

BSU GEOPHYSICS VSP OBSERVER'S LOG

CE = 2617.8 ft STA. 144+95 11' L

Coordinate System Origin at Borehole

Casing Elevation: 798.43 m (0.2 m above (z_1))

Azimuth of X-Axis 90° = East

Azimuth of Y-Axis 0° = North

Reference Phone: Offset 1.40 m

or \downarrow 797.83 m \rightarrow Elev. -0.4 m (z)

$\boxed{798.06 + .23}$ \rightarrow X = 0

Y = +1.40 m

Channel Configuration: Borehole Phone

V=Channel 1

R=Channel 2

T=Channel 3

Reference Phone

V=Channel 4

R=Channel 5

T=Channel 6

Reference Polarization: Azi.(deg.)

V 0

R 0

T 270

Vert.(deg.)

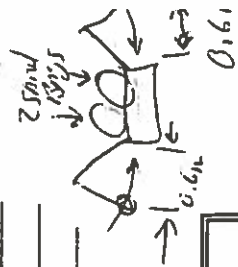
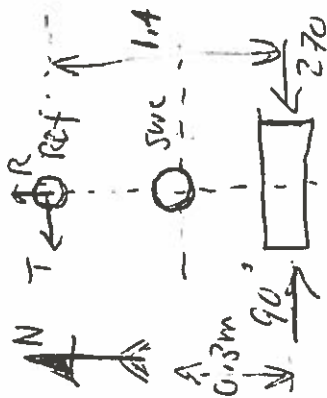
0

90

90

Date: 9/26/94 Location: Skinner Bridge $\boxed{RDHA-1}$ Number of Samples 2500

High Cut 1000 Low Cut 8 Sample Int. .0002



Shot ITD 0004#		Borehole Geophone			Source 798.06 + .17 m				Source Polarization	
Rec	File	Depth	(Elev)	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
1	ITD0001	22.0	(depth + .37)	798.43		0	0	-0.3m	90	90
2	ITD0002	22.0	798.06 - depth	= elev		0	0	-0.3m	270	90
3	ITD0003	21.5				0	0	-0.3m	90	90
4	ITD0004	21.5				798.23	0	-0.3m	270	90
5	ITD0005	21.0			798.06 + .17		0	-0.3	90	90
6	ITD0006	21.0					0	-0.3	270	90
7	ITD0007	20.5					0	-0.3	90	90
8	ITD0008	20.5					0	-0.3	270	90
9	ITD0009	20.0					0	-0.3	90	90
10	ITD0010	20.0					0	-0.3	270	90

1566m

2036m

4.15m = Top H2O Table (elevation, feet)

Note: Add 0.37m to depths to get depth referenced

Approximate 1/2 Amp from Receiver

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 798.45
 Azimuth of X-Axis: 90
 Azimuth of Y-Axis: 0 = North

Reference Phone: Offset _____
 Azimuth _____
 Elev. 797.83
 X = 0
 Y = +1.40

Channel Configuration:
 Borehole Phone
 V=Channel 1
 R=Channel 2
 T=Channel 3

Reference Polarization:
 V 0
 R 0
 T 270
 Azl.(deg.)
 Vert.(deg.)
0
90
90

Date: 9 AUG 94 Location: Glennwood Bridge RON(A)-1
 High Cut 1000 Low Cut 8 Sample Int. 600 Number of Samples 2500

Shot		Borehole Geophone		Source					Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
11	ITD00011	19.5m	798.06 - depth				0	-30	90	90
12	ITD00012	19.5m					0	-30	270	90
13	ITD00013	19.0m					0	-30	90	90
14	ITD00014	19.0m					0	-30	270	90
15	ITD00015	18.5m					0	-30	90	90
16	ITD00016	18.5m					0	-30	270	90
17	ITD00017	18.0m				798.23	0	-30	90	90
18	ITD00018	18.0m					0	-30	270	90
19	ITD00019	17.5m					0	-30	270 90	90
20	ITD00020	17.5m					0	-30	270	90

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 798.43
 Azimuth of X-Axis 90
 Azimuth of Y-Axis 0 = North

Reference Phone: Offset _____
 Azimuth _____
 Elev. 797.83
 X = 0
 Y = 1.40

Channel Configuration: Borehole Phone
 V=Channel 1 V=Channel 4
 R=Channel 2 R=Channel 5
 T=Channel 3 T=Channel 6

Reference Polarization: Azi.(deg.) Vert.(deg.)
 V 0 0
 R 0 90
 T 270 90

Date: 9 AUG 94 Location: Glenwood Bridge RDH(R)-1
 High Cut 1000 Low Cut 848 Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone			Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
21	I7000021	17.0	(798.00 - depth)			0	0	- .30	90	90
22	I7000022	17.0				798.23	0	- .30	270	90
23	I7000023	16.5					0	- .30	90	90
24	I7000024	16.5					0	- .30	270	90
25	I7000025	16.0					0	- .30	90	90
26	I7000026	16.0					0	- .30	270	90
27	I7000027	15.5					0	- .30	90	90
28	I7000028	15.5					0	- .30	270	90
29	I7000029	15.0					0	- .30	90	90
30	I7000030	15.0					0	- .30	270	90

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 798.43
 Azimuth of X-Axis 90
 Azimuth of Y-Axis 0

Reference Phone: Offset _____
 Azimuth _____
 Elev. 797.83
 X= 0
 Y= +1.40

Channel Configuration: Borehole Phone
 V=Channel 1
 R=Channel 2
 T=Channel 3

Reference Polarization: Azi.(deg.) Vert.(deg.)
 V 0 0
 R 0 90
 T 270 90

Date: 9 AUG 94 Location: Glennwood Bridge RDN(A)-1
 High Cut 1000 Low Cut 8 Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone			Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
31	ITDac31	14.5	(798.06 - depth)				0	- .3	90	90
32	ITDac32	14.5					0	- .3	270	90
33	ITDac33	14.0				798.23	0	- .3	90	90
34	ITDac34	14.0					0	- .3	270	90
35	ITDac35	13.5					0	- .3	90	90
36	ITDac36	13.5					0	- .3	270	90
37	ITDac37	13.0					0	- .3	90	90
38	ITDac38	13.0					0	- .3	270	90
39	ITDac39	12.5					0	- .3	90	90
40	ITDac40	12.5					0	- .3	270	90

P. A. 8

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 798.43
 Azimuth of X-Axis 90
 Azimuth of Y-Axis 0

Reference Phone: Offset _____
 Azimuth _____
 Elev. 797.83
 X= 0
 Y= 1.40

Channel Configuration: Borehole Phone
 V=Channel 1
 R=Channel 2
 T=Channel 3

Reference Polarization: Azi.(deg.) Vert.(deg.)
 V 0 0
 R 0 90
 T 270 90

Date: 9 AUG 94 Location: Glennwood Bridge RDH(A)-1

High Cut 1000 Low Cut 8 Sample Int. .0002 Number of Samples 2500

Shot			Borehole Geophone		Source					Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical	
41	ITD00041	12.0	(798.06-depth)			798.23	0	-1.3	90	90	
42	ITD00042	12.0					0	-1.3	270	90	
43	ITD00043	11.5					0	-1.3	90	90	
44	ITD00044	11.5					0	-1.3	270	90	
45	ITD00045	11.0					0	-1.3	90	90	
46	ITD00046	11.0					0	-1.3	270	90	
47	ITD00047	10.5					0	-1.3	90	90	
48	ITD00048	10.5					0	-1.3	270	90	
49	ITD00049	10.0					0	-1.3	90	90	
50	ITD00050	10.0					0	-1.3	270	90	

18549

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 798.43

Azimuth of X-Axis 90

Azimuth of Y-Axis 0 NORTH

Reference Phone: Offset

Azimuth 270

Elev. 797.83

X= 0

Y= 1.40

Channel Configuration: Borehole Phone

V=Channel 1 Reference Phone

R=Channel 2 V=Channel 4

T=Channel 3 R=Channel 5

T=Channel 6 T=Channel 6

Reference Polarization: Azi.(deg.)

V 0 Vert.(deg.)

R 0 90

T 270 90

Date: 9 AUG 94 Location: Glennwood Bridge RDH(A)-1

High Cut 1000 Low Cut 8 Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone			Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
51	I700051	9.5	(798.06 - depth)			9	0	-1.3	90	90
52	I700052	9.5				9	0	-1.3	270	90
53	I700053	9.0				9	0	-1.3	90	90
54	I700054	9.0				798.23	0	-1.3	270	90
55	I700055	8.5					0	-1.3	90	90
56	I700056	8.5					0	-1.3	270	90
57	I700057	8.0					0	-1.3	90	90
58	I700058	8.0					0	-1.3	270	90
59	I700059	7.5					0	-1.3	90	90
60	I700060	7.5					0	-1.3	270	90

P. 6 49

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 798.43
 Azimuth of X-Axis 90
 Azimuth of Y-Axis 0 = NORTH

Reference Phone: Offset _____
 Azimuth _____
 Elev. 797.83
 X= 0
 Y= 1.40

Channel Configuration: Borehole Phone
 V=Channel 1 V=Channel 4
 R=Channel 2 R=Channel 5
 T=Channel 3 T=Channel 6

Reference Polarization: Azi.(deg.) Vert.(deg.)
 V 0 0
 R 0 90
 T 270 90

Date: 9 AUG 94 Location: Glenwood Bridge BUNKER-1
 High Cut 1000 Low Cut 8 Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone			Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
61	ITD00061	7.0	(798.06-depth)			798.06	0	-1.3	90	90
62	ITD00062	7.0				798.23	0	-1.3	270	90
63	ITD00063	6.5					0	-1.3	90	90
64	ITD00064	6.5					0	-1.3	270	90
65	ITD00065	6.0					0	-1.3	90	90
66	ITD00066	6.0					0	-1.3	270	90
67	ITD00067	5.5					0	-1.3	90	90
68	ITD00068	5.5					0	-1.3	270	90
69	ITD00069	5.0					0	-1.3	90	90
70	ITD00070	5.0					0	-1.3	270	90

07949

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: 798.43
 Azimuth of X-Axis: 90
 Azimuth of Y-Axis: 0

Reference Phone: Offset
 Azimuth
 Elev. 797.83
 X= 0
 Y= 1.40

Channel
 Configuration: Borehole Phone
 V=Channel 1
 R=Channel 2
 T=Channel 3

Reference Polarization: Azl.(deg.) Vert.(deg.)
 V 0 0
 R 0 90
 T 270 90

Date: 9 AUG 94 Location: Glenwood/Bundy RDN(A)-1

High Cut 1000 Low Cut 8 Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone			Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
71	I700071	4.5	(798.06-depth)				0	-0.3	90	90
72	I700072	4.5					0	-0.3	270	90
73	I700073	4.0				798.23	0	-0.3	90	90
74	I700074	4.0					0	-0.3	270	90
75	I700075	3.5					0	-0.3	90	90
76	I700076	3.5					0	-0.3	270	90
77	I700077	3.0					0	-0.3	90	90
78	I700078	3.0					0	-0.3	270	90
79	I700079	2.5					0	-0.3	90	90
80	I700080	2.5					0	-0.3	270	90

08 49

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 798.43

Azimuth of X-Axis 90Azimuth of Y-Axis $0^\circ = \text{North}$

Channel

Borehole Phone

Configuration: $V = \text{Channel} /$

$$V = \text{Channel} /$$

R=Channel²

T=Channel 5

Reference Phone

V=Channel 4

R=Channel 5

T=Channel 6

Reference Polarization: Azi.(deg.) Vert.(deg.)

$$V \quad \frac{0}{0}$$

0	0%
0	0%

T	270	200
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Date: 9 AUG 94 Location: Glenwood Bridge RDN(x)-1

High Cut 1000 Low Cut 8 Sample Int. 0002 Number of Samples 2500

Shot			Borehole Geophone		Source						Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical		
81	I700081	2.0					0	-1.3	90	90		
82	I700082	2.0					0	-1.3	270	90		
83	I700083	1.5					0	-1.3	90	90		
84	I700084	1.5					0	-1.3	270	90		
85	I700085	1.0					0	-1.3	90	90		
86	I700086	1.0					0	-1.3	270	90		
87	I700087	0.5					0	-1.3	90	90		
88	I700088	0.5					0	-1.3	270	90		
89	I700089	0.0					0	-1.3	90	90		
90	I700090	0.0					0	-1.3	270	90		

109

 $2 \rightarrow$

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1

11/11

542

25/08

DOWN HOLE GEOPHONE
FIELD CHECKLIST

DATE: 8/9/94
ODOMETER START: 54637 FINISH: 54661
12:47

ITEMS AT GEOSCIENCES			
ITEM	OUT	IN	COMMENT
SWC TOOL	✓	✓	
REF PHONE AND CABLES	✓	✓	
BISON	✓	✓	
TAPE MEASURE (50M)	✓	✓	
PULLEY AND WINCH ASSEM.	✓	✓	
DUMMY SWC TOOL	✓	✓	
SLIDGE HAMMER	3	✓	
COMPASS	✓	✓	
ROCK HAMMER	✓	✓	
ROPE	✓	✓	
WD-40	✓	✓	
OBSERVER SHEETS/ MAPS	✓	✓	
GAS CARD/ KEYS	✓	✓	
GLOVES	✓	✓	

ITEMS AT LINCOLN STREET

ITEM	OUT	IN	COMMENT
BISON CABLE BOX	✓	✓	
BISON TOOL BOX	✓	✓	
TOOL BOX	✓	✓	
TRIGGER CORD	✓	✓	
TRIPOD HEAD	✓	✓	
BATTERIES (2)		✓	
LOCATED IN GARAGE			

TRIPOD LEGS	✓	✓	
RAIL ROAD TIE	(2) ✓	✓	
SHOVEL	✓	✓	
PICK	✓	✓	
2 FT IRON ROD	(2) ✓	✓	