

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/18/95 Date Completed 11/18/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 41 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS NO SAMPLE BO or Ls
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/17/95 Date Completed 11/17/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 42 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS No Rec. Advanced Auger in bo or possible rock 10.4-11.0
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/21/95 Date Completed 11/21/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 43 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS possible soft rock or Ls
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/21/95 Date Completed 11/21/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 44 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS SI C HP, Rec 1.8
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/18/95 Date Completed 11/18/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 45 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS Soft Bds + Ss through Advanced Auger large Bo or bedrock 6.5-9.0
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/18/95 Date Completed 11/18/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 46 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS So Si, Rec 1.0
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/21/95 Date Completed 11/21/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 47 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS Ls or Bo
15		
10		

Boring Crew Chris Warren Chris Kelly	STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION	Sheet 1 of 1 Date Started 11/21/95 Date Completed 11/21/95
PROJECT: WILLISTON REST AREA STRUCTURE IDENTIFICATION: SOUTHBOUND STATION: _____	NO. BOREHOLE: _____ HOLE NO. 48 SB G.W. EL. _____	
DEPTH (FEET) SURF NO. 5 SAMPLER 0/6 CASING 6/12 N.B./F.T. 6/12	BLOWS ON SAMPLER 0/6 MOISTURE N.B./F.T. 6/12	FIELD IDENTIFICATION AND REMARKS Possible Ls or Bo
15		
10		

SPECIALTY DRILLING & INVESTIGATION		P.O. Box 6470 Burlington, VT 05406-0470 Tel: 802-688-0820 Fax: 802-688-1014		Project Name: CSE Williston Rest Area Project Location: Williston, Vermont Sheet 1 of 1 SM Project Number: 99229	
Boring Location: B1	Date Started: 7/29/99	Date Completed: 7/29/99	Rig Hours Meter Start: 627.5	Time: 7:50 AM	Rig Hours Meter End: 628.9
Forman: Chris Warren	Operator: Chris Warren	Drill Bit: 2 1/2" Dia	Drill Fluid: None	Other: None	Groundwater Readings: _____
Sampling Method: _____	Size: _____	Type: _____	Depth: _____	Casing: _____	Shells: _____
Sample No. Recovery	Depth	Notes	Sample Description	Strata Change & Description	Field ID
1	0-2	3" Topsoil, then yellow/brown, sandy till, some fill.	Dry	N/A	None
2	2-4	12.14 Yellow/brown, sandy till.	Moist	N/A	Bedrock with matrix fill.
3	4-5	17.13 As above.	Moist	N/A	
4	6-8	17.55 As above and bedrock in top 2'	Moist	N/A	
5	8-8.75	61.00 6" of yellow/brown, sandy till, then bedrock chips.	Moist	N/A	
End of boring.					
Production Statistics: 140 ft. of casing on 2" O.D. sampler. 10 to 20% cement. 20 to 30% sand. 35 to 50% gravel. 10-20 Med. Dams 5-8 M/S/SH. 16-30 Vey Dams 5-15 Vey SH. 31+ Hard					

SPECIALTY DRILLING & INVESTIGATION		P.O. Box 6470 Burlington, VT 05406-0470 Tel: 802-688-0820 Fax: 802-688-1014		Project Name: CSE Williston Rest Area Project Location: Williston, Vermont Sheet 1 of 1 SM Project Number: 99229	
Boring Location: B1	Date Started: 7/29/99	Date Completed: 7/29/99	Rig Hours Meter Start: 628.9	Time: 10:18 AM	Rig Hours Meter End: 630.3
Forman: Chris Warren	Operator: Chris Warren	Drill Bit: 2 1/2" Dia	Drill Fluid: None	Other: None	Groundwater Readings: _____
Sampling Method: _____	Size: _____	Type: _____	Depth: _____	Casing: _____	Shells: _____
Sample No. Recovery	Depth	Notes	Sample Description	Strata Change & Description	Field ID
1	0-2	4.6/7.11 2" topsoil then dark brown	Dry	N/A	None
2	2-4	11.8/16.17 2" topsoil to 1.5" then yellow/brown sandy till.	Dry	N/A	Matrix bedrock
3	4-8	13.25 6" of above then bedrock chips.	Dry	N/A	
4	8-7	43.00 10" of above then bedrock chips.	Dry	N/A	
5	7-7.18	100' for 1" bedrock chips.	Dry	N/A	
End of boring.					
Production Statistics: 140 ft. of casing on 2" O.D. sampler. 10 to 20% cement. 20 to 30% sand. 35 to 50% gravel. 10-20 Med. Dams 5-8 M/S/SH. 16-30 Vey Dams 5-15 Vey SH. 31+ Hard					

SPECIALTY DRILLING & INVESTIGATION		P.O. Box 6470 Burlington, VT 05406-0470 Tel: 802-688-0820 Fax: 802-688-1014		Project Name: CSE Williston Rest Area Project Location: Williston, Vermont Sheet 1 of 1 SM Project Number: 99229	
Boring Location: B1	Date Started: 7/29/99	Date Completed: 7/29/99	Rig Hours Meter Start: 630.3	Time: 12:05 PM	Rig Hours Meter End: 631.3
Forman: Chris Warren	Operator: Chris Warren	Drill Bit: 2 1/2" Dia	Drill Fluid: None	Other: None	Groundwater Readings: _____
Sampling Method: _____	Size: _____	Type: _____	Depth: _____	Casing: _____	Shells: _____
Sample No. Recovery	Depth	Notes	Sample Description	Strata Change & Description	Field ID
1	0-2	3.7/11.18 3" topsoil then sandy till.	Dry	N/A	None
2	2-4	25.18 6" of above then yellow/grey sandy till.	Dry	N/A	Matrix bedrock
3	4-8.5	18.40 6" of above then 2' of weathered bedrock.	Dry	N/A	
End of boring.					
Production Statistics: 140 ft. of casing on 2" O.D. sampler. 10 to 20% cement. 20 to 30% sand. 35 to 50% gravel. 10-20 Med. Dams 5-8 M/S/SH. 16-30 Vey Dams 5-15 Vey SH. 31+ Hard					

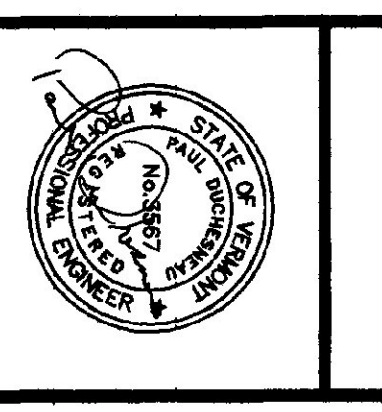
SPECIALTY DRILLING & INVESTIGATION		P.O. Box 6470 Burlington, VT 05406-0470 Tel: 802-688-0820 Fax: 802-688-1014		Project Name: CSE Williston Rest Area Project Location: Williston, Vermont Sheet 1 of 1 SM Project Number: 99229	
Boring Location: B1	Date Started: 7/29/99	Date Completed: 7/29/99	Rig Hours Meter Start: 631.3	Time: 1:20 PM	Rig Hours Meter End: 631.3
Forman: Chris Warren	Operator: Chris Warren	Drill Bit: 2 1/2" Dia	Drill Fluid: None	Other: None	Groundwater Readings: _____
Sampling Method: _____	Size: _____	Type: _____	Depth: _____	Casing: _____	Shells: _____
Sample No. Recovery	Depth	Notes	Sample Description	Strata Change & Description	Field ID
1	0-2	8.5 3" topsoil then sandy till.	Dry	N/A	None
2	2-4	20.24 6" of above then yellow/grey sandy till.	Dry	N/A	Matrix bedrock
3	4-8.5	18.40 6" of above then 2' of weathered bedrock.	Dry	N/A	
End of boring.					
Production Statistics: 140 ft. of casing on 2" O.D. sampler. 10 to 20% cement. 20 to 30% sand. 35 to 50% gravel. 10-20 Med. Dams 5-8 M/S/SH. 16-30 Vey Dams 5-15 Vey SH. 31+ Hard					

NO.	DEPTH
1	10'
2	6'
3	8.5'
4	8.5'
5	12'
6	14.5'
7	8.5'
8	19'
9	13'
10	9.5'
11	10.5'
12	10.5'
13	3.3'

INDIVIDUAL LOCATIONS FOR BORING NUMBERS 1-8 PERFORMED BY VOAT NOV. 1995, UNKNOWN

**C2sb**  
19 SHEETS

INTERSTATE 89 SOUTHBOUND  
WILLISTON INFORMATION CENTER  
SOIL BORINGS  
PROJECT # IM-BLDG(4) VERMONT



CHAMPLAIN CONSULTING ENGINEERS  
85 PRIM ROAD, P.O. BOX 453  
COLCHESTER, VERMONT 05446  
(802) 863-8060  
(802) 864-1878 FAX

REVISIONS BY