

COPY I

VSP Preliminary Data Sheet

Date: 31 Jan 00

Type of Phones OYO Geostuf

1. Well Name SH55

2. Location of Well

X= 993.7103 Y= 1007.8452 Z= 792.810

Casing Elevation: 792.810 m

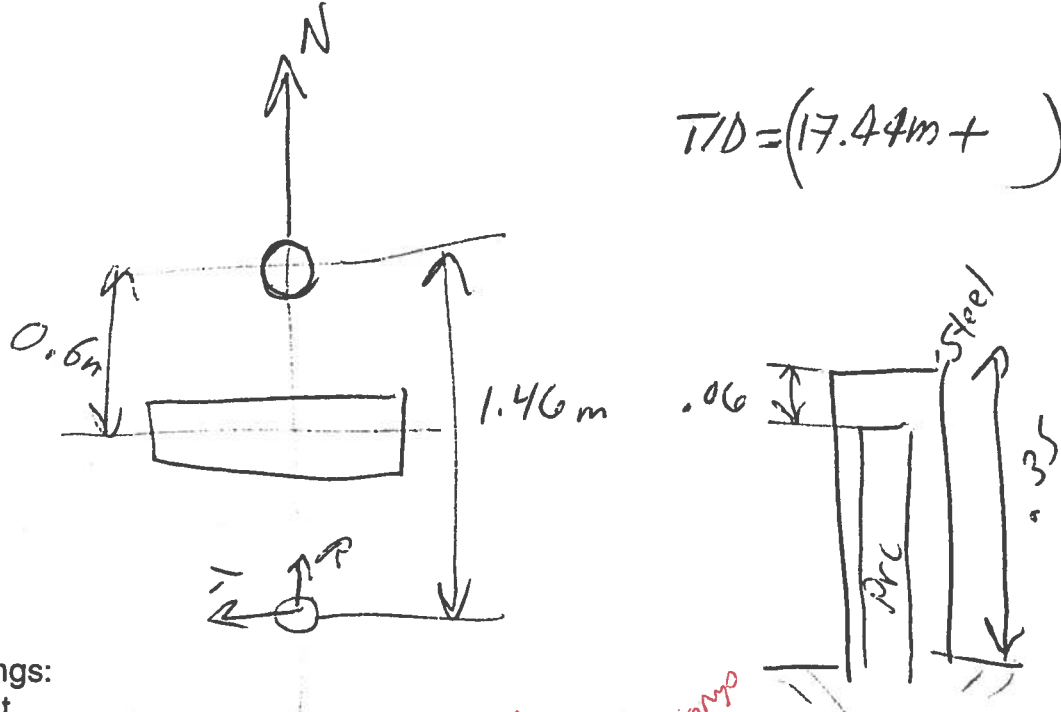
3. Depth to top of water table (measured from CE) (12.41 feet) = 3.7826 m
.2840
 4. Casing Elevation, distance above ground level= .2840

5. Reference phone offset from borehole= 1.4119 m (Topcon)

6. Reference phone depth below ground level= .05 m (Topcon)

7. Source Offset from borehole= .5779 m (Topcon)

8. Sketch of setup:



9. Blue Box switch settings:

Channel	Component
<u>1</u>	Vertical
<u>2</u>	Longitudinal (radial)
<u>3</u>	Transverse

Down hole
 get stick
 at 7.0m
 File 88
 Also Release/clamp
 File 39

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: 284 m above G.L.

Azimuth x-axis: 90

Azimuth y-axis: 0

Well Coord: X=993.7103 Y=1007.8452 Z=792.810

Channel Borehole Phone 596 Reference Phone

V=Channel 1 (24) V=Channel 4 (21)

R=Channel 2 (23) R=Channel 5 (20)

T=Channel 3 (22) T=Channel 6 (19)

Date: 31 Jan 2000

Location: SH55 BRIDGE ITD

High-Cut 1000 Low-Cut 0 Sample Int. .25msec Number Samples 2000

Reference Phone: Offset: m
Azimuth

Elev. .05 m below G.L.

X= 0 m

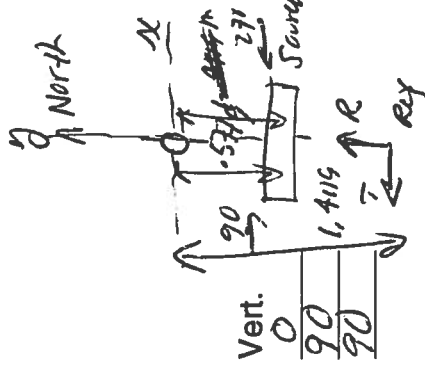
Y= -1.4119 m

Ref. Polarization: Az

V 0

R 0

T 270



Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
1		18.0					0	270	270	135°
2		18.0						-5.5779	90	135°
3		17.75							270	
4		17.75							90	
5		17.50							270	
6		17.50							90	
7		17.25							270	
8		17.25							90	
9		17.00							270	
10		17.00							90	

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$$\frac{\Delta}{\Sigma} = +789.0274m$$

$$(3.7826m = 12.41ft source)$$

↑ (1-30 plus)

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 284 m above G.L.

Azimuth x-axis: 90

Azimuth y-axis: 0

Well Coord: X = 993.763

Y = 1007.8452

Z = 792.816

Borehole Phone 1546

V=Channel 1 (24)

R=Channel 2 (23)

T=Channel 3 (22)

Reference Phone

V=Channel 4 (21)

R=Channel 5 (20)

T=Channel 6 (19)

Ref. Polarization:

V

R

T

Az

0

0

20

Vert.

0

90

90

Reference Phone:

Offset: m

Azimuth

Elev. 05 m below G.L.

X = 0 m

Y = -1.4119 m

Date: 31 Jan 2000 Location: SH55 BRIDGE ID

High-Cut 1000 Low-Cut 0 Sample Int. .25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	11	16.75					0	-5779	270	135
	12	16.75							90	
	13	16.50							270	
	14	16.50							90	
	15	16.25							270	
	16	16.25							90	
	17	16.00							270	
	18	16.00							90	
	19	15.75							270	
	20	15.75							90	↓

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: 284 m above G.L.

Azimuth x-axis: 90

Azimuth y-axis: 0

Well Coord: X = 993.7103

Y = 1007.8452

Z = 792.816

Reference Phone

V = Channel 1 (24)

R = Channel 2 (23)

T = Channel 3 (22)

Location: SH55 BEIDGE ITD

Sample Int. 25 msec

Number Samples 2000

Reference Phone:

Offset: m

Azimuth 05 m below G.L.

Elev. 0 m

X = 0 m

Y = -1.4119 m

Ref. Polarization:

V 0

R 0

T 270

Vert.

0

90

90

Date: 31 Jan 2000

High-Cut 1000 Low-Cut 0

Shot

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	21	15.50					0	-5779	270	135
	22	15.50							90	
	23	15.25							270	
	24	15.25							90	
	25	15.00							270	
	26	15.00							90	
	27	14.75							270	
	28	14.75							90	
	29	14.50							270	
	30	14.50							90	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: _____ m above G.L.
 Azimuth x-axis: _____
 Azimuth y-axis: _____
 Well Coord: X= _____ Y= _____ Z= _____
 Channel
 Configuration: Borehole Phone 1546 Reference Phone
 V=Channel 1 (24) V=Channel 4 (21)
 R=Channel 2 (23) R=Channel 5 (20)
 T=Channel 3 (22) T=Channel 6 (19)
 Date: 31 Jan 2000 Location: SH55 BRIDGE ITD
 High-Cut 1000 Low-Cut 0 Sample Int. 25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	31	14.35							270	185°
	32	14.25							70	
	33	14.06							270	
	34	14.06							90	
	35	13.75							270	
	36	13.75							90	
	37	13.50							270	
	38	13.50							90	
	39	13.25							270	
	40	13.25							90	

→
 e-clamp
 bent
 here

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Reference Phone: _____

Azimuth x-axis: _____
Azimuth y-axis: _____
Well Coord: X= _____ Y= _____ Z= _____

Channel Configuration: V=Channel 1 (24) R=Channel 2 (23) T=Channel 3 (22) Reference Phone V=Channel 4 (21) R=Channel 5 (20) T=Channel 6 (19)

Ref. Polarization: V _____ R _____ T _____ Az _____ Vert. _____

Date: 31 Jan 2000 Location: SH55 BRIDGE ID
High-Cut 1000 Low-Cut 0 Sample Int. 0.25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
9	41	13.00							270	135
	42	13.00							90	
	43	12.75							270	
	44	12.75							90	
	45	12.50							270	
	46	12.50							90	
	47	12.25							270	
	48	12.25							90	
	49	12.00							270	
	50	12.00							90	

New
directory

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: _____ m above G.L.
 Azimuth x-axis: _____
 Azimuth y-axis: _____
 Well Coord: X= _____ Y= _____ Z= _____
 Channel Configuration: Borehole Phone 5796 Reference Phone
 V=Channel 1 (24) V=Channel 4 (21)
 R=Channel 2 (23) R=Channel 5 (20)
 T=Channel 3 (22) T=Channel 6 (14)
 Ref. Polarization: Az _____ Vert. _____
 V _____ R _____ T _____

Date: 31 Jan 2000 Location: SH55 BRIDGE ITU
 High-Cut 1000 Low-Cut 0 Sample Int. 25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	51	11.75							270	135
	52	11.75							90	
	53	11.56							270	
	54	11.56							90	
	55	11.25							270	
	56	11.25							90	
	57	11.00							270	
	58	11.00							90	
	59	10.75							270	
	60	10.75							90	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Azimuth x-axis: _____

Azimuth y-axis: _____

Well Coord: X= _____

Channel

Configuration:

Reference Phone: _____

Offset: _____ m

Azimuth _____

Elev. _____ m below G.L.

X= _____ m

Y= _____ m

Z= _____ m

Ref. Polarization: _____

Az _____

V _____

R _____

T _____

Vert. _____

Date: 31 Jan 2000 Location: SH55 BRIDGE ITD
High-Cut 1000 Low-Cut 0 Sample Int. .25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	601	10.50							270	135
	602	10.50							90	
	603	10.25							270	
	604	10.25							90	
	605	10.00							270	
	606	10.00							90	
	607	9.75							270	
	608	9.75							90	
	609	9.50							270	
	700	9.50							90	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Azimuth x-axis: _____

Azimuth y-axis: _____

Well Coord: X= _____ Y= _____ Z= _____

Channel

Configuration:

Borehole Phone 5796
V=Channel 1 (24)
R=Channel 2 (23)
T=Channel 3 (22)

Reference Phone
V=Channel 4 (21)
R=Channel 5 (20)
T=Channel 6 (19)

Vert. _____

Az _____

R _____

T _____

Reference Phone: Offset: _____ m

Azimuth _____

Elev. _____ m below G.L.

X= _____ m

Y= _____ m

Ref. Polarization: V _____

R _____

T _____

Date: 31 Jan 2000 Location: SH55 BRIDGE ITD
High-Cut 1000 Low-Cut 0 Sample Int. 25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	71	9.25							270	135
	72	9.25							90	
	73	9.00							270	
	74	9.00							90	
	75	8.75							270	
	76	8.75							90	
	77	8.50							270	
	78	8.50							90	
	79	8.25							270	
	80	8.15							90	↓

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: _____ m above G.L.
 Azimuth x-axis: _____
 Azimuth y-axis: _____
 Well Coord: X= _____ Y= _____ Z= _____
 Channel Configuration: Borehole Phone (546) Reference Phone
 V=Channel 1 (24) V=Channel 4 (21)
 R=Channel 2 (23) R=Channel 5 (20)
 T=Channel 3 (22) T=Channel 6 (19)
 Ref. Polarization: V _____ Az _____
 R _____
 T _____

Date: 31 Jan 2000 Location: SH55 BRIDGE ID
 High-Cut 1000 Low-Cut 0 Sample Int. 25msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	81	8.66							226	135
	82	8.06							96	
	83	7.75							276	
	84	7.75							96	
	85	7.56							270	
	86	7.56							96	
	87	7.75							276	
	88	7.75							96	
	89	7.06							270	
	90	7.66							96	

won hole
 there
 wasn't
 @ 7.00m

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Azimuth x-axis: _____

Azimuth y-axis: _____

Well Coord: X= _____

Y= _____

Z= _____

Channel

Borehole Phone 546

V=Channel 1 (24)

R=Channel 2 (23)

T=Channel 3 (22)

Reference Phone

V=Channel 4 (21)

R=Channel 5 (20)

T=Channel 6 (19)

Ref. Polarization: V

R

T

Vert.

Offset: _____ m

Azimuth _____

Elev. _____ m below G.L.

X= _____ m

Y= _____ m

Date: 31 JAN 2000 Location: SH55 BRIDGE ITD
High-Cut 1000 Low-Cut 0 Sample Int. 25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	91	6.75							274	135
	92	6.75							96	
	93	6.50							270	
	94	6.50							96	
	95	6.25							276	
	96	6.25							96	
	97	6.00							270	
	98	6.00							96	
	99	5.75							270	
	100	5.75							96	↓

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
 Casing Elevation: _____ m above G.L.
 Azimuth x-axis: _____
 Azimuth y-axis: _____
 Well Coord: X= _____ Y= _____ Z= _____
 Channel Configuration: Borehole Phone _____ Reference Phone _____
 V=Channel 1 (24) V=Channel 4 (21)
 R=Channel 2 (23) R=Channel 5 (20)
 T=Channel 3 (22) T=Channel 6 (19)
 Date: 31 Jan 2000 Location: SH55 BRIDGE ID
 High-Cut 1000 Low-Cut 0 Sample Int. 25 msec Number Samples 2000

Reference Phone: _____
 Offset: _____ m
 Azimuth _____
 Elev. _____ m below G.L.
 X= _____ m
 Y= _____ m
 Ref. Polarization: Az _____
 V _____
 R _____
 T _____

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	161	5.50							270	
	162	5.56							90	
	163	5.25							270	
	164	5.25							90	
	165	5.00							270	
	166	5.00							90	
	167	4.75							270	
	168	4.75							90	
	169	4.50							270	
	170	4.50							90	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Azimuth x-axis: _____

Azimuth y-axis: _____

Well Coord: X= _____

Y= _____

Z= _____

Channel

Configuration:

Borehole Phone 5146
V=Channel 1 (24)

R=Channel 2 (23)

T=Channel 3 (22)

Reference Phone

V=Channel 4 (21)

R=Channel 5 (20)

T=Channel 6 (14)

Reference Phone:

Offset: _____ m

Azimuth _____

Elev. _____ m below G.L.

X= _____ m

Y= _____ m

Ref. Polarization:

V _____

R _____

T _____

Vert. _____

Date: 31 Jan 2000 Location: SH55 BRIDGE ID
High-Cut 1000 Low-Cut 0 Sample Int. 0.25 msec Number Samples 2000

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	111	4.25							270	135
	112	4.25							90	
	113	4.00							270	
	114	4.00							90	
	115	3.75							270	
	116	3.75							90	
	117	3.50							270	
	118	3.50							90	
	119	3.25							270	
	120	3.25							90	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Azimuth x-axis: _____

Azimuth y-axis: _____

Well Coord: X= _____ Y= _____ Z= _____

Channel Configuration: Borehole Phone _____ Reference Phone _____

V=Channel 1 (24) V=Channel 4 (21)

R=Channel 2 (23) R=Channel 5 (20)

T=Channel 3 (22) T=Channel 6 (19)

Date: 31 Jan 2000

High-Cut 1000 Low-Cut 0

Location: SH55 BRIDGE ID

Sample Int. 0.25 msec

Number Samples 2000

Reference Phone: Offset: _____ m
Azimuth _____ m below G.L.
Elev. _____ m
X= _____ m
Y= _____ m

Ref. Polarization: Az Vert.

V

R

T

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	121	3.00							270	135
	122	3.00							90	
	123	2.75							270	
	124	2.75							90	
	125	2.50							270	
	126	2.50							90	
	127	2.25							270	
	128	2.25							90	
	129	2.00							270	
	130	2.00							90	

BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole
Casing Elevation: _____ m above G.L.

Azimuth x-axis: _____

Azimuth y-axis: _____

Well Coord: X= _____ Y= _____ Z= _____

Channel Configuration: Borehole Phone 5796 Reference Phone
V=Channel 1 (24) V=Channel 4 (21)

R=Channel 2 (23) R=Channel 5 (20)

T=Channel 3 (22) T=Channel 6 (14)

Date: 31 Jan 2000 Location: SH55 BRIDGE ITU

High-Cut 1000 Low-Cut 0 Sample Int. 25 msec Number Samples 2000

Reference Phone: Offset: _____ m
Azimuth _____ m
Elev. _____ m below G.L.
X= _____ m
Y= _____ m

Ref. Polarization: Az Vert.

V _____

R _____

T _____

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	131	1.75							270	
	132	1.75							90	
	133	1.50							270	
	134	1.50							90	
	135	1.25							270	
	136	1.25							90	
	137	1.00							270	
	138	1.00							90	
	139	0.75							270	
	140	0.75							90	

WAFS 12
Spring

Offset: _____ m
Azimuth _____
Elev. *.05* _____ m below G.L.
X = *0* _____ m
Y = *-1.4119* _____ m

Ref. Polarization:	Az	Vert.
V	0	0
R	0	90
T	270	90

Date: 31 JUN 2000 Location: SH55 BRIDGE ITD T
 High-Cut 1000 Low-Cut 0 Sample Int. 0.5 msec Number Samples 2000

[illegible]