

# VSP Preliminary Data Sheet

Date: 8 July 98 Type of Phones 020 14N2

1. Well Name B4 UR150

2. Location of Well

X= 1000.02749 Y= 9997.36469 Z= 850.11934

Casing Elevation: 850.11934

3. Depth to top of water table (measured from CE) 7.37 ft = (2.2464 m)

4. Casing Elevation, distance above ground level= 0.624 m

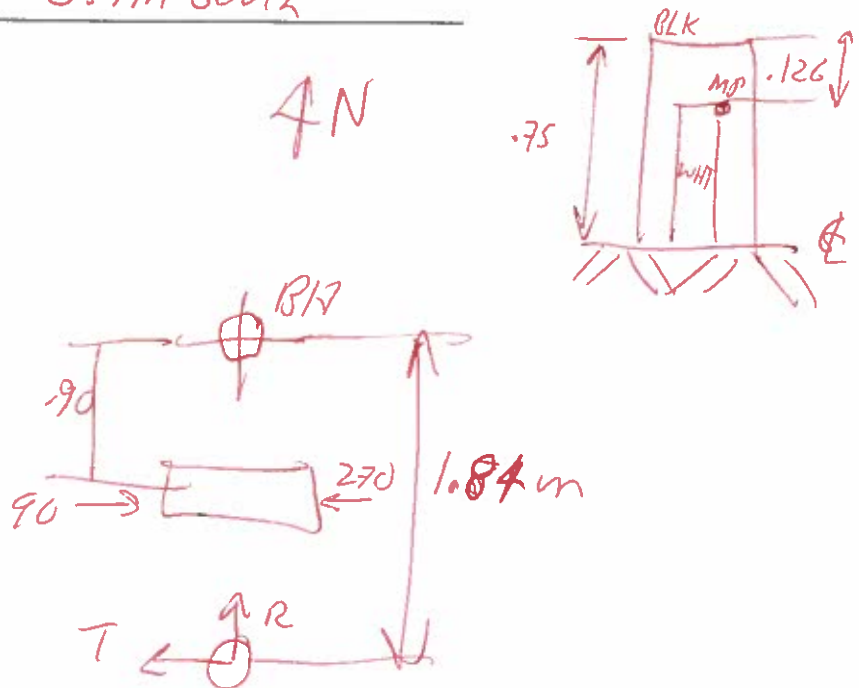
+847.830m  
elev. ▽

5. Reference phone offset from borehole= 1.84 m south

6. Reference phone depth below ground level= 0

7. Source Offset from borehole= 0.9 m south

8. Sketch of setup:



9. Blue Box switch settings:

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

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
Casing Elevation: 624 m above G.L.

Reference Phone: \_\_\_\_\_

Offset: \_\_\_\_\_ m

Azimuth \_\_\_\_\_ m below G.L.

Azimuth x-axis: 90°

Azimuth y-axis: 0°

Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934

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

Reference Phone V=Channel 4 R=Channel 5 T=Channel 6

Ref. Polarization: V \_\_\_\_\_ R \_\_\_\_\_ T \_\_\_\_\_

Vert. 0 90 90

Date: 8 July 98

Location: BA URISP

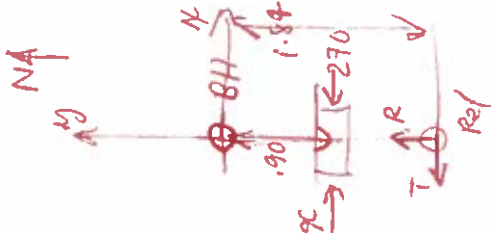
Low-Cut 4 Sample Int. .0002

Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y (m)	Azimuth	Vertical
<u>WJ8400d</u>	<u>1</u>	<u>21.75</u>					<u>0</u>	<u>-0.9</u>	<u>270</u>	<u>135</u>
	<u>2</u>	<u>21.75</u>							<u>90</u>	
	<u>3</u>	<u>21.50</u>							<u>270</u>	
	<u>4</u>	<u>21.50</u>							<u>90</u>	
	<u>5</u>	<u>21.25</u>							<u>270</u>	
	<u>6</u>	<u>21.25</u>							<u>90</u>	
	<u>7</u>	<u>21.0</u>							<u>270</u>	
	<u>8</u>	<u>21.0</u>							<u>90</u>	
	<u>9</u>	<u>20.75</u>							<u>270</u>	
	<u>10</u>	<u>20.75</u>							<u>90</u>	

1.146

1.146 = 4847.837m



# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4 Az 0  
 R=Channel 2 R=Channel 5 R 0  
 T=Channel 3 T=Channel 6 T 270  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	11	20.50					0	-0.9	270	135°
	12	20.50							90	
	13	20.25							270	
	14	20.25							90	
	15	20.0							270	
	16	20.0							90	
	17	19.75							270	
	18	19.75							90	
	19	19.50					N	N	270	
	20	19.50							90	V

11:30

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X=1000.02749 Y=9997.3649 Z=850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4  
 R=Channel 2 R=Channel 5  
 T=Channel 3 T=Channel 6  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y (m)	Azimuth	Vertical
	21	19.25					0	-0.9	270	135
	22	19.25							90	
	23	19.0							270	
	24	19.0							90	
	25	18.75							270	
	26	18.75							90	
	27	18.50							270	
	28	18.50							90	
	29	18.25							270	
	30	18.25							90	

11:55

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 0624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X=1000.02749 Y=9997.36469 Z=850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4 Az 0 Vert. 0  
 R=Channel 2 R=Channel 5 R 0 90  
 T=Channel 3 T=Channel 6 T 270 90  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	31	18.0					0	-0.9	270	135
	32	18.0							90	
	33	17.75							270	
	34	17.75							90	
	35	17.50							270	
	36	17.50							90	
	37	17.25							270	
	38	17.25							90	
	39	17.0							270	
	40	17.0							90	

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 0.624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4 Az 0 Vert. 0  
 R=Channel 2 R=Channel 5 R 0 90  
 T=Channel 3 T=Channel 6 T 270 90  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	<u>41</u>	<u>16.75</u>					<u>0</u>	<u>-0.9</u>	<u>270</u>	<u>135</u>
	<u>42</u>	<u>16.75</u>							<u>90</u>	<u>1</u>
	<u>43</u>	<u>16.50</u>							<u>270</u>	<u>1</u>
	<u>44</u>	<u>16.50</u>							<u>90</u>	<u>1</u>
	<u>45</u>	<u>16.25</u>							<u>270</u>	<u>1</u>
	<u>46</u>	<u>16.25</u>							<u>90</u>	<u>1</u>
	<u>47</u>	<u>16.0</u>							<u>270</u>	<u>1</u>
	<u>48</u>	<u>16.0</u>							<u>90</u>	<u>1</u>
	<u>49</u>	<u>15.75</u>					<u>N</u>	<u>N</u>	<u>270</u>	<u>1</u>
	<u>50</u>	<u>15.75</u>							<u>90</u>	<u>1</u>

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: -624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02745 Y = 9997.36469 Z = 8570.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: V 0 R 0 T 270 Az 0 Vert. 0  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1600 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y (m)	Azimuth	Vertical
	51	15.50					0	-0.9	270	135
	52	15.50							90	
	53	15.75							270	
	54	15.25							90	
	55	15.0							270	
	56	15.0							90	
	57	14.75							270	
	58	14.75							90	
	59	14.50							270	
	60	14.50							90	

12:08



# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: V 0 R 0 T 270 Az 0 Vert. 0  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	61	14.25					0	-90	270	135
	62	14.25							90	
	63	14.0							270	
	64	14.0							90	
	65	13.75							270	
	66	13.75							90	
	67	13.50							270	
	68	13.50							90	
	69	13.25							270	
	70	13.25							90	

12.21



# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: V 0 R 0 T 270  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	71	13.0					0	-90	270	135
	72	13.0							90	
	73	12.75							270	
	74	12.75							90	
	75	12.50							270	
	76	12.50							90	
	77	12.25							270	
	78	12.25							90	
	79	12.0							270	
	80	12.0							90	

12:16

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone  
 V=Channel 1  
 R=Channel 2  
 T=Channel 3  
 Reference Phone  
 V=Channel 4  
 R=Channel 5  
 T=Channel 6  
 Ref. Polarization: Az 0  
 V 0  
 R 90  
 T 90  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	81	11.75					0	-0.9	270	135
	82	11.75					1		90	
	87	11.50							270	
	84	11.50							90	
	85	11.25							270	
	86	11.25							90	
	87	11.0							270	
	88	11.0							90	
	89	10.75							270	
	90	10.75					N	N	90	N

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: -1624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4  
 R=Channel 2 R=Channel 5  
 T=Channel 3 T=Channel 6  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	91	10.50					0	-90	270	135
	92	10.50							90	
	93	10.25							270	
	94	10.25							90	
	95	10.0							270	
	96	10.0							90	
	97	9.75							270	
	98	9.75							90	
	99	9.50							270	
	100	9.50							90	

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: Az 0 V 0 R 90 T 90  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization			
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical	
	101	9.25					0	-.90	270	135	
	102	9.25							90		
	103	9.0							270		
	104	9.0							90		
	105	8.75							270		
	106	8.75							90		
	107	8.50							270		
	108	8.50							90		
	109	8.25					N	N	270	N	
	110	8.25							90		

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: Az 0 V 0 R 90 T 90  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1600 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization			
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical	
	111	8.0					0	-90	270	135	
	112	8.0							90		
	113	7.75							270		
	114	7.75							90		
	115	7.50							270		
	116	7.50							90		
	117	7.25							270		
	118	7.25							90		
	119	7.0							270		
	120	7.0							90		

12:35

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 664 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: V 0 R 0 T 270 Az 0 Vert. 0  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	121	6.75					0	-90	270	135
	122	6.75							90	
	123	6.50							270	
	124	6.50							90	
	125	6.25							270	
	126	6.25							90	
	127	6.0							270	
	128	6.0							90	
	129	5.75							270	
	130	5.75						N	90	✓

12:36:23

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone Reference Phone  
 V=Channel 1 V=Channel 4  
 R=Channel 2 R=Channel 5  
 T=Channel 3 T=Channel 6  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	131	5.50					0	-90	270	135
	132	5.50							90	
	133	5.25							270	
	134	5.25							90	
	135	5.0							270	
	136	5.0							90	
	137	4.75							270	
	138	4.75							90	
	139	4.50							270	
	140	4.50							90	

12:42



# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4 Az 0 Vert. 0  
 R=Channel 2 R=Channel 5 R 0 90  
 T=Channel 3 T=Channel 6 T 270 90  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1000 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	141	4.25					0	-90	270	135
	142	4.25							90	
	143	4.0							270	
	144	4.0							90	
	145	3.75							270	
	146	3.75							90	
	147	3.50							270	
	148	3.50							90	
	149	3.25							270	
	150	3.25							90	

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 Reference Phone V=Channel 4  
 R=Channel 2 R=Channel 5  
 T=Channel 3 T=Channel 6  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1600 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	151	3.0					0	-90	270	135
	152	3.0							90	
	153	2.75							270	
	154	2.75							90	
	155	2.50							270	
	156	2.50							90	
	157	2.25							270	
	158	2.25							90	
	159	2.0							270	
	160	2.0							90	

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: -624 m above G.L.  
 Azimuth x-axis: 90°  
 Azimuth y-axis: 0°  
 Well Coord: X = 1000.02749 Y = 9997.36469 Z = 850.11934  
 Channel Configuration: Borehole Phone V=Channel 1 R=Channel 2 T=Channel 3  
 Reference Phone V=Channel 4 R=Channel 5 T=Channel 6  
 Ref. Polarization: Az 0 V 0 R 0 T 270  
 Vert. 0  
 Date: 8 July 98 Location: BA URISP  
 High-Cut 1600 Low-Cut 4 Sample Int. .0002 Number Samples 2500

Shot		Borehole Phone			Source			Source Polarization		
Rec.	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
	<u>161</u>	<u>1.75</u>					<u>0</u>	<u>-90</u>	<u>270</u>	<u>135</u>
	<u>162</u>	<u>1.75</u>					<u>1</u>	<u>1</u>	<u>90</u>	<u>1</u>
	<u>163</u>	<u>1.50</u>					<u>1</u>	<u>1</u>	<u>270</u>	
	<u>164</u>	<u>1.50</u>					<u>1</u>	<u>1</u>	<u>90</u>	
	<u>165</u>	<u>1.25</u>					<u>1</u>	<u>1</u>	<u>270</u>	
	<u>166</u>	<u>1.25</u>					<u>1</u>	<u>1</u>	<u>90</u>	
	<u>167</u>	<u>1.0</u>					<u>1</u>	<u>1</u>	<u>270</u>	
	<u>168</u>	<u>1.0</u>					<u>1</u>	<u>1</u>	<u>90</u>	
							<u>1</u>	<u>1</u>		
							<u>1</u>	<u>1</u>		

545°E  
  
 Raw  
 5/19/98