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HE BROKEN HILL PTY. CO. LTD.

PROJECT WELD RIVERDRILL HOLE WD 4LOCATION GLOVERS BLUFFCO-ORDINATES - LOCAL 1780-N / 1069-E / R.L. 2430

- A.M.G. -----

ANGLE OF DEPRESSION 45°BEARING (MAG) 60°DRILLING CO. WALKER DRILLINGDRILLER A. WALKER

DRILL TYPE -----

DATE COMMENCED -----

COMPLETED -----

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BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	INTERVAL (METRES)	ASSAY		
			SiO ₂	A/20 ₃	LOI
0.00-0.75	Broken quartzite & topsoil	0-0.75	NO	SAMPLE	
0.75-6.23	Fine to medium grained, banded, weathered quartzite - light brown in colour & possibly containing weathered feldspar grains	0.75-3.75	96.2	0.53	0.42
		3.75-6.75	95.0	0.74	0.88
6.23-7.58	Weathered feldspathic? quartzite - minor quartz veinlets - very soft - broken core from 6.93 to 7.58.	6.75-7.58	94.2	0.90	1.20
7.58-9.54	Harder, less weathered quartzite showing many fine original sedimentary bands probably due to quartz rich / feldspar rich sand layers. Rock is fine grained	7.58-9.54	95.7	0.57	0.60
9.54-10.04	Very weathered, light green grey coloured, fine to medium grained feldspathic banded quartzite. Rock is weathered to almost separate sand grains resulting in core loss of 0.1m from 9.74 to 9.84m.	9.54-12.54	91.6	1.27	1.34
10.04-13.60	As above but less weathered - green/grey bands of impure quartzite becoming less prevalent with depth to 11.50 then increasing again to very impure weathered greenish rock at 13.40 to 13.60	12.54-13.60	94.3	0.84	0.83

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E BROKEN HILL PTY. CO. LTD.

PROJECT

DRILL HOLE WD4

CATION

CO-ORDINATES - LOCAL

- A.M.G.

ANGLE OF DEPRESSION

BEARING (MAG)

ILLING CO.

DRILLER

DRILL TYPE

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CORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	INTERVAL (METRES)	ASSAY		
			SiO ₂	Al ₂ O ₃	LOI
13.60 - 16.70	Alternating zones of relatively hard, fine grained slightly foliated quartzite with quartz veins and very weathered green/grey - probably lighter feldspar content quartzite with greenish/yellow clay on fractures. These zones mainly occurring at 15.25 to 15.30 & at approx 15.78	13.60 - 16.60	92.9	6.30	1.20
16.70 - 18.19	Harder, less weathered, predominantly brown colored, fine grained, relatively homogeneous impure quartzite	16.60 - 18.19	93.0	6.68	1.24
18.19 - 20.26	Very distinct banding of fine grained grey quartzite and green mudstone or clay. Bands alternate rapidly - may be 5 in (1m) to a separation of approx 2cm.	18.19 - 20.26	86.7	11.45	1.07
20.26 - 21.00	Fine grained, uniform brown coloured weathered quartzite with minor fractures on joints (As for interval from 16.70 to 18.19)	20.26 - 21.00	93.3	4.91	0.81
21.00 - 21.50	Fairly uniform, fine grained mixture of greenish clay & sand particles - fairly soft but unbroken.	21.00 - 23.74	86.3	11.95	1.21
21.50 - 21.90	As above but very broken core - minor pyrite at 21.90.				

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PROJECT ----- DRILL HOLE WD 4

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 - A.M.G. -----

ANGLE OF DEPRESSION ----- BEARING (MAG) -----

DRILLING CO. ----- DRILLER ----- DRILL TYPE -----

DATE COMMENCED ----- COMPLETED -----

BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	ASSAY			
		INTERVAL (METRES)	SiO ₂	A/2O ₃	LOI
21.90 - 23.40	Distinctly banded green clay/mudstone & grey/green impure, possibly feldspathic fine grained quartzite. (As for interval from 18.19 to 20.26m)				
23.40 - 23.74	Fine grained greenish, finely bedded quartzite.				
23.74 - 24.02	Hard, fine grained, well silicified, possibly feldspathic light grey to white quartzite	23.74 - 25.45	89.1	6.9	1.29
24.02 - 25.45	Uniformly fine grained, finely foliated beds of greenish clayey sand - silicified and weathered to wacke hardness - individual layers approx 1mm width.				
25.45 - 26.02	Brown, iron stained, fine grained, weathered quartzite	25.45 - 26.02	89.9	5.2	1.01
26.02 - 29.23	Fine grained weathered quartzite of greenish coloration with fine banding - iron stained brown from 26.48 to 27.03, at 27.39, 27.72 & 28.09 to 28.23 - black staining nodules on edges of brown zones & black stain (possibly very finely bedded pyrite) 1cm wide at 27.13	26.02 - 29.02	90.5	5.9	1.24
		29.02 - 29.65	90.1	6.5	1.14
29.65 - 29.65	Alternating bands of fine grained impure grey &				

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 ANGLE OF DEPRESSION BEARING (MAG)
 DRILLING CO. DRILLER DRILL TYPE
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BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	ASSAY			
		INTERVAL (METRES)	SiO ₂	A/20 ₃	LOI
29.23-29.65 (continued)	brown iron stained quartzite with greenish clay rich beds at 29.33 and 29.65				
29.65-30.81	Predominantly brown-iron stained fine grained impure quartzite - pyrite on fractures	29.65-32.65	89.8	7.1	1.37
30.81-31.46	Finely banded fine grained grey/green quartzite and greenish silt & mud beds				
31.46-34.33	Grey/green slightly banded, fine grained quartzite - probably with foliation contact - varying degrees of iron staining from 33.10 to 34.33	32.65-35.65	92.8	6.1	1.25
34.33-34.40	Dark grey zone of fine grained, fairly hard impure quartzite				
34.40-38.63	Light green/grey coloured, fine grained quartzite with darker grey zones especially on joints and fractures on bedding (Possibly very finely divided disseminated pyrite) - Obvious pyrite on some fractures Broken core from 34.40 to 34.63 - sporadic iron staining with boundaries largely consistent with bedding - green silt bed at 36.60 - purple coloration at 37.33	35.65-38.65	91.2	5.2	0.92

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DRILL HOLE WD4

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BEARING (MAG)

DRILLING CO.

DRILLER

DRILL TYPE

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BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	ASSAY				
		INTERVAL (METRES)	SiO ₂	A/2O ₃	LOI	
38.63 - 42.10	Fine grained, fairly hard, light grey, probably fellopathic quartzite - iron staining on fractures.	38.65 - 41.65	95.1	4.2	0.77	
41.65 - 42.70	Banded green siltstone, dark grey fine grained quartzite & iron stained fine grained quartzite.	41.65 - 44.65	89.1	7.7	0.45	
42.70 - 49.10	Mainly consistently light grey/green, fine grained quartzite - fairly hard and containing fine (approx. 1mm) bands of greenish clay or mudstone at several places.	44.65 - 47.65	92.7	5.6	1.05	
47.65 - 49.10		47.65 - 49.10	92.7	6.2	1.11	
49.10 - 51.10	Fine grained, hard, light grey/white quartzite with quartz veinlets	49.10 - 52.06	95.6	2.8	0.45	
51.10 - 52.06	As above but probably containing fellopathic					
52.06 - 52.17	Grey/green, soft silty band - banded appearance with visible mica on siltstone shear at 52.17.	52.06 - 55.06	95.0	3.5	0.63	
52.17 - 53.27	Fine grained, hard, whitish fellopathic quartzite					
53.27 - 53.31	Light band of green, fine grained, fellopathic quartzite matrix schist.					
53.31 - 55.30	Grey/green, banded bed of fine grained grey/green quartzite - probably bedded thin - 1cm wide	55.06 - 55.30	95.9	1.8	0.86	

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THE BROKEN HILL PTY. CO. LTD. PROJECT ----- DRILL HOLE WD 9
 LOCATION ----- CO-ORDINATES - LOCAL -----
 - A.M.G. -----
 ANGLE OF DEPRESSION ----- BEARING (MAG) -----
 DRILLING CO. ----- DRILLER ----- DRILL TYPE -----
 DATE COMMENCED ----- COMPLETED -----

BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	INTERVAL (METRES)	ASSAY		
			SiO ₂	A/2O ₃	LOI
53.31-55.30 (continued)	green schist band at 54.34				
55.30-55.67	fine grained banded schist quartzite - feldspathic with minor iron staining on bedding planes.	55.30-58.30	96.2	2.3	0.97
55.67-59.00	As above but without iron staining and predominantly grey colours - iron green schist band at 58.69 - minor sericite visible on some bedding shear surfaces NOTE - low angle of bedding to core axis indicates flattening of hole.	58.30-59.00	95.5	2.8	0.65
59.00-60.75	Hard, fine grained, banded, grey coloured quartzite.	59.00-62.00	94.0	3.0	0.30
60.75-61.61	As above but with iron stained fracture running parallel to core axis				
61.61-63.08	Hard, more pure fine grained banded, probably feldspathic quartzite - grey/white in colour.	62.00-63.08	96.3	2.9	0.55
63.08-66.85	Predominantly grey, fine grained, banded and slightly fractured, reasonably hard quartzite. Slight iron staining on some shears on bedding - green clay on others	63.08-66.08	95.0	3.2	0.60
		66.08-66.85	97.21	2.0	0.50
66.85-67.80	Fractured and iron stained	66.85-69.85	97.3	1.9	0.54

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THE BROKEN HILL PTY. CO. LTD.

PROJECT

DRILL HOLE ND4

LOCATION

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ANGLE OF DEPRESSION

BEARING (MAG)

DRILLING CO.

DRILLER

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BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	INTERVAL (METRES)	ASSAY		
			SiO ₂	Al ₂ O ₃	LOI
66.85-67.80 (continued)	quartzite - well silicified.				
67.80-68.80	fine grained well silicified, hard, probably foliated quartzite - broken on bedding in places - whitish in colour - grey band from 68.40 to 68.51 - thin sericite schist band at 68.54.				
68.80-79.40	fine grained, hard, well silicified, clean looking quartzite - some broken zones with minor iron staining - weathered band 2cm wide at 70.28.	69.85-72.85	97.1	2.0	0.53
		72.85-75.85	97.1	2.0	0.49
		75.85-78.85	97.7	1.5	0.36
78.85-80.00	fine grained, less well silicified, light grey quartzite, possibly foliated is.	78.85-80.00	97.3	1.1	0.31
80.00-80.15	light greenish, fine grained schistose band - possibly containing sericite	80.00-81.64	94.0	3.2	0.57
80.15-80.51	fine grained, hard, light grey/brown quartzite.				
80.51-81.64	As for interval from 79.40 to 80.00 - shear with clay & probable sericite at 80.93.				
82.91	fine grained, hard, well silicified grey quartzite with microfolding and	81.64-84.64	96.7	2.3	0.34

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BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	ASSAY			
		INTERVAL (METRES)	SiO ₂	A/2O ₃	LOI
82.91-83.41	Banded fine grained grey quartzite and greenish siltstone - fairly hard and well silicified - shows zone with green schist at 83.37 to 83.41.				
83.41-92.41	Fine grained, well silicified grey quartzite, slightly banded with fine silty beds - minor quartz veins & microfracturing. 1 cm band of quartz schist at 86.67 & at 87.18 to 87.28. Broken core from 89.41 to 89.51.	84.64-87.64	95.6	3.2	0.60
		87.64-90.64	95.9	2.7	0.45
		90.64-92.41	96.2	1.8	0.26
92.41-94.12	Hard, fine grained, mottled brown, white quartzite - or change on bedding	92.41-95.41	96.4	1.8	0.29
97.20	As above but less brown - more whitish. thin white schist band at 96.56	95.41-97.20	97.2	1.5	0.20
97.20-100.20	Brecciated & recrystallized fine grained quartzite - trace of iron ore in some areas due to complete induration of some large quartz into quartzite. dark - not infilling - but has greenish silty and staining on quartz veins.	97.20-100.20	97.3	1.4	0.30

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BORE INTERVAL (METRES)	GEOLOGICAL LOG & COMMENTS	ASSAY			
		INTERVAL (METRES)	SiO ₂	A/2O ₃	LOI
100.50 - 100.90	Fractured zone of broken core - similar description to above interval but less brecciated.	100.20 - 100.90	97.5	0.94	0.33
100.90 - 106.49	More solid, fine grained, well silicified, whitish quartzite - minor shearing with iron staining also iron stained associated with quartz veins.	100.90 - 103.90	98.3	0.60	0.17
		103.90 - 106.90	98.3	0.45	0.42
106.49 - 110.60	As above - very hard and translucent appearance but containing black mineralization in veinlets and shows on bedding - also blue/green mineral	106.90 - 109.90	98.0	0.68	0.27
		109.90 - 110.60	98.2	0.60	0.30
	- main cross-cutting veins of this description at 108.61 (1m width) & 109.03				
110.60 - 114.84	Less indurated well cemented, hard, fine grained quartzite - light brown to whitish colour with minor shearing and minor quartz veinlets	110.60 - 113.60	97.9	1.06	0.37
		113.60 - 114.84	97.9	1.13	0.39
114.84 - 115.09	Zone of cross cutting black coloration associated with greenish mineral and partly infilled quartz veinlet at 115.06	114.84 - 115.09	98.4	0.76	0.37
115.09 - 116.51	Very hard, fine grained, translucent, whitish quartzite, cross-cutted with quartz veinlets - minor green mineralization on shears BOH	115.09 - 116.5		0.8	0.30