)								
568.2			SHALE, gray, soft, moist							
566.2			LIMESTONE, with shale seams, gray, hard, dry							
565.2		50 (2.5) 50 (2)	SHALE, gray, soft, moist							
40										
359.2		50 (3.25) 50 (2.25)								
45										
50										
55										
60										

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

1 of 2

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 Press. (psi)	Deviator 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

2 of 2

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 Press. (psi)	Deviator 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							
45		50 (1.5) 50 (1.25)	SHALE, gray, soft, moist							
565.6										
50		50 (1.25) 50 (1)								
560.6										
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

1 of 2

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)	
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

2 of 2

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 48'							
570.2			SHALE, gray, soft, moist							
35		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							
40			SHALE, gray, soft, moist							
561.2			SHALE, gray, soft, moist							
45		50 (2) 50 (1.5)								
553.2		50 (1.75) 50 (1.5)								
50										
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

1 of 1

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			PVMT, 6.0-in. Asphalt; 6.0-in. Flexbase							
			CLAY, sandy, brown, soft, moist							
597.2										
		32 (6) 42 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, stiff to hard, moist							
5										
10		50 (6) 50 (2)								
589.2			SHALE, gray, soft, moist							
15		50 (2.5) 50 (2)								
581.7			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (0.5) 50 (0.25)								
575.2		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

1 of 1

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							
			CLAY, silty, with calcareous nodules, light brown, soft to stiff, moist							
590.9 5		11 (6) 17 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, stiff to hard, moist							
10		20 (6) 28 (6)								
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

1 of 2

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	Wet Den. (pcf)	
604.4			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, dark gray and brown, soft, moist							
602.4			CLAY, silty, with calcareous nodules, brown, very soft to soft, moist							
5		3 (6) 4 (6)								
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

2 of 2

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	Wet Den. (pcf)	
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.



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

DRILLING LOG

1 of 2

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	5	6 (6) 5 (6)	CLAY, sandy, with calcareous nodules, brown, soft, moist							
597.6			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.



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

2 of 2

DRILLING LOG

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)	
571.6			CLAY, shaley, slickensided, light brown and gray, soft to hard, moist							
			SHALE, gray, soft, moist							
35		50 (3.75) 50 (3)								
564.6		50 (0.5) 50 (0.25)								
40			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
563.6			SHALE, gray, soft, moist							
562.6			LIMESTONE, gray, hard to very hard, dry							
561.6			SHALE, gray, soft, moist							
0.6		50 (0.5) 50 (0.25)	LIMESTONE, gray, hard to very hard, dry							
45			SHALE, gray, soft, moist							
558.6			LIMESTONE, gray, hard to very hard, dry							
557.6			SHALE, gray, soft, moist							
556.6			LIMESTONE, gray, hard to very hard, dry							
554.6		50 (2) 50 (2)								
50										
55										
60										

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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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			SHALE, gray, soft, moist							
580.3 25		50 (5.75) 50 (3.5)								
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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
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)								
15		13 (6) 20 (6)	CLAY, shaley, brown and gray, stiff to very stiff, moist							
20		12 (6) 19 (6)								
574.2			LIMESTONE, with shale seams, gray, soft to hard, dry							
25		50 (2.5) 50 (1)								
567.2 30		50 (1.5) 50 (1)								

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

1 of 2

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 30		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

2 of 2

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)	
568.5		50 (1.75) 50 (1)	LIMESTONE, gray, hard to very hard, dry							
567.5			SHALE, gray, soft, moist							
564.5			LIMESTONE, with shale seams, gray, hard to very hard, dry							
35										
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

1 of 1

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	Wet Den. (pcf)	
			CLAY, sandy, with limestone fragments, light brown, soft, moist							
5		6 (6) 7 (6)								
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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
601.3			PVMT, 4.0-in. Asphalt; 8.0-in. Concrete							
			CLAY, sandy, brown and gray, hard, moist							
599.3										
		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							
590.3										
		13 (6) 19 (6)	CLAY, shaley, slickensided, light brown and gray to gray and brown, stiff to hard, moist							
		21 (6) 23 (6)								
		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

2 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
571.3			CLAY, shaley, slickensided, light brown and gray to gray							
			LIMESTONE, with shale lenses, t gray, hard to very hard, dry							
569.3			SHALE, gray, soft, moist							
567.3 35		50 (0.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
563.3			SHALE, gray, soft, moist							
40		50 (2) 50 (1.5)								
45		50 (3.25) 50 (1.75)								
50		50 (2.5) 50 (1.25)								
550.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
55		50 (0.5) 50 (0.25)								
542.3 60		50 (0.5) 50 (0.25)								

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

1 of 1

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 Press. (psi)	Deviator 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

1 of 2

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)	
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

2 of 2

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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 2

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)	
622.9			PVMT, 2.0-in. Asphalt; 10.0-in. Flexbase							
			CLAY, sandy, with limestone fragments, tan, soft to stiff, moist							
619.9										
5			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
616.9										
			CLAY, shaley, tan and gray, stiff to very stiff, moist							
614.9										
10			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
9.9										
15			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

2 of 2

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

1 of 1

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 Press. (psi)	Deviator 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)								
25		50 (4) 50 (1.5)								
573.9			SHALE, gray, soft, moist							
30		50 (1.5) 50 (0.5)								
568.9										

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.



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

DRILLING LOG

1 of 1

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)	
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

1 of 2

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 Press. (psi)	Deviator 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.



WinCore
Version 2.01

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

DRILLING LOG

2 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
572.6		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

1 of 2

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 5		50 (6) 50 (2.5)	CLAY, sandy, with limestone seams, tan, hard, moist							
608.4			LIMESTONE, with clay seams, weathered, tan, soft, moist							
10		8 (6) 10 (6)	CLAY, silty, tan and light gray, soft, moist							
604.4			CLAY, shaley, gray and brown, stiff to very stiff, moist							
15		18 (6) 30 (6)								
20		20 (6) 30 (6)								
594.4			SHALE, clayey, gray and brown, soft, moist							
25		35 (6) 48 (6)								
589.4			SHALE, gray, soft, moist							
30		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

2 of 2

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)	
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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 2

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

2 of 2

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)	
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

1 of 2

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							
			CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
5		37 (6) 50 (3.75)								
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.



WinCore
Version 2.01

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

DRILLING LOG

2 of 2

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 40		50 (3.5) 50 (3)								
			SHALE, gray, soft, moist							
45		50 (3.5) 50 (3.75)								
50		50 (2.5) 50 (2)								
567.7 55		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

1 of 2

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							
			CLAY, sandy, with calcareous nodules, brown to tan, soft, moist							
5										
617.			CLAY, sandy, with limestone seams, tan, soft to very stiff, moist							
10										
614.			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
15										
609.			CLAY, shaley, tan and gray, stiff, moist							
607.			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
20		50 (1.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
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

2 of 2

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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
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

2 of 2

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 Press. (psi)	Deviator 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

1 of 2

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			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, tan, stiff to hard, moist							
5		50 (2.75) 50 (2.5)								
617.7			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
10		50 (2) 50 (1.5)								
610.7			LIMESTONE, with shale seams, gray, hard to very hard, dry							
15		50 (2) 50 (1)								
20		50 (1) 50 (0.75)								
25		50 (1.5) 50 (1)								
597.7			SHALE, clayey, brown and gray, soft, moist							
30		50 (5) 50 (3.5)								

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

2 of 2

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 55		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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator 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)								
605.8			LIMESTONE, with shale seams, gray, hard to very hard, dry							
12.8										
15		50 (4) 50 (3)	SHALE, gray, soft, moist							
600.3			LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (0.5) 50 (0.25)								
25		50 (0.5) 50 (0.25)								
588.8			SHALE, gray, soft, moist							
586.8 30		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

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
610.8			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			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
10		50 (0.5) 50 (0.25)								
99.8			SHALE, gray, soft, moist							
15		50 (3) 50 (2)								
596.8			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (0.5) 50 (0.25)								
25		50 (0.5) 50 (0.5)								
586.3			SHALE, gray, soft, moist							
583.8 30		50 (2.5) 50 (2)								

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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

Hole R-359
Structure Retaining Wall / Bridge
Station 903+84
Offset 96.25' Lt

District Fort Worth
Date 8/27/2003
Grnd. Elev. 611.44 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	
608.4			CLAY, sandy, with calcareous nodules, brown, soft to stiff, moist						
5		12 (6) 50 (4.5)	CLAY, sandy, with limestone fragments, tan, stiff to hard, moist						
605.4			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist						
602.4		50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry						
10									
15		50 (0.5) 50 (0.25)							
591.4		50 (0.25) 50 (0.25)							
20									
25									
30									

Remarks: 1) Northing: 6991870.222; Easting: 2357500.118 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

1 of 2

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			CLAY, sandy, brown, very soft, moist							
5		4 (6) 3 (6)	CLAY, sandy, with calcareous nodules, tan, very soft to stiff, moist							
606.2		50 (4.5) 50 (2)	LIMESTONE, with clay seams, weathered, tan, soft, moist							
602.2		24 (6) 23 (6)	CLAY, shaley, brown and gray, stiff to very stiff, moist							
599.2			LIMESTONE, gray, hard, dry							
598.2			CLAY, shaley, gray and brown, stiff, moist							
597.2			LIMESTONE, gray, hard, dry							
596.2		50 (1.5) 50 (1)	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.



WinCore
Version 2.01

DRILLING LOG

2 of 2

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

1 of 2

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			PVMT, 4.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, sandy, with gravel, brown, soft, moist							
607.5		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										
			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
596.5		50 (2) 50 (1)								
			CLAY, shaley, gray and brown, stiff, moist							
593.5		50 (0.5) 50 (0.25)								
			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
584.5		50 (0.25) 50 (0.25)								
			SHALE, clayey, gray and brown, soft, moist							
581.5		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

2 of 2

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

1 of 1

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 25		50 (1) 50 (0.75)								
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

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
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.



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

1 of 1

DRILLING LOG

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) 18 (6)	CLAY, sandy, with calcareous nodules, dark gray and brown to tan, soft to stiff, moist							
602.8										
10		50 (3.5) 50 (1.5)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
597.8										
15		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							
20										
585.8		50 (0.25) 50 (0.25)								
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

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

DRILLING LOG

1 of 1

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)	
608.6			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			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		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.



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

DRILLING LOG

1 of 2

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			CLAY, sandy, brown, soft, moist							
606.3			LIMESTONE, with clay lenses, weathered, tan, hard, moist							
5		23 (6) 50 (4.5)	CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
604.3			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
601.3			CLAY, shaley, with limestone lenses, tan, hard, moist							
10		50 (5.5) 50 (4.25)	LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
598.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1.5) 50 (1)	SHALE, clayey, gray, soft, moist							
592.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (4.5) 41 (6)								
589.3										
25		50 (0.75) 50 (0.5)								
30		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

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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			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
575.3 35		50 (2.5) 50 (2.25)	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.



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

DRILLING LOG

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)	
610.2			CLAY, sandy, brown, soft, moist							
			CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
5		50 (3.5) 50 (4)								
10		50 (4) 50 (2)								
600.2			LIMESTONE, with shale seams, gray, hard to very hard, dry							
15		50 (2) 50 (2)								
20		50 (2) 50 (1.5)								
591.2			SHALE, gray, soft, moist							
588.7			LIMESTONE, with shale seams, gray, hard to very hard, dry							
587.2	25	50 (2) 50 (1)								
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

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
613.7			PVMT, 3.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, gray and brown, very soft to soft, moist							
5		3 (6) 4 (6)								
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							
20		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							
25		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

1 of 1

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							
10		3 (6) 4 (6)								
604.6			CLAY, sandy, with sandstone lenses, tan and red brown, soft, moist							
601.6	15	50 (3.75) 50 (3.25)								
599.6			SHALE, gray, soft, moist							
20		50 (0.75) 50 (0.25)								
25		50 (0.5) 50 (0.25)								
590.6			SHALE, gray, soft, moist							
589.6			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
586.6	30	50 (1) 50 (1.5)								

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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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		50 (4) 50 (2.25)	SHALE, gray, soft, moist							
586.7			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
583.7		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

1 of 1

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 Press. (psi)	Deviator 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							
10										
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							
20										
581.1		50 (0.5) 50 (0.25)								
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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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							
			CLAY, sandy, with limestone lenses, tan, stiff to very stiff, moist							
5		33 (6) 42 (6)								
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

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
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							
582.9		50 (4) 50 (1.5)	SHALE, gray, soft, moist							
15			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
580.9										
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)								
30										

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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator 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

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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	Wet Den. (pcf)	
603.2			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			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1.75) 50 (1)								
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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

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	Wet Den. (pcf)	
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							
13.7		50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15										
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.



WinCore
Version 2.01

DRILLING LOG

1 of 3

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)	
600.1			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, with limestone seams, tan, soft to very stiff, moist							
5		21 (6) 26 (6)								
592.1			LIMESTONE, with clay lenses, weathered, tan, soft, moist							
10		50 (4) 50 (2.5)								
588.1			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1.5) 50 (0.75)								
20		50 (1) 50 (1)								
25		50 (1) 50 (0.5)								
30		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

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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

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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.



WinCore
Version 2.01

DRILLING LOG

1 of 3

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			PVMT, 5.0-in. Asphalt; 6.0-in. Flexbase							
			CLAY, sandy, dark brown, soft, moist							
587.9 5		7 (6) 15 (6)								
			CLAY, sandy, with limestone fragments, tan, stiff, moist							
582.9 10		50 (0.5) 50 (0.25)								
			LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
577.9 15		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

2 of 3

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)	
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

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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			SHALE, gray and brown, soft, moist							
527.9 65		50 (0.5) 50 (0.25)	LIMESTONE, gray, hard to very hard, dry							
70										
75										
80										
85										
90										

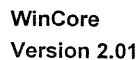
Remarks: 1) Northing: 6991291.992; Easting: 2359605.228 2) No water encountered during drilling.

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.



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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

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

1 of 1

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							
558.4										

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

1 of 1

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)	
5		7 (6) 8 (6)	CLAY, sandy, brown, soft, moist							
579.4										
576.4	10	50 (3) 50 (1.75)	CLAY, sandy, with calcareous nodules, brown and tan, soft to stiff, moist							
571.4	15	50 (1.25) 50 (0.75)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
569.4										
567.9										
20		50 (1) 50 (0.5)	LIMESTONE, gray, hard to very hard, dry							
			SHALE, gray, soft, moist							
561.4	25	50 (0.5) 50 (0.25)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
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

1 of 3

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 Press. (psi)	Deviator 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

2 of 3

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 Press. (psi)	Deviator 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

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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 65		50 (1.75) 50 (0.5)	SHALE, gray and brown, soft, moist							
528.8			LIMESTONE, gray, hard to very hard, dry							
525.8 70		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

1 of 1

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 Press. (psi)	Deviator 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										
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

1 of 2

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							
15		23 (6) 50 (5)	CLAY, shaley, tan and gray, stiff to very stiff, moist							
571.1										
570.1			LIMESTONE, weatherd, tan, soft, moist							
569.1			SHALE, clayey, gray, soft, moist							
20		50 (0.5) 50 (0.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
25		50 (1) 50 (0.5)								
561.1			SHALE, clayey, gray and brown, soft, moist							
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

2 of 2

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 40		50 (4.75) 50 (3.75)								
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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
582.5			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, dark gray and brown to light brown, soft, moist							
5		7 (6) 12 (6)								
573.5		50 (1) 50 (0.25)								
10			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
570.5			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.			SHALE, gray and brown, soft, moist							
30		50 (3) 50 (3)								

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

2 of 2

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 Press. (psi)	Deviator 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 45		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.



WinCore
Version 2.01

DRILLING LOG

1 of 2

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)	
5		28 (6) 50 (4.5)	CLAY, sandy, with calcareous nodules, brown, soft to hard, moist							
571.1			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
568.1	10	50 (0.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
566.6			SHALE, gray, soft, moist							
564.6			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (0.5) 50 (0.25)								
20		50 (0.25) 50 (0.25)								
554.6			SHALE, gray, soft, moist							
25		50 (3) 50 (2.5)								
30		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.



WinCore
Version 2.01

DRILLING LOG

2 of 2

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

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
575.2			PVMT, 4.0-in. Asphalt; 8.0-in. Flexbase							
			CLAY, sandy, with calcareous nodules, brown, soft to very stiff, moist							
5		18 (6) 38 (6)								
570.2			LIMESTONE, with clay lenses, weathered, tan, soft to hard, moist							
567.2		13 (6) 50 (5)	CLAY, shaley, slickensided, tan and gray, stiff to hard, moist							
564.2			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (0.5) 50 (0.25)								
20		50 (0.5) 50 (0.25)								
554.2			SHALE, gray, soft, moist							
25		50 (2.5) 50 (2)								
546.2 30		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.



WinCore
Version 2.01

DRILLING LOG

1 of 3

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		50 (1) 50 (0.5)	LIMESTONE, with clay seams, weathered, tan, soft to hard, moist							
565.5			LIMESTONE, gray, hard to very hard, dry							
563.5			SHALE, gray, soft, moist							
561.5		50 (3) 50 (0.5)	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

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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	Wet Den. (pcf)	
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

3 of 3

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	Wet Den. (pcf)	
513.5			SHALE, gray, soft, moist							
511.5 65		50 (0.5) 50 (0.25)	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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 1

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

1 of 1

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							
			CLAY, sandy, brown to light brown, soft, moist							
5		5 (6) 7 (6)								
573.2			SAND, gravelly, tan, loose, water bearing							
10		3 (6) 8 (6)								
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			LIMESTONE, with shale seams, gray, hard to very hard, dry							
20		50 (1) 50 (0.75)								
25		50 (1.5) 50 (0.5)								
555.2			SHALE, gray, soft, moist							
30		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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
579.9			PVMT, 5.0-in. Asphalt; 8.0-in. Flexbase							
			CLAY, sandy, brown and gray, soft, moist							
577.9			LIMESTONE, gray, hard, dry							
576.4	5	5 (6) 8 (6)	CLAY, sandy, brown and gray, soft, moist							
570.9	10	9 (6) 11 (6)	CLAY, sandy, with limestone fragments, light brown and gray, soft to stiff, moist							
567.9			CLAY, shaley, with limestone seams, tan and gray, stiff to hard, moist							
	15	9 (6) 12 (6)								
563.9			LIMESTONE, with clay lenses, weathered, tan, hard, moist							
561.9			LIMESTONE, with shale seams, gray, hard to very hard, dry							
	20	50 (1.5) 50 (0.5)								
	25	50 (1) 50 (0.5)								
553.9			SHALE, clayey, gray, soft, moist							
550.9	30	38 (6) 49 (6)								

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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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							
			CLAY, sandy, brown and gray, soft, moist							
5		5 (6) 5 (6)								
572.9			CLAY, shaley, with limestone seams, tan, stiff to hard, moist							
10		50 (5.75) 50 (2.5)								
569.9			LIMESTONE, weathered, tan, soft, moist							
568.9			LIMESTONE, with shale seams, gray, hard, dry							
566.9			SHALE, gray, soft, moist							
15		32 (6) 50 (3.5)								
562.9			LIMESTONE, with shale seams, gray, hard, dry							
20		50 (2) 50 (1.5)								
25		50 (0.75) 50 (0.5)								
552.9			SHALE, gray, soft, moist							
30		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.



WinCore
Version 2.01

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

DRILLING LOG

1 of 2

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)	
580.2			PVMT, 3.0-in. Asphalt; 9.0-in. Flexbase							
			CLAY, sandy, brown, soft, moist							
5		5 (6) 6 (6)								
572.2			CLAY, sandy, with limestone seams, tan, stiff to very stiff, moist							
10		25 (6) 28 (6)								
568.2			LIMESTONE, weathered, tan, soft, moist							
7.2			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
15		50 (1) 50 (0.5)								
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

2 of 2

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
550.2			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
			SHALE, gray, soft, moist							
35		50 (5) 50 (3.5)								
40		50 (2.75) 50 (2.5)								
45		50 (2) 50 (1.5)								
50		50 (2.5) 50 (1.5)								
526.2 55		50 (2) 50 (1.5)								
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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator 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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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 Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
577.9			PVMT, 5.0-in. Asphalt; 7.0-in. Flexbase							
			CLAY, sandy, with limestone fragments, light brown, soft to stiff, moist							
5		10 (6) 12 (6)								
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.



WinCore
Version 2.01

DRILLING LOG

1 of 3

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 Press. (psi)	Deviator 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							
20			SHALE, gray, soft, moist							
556.3		50 (0.5) 50 (0.5)	LIMESTONE, with shale lenses, gray, hard to very hard, dry							
555.3			SHALE, gray, soft, moist							
25		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

2 of 3

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 Press. (psi)	Deviator 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

3 of 3

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 Press. (psi)	Deviator 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

1 of 1

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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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.



WinCore
Version 2.01

DRILLING LOG

1 of 1

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							
			CLAY, sandy, brown and gray, soft, moist							
5		10 (6) 10 (6)								
572.3			CLAY, sandy, with limestone seams, tan, stiff to hard, moist							
10		50 (2) 50 (0.75)								
569.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
567.3			SHALE, gray, soft, moist							
15		50 (5.5) 50 (2)								
564.3			LIMESTONE, with shale lenses, gray, hard to very hard, dry							
20		50 (1) 50 (0.5)								
555.3		50 (1) 50 (0.25)								
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.



WinCore
Version 2.01

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

DRILLING LOG

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

1 of 1

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)	
590.1			CLAY, sandy, brown, soft to stiff, moist							
5		19 (6) 19 (6)	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			SHALE, gray, soft, moist							
573.1		50 (3.5) 50 (2.5)	LIMESTONE, gray, hard, dry							
570.1			SHALE, gray, soft, moist							
25		50 (1.5) 50 (1.25)	LIMESTONE, with shale seams, gray, hard to very hard, dry							
566.1			SHALE, gray, soft, moist							
563.1		50 (2) 50 (1.75)								

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.